

**A COLLECTIVE CASE STUDY: HOW REGULAR
TEACHERS PROVIDE INCLUSIVE EDUCATION FOR
SEVERELY AND PROFOUNDLY DEAF STUDENTS IN
REGULAR SCHOOLS IN RURAL NEW SOUTH WALES**

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I hereby certify that the work embodied in this thesis is the result of original research and has not been submitted for a higher degree to any other University or Institution

Signed.....

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ABSTRACT

This thesis reports a collective case study of the school educational experiences of five severely and profoundly deaf students who were enrolled in regular schools in rural areas of New South Wales. The students ranged in age from 6 to 18 years. Three issues were examined:

- (1) The impact of the philosophy of inclusive education and the question of why students with high degrees of deafness and high support needs were enrolled in regular schools in rural areas;
- (2) The specific linguistic and educational support needs of deaf students; and
- (3) The ability of the regular schools and teachers to cater for the educational needs of the deaf students in those settings.

The case studies revealed that to considerably varying extents in different situations, the students were afforded inclusive educational opportunities. The extent of inclusiveness of students' educational experiences was shown to vary according to a number of variables. The variables identified included: the type and quality of communication with the deaf student, teaching style, accessibility of content, particular lesson type, and the type and extent of curriculum adaptations employed.

As a result of the analysis of the data from the five cases, a number of generalisations were possible. These generalisations were that (a) students with the ability to access spoken communication auditorily were more easily included than students using manual communication; (b) reduction of linguistic and academic input occurred as a response to student inability to access class programs because of reduced linguistic capabilities, resulting in the deaf students receiving different and reduced information to the hearing students; (c) communication between a deaf student and his or her class teacher needed to be direct for the most successful inclusion to occur; (d) teaching style needed to be interactive or experiential for successful language learning and literacy development to occur; (e) curriculum adaptations needed to involve provision of visual support for lesson material to be highly effective; (f) lessons/subjects easily supported by visual means, such as mathematics or practical subjects, when taught hierarchically, going from the known to unknown in achievable steps, meant teaching style could be either transmission or interactive, for lesson activities to be considered inclusive; (g)

students with poor literacy skills were unable to successfully access an intact (i.e., unaltered and complete) high school curriculum; (h) the teaching style of the class teacher impacted on the support model possible for the itinerant teacher; (i) an interactive class teaching style allowed for cooperative teaching between class teacher and itinerant teacher who could then assist the class teacher with both the linguistic and academic needs of the deaf student; (j) a transmission style of teaching resulted in various levels of withdrawal for the deaf student unless the subject matter could be represented visually; (k) when curriculum content or expected outcomes were reduced, the deaf students did not have the same access to information as their hearing counterparts and consequently could not develop concepts or understandings in the same manner; and (l) language and literacy development were most facilitated when interactive teaching opportunities were established proactively for the deaf students rather than through the reduction of content as a response to their failure to successfully engage with the complete curriculum.

The conclusions suggest an alternative support proposal for deaf students in rural environments. The model of support proposed involves the targeting of specific preschools and primary schools with the provision of teachers identified to teach collaboratively and interactively. Under the proposed model several students with impaired hearing would be located within the one school with the itinerant teacher position becoming a full-time appointment in that school. Such a model would enable co-enrolment, co-teaching, co-programming, creative grouping, and the provision of demonstration opportunities and support for other teachers within the school and district that had deaf students enrolled.

Finally, interactive teaching, based on a clearly defined theoretical model of language acquisition, development, and learning, is recommended for students with impaired hearing in such environments. It is argued that the support of linguistic development and academic learning could be facilitated concurrently, thus ensuring that by the time students had reached high school they would possess sufficient literacy skills to access a regular high school program successfully.

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CHAPTER 1 OVERVIEW

1.1 Positioning the inquiry in the tradition of qualitative methodology

This inquiry was principally concerned with a need to understand the phenomenon of the inclusion of severely and profoundly deaf students in regular rural schools in New South Wales, and to make generalisations that could apply in other similar situations. It was an interest in understanding how severely and profoundly deaf students fared in the educational environment of which they were part, and which was not apparent in the normal course of events, which motivated the inception of this inquiry.

According to Wagner (1993) an educational research project's larger purpose is generating new knowledge about education and schooling. In constructing knowledge about education and schooling, researchers use a variety of different materials, including direct experience, concepts and theories of their own, and those developed by others. LeCompte and Goetz (1982) stated that the value of scientific research is partially dependent on the ability of the individual researchers to demonstrate the credibility of their findings, despite the disciplines or methods used. Formulation of an initial research problem, involves both the delineation of the content area, and the choice of an appropriate design, and methods of investigation. Positivistic and qualitative research differs in these regards.

Eisner (1993) described how new paradigms of educational research is brought under the broad umbrella of qualitative research methodology. Qualitative research methodology is that in which the researcher is the research instrument and methods are non-interventionist, field focused, and interpretive in character. Strauss and Corbin (1990) described the term qualitative research, as any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification.

Eisner (1998) suggested that it was not particularly revolutionary to say that it is important to understand how teachers and classrooms function before making recommendations for change. Much of what is suggested to teachers and schools is, according to Eisner, independent of context, and often made by those ignorant of the practices they wish to improve. Qualitative inquiry in education is about trying to

understand what teachers and children do in the settings in which they work. This is not done, he suggests, by examining new methods of instruction or by scrutinizing achievement test scores. Instead, it requires an intimacy with what goes on in schools.

Eisner stated:

The qualitative study of *particular* classrooms and *particular* teachers in *particular* schools makes it possible to provide feedback to teachers that is fundamentally different from the kind of information they are given in in-service education programs or through journal publications. (p.11)

The study of schools and classrooms can provide the advantage of learning about schools and classrooms in ways that are useful in understanding other schools and classrooms, and learning about individual classrooms, and particular teachers, in ways that are useful to them.

In qualitative inquiry, judgment plays a major part (Eisner, 1998). Consequently, the arena for debate and difference of opinion is always open, as the facts never speak for themselves. According to Eisner, courts of law are analogous to this form of inquiry, as they are theatres in which cases are made and lost, through arguments based on reasons that appeal most often to evidence of various kinds, but that seldom lead unambiguously to a single conclusion.

Persuasion, as occurs in a court of law, has an unfortunate subjective ring (Eisner, 1998). In qualitative research, to overcome such subjectivity and achieve objectivity, so that it is possible to see things as they are, the use of multiple data sources is one approach that can be taken. Conclusions can, with the use of multiple data sources, be corroborated with different kinds of data converging to support each other. Interpretation is inescapable. Researchers must strive to make their conclusions and interpretations as credible as possible within the framework they choose to use.

The usefulness of studies of the particular is located in the descriptions and interpretations that go beyond the information given about them. The kind of knowledge relevant to the observation of classrooms derives from general knowledge about educational theory, and classroom-specific knowledge, so that what is seen is influenced by what is known. It is a requirement that the experience be complex, subtle, and informed (Eisner, 1998).

Eisner (1998) described the dimension of description, as that which enables the readers to visualise what a place or process is like. If description is the process of giving an account “of”, interpretation can be regarded as accounting “for”. It means illuminating the potential consequences of practices observed, and providing reasons that account for what has been seen. What one learns about one school can raise one’s consciousness of features that might be found in other schools. It is necessary to identify recurring messages about what the observer records.

Tripp (1985) highlighted the debate about whether generalisation is an appropriate requirement, or an appropriate demand of case study research, as he maintained generalisation is essentially a problem of positivism. It is of prime importance, therefore, in case study research to document the salient features of a case, so that a new situation, which has not been researched, can be illuminated by a very thorough understanding of a known case. Garman (1994) described the constructivists / interpretivists theoretical perspective, which a researcher takes, as central to one’s inquiry. Tripp (1994, p. 27) explained that in case study it is not possible to, “tell it as it is” but only to tell it, “as we see it”.

What is described in a case are the “features” of the case. The major problem, in case study according to Tripp, is developing criteria for judging what features of a case are salient and hence should be documented. According to Tripp (1994) the further removed any research report is from people’s experience, the more the researcher has to give them an experience to which they can relate. People cannot interpret single numbers, nor interpret undefined words.

Tripp suggested that the description of a case must include two different kinds of property or components: those that tend to be common to any similar situation, and those that appear to be unique to the case in question. He described these as “comparable” and “comprehensive”. The former allow us to compare one case with another, the latter are exceptional, and account for a comprehensive account of the case. As there has not been an attempt to establish what kind of features are necessary to comparable classroom case study, an ad hoc approach to such research exists. It is necessary, as a result, to make the descriptions of a case as clear, complete, and valid as possible.

Marshall and Rossman (1989) stated that there are no explicit guaranteed recipes to follow in compiling a coherent convincing winning research proposal. It is a process of building an argument supporting the proposed work, which is the study of a case of a larger phenomenon. Marshall and Rossman explained that to do this, the specific research questions are linked to a larger issue. Justification for the research decisions should not only rest in literature, but from the research questions, and the conceptual framework surrounding the questions. In developing the argument to support the proposal, the writer must explicitly and implicitly, demonstrate competence in identifying personal experience and involvement.

In describing the creation of a qualitative research project, Mason (1996) stated that qualitative research should be grounded in a philosophical position, which is broadly “interpretivist”, as it is concerned with how the social world is interpreted, understood, experienced, or produced. It should be based on methods of data generation, which are flexible and sensitive to the social context in which the data is produced, and based on methods of analysis and explanation, which involve understanding the complexity, detail, and context. To accomplish these ends, the case study framework as outlined by Stake (1995), has been followed in this inquiry.

It has been noted that each qualitative study is essentially unique and has to be designed in such a way that it can be understood and explained. To achieve these objectives, it is clear that definitions and descriptive language used to describe the features of the case, will be both common to other similar cases, as well as being exceptional to the individual inquiry. Descriptive definitions, therefore, need to be delineated and defined. As different qualitative researchers use different descriptors to describe similar elements of a study, it is practical to follow one source. As the present inquiry fits well within the terminology and philosophical position outlined by Stake, his rationale and terminology are followed. Stake’s methods and philosophical position also allow for the constraints and considerations described above to be accommodated, thus providing a suitable framework on which to design the present inquiry.

Stake (1995) stated at the commencement of his book on case study “For the most part the cases of interest in education and social services are people and programs” (p.1). The case is a specific, complex, functioning thing, with a boundary and working parts.

The case is an integrated system, with people and programs as prospective cases. It is acknowledged that while cases may be similar in many ways, they are unique in others, and that interest may be focused on their uniqueness, or their commonality. The essence of case study research is greater understanding. The inquiry reported in this thesis, sought a greater understanding of human experience in the area of deaf education. It sought to understand how things were at particular places, and times, for a group of individuals who were deaf, and the educational personnel involved with them. Thus, the cases were the deaf students and the educational settings they were part of (nomenclature used to refer to individuals with impaired hearing is included in Appendix A). The uniqueness of the individual cases, and contexts, was important for understanding the broader issues, which were manifested in the particular instances, that is, to understand the comprehensive and comparable features of each case (Tripp, 1985).

When we wish to understand something other than a particular individual, instrumental case studies are used (Stake, 1995). They serve to help us understand phenomena, and relationships within them. This inquiry examined the phenomenon of severely and profoundly deaf students, included in regular schools in a rural district of New South Wales. It examined the performance of the students and their interactions with educational personnel.

The methods used were based on Stake's description of case study, in which he acknowledged the research methods drew on naturalistic, holistic, ethnographic, phenomenological, and biographic research. The methods employed in this inquiry were intended to be as non-interventionist as possible, while acknowledging that it was naturalistic, as it relied on the readers experiences and ability to generalise; and constructivist in nature, that is, constructing a "clearer more sophisticated reality" (Stake, 1995, p. 101). Stake maintained that the researcher's role of interpreter is central, as, "most qualitative research nurtures the belief that knowledge is constructed rather than discovered" (p. 99).

1.2 The inquiry design

The inclusion movement, which was responsible for the phenomenon under scrutiny, has had a profound effect on the way students with all kinds of disabilities are educated. Increasingly, students with varying degrees and types of disabilities are being educated in local schools alongside non-disabled peers. This collective case study, of students with severe and profound degrees of deafness, enrolled in regular, rural, local schools, reported on the performance of the students and the teachers who were required to teach them. Five case studies were designed, to describe and understand through interpretation of appropriate data, the educational situation of the five severely or profoundly deaf students. The aim was to understand why the students were being educated in the particular settings and how their educational needs were met. To reiterate, the phenomenon under scrutiny is the inclusion of severely or profoundly deaf students in regular classes in rural Department of Education and Training (DET) schools in New South Wales. Stake (1995) stated:

We study a case when it itself is of very special interest. We look for the detail of interaction with its contexts. Case study is the study of the particularity and complexity of a single case, coming to understand its activity with important circumstances. (p. xi)

However, the study of individual cases, while contributing to the understanding of the particular, it is likely that a collection of case studies can be instrumental in understanding a larger issue. In this collective case study, an understanding of the performance of students and teachers, the interactants in the five situations or cases, was instrumental in understanding, how, and if, inclusive educational provisions were made for the students.

In instrumental case studies, the case, or cases are pre-selected, as some are able to do a better job than others. It may be that a typical case works well, or alternatively, an unusual case may illustrate matters overlooked in a typical case. A collective case study requires balance and variety (Stake, 1995). Opportunity to learn is of primary importance. As certain activities, problems, or responses, will occur and reoccur, generalisations will be drawn. The generalisations will be dependent on the interpretation. Stake maintained;

“We emphasise placing an interpreter in the field to observe the working of the case, one who records objectively what is happening but simultaneously examines its meaning and redirects observations to refine or substantiate those meanings” (1995, p. 8).

The design of the research must contain conceptual organisation, ideas to express needed understandings, connectedness between what is known, to guide data gathering, and ways of presenting interpretations to others (Stake, 1995). Stake stated, “In qualitative studies research questions typically orient the cases or phenomenon seeking patterns of unanticipated as well as expected relationships” (p. 41). He said that phenomena are intricately related through many coincidental actions and that understanding them, requires looking at a wide sweep of contexts, temporal, spatial, historical, political, economic, cultural, social, and personal (p. 43).

1.3 The areas of concern

This inquiry followed Stake’s definition of “issues” (p.16) as the basis for conceptual structure, through the use of Issue Questions, which draw attention to the problems and concerns. In instrumental case study, the issues are dominant. The issues direct the observation towards the problems of the cases, which are the complex backgrounds and problems of the human interactants. Stake (1995) stated, “issues can be good research questions for organizing a case study” (p.17).

There were three prominent areas of concern in this inquiry from which the Issue Questions were derived. The three issues were addressed in two ways. They were addressed in a general sense, by examining the issues as they apply to the deaf population in general; and in a particular sense, by examining them in relation to the five cases. Issues may be presented as declarative statements, or interrogative questions; the latter being employed in Section 1 of this inquiry, and the former as the final assertions.

Issue Questions are distinct from Topical Information Questions, with the latter contributing to answering the former. Addressing the issues, through answering the Topical Information Questions, contributes to understanding. Stake referred to the issues, which are derived from the researcher’s background and as such are brought to the inquiry, as “etic” issues. Those issues, which evolve in the course of the study, are

referred to as “emic” issues. Stake’s definitions of these terms have been followed here, because they are particularly suitable to the purposes of this inquiry. It may have been possible to create original terms to describe these issues, such as, for example, “external” or “internal. However, as Stake’s terminology has been adopted throughout this inquiry, it has been maintained in this instance.

Vidich and Lyman (1994) referred to the etic and the emic, as those issues, which relate to the values of the observer or the observed respectively. While Vidich and Lyman’s definitions of etic and emic issues, are not the definitions adopted in this inquiry, it is pertinent at this point, to acknowledge what the values of the researcher are. These are the values, which, in Vidich and Lyman’s terms, would apply to the etic issues. It is important to acknowledge the researcher’s values because of the influence they impose on the design of the inquiry. These values center on the need to base educational action on sound empirical and theoretical footings, and are at the heart of the motivation and educational philosophy of the researcher. This can clearly be seen in the directions taken in this inquiry. Safeguards to validity and the avoidance of bias, in the form of triangulation, for instance, are described in Chapter 6.

Issues, which in this inquiry, are referred to as etic and emic, have similarly been referred to as the “general” or “local” (Denzin & Lincoln, 1994), or (Denzin, 1994) as the “decontextual” and “contextual”, by other authors. In this inquiry, the emic issues are a result of the analysis of data and the ensuing interpretation of it. The emic issues were derived from analysis of data containing the opinions of parents and teachers, and the observed performance of the students.

As answering the Issue Questions led to understanding, they were expressed in the descriptions of the cases, as declarative assertions. The issues were restated as assertions, which applied to individuals, and generalisations, which were thought able to apply to similar situations. The issues grew in strength, as consistencies within cases, and similarities between cases, emerged. Stake (1995) referred to progressive focusing, which follows the stages of observation, renewed inquiry, and explanation.

The structure of this inquiry was based on the answering of a series of progressively focused questions, proceeding from the general to the particular. The general refer to the General Etic Issue Questions asked, and to the background Topical

Information Questions selected to answer them. The Particular Etic Issue Questions were answered by the Research Questions through data analysis.

The three areas from which the Etic Issue Questions derived were: (1) the inclusion movement and why deaf students with high degrees of deafness are educated in regular local schools; (2) the linguistic and educational needs of deaf students; and (3) regular school's and teachers' ability to cater for the needs of deaf students. Thus, the issues, which were considered important aspects of the phenomenon, which required addressing (the etic, decontextualised issues brought to the inquiry) included: the reasons why severely and profoundly deaf students were enrolled in regular schools; the specific educational and linguistic complexities related to deaf students; and the characteristics of regular schools and teachers who were required to meet the needs of non-typical students.

The inclusion of students with disabilities into regular schools is a complex phenomenon. To understand the phenomenon it is necessary to consider how the inclusion movement evolved, its philosophical substrates, the legislative imperatives, and the actual practices of its implementation. These understandings were provided through answers to background Topical Information Questions, which answered the General Etic Issue Question of, "Why are severely and profoundly deaf students enrolled in regular local schools?"

Generally the needs of deaf students fall into the realm of language acquisition, literacy learning, and the concomitant educational implications. Background information is needed to understand the linguistic and educational needs of deaf students. Topical Information Questions asked how language development and literacy learning for deaf students was thought to take place, and how it was addressed in the past and present. The General Etic Issue Question posed was, "How do deaf students perform in relation to their communicative and literacy ability?" Therefore, questions such as how children, and deaf students in particular, learn language, when answered, provide the necessary information to understand the issue.

Regular schools and teachers, the third general etic issue, was of special significance because it was regular schools and teachers that were responsible for meeting the complex and unique needs of the deaf students. In relation to regular schools and teachers, Topical Information Questions were asked to determine the ethos and

characteristics of schools and teachers generally. These questions asked what the characteristics of regular schools and teachers were, and what they needed to be, if they were likely to cater for students with very specific needs, such as those associated with severe and profound degrees of deafness. The General Etic Issue Question posed was, “How do regular teachers provide inclusive educational opportunities for severely and profoundly deaf students in their classes?”

The Particular Etic Issue Question addressed in each of the five cases, were:

- (1) Why was the severely and profoundly deaf student enrolled in their current school?
- (2) How did the deaf student perform in regular classes in relation to their communicative and literacy ability?
- (3) How did the regular teachers provide inclusive educational opportunities for the severely or profoundly deaf student in their classes?

These Particular Etic Issue Questions were answered by answering the Research Questions. Research Questions were answered by the analysis of three distinct data sources.

Most case studies, report both interpretation from observation, and “categorically” coded data (Stake, 1995, p. 29). This inquiry, comprised descriptions of summarised condensed data collected by Classroom Observation, and Semi-structured Interviews, and descriptions of Language Performance Data. The condensed summarised analysis of data, provided descriptions of the situations, which were accompanied by descriptions of the student’s linguistic ability.

This inquiry also employed categorical analysis of variables identified in each of the situations. The latter form of analysis is more likely to be required in instrumental case studies. Categorical analysis that serves to understand phenomena, or relationships within them, was used to identify different teaching practices, which was essential information in answering “how” the teachers performed.

1.4 Organisation of the thesis

This thesis comprises two sections. Section 1, comprises Chapters 2 to 5 and addresses the General Etic Issue Questions, about inclusion, deaf language acquisition, deaf education, and regular schools and teachers. It provides a general understanding of inclusion, the educational needs and characteristics of deaf students, and how regular schools generally operate.

Section 2 contains a chapter describing the methods employed to answer the Particular Etic Issue Questions posed in relation to the individual students. It describes the derivation of the study instruments and the composition of the Research Questions, which answered the Particular Etic Issue Questions. It describes the methods used to gather data to answer the Research Questions. It also describes the reasons for the choice of the data gathering instruments, the validation devices employed, and the analysis and synthesis of the data.

Section 2 also contains the five case chapters, which contain the descriptions, interpretations, assertions, and generalisations, which were constructed for each of the cases. Section 2, thus, provides answers to the Particular Etic Issue Questions. The description of the cases, of teaching and support practices, and the linguistic characteristics of the students, with the understanding of the general etic issues, lead to the recognition of the emic issues. Recognition of the emic issues, and the isolation of the inclusive practices, lead to interpretations, assertions, and generalisations, thought able to apply to other situations.

The concluding discussion chapter contains the results of the inquiry for all the cases, the generalisations and conclusions drawn. The final chapter contains an extrapolation of the generalisations to other circumstances of a similar nature to those described in this inquiry. It contains suggestions for future possible changes, through policy modification, and service delivery, for similar situations.

1.5 The rationale for the inquiry

To make interpretations, which reflected the reality of each case, and to make generalisations capable of wider application, certain safeguards to validity were put in place. The first and probably most immediate, in an inquiry such as this, is to identify the researcher, and describe the background experience and involvement, as the cogency of the interpretation is due to the efforts of that individual.

As a DET teacher, who had worked both in regular education, and special education, the researcher had a wide experience in education generally, but more specifically in deaf education, as an itinerant teacher for the deaf in a metropolitan region, as well as the country region in which this inquiry was conducted. Data collection was in many ways, an extension of the work already undertaken by the researcher, as the supervisor of the deaf students, and itinerant teachers, in the region in which the inquiry took place. It was intended to create understanding of the phenomenon, and the fundamental aspects of successful inclusion, as a basis for making generalisations about successful and unsuccessful practices, which could apply to other situations.

It is not possible when working with individual students, to know exactly, how their situations relate to other students. In the case of supervised students, the only source of information may be limited to biannual review meetings, biannual reports, and occasional observation. In the case of students on the researcher's own caseload, it is limited to the immediate context, which may be unrelated to the circumstances of the other students. To gain a fuller understanding, it is necessary to observe students in "a wide sweep of contexts", to attempt to see what would have happened if the researcher was not there, and to attempt to see what was ordinary for those cases (Stake, 1995, p.44). Observation was from the point of view, of someone who knew the situation generally very well, but who was not aware of the particularities of every case, or of the patterns of similarity across the cases.

Because one source of data is insufficient to base insightful interpretations and assertions upon, data from different sources were gathered. Historical data from documentary records, and parental interviews, were used as background information, as an adjunct to the more immediate data sources, which included classroom observation,

parent / teacher interviews, and a collection of communicative exchanges performed by the students. The data contained the impressions and opinions, of central protagonists in the situations, as well as the evidence of communicative abilities of the students, and observed performance of students and educational personnel.

While accurate description and understanding of the situations, were arguably sufficient outcomes for this inquiry, and the initial intention of the researcher, Stake (1995) stated, “the researcher is permitted, no, obligated, to indicate how the findings might be extrapolated, how they could be interpreted in various circumstances, and how they accommodate theoretical discourse” (p.93). Further outcomes were derived from the analysis and description of the data, as a result of the process itself, in the interaction between the researcher and the participants. To describe the phenomenon without extrapolation to other like situations would have left the business unfinished.

There were theoretical explanations sought to expand the interpretive weight of the descriptions of the situations, and an extrapolation of the evaluation of the relative effectiveness of different practices, to subsequent and different situations. To create understandings, which could either assist in encouraging positive practices or prevent negative practices, and not apply them, would have fallen short of the expectations of the individuals who participated in sharing their classroom performances and opinions. Those individuals contributed to the understandings arrived at by the researcher, with the belief that positive outcomes would derive from their contributions.

It is acknowledged that grand generalisations and theorising cannot be made with great degrees of certainty when a few cases are studied for their particularity, rather than their generality. On the other hand, if a number of cases are studied in depth, with the complex interaction of the happenings analysed and synthesised into a cohesive description of the forces thought to be in operation, by recognising patterns of expected and unexpected relations, it is possible to generalise to situations, which are recognised as being similar (Stake, 1995). It is possible to derive a deeper, useful understanding, of complex contingencies, when what is particular in certain instances is uncovered, which can then be applied in other instances.

The veracity of the assertions is dependent on the comprehensibility of the data, the quality of the interpretations, and the subsequent construction of the realities. Their

value is dependent, not only on the understanding of specific situations, but also on their applicability to other situations. The reader must make the judgements for themselves, about the calibre of the interpretations, assertions and generalisations, and their applicability.

1.6 Conclusion

The inquiry described in this thesis is a collective instrumental case study after the style of Stake (1995). It sought to describe how teachers performed a difficult task in providing the educational opportunities they delivered to severely and profoundly deaf students enrolled in regular rural schools in New South Wales. The descriptions of teaching practices were considered useful information in understanding a difficult educational context in the hope that the knowledge could be beneficial in other similar circumstances.

Section 1 comprises four chapters on; inclusion, deaf language, deaf education, and schools and teachers, and answers questions explaining why severely and profoundly deaf students are educated in regular schools, and what are thought to be necessary conditions required to exist in those situations, to ensure effective inclusive educational opportunities for students with severe degrees of deafness.

Section 2 comprises seven chapters, and describes the methods used to provide evidence that was the foundation of the descriptions, interpretations, assertions, and generalisations of each particular situation, which were the results of the inquiry. The final chapter, Chapter 12, discusses consistencies across the cases, and how the generalisations could be applied to other like situations, through an alternative proposal for the inclusion of deaf students in regular rural DET schools.

1.6.1 Summary framework of thesis and questions

Chapter 2 The Inclusion Movement

Issue 1 The inclusion movement and why deaf students with high degrees of deafness are educated in regular local schools

Section 1

General Etic Issue Question 1

Why are severely and profoundly deaf students enrolled in regular schools?

Principal Topical Information Questions

- 1) What are the historical underpinnings of special education?
- 2) What are the philosophical substrates of the inclusion movement?
- 3) What are the legislative imperatives?
- 4) What are the current practices in implementing inclusion in NSW?

Section 2 Chapters 7, 8, 9, 10, 11 and 12

Particular Etic Issue Question

Why was the severely and profoundly deaf student enrolled in their current school?

Research Questions

- 1) How did the school personnel regard the integration?
- 2) Why was the student in the particular setting?
- 3) What was the perceived level of success of the placement?
- 4) What knowledge and experience did they have of deafness?
- 5) What was the educational history of the student? (from parents) and the support history
- 6) What was the etiology and nature of the deafness? (from parents)
- 7) What provisions were in place for the teaching of literacy skills?

Chapter 3 Language Acquisition and Deafness

Issue 2 The linguistic and educational needs of deaf students

Section 1

General Etic Issue Question 2

How do deaf students perform in relation to their communicative and literacy ability?

Principal Topical Information Questions

- 1) How do children acquire language?
- 2) How does language acquisition take place for hearing and deaf children?
- 3) How does the process of language acquisition differ for deaf and hearing children?

- 4) What devices and methods are used to overcome the inability to hear speech?
- 5) How does literacy learning take place for deaf students?

Section 2 Chapters 7, 8, 9, 10, 11 and 12

Particular Etic Issue Question

How did the deaf student perform in relation to their communicative and literacy ability?

Research Questions

- 1) What was the student's receptive language capacity to understand English? (Through Signed English or audition / lipreading)
- 2) What was the student's expressive language capability?
- 3) What were the strategies the student had mastered for accessing text?
- 4) What were the student's listening / lipreading abilities?

Chapter 4 Deaf education (addressing Issue 2 with Chapter 3)

Issue 2 The educational needs of deaf students

Section 1

General Etic Issue Question 2

How do deaf students perform in relation to their communicative and literacy ability?

Principal Topical Information Questions

- 1) How were deaf students educated historically?
- 2) How are deaf students educated currently?

Section 2 Chapters 7, 8, 9, 10, 11 and 12

Particular Etic Issue Question (as Chapter 3)

How did the deaf student perform in regular classes in relation to their communicative and literacy ability?

Research Questions (as Chapter 3)

Chapter 5 Schools and Teachers

Issue 3 Regular schools' and teacher's ability to cater for the needs of deaf students

Section 1

General Etic Issue Question 3

How do regular teachers provide inclusive educational opportunities for severely and profoundly deaf students in their classes?

Principal Topical Information Questions

- 1) What are the characteristics of regular schools?
- 2) What are the characteristics of regular teachers?
- 3) What are the different teaching styles?
- 4) What are the characteristics of inclusive schools?
- 5) What practices can facilitate inclusion?
- 6) What are the linguistic characteristics thought necessary for deaf students to be able to access a regular curriculum?

Section 2 Chapters 7, 8, 9, 10, 11 and 12

Particular Etic Issue Question 3

How did the regular teachers provide inclusive educational opportunities for the severely and profoundly deaf student in their classes?

Research Questions

- 1) Were special provisions made for the students to participate in the class program?
- 2) What were they if they existed?
- 3) Who was responsible for the delivery of classroom information?
- 4) What methods were employed to deliver the classroom information?
- 5) Whom did the student interact with and how?
- 6) Were the students able to perform the same tasks as the other students?
- 7) If so, how was that facilitated?
- 8) If not, what were they able to achieve?
- 9) What style of teaching was employed?
- 10) What facilities were available for language development if this was a necessity?

Chapter 6 Methodology

Section 2

- 1) Case selection, researcher, inquiry region
- 2) Description of data gathering tools to answer the Research Questions relating to the etic issues
 - A Historical records and parental interview data (answering the Research Questions designed to answer the Particular Etic Issue Question posed in Chapter 2)
 - B Language performance / Literacy skills (to answer Research Questions posed to answer the Particular Etic Issue Question posed in Chapters 3 and 4)
 - C Classroom observation (to answer the Research Questions posed to answer the Particular Etic Issue Question posed in Chapter 5)
 - D Semi-structured interviews (as in Classroom observation)
- 3) Validation techniques, data collection, data reduction, data analysis
- 4) Synthesis or interpretation / emergence of emic issues, inclusive teaching practices hierarchy

Results of the inquiry presented in individual chapters 7, 8, 9, 10 and 11

- 1) Descriptions of the situations in answer to the Particular Etic Issue Questions posed in Section 1
- 2) Interpretations, assertions and generalisations based on the answers to the Particular Etic Issue Questions posed in Section 1, the emic issues derived in Section 2 analysis of data, and the Inclusiveness Rating of the observed lessons
- 3) Conclusions

Chapter 12 Discussion

- 1) Discussion of research findings in each case, assertions and generalisations
- 2) Extrapolation of generalisations to other like situations through an alternative model of service delivery

Section 1

CHAPTER 2 THE INCLUSION MOVEMENT

Issue 1 The inclusion movement and why students with high degrees of deafness are enrolled in regular schools

2.1 Introduction

Cubberly (1947) stated that one of the purposes of schools is:

...to train children for and introduce them into membership in this little community of which they form a part, and from this to extend their sense of membership outward to the life of the State, the Nation, and to world civilization. (p. 517)

Thus, a major purpose, for educating pupils with disabilities with their peers without disabilities, is to promote the socialisation process. The debate about the nature and proper role of special education has intensified in recent years (Dorn, Fuchs & Fuchs, 1996) with debate about the best place to deliver specialised education existing for more than 25 years.

Scruggs and Mastropieri (1996) stated that “mainstreaming” and more recently “inclusion” describes the process of integrating students with disabilities into general education classes, in order to address the requirement of “least restrictive environment”, mandated by legislation in the United States by the Education for All Handicapped Children Act of 1975 (PL 94-142). For this process to be effective, it is generally accepted that school personnel need to be receptive to the principles and demands of mainstreaming. Inclusion of students with learning disabilities has occurred in general education classrooms for more than two decades (Zigmond & Baker, 1996) as a result of PL94-142. The full inclusion of severely and profoundly deaf students is a more recent event.

It is the issue of full inclusion for severely and profoundly deaf students, which is the concern addressed by this chapter, and constitutes the first issue under scrutiny in this inquiry. This chapter answers the questions listed below. The Topical Information

Questions provide the background information for answering the General Etic Issue Question. The Topical Information Questions are of two sorts, the Principal, and Contributing Questions, which together provide answers.

General Etic Issue Question 1 “Why are severely and profoundly deaf students enrolled in regular schools?”

The Principal Topical Information Questions posed to answer this question are:

- 1) What are the historical underpinnings of special education provisions in New South Wales?
- 2) What are the philosophical substrates of the inclusion movement?
- 3) What are the legislative imperatives governing special education provisions for students with disabilities?
- 4) What are the current practices in implementing inclusion in New South Wales?

Contributing Topical Information Questions, which answer the Principal Information Questions, and ultimately the Issue Question, are:

Principal Topical Information Question 1.

- a) What are the historical precedents of special education in New South Wales?

Principal Topical Information Question 2.

- a) What is integration?
- b) What philosophical views formed the basis for special education reform internationally?
- c) What international legislation and statements impacted on special education in New South Wales?
- d) What is the terminology used to refer to the different practices involved with special education and inclusion?
- e) What is the Regular Education Initiative (REI) debate?
- f) What are the paradigms, which define inclusion?
- g) What significant studies have been carried out in New South Wales to examine special education in the past?

Principal Topical Information Question 3

- a) What is the Australian situation in regard to anti-discrimination legislation?
- b) To what extent is current practice consistent with legislative imperatives?

Principal Topical Information Question 4

- a) What is the Department of Education and Training (DET) policy on inclusion in New South Wales?
- b) What are the current DET practices?

This chapter is arranged to answer each of the Principal, and Contributing Topical Information Questions, in order, so that at its conclusion it is possible to understand the general situation concerning the educational provisions for students with disabilities and to understand why deaf students are part of the educational practice known as the inclusion movement.

For over a century the education system in New South Wales has been organised as two distinct entities, regular education, and special education. The inclusion movement has seen a virtual merging of the two. Special education originated as a response to the need to educate students who were too difficult to teach in the regular education system.

2.2 What are the historical underpinnings of special education provisions in New South Wales?

2.2.1 What are the historical precedents of special education in New South Wales?

The care and education of people with a disability or impairment began early in colonial Australia. Services were originally associated with insane asylums, invalid hospitals and depots where people were “collected” with little (or no) concern for the type of disability or little prospect of effective treatment or cure. (Ashman & Elkins, 1998, p. 30)

In the United States around 1850, institutions for a number of deviant groups were founded. The purpose, according to Wolfensberger (1975) in that case, was to make the deviant less deviant. The main method of achieving this was thought to be education. Thus, it was considered necessary that deviant persons should be congregated in one place so that expert and intensive attention could be concentrated on them. The aim of the

education was to diminish the intellectual impairment, and increase adaptive and compensatory skills, so that they could function to some extent in society. Philosophies, such as these, were the motivation behind the practices associated with the education of students with disabilities of one sort or another and from which the debate about the best place to conduct such education, was conceived (Dorn, Fuchs & Fuchs, 1996). These philosophies have influenced current thinking in New South Wales concerning where students with disabilities are educated.

It was not until the 1860s in Australia, (Johnston, 1989) that special schools for children with disabilities were founded, which were initially for children with sensory disabilities. In Sydney and Melbourne, two schools, both established by deaf people, were founded (Johnson, 1989). At the turn of the century and federation, the introduction of compulsory education was instituted, but the establishment of special schools for students with intellectual disabilities was minimal (DeLemos, 1994). From the 1800s until the 1960s it was accepted that local high schools and primary schools were designed for students with average ability (Ashman & Elkins 1998). Andrews, Elkins, Berry and Burge (Schonell Report, 1979) stated that in Australia in the mid-1850s, when education was available only for the few, the demand for schooling for the “handicapped” had no substance. With the beginnings of compulsory education late in the nineteenth century, the exceptional child along with other children, presented for schooling, with the result that the educationally disabled were discarded by education systems, until special schooling based on educational segregation began to gain ground in the early 1900s, (p. 235).

For the first half of the 20th century, most children with a disability in the United States were forced to repeat grades until they were embarrassingly oversized in comparison to their classmates (Schiefelbusch, 1987). Similarly, in Australia, the graded curriculum was delivered in a whole group context with the teacher performing in a standard and prescribed way, which did not allow for students with learning disabilities. In fact, students were often repeated or “dropped out”, as stated above, if they did not complete the program satisfactorily. Schiefelbusch stated that traditionally, developmentally impaired children received less attention than their “normal” peers.

In Australia, to accommodate students who had problems accessing the regular curriculum, special education services were developed. As a result, two systems of education evolved, special education and regular education, often funded from different government sources (Ashman & Elkins, 1998). By the 1930s, there were two distinct types of special education provisions for children with learning problems. These were special classrooms, and separate special schools (Ashman & Elkin, 1998). *The Schonell*

Report (1979) stated that in Australia in the 1960s, there was the greatest increase in segregated schooling for children with disabilities known in the history of special education, which was at the same time, accompanied by a growing disenchantment with segregated provisions, and an increasing demand for integration. It was stated in that report also, that a major issue in special education had centred on the right of all children with disabilities to receive special education and related services. In 1971, the Senate Standing Committee on Health and Welfare, (Schonell Report, 1997) stated:

Education is the right of every child, and that education should be free and compulsory. Those states, which are not providing free education for particular sections of the handicapped population, are in fact discriminating against the basic right of a fairly large section of the community. (p. 249)

Special education costs were high but the services were only provided for a small group of students initially. Some special schools drew students from the entire state. During the 1940s and 1950s there was an increase in the number of special schools and special classes provided by state education authorities (Ashman & Elkins 1998). The report of the Interim Committee for the Australian Schools Commission (Karmel, 1973) marked the beginning of a new era in provision for students with disabilities. Education became a state responsibility, and special programs were developed in all states, and training programs were developed to train teachers to work in special schools (Ashman & Elkins, 1998).

Schiefelbusch (1987) summarised similar developments of educational programs for children with disabilities in the United States, by identifying four distinct periods. The first was the establishment of residential schools in the late 19th century, for blind, deaf, and children with intellectual disability. The second period was a time of special classes and public day schools, which appeared around the turn of the century, which at best merely tolerated children who were exceptional. A third period began soon after World War II and extended to about 1970. In that period, programs to serve children with disabilities in the public schools, on a broad scale, were launched. The fourth period began during the 70s and 80s, which continues until today with the boundaries between regular and special education, and between community-based and residential institutions, being renegotiated (p. 4).

Cowley (1996) highlighted the differences between regular and segregated education in Australia's early history, by acknowledging, while some of the segregated schools were well equipped with motivated teachers, others were ill equipped and run by

untrained teachers. Cave and Maddison (1978) described the paradoxical educational situations of children with mental disabilities with specially trained teachers. Such children had more money spent on their education, but accomplished the same, or lower, levels of educational attainments as other similar students without the same advantages, but who had been forced to remain in regular grades. As state Departments of Education accepted increased responsibility, for either subsidising or providing education for all children, even those with severe disabilities, the situation improved. Beginning in the 1960s, planned movement of students from special, to regular schools, occurred (Ashman & Elkins, 1998).

The movement to integrate children with handicaps in mainstream classes goes back to a Supreme Court decision in 1954 in the USA (Schiefelbusch, 1987), with the argument that segregation had a pernicious effect on the segregated and the segregator. It is not surprising that the status of people with intellectual disability became a focus of interest for legal scholars as a result of this decision. The philosophical and legal debates are described in the following section.

2.3 What were the philosophical substrates of inclusion?

2.3.1 What is integration?

The movement of students from special schools to regular schools was referred to initially as integration. The cost of educating students in regular schools was one motivation for the movement (Ashman & Elkins, 1998). Other factors contributing to the growth of special education in Australia, in the post war years, was the passage of various education acts in Australia, which were designed to ensure that all children received an education, which was appropriate for his, or her, ability (Ashman & Elkins, 1998). In the *Survey of Special Education in Australia* (Schonell Report, 1979), it was stated:

The New South Wales Department of Education recognises a number of groups of exceptional children and provides for their varying needs through special schools, special classes attached to normal primary or secondary schools, or by remedial / resource teaching to supplement the work of classroom teachers.... Underlying educational provision is the belief that each handicapped child should have opportunities to benefit from general education to the maximum extent to which he is capable. (p.26)

The manner of education services ranged over a number of service types as stated above, from special schools, classes and units, as well as visiting teachers, consultative resource teachers, and remedial resources within schools. Up until as recently as the 1960s, many students, who would today qualify for special education, completed their formal education without having received any compensatory or remedial education. Most students, with mild sensory or motor disorders, were provided with prosthetics and allowed to cope in the regular classroom. This included deaf children, who were fitted with hearing aids (Ashman & Elkins, 1998).

Therefore, the inception of special education was the result of the need to educate children with special needs, to the greatest extent possible, and was distinct from the regular education system provided for regular students. It consisted of a number of provisions, ranging from separate schools, units and classes, until later when a range of students were integrated into regular schools with special education teachers providing assistance. In this way special, and regular education, catered for two distinct types of students.

2.3.2 What philosophical views formed the basis for special education reform internationally?

It has been stated that while the practice of educating students with mild disabilities had taken place in the past, in regular schools to some extent, the philosophy, which inspired the concerted movement towards special education reform, was expounded by individuals such as Nirje and Wolfensberger. Nirje (1985) is the author of the term “normal conditions of life” in reference to the conditions of life of individuals, who had intellectual disabilities, and their patterns of culture. It referred to the distance between individuals with intellectual disabilities and the rest of society. The “normalisation principle” is another term commonly used when referring to the practice of including people with disabilities in the regular round of every day activities that apply to the rest of society. “The normalisation principle means making available to all mentally retarded people patterns of life and conditions of everyday living which are as close as possible to the regular circumstances and ways of life of society” (UN Declaration of Rights, 1948, cited by Nirje, 1985, p 67).

Wolfensberger (1992) stated that “Social Role Valorisation” grew out of the principle of normalisation, and was meant to replace it. It heavily emphasises competency enhancement and image enhancement, as the two major contributions that a person is accorded. Wolfensberger spoke about the service setting in which people receive human

services and said that the setting can convey images about the people who use it, creating either, a negative, or positive perception about them. He stated that imitation is one of the most powerful learning mechanisms known, and that people who are available as models for devalued people to imitate, often have negatively valued identities themselves. Devalued persons are commonly segregated from valued society and models, and congregated with other devalued people, who frequently have socially devalued characteristics, and exhibit socially devalued behaviors, and are served by less competent workers than those that typically serve valued people.

It is evident that beliefs such as these place a good deal of weight on where a person receives a human service, and explains why “setting” has so much relevance when considering the depth of feeling behind the debate about where best to educate children with disabilities. To reiterate, thinking such as this was behind international legislation, which was responsible for the practice of educating children with disabilities alongside their non-disabled peers. Kauffman (1993) stated:

The issue of where students are taught has been at the centre of efforts to restructure special education. Physical place has been at the hub of controversy because it clearly defines proximity to age peers with certain characteristics. A student’s being in the same location as others has been assumed to be necessary if not sufficient condition for receiving equal educational opportunity. (p. 7)

2.3.3 What international legislation and statements impacted on special education in New South Wales?

Most notable of the international legislation, and that which has had the most impact on the education of children with disabilities, is the Education of All Handicapped Children’s Act in the United States of America (Public Law 94-142). International legislation and policy reflected the growing awareness of the need to redress negative attitudes and practices of the past, towards those with disabilities, and several statements about people with disabilities, such as the United Nations Declaration on the Rights of Mentally Retarded Persons (Dempsey, 1996), were issued. The United Nations Educational, Scientific, and Cultural Organisation (UNESCO) stated that regular schools, with an inclusive orientation, were the most effective means by which discriminatory attitudes towards students with special needs might be combated.

PL 94-142 stated that it was the purpose of the Act to assure that all children with handicaps have available to them, a free public education, which emphasises special education and related services designed to meet their unique needs. It also stated that

provision of this appropriate education, should assure that to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, be educated with children who do not have disabilities. It stated that, special classes, separate schooling, or other removal of children with disabilities from the regular educational environment, occurs only when the nature of the severity of the disability is beyond the capabilities of regular education settings. In such cases, education in regular classes, even with the use of supplementary aids and services, cannot be achieved satisfactorily. This means that appropriate education should be provided for children with disabilities in the least restrictive environment (LRE) (Doneau, 1984). PL 94-142 was reauthorized in 1990 as the Individuals with Disabilities Education Act (IDEA, PL 101-336)

Coupled with the concept of the LRE is the belief that all students can learn, even if it is at a reduced rate from the average. At the same time, it is believed by many, that there is a need for a continuum of services, along a “cascade”, from most restrictive, to least restrictive educational placements (Ramsey, 1994). Public Laws 94-142 and 101-336 ensured in the USA, that an educational service was provided to all students, regardless of the nature of their disability, or learning needs. The Acts entitled parents to be involved in the educational process, from initial assessment, to annual reviews of student’s placement. The Acts, also tried to address the quality of educational programs delivered to students, by specifying that an individual educational program (IEP) must be provided for all students with learning problems (Dempsey, 1996).

The practice of educating children with disabilities in regular schools, alongside children who are not disabled, which was based on the EHA (Education of all Handicapped Act), has been referred to as the mainstreaming model (Skirtic, 1991). According the Skirtic, (1991) the assumptions, which underpinned the EHA, were:

- 1) Disabilities are pathological conditions that students have.
- 2) Differential diagnosis is objective and useful.
- 3) Special education is a rationally conceived and coordinated system of services that benefit diagnosed students.
- 4) Progress results from incremental technological improvements in diagnosis and instructional interventions. (p. 54)

The assumptions listed above, led to practices, which involved diagnostic practices in which elaborate classification procedures, were required. The instructional support practices, involved a “pull-out” approach, employed in the mainstream model of service delivery (Family Advocacy, 2001).

2.3.4 What is the terminology of inclusion?

Reference has been made to terms such as inclusion, integration, and mainstreaming. It is important, at this point, to define them more thoroughly. The current and most precise term, which refers to the education of students with disabilities in regular schools, is “inclusion”. The three terms of inclusion, integration and mainstreaming, refer to such practices but are not interchangeable, even though in the literature they may appear to be so. Doenau (1984) included the term “least restrictive environment” in the list, and stated that all of the terms are “slippery”, as they have acquired many different and competing meanings. Their proliferation in education was the result of PL 94-42. Even though the practice of mainstreaming and integration were largely a result of the Act in the USA, the terms as such were not used in the Act. Neither was the unequivocal insistence that all students with disabilities, or handicaps, be educated with students who did not possess a disability, even though there was a strong philosophical commitment to such a style as a preferred mode of education. The “least restrictive environment” (LRE), refers to the practice of providing for children with a disability to be included to the maximum extent appropriate, with children without a disability, and separating them into separate classes, or separate schooling, only when the nature of the disability precludes satisfactory education in a less segregated setting.

Doenau (1984) claimed that many authors regard mainstreaming and integration as equivalent terms, but a more precise definition would acknowledge that disabled children may be integrated into the environment of the regular school in the form of special classes or units within a regular school, whereas mainstreaming involves the actual placement of a child with a disability into a regular classroom with non-disabled children for at least part of the day. McRae (1996) noted that children with disabilities, have in the past, been integrated into the mainstream, but have not always been included in the educational environment to the fullest sense of the word. This practice has been documented by numerous writers, such as Gjerdingen and Manning (1991), and Murphy Hulsing, Luetke-Stahlman, Loeb, Nelson, and Wegner (1995). This latter practice has also been referred to as “functional” exclusion (Paul & Ward, 1996).

Inclusion implies, not only bodily placement in the classroom, but that classroom practices are in no way discriminatory, or excluding of the child, which certainly can be the case in a mainstreamed situation. It is clear that “placement” or “location” of the child is necessary to the issue, but not sufficient.

Dempsey (1996) explained the thinking behind the concept of the LRE. It is the belief that as students with special needs usually live and spend their leisure time in

heterogeneous environments in the community, they need to develop skills necessary to function in those environments. As a consequence, it is believed that they need to spend as much time as possible in regular school settings. Segregated educational settings, such as special schools, or classes, can be seen by some (Stainback & Stainback, 1984) as restrictive, as they limit the student's opportunity to access the experiences available in regular schools. They are seen as limiting the student's ability to interact with peers, as that is not possible in segregated settings.

Foreman (2001) described the concept of the LRE as that which is based on the philosophical principle that some environments are more intrinsically restrictive than others. Individuals living in highly restrictive environments have fewer choices about daily events. Most school systems provide a range of classes, and schools, to cater for students with special educational needs, with some providing very restrictive environments. As with residential institutions, school systems have attempted to move towards improved levels of personal participation and control for students. The range of educational settings provided by school systems, from the most, to least restrictive, is as follows (Foreman, 2001), "residential school, separate day school, separate school on regular campus, special unit in regular school, special class in regular school, regular class" (p. 10).

2.3.5 What was the Regular Education Initiative (REI) and debate?

After the first round of criticism of special education, which saw the EHA and the introduction of the mainstreaming model, the second round of self-criticism began shortly after 1975 and has continued until today, with increasing intensity (Skirtic, 1991). It rejects the EHA, and mainstreaming, because many believe in the right of all disabled students to be educated in regular schools, and that there is no place for segregated settings at all. This perspective is called the Regular Education Initiative (REI), which was a movement in the United States, and continues to influence many countries including Australia (Dempsey, 1996; Dorn, Fuchs, & Fuchs 1996; Zigmond & Baker, 1996).

The basis for the REI proposal is that a unified, coordinated education system, is thought better able to provide educational support for all students, than two separate systems. There is a range of views held by the proponents of the REI, from the most extreme, which sees any sort of segregated education setting for any disabled student as discriminatory, to less extreme views, like those that currently hold sway in Australia, and which will be examined in greater detail in a later section (see Section 2.4.1). The

latter view supports education of all students, possessing severe disabilities or not, in regular classrooms, as long as it is not to the detriment of the student, and still supports a continuum of services for those students who cannot be successfully included in regular school classrooms.

The philosophy, which saw the enactment of PL 94-142, was based on human rights issues and has influenced special education internationally. It saw a range of special education services provided for students with disabilities in mainstreamed environments. The second round of reform in special education has resulted in a reappraisal, and an increase in demand for students with disabilities to be included in regular education settings. The REI movement continues today, and has had a major impact on Australian education practices, and continues to do so. It inspires debate, difference of opinion, and a good deal of rancour.

Stainback and Stainback (1984), two of the most widely quoted supporters of the REI, stated that in the dual system of education, in which children were educated in either special or regular school placements, dichotomies of conceptualisation of children, into normal and exceptional, occurred, instead of accepting that all children differ along a continuum of intellectual, physical, and psychological characteristics. They emphasised that individual differences are universal. There are not, as implied by a dual system of education, two distinctly different types of student, those who are special, and those who are regular. Stainback and Stainback (1984) explained that special education, and the dual system, were largely based on the assumption that there are special groups of students who need individualised educational programs tailored to their unique needs and characteristics. This position, they maintained, is discriminatory. They noted that all students are unique individuals whose unique characteristics can influence their instructional needs. Thus, individualised educational programming and services are important for all students. They stated that instructional methods need to be tailored to individualised characteristics and needs, and few, if any, can be dichotomised into those that are applicable to either, or only, special or regular students. Stainback and Stainback also noted that special education encourages categorisation and the subsequent stereotyping of students.

Kauffman (1993), whose position contrasts to that of Stainback and Stainback, explained that the issue of where students are taught has been at the centre of efforts to restructure special education. Physical place has been at the hub of the controversy, because it clearly defines proximity to age peers, and it can be measured easily, but it can also be responsible for deep emotional overtones and fanaticism. He cautioned against aggregation of “all children”. He noted that the first premise of special education still

remained, that of disaggregation of students, so that they received appropriate education, which means catering for their differences.

These views demonstrate some of the controversy associated with the theory behind provision of appropriate education for students with disabilities, and some of the contradictory stances taken on the matter, demonstrating views from the two distinct camps, of proponents and opponents, of the REI debate.

To further illuminate the thinking of the two schools of thought, and give an overview of the whole debate, the writings of Skirtic are paraphrased (1991). Skirtic stated that although the models, practices, and tools were different, the assumptions and problems identified in the EHA and mainstreaming model, were premised on the same assumptions as those of the traditional special classroom/segregation model, and he defined important differences between the EHA / mainstreaming debate, and the REI debate. First, is the fact that the participants of the mainstream debate did not question the adequacy of the general education program, or of traditional school organisation. They simply argued for greater access to the general education program within the traditional school.

The REI proponents, on the other hand, implicate general education and the traditional school organisation in the problem of student disability. Therefore, they argue that the problem lies largely outside the student, and in the organisational context of schooling, implying a critique of special education's grounding assumptions (see Section 2.3.3).

Skirtic claimed the second difference, between the mainstreaming and REI debate, was that in the 1960s special education had no means to interpret the negative empirical evidence of the ethics and efficacy of its practices, thus no way of recognising the source of the problems in the special classroom model, or how to address them. Alternatively, the REI debate applies a critical theoretical discourse within the field that questions the founding assumptions upon which special education and the mainstream model were based. The proponents put forth two lines of argument, one against the current special education system, and one for reforms in general education. Two of the major criticisms of the EHA model were the diagnostic practices it was based on, and the problems associated with the pull-out mainstreaming model of instructional practices.

Skirtic stated that proponents of the REI, (viz. Stainback & Stainback, 1984), have compared the system of special education and mainstreaming, as apartheid and segregationism. The opponents of the REI have described it as unworkable. Despite areas of disagreement, it seems that the REI opponents and proponents, agreed that the handicapped designation, which led to direct instruction, had been non-beneficial. There

is instead, general agreement, that the instructional effectiveness of special education had not been demonstrated. Both opponents and proponents maintained that because of the nature of the mainstreaming model, the assistance students received did not appear to be effective (p.53). MacMillan, Gresham and Forness (1995), however, refuted these claims by stating “ample evidence exists to demonstrate the efficacy of pull-out programs that is often ignored when advocates of full inclusion summarise evidence” (p. 7). Studies which examined special education in Australia are described in the following section (see Section 2.3.7) and findings illuminate the situation on the effectiveness, or otherwise, of special education provisions.

REI proponents believe that the special education diagnostic, and instructional practices, associated with the EHA and mainstreaming models, should be eliminated. They proposed a new system in which all students are eligible for in-class assistance, by restructuring the current general education and special education system. They believe that all children are able to learn, albeit at different rates, and that classroom instructional practices should cater for such differences. They believe that students with disabilities should be educated alongside non-disabled peers, by appropriate instructional practices, and that students should not be designated, regular, or otherwise. Gow (1988) stated, in Australia, integration should be thought of not as a separate treatment program, but rather a central concern of all educators, with special education concerns integrated into the concerns of general education.

Both sides of the debate agree that the current system has serious problems that must be resolved. This debate has impacted on policy and practice in schools in Australia and New South Wales, which is explained in a later section (see Section 2.5.2).

2.3.6 What are the significant paradigms of inclusion which define it?

There is a dichotomy of opinion that exists in relation to dealing with the examination of the subject of inclusion. The different ways of viewing inclusion, determine how the examination of the phenomena is approached. These positions are contained in the views contributing to the REI debate, which have been discussed, and which are further expanded by Paul and Ward (1996), who attributed the difference of opinion to differences in world-views on the part of the protagonists.

Paul and Ward (1996) suggested that the metatheoretical view of a person affects the development of theories, interpretation of research, and the proffering of effective practice. Different opinions are said to be due to different worldviews in metatheoretical

terms and operate from different paradigms. Different paradigms offer different solutions to the problems of inclusion.

Paul and Ward defined a paradigm as that which serves to define what should be studied, the questions asked, how they are asked, and the rules to be followed in the interpretation of the obtained answers. They articulated and described what they believed to be the two major paradigms related to the inclusion debate, and which they maintained is a paradigmatic issue, rather than a scientific one. They argued that the debate on inclusion could not be resolved through scientific methods alone, because ultimately inclusion is an ethical issue.

Paul and Ward identified the two broad paradigms, the comparison paradigm and the ethics paradigm, which they believe capture much of the theoretical and research activities relevant to the issue. The comparison paradigm has proponents who are motivated by research, which is mostly quantitative, and carried out to provide answers to questions such as, “does inclusion work?” (Paul & Ward, 1996, p. 5). This may involve matching the academic performance of students from a self-contained class to statistically matched counterparts in general education settings. Results focus on statistical differences relative to “setting”. Controlling variables in students, such as those, is extremely difficult, as is the interpretation of results. It has been suggested that it is unrealistic to do so (Paul & Ward, 1996, p.5).

The proponents of the comparison paradigm are determined to gather evidence for, or against, a particular setting. The major focus is in demonstrating either for, or against, separate education facilities. The paradigm, and its line of research, can be used to justify the existence of either self-contained residential, or other special separate facilities, based on the performance of the specific individuals within the setting (Paul & Ward, 1996, p. 5).

In contrast, proponents of the ethics paradigm are concerned with asking what needs to be done to make inclusion work. The ethics paradigm argues that inclusion is the most fair and ethical way to proceed. Individuals should not have to be improved or modified to meet arbitrary standards of a school or institution; rather institutions must be changed to accommodate the diverse needs of individuals (Skirtic, 1987).

This dichotomous argument, explicated by Paul and Ward, is of importance to this inquiry. As the focus of this inquiry is on what makes inclusion work, it is necessary to determine the current situation, before deciding what would need to change. In following this line of thought to a useful conclusion in relation to students currently in the situation, it is appropriate to examine the situations of students integrated in regular schools in order to determine if the students are included, or “functionally excluded” (Paul & Ward,

1996, p.9). Therefore, this inquiry sets out to discover the elements of the situation, which contribute to successful, or non-successful, inclusion.

Proponents of the ethical paradigm (viz. Stainback & Stainback, 1984), according to Paul and Ward, are focused on ensuring that all individuals receive the most appropriate education within the same environment. Any form of separate treatment must pass the test of, not being elite, preferential treatment, or unequal, unfair treatment. Separate but unequal, may mean grouping children based on intellectual, physical, or emotional levels of competence, or placing them into different academic tracks, or allocating resources to highly-skilled groups. Proponents of the ethics paradigm might interpret an act as moral, only if it can be applied to all humans, without contradictions or exceptions, and without personal or social benefit - in other words what is done for one is done for all. Within this framework, examples of pure exclusion have not been considered moral or ethical. But the proponents of the comparison paradigm, point out rightly, without social and academic criteria as guidelines to ensure equal treatment, individuals with special needs, might be placed in an inappropriate educational setting, and be subject to “functional exclusion” (Paul & Ward. 1996).

The establishment of separate facilities may be necessary to guarantee equal treatment, such that the most appropriate education in the least restrictive environment varies with the characteristics of the individual within a variety of options, to maximise the benefits they afford. Similarly, included deaf students may require individualised separate treatment over and above that which is provided for other students (King Jordan, 1994). MacMillan, Gresham, and Forness (1995) stated that the position taken by inclusionists is that the LRE is synonymous with regular schools and regular class placement for all children with disabilities. They also stated that special education has historically been dedicated to individual differences, recognising that not only do children differ, but so do teachers, schools, parents, and peers, and that identifying a single educational treatment that benefits all children, in the opinion of those authors, is unlikely.

Understanding the paradigmatic differences described by Paul and Ward, and determining which approach is taken in examining the actual situations of deaf students is essential. The approach taken determines the nature of the research, and the information gained from it, through which understanding of actual circumstances is achieved.

2.3.7 What significant studies have been carried out in New South Wales to examine special education in the past?

A number of significant studies of integration in New South Wales have examined the wide application of the special education policies of the past, and are reviewed at this juncture, to explain the changing emphasis. Studies, which deal with more particular features, are also reviewed to present the thoughts and conclusions that have been drawn on the matter at different times in the past.

The *Schonell Report* (1979), which has been referred to previously to describe the past situation in special education, was intended to provide a firm base for planning and development for future policies in special education in Australia, through delineation of the practices at that time at state and federal levels. While it offered a good deal of statistical information concerning numbers of students in different facilities and the nature of the facilities, from funding to personnel, it was unable to provide a clear picture of special education, claiming that no clear picture existed. It stated:

The provision of education services to handicapped children in Australia presents a particularly complex pattern; in which state education, health and welfare agencies, non-government schools and voluntary associations, and commonwealth education and welfare departments may be directly or indirectly involved. (p.29)

Special education since that time has undergone a number of changes. At the time that Hall, Gow, and Konza (1987) wrote a paper describing concerns about special education services, accusations of merely labeling and dumping children into segregated classes, were made, which were the same concerns being echoed throughout the world. Hall, Gow and Konza concluded their paper by claiming:

Integration is taking place on an ad hoc basis and in the absence of supporting structures and adequate levels of government support. Thus, while there are many exemplary school-based initiatives and some schools in NSW are dealing with the problems involved in integration, what are lacking are coordinated mechanisms to support integration and ensure that it is not dependent on the goodwill and personalities of dedicated and creative staff. (p. 22)

Because the widespread practice of integrating students with difficulties had tended to exceed its research support, as a result of methodological difficulties (Gow, 1988), and because research had failed to elucidate the relative efficacy of segregated,

versus integrated settings, as the most appropriate context for educating students with difficulties, the Commonwealth Schools Commission (CSC) at the request of the Organisation for Economic Cooperation and Development (OECD), commissioned Gow to conduct a national review of integration. The review was broadly based upon data obtained from a variety of sources, including reports, policy statements from federal and state governments, union groups, and individual interviews with some of the significant parties in the debate, which totalled 800 informants. Integration practices were investigated through visits and discussions and a number of integration issues examined.

The scope of the review was constrained by a restricted time line for completion and statistical data were difficult to obtain, as it was found to be impossible to combine and compare data. However, the review according to Gow revealed that there was general acceptance of the ideology of integration, and despite a lack of unequivocal evidence, there was widespread belief that the movement towards integration had been developing over the previous decade. It was clear, however, in Gow's view that the process had been slow, and the same issues were being grappled with, that had confronted educators two decades previously. A common view was that the realities of implementation impeded progress. Another common view expressed was that integration was taking place without adequate levels of government support, and that children were being "maindumped" (1988, p.4) in regular school without the necessary support services. At that time, there was a conditional acceptance that every student had a moral right to be educated in his or her neighbourhood school, depending on whether the placement was "in the best interests", which meant, "if the appropriate resources were available to support placement" (Gow, 1988 p. 4). There was a strong nexus between integration, and resources, which had served to exclude some students from being integrated. This view implied that if more resources were provided, then integration would succeed.

Major difficulties, revealed by that study, were that at that time, integration practices were taking place on an ad hoc basis in the absence of adequate resources. There was a failure to discriminate between students, who had been placed in regular schools as a matter of deliberate policy, and those "integrated by default" (1988. p.5), rather than by intent. "Integration by default" occurred when there was no special setting available for the student, or where the class teacher recognised that the students had special needs but had either failed to obtain additional resources or a segregated placement. The integration debate had tended to be administrative-needs-centred (Gow, 1988), rather than individual-child centred. This had meant that facilities had determined whether integration occurred, and that students had been moved from special schools to regular school settings, following falling school enrolments in the regular schools.

As a competing dual system was being supported in Australia, conflict resulted from resources being placed in the system to support students in regular schools, when at the same time, a parallel and well-resourced special education system was being maintained. The report found that many parents opted for special placement, and resisted integration, because the majority of resources remained located in special facilities. It was also found that some schools received an ever-increasing number of students with special needs, while others rejected them, either by passive resistance or hostile resistance. Because of an apparent lack of appropriateness of the secondary curriculum, students who had been successfully integrated during the primary years were not able to maintain effective placement when they reached Year 7.

More recently the *McRae Report* of 1996, was prepared for the NSW Government to examine “integration /inclusion” in NSW. It did suggest that a number of changes in practice be made to meet the intention and spirit of relevant law and policy in NSW. In the preamble it stated that special education policy was premised on the notion of normalisation, which it defined as a lifestyle and set of living conditions for people with disabilities, which are as close as possible to those enjoyed by the rest of society (McRae 1996, p. 6). While it acknowledged that research evidence seemed to suggest that social and academic value was accrued from integration for many students with disabilities, it also acknowledged that there was no evidence to demonstrate that it was the best thing for all students all the time. McRae concluded that one of the major issues in determining the long-term benefit of integration was that the basic structural arrangements had not been adjusted to accommodate and support the current requirements by law, policy, and practice. He noted that the current arrangements presented significant impediments to parents and schools, and choosing to integrate students with disabilities led to inequitable distribution of resources, and generated dysfunctional inflexibility, with discontinuities of the continuum of service provision.

The focal points of the problems, according to McRae, were: maintaining three different forms of resourcing arrangements, the categorisation of students by disability, the structuring of provisions by “classes”, and the structural separation of special and regular education. The recommendations made by McRae, targeted these issues in reference to enrolment policy in schools, and the increased support of integrated students by the employment of teacher’s aides and itinerant teachers. Students with disabilities attending regular schools were to be assessed in a consistent way across NSW using the *Funding 2000* process, which involved assessment of need in 13 focus areas, ranging from academic needs to medical procedures (Foreman, Bourke, Mishra, & Frost, 2000). Other changes, in regard to funding of individual students, have been an outcome of

McRae's recommendation, which were no doubt, intended to redress the situation reported earlier by Gow (1988), who had also noted a lack of government support for integration.

Funding, for special education services in 1999-2000, were a record \$416.6m (DET, 2000), an increase of \$17.4m on the previous two years. Departmental funding to support children with disabilities in regular classes in 2000 was over four times the level of funding in 1995 (Foreman, Bourke, Mishra, & Frost, 2000). The number of students with a disability receiving State Integration Funding, increased from 1,983 in 1990 to 5,133 in 1997, and to over 12,500 in 2000 (Dempsey, Foreman, & Jenkinson, 2002). A large proportion of the increased funds were spent within schools, on teachers, teacher's aides, consultants, and on itinerant teacher services. In the region, in which this inquiry took place, there were 8 deaf students receiving support by teacher's aides, as well as itinerant teachers, in 2001. This was in contrast to earlier periods when students in the district, did not receive teacher's aide support as well as itinerant teacher's support.

McRae's recommendations also included increased training for regular teachers, as well as teachers' aides, and coordination between Department of Health and Community Services, to determine and improve access to therapy services. McRae also requested that the Board of Studies increase the pace of their work in developing support documents for students with special needs, across the Key Learning Areas (KLA), for a whole range of students, with appropriate forms of certification marking the end of school completion. He called for integration between Schools for Special Purposes (SSP) and regular schools, with access for students in SSP to regular schools, to be encouraged. These recommendations were a response to the shortcomings in the provisions as perceived by McRae and were intended to redress those shortcomings in the future.

One of the terms of reference, for the enquiry conducted by McRae, was to report on the feasibility, potential cost, and long-term benefits of greater integration and inclusion of students with disabilities in financial terms, and in potential long-term outcomes for the students involved. His response included consideration of the support needs of students with disabilities, the present continuum of services, cost-effective indicators, the view of the stakeholders, curriculum implications, teacher education implications, effectiveness of learner outcomes, and implications for change.

McRae's methodology was based on observation of schools. The difficulties involved in conducting the review were no different from those mentioned by Gow (1988). There was no single database or series of databases, which kept up-to-date information, and which was both relevant and comprehensive. Instead, much of what was

important knowledge was intellectual knowledge possessed by individuals involved with the situation.

A statement by McRae warrants comment. He argued that successful placement was dependent on parental satisfaction:

There are substantial benefits for an education system from having satisfied parents, including those, which contribute to the success of the student, both socially and academically. There are also substantial image benefits, which derive from being perceived as providing appropriate services and having a caring and concerned attitude to all participants. There are costs, financial and otherwise, in failing to meet parent's requirements....Quality of service, in which resource provision plays a significant part, is central to their concerns. (p.97)

It is interesting to note that the essence of the sentiment, expressed in this quote, is that image and perceived concern are important considerations in the provision of an effective educational service; also that quality of service is dependent on resource provision. It is evident that significant funds are currently provided to support integration, in the employment of a variety of support personnel. Interestingly, teacher capabilities or school programs were not a primary focus, although increased training for class teachers was recommended.

A recent inquiry known as the *Vinson Report* (2002), which was conducted in New South Wales, produced findings which differed significantly in this regard from McRae's. The report was titled *Inquiry into the Provision of Public Education in New South Wales*. The Independent Inquiry had broad terms of reference, which amounted to a comprehensive audit of the state of public education in New South Wales (p. I). The Inquiry stated:

However, it is the Inquiry's contention that, as a system, public education in NSW currently is deficient in the cultivation of improved teaching practice. There exists, to borrow the words from a recent technical paper, 'a policy vacuum' in relation to this vital part of the learning process. Adjustments in curriculum and assessment in and of themselves cannot generate changed outcomes without a focus on classroom interaction. (p. 41)

It further stated:

While it is encouraging to see individual schools using innovative methods to engage students and enhance their learning, such schools are by no means common. The Inquiry has formed the view that such attempts at school improvement are sporadic and not well secured in the future. Furthermore, they

generally have occurred without a great deal of direct support from either District Offices or Directorates within the DET. (p. 57)

Previous reports and reviews of education in Australia had called for improvements to teaching practice decades earlier (Quality of Education in Australia, 1985; Report of the Committee of Review of NSW Schools, 1989).

In relation to the inclusion of students with disabilities, the *Vinson Report* (2002) stated that teachers felt that inclusion, to date, had been achieved with too much haste, and with too few resources, notwithstanding the injection of funds from the DET (p. xxiii). Teachers noted the extra time students with disabilities required, and the lack of training and understanding of particular disabilities on the part of teachers, whom, it was felt, were left to deal with the demands without the necessary professional development, in-class support, or easily accessed funding. Recommendations, made by that Inquiry, concerned improvements to pedagogy, changes to curricula, and concentration on early childhood education, amongst others. A recent development in DET policy has seen the introduction of a model of pedagogy aimed at improving pedagogy in NSW schools, titled *Quality teaching in NSW Public Schools* (2003).

The surveys reviewed above deal with large-scale concerns. The following two studies deal with more particular areas of interest.

A two-part study by Center, Ward, and Ferguson (1989) on the integration of students with disabilities, in New South Wales, aimed at providing basic data through case studies of the educational and social experiences of children with all types of disabilities, who were integrated and maintained in their regular primary schools. It aimed to determine the factors relevant to the school and the child, which were relevant to social and physical integration. The factors related to child, classroom, and school. Stage 1 involved observations of a relatively small number of children across all disability groups in metropolitan and country primary schools, to establish and trial procedures, to be used in stage 2 across a wider group of children.

The students were randomly selected from all disability groups enrolled in the mainstream, under the "Enrolment of Children with Disabilities Policy. All academic, social/emotional, and physical access, measures obtained for the target children through direct testing, observation schedules, and teacher/parent ratings from questionnaires and interviews, were recorded separately, to establish three discrete indices of integration. While the investigation was a multiple case study, it was possible to detect general trends about the status of the children in the integrated classes. The findings suggested that the

hypotheses generated from the large-scale attitudinal surveys were substantiated. When appropriate resource provisions were supplied and teachers had mastery over instructional technology, children with disabilities appeared to be well integrated. In the absence of structured teacher skills, appropriate support still resulted in generally effective integration. However, when neither of these conditions operated, and extra skill and time involvement were needed, on the part of the teachers, the mainstreaming outcomes were much more problematic.

The appropriateness of the support, provided for the children with sensory disabilities, was correlated with the performance of the students. The instructional style of the classroom teacher of children, who were less satisfactorily mainstreamed, was deemed to be “less structured”, than that of most of the other teachers in the group. It was claimed that the instructional style per se was not sufficient to lower the integration indices, but it may have had a deleterious effect on the academic, social, and physical integration outcomes, of the children with sensory disabilities, when the resource support, was judged to be inappropriate. In an example of the combination of less effective resource support, and less structured instructional style, when combined, it appeared to lower the mainstream success of the student.

The most effective support type reported for sensorily handicapped students was an itinerant teacher, who either team-taught, or withdrew children for intensive individual assistance. The advantages of the former method was that it provided a greater degree of normalization, since the child stayed in the classroom, and the itinerant teacher could help other children. Another advantage was that in a team-teaching situation, constant liaison could be maintained between classroom teacher and the resource personnel.

The study concluded that the most critical feature appeared to be associated with the child’s cognitive /affective characteristics and home background, rather than with the child’s type or degree of disability, school region, or grade level. Children with average, or above average, intellectual ability, with high need achievement, and motivation, and parents who supported the school program, appeared to be successfully mainstreamed whenever appropriate support was provided. It was noted, however, that one child with a hearing impairment had such a mild degree of hearing loss that his itinerant teacher had been withdrawn.

It was acknowledged that the sample was too small to make generalisations, but suggested that mainstreamed children with sensory difficulties, in the absence of other difficulties, presented few problems at the infants or primary level, since no additional skills or time involvement on the part of the teachers were perceived to be needed.

It is apparent that since the inclusion movement began, it has gone through a number of phases, until becoming a generally accepted practice. At no time in the past does it appear to have been without problems of one sort or another. These general concerns have included claims that the inclusion movement lacked a proper empirical base, it lacked resources to support it, and lacked teacher expertise and training to implement it effectively (Cave & Maddison, 1978). Currently, all newly appointed teachers in NSW, however, have mandatory special education training (DET, 1997).

2.4 What are the legislative imperatives governing special education provision for students with disabilities?

2.4.1 What is the Australian situation in regard to anti-discrimination legislation?

In reference to the Australian situation, the *Schonell Report* of 1979 claimed there was no clear picture of the organisation of special education, at that time in Australia. In fact it stated:

Education Acts and systems in Australia are not known for the explicit expression of the philosophical basis for provisions and programs. It is more likely that statements of philosophy of special education, for example, can be identified as implicit in descriptive statements, or in reports of local or national meetings. (p, 25)

Since then, two laws, one federal and the other a state law for NSW, have had an enormous impact on special education and regular education in NSW. The Federal law, the Disability Discrimination Act, was enacted in 1992. It was the first Act of its kind in Australia and has counterparts in other parts of the world, such as PL94-104, which has been previously described (see Section 2.3.3). The DDA (Giorcelli, 1997) focuses on the principle of full inclusion and equal rights for all people with disabilities. The Anti-discrimination Act, a NSW law, like the DDA makes it illegal to treat people with disabilities less favorably than other people. The act also states that once a student is enrolled, it is unlawful to use the student's disability as a reason for curtailing access to any parts of the curriculum, imposing disadvantages, or expelling the student (Byrnes, Sigafos, Rickards & Brown, 2002). The Human Rights & Equal Opportunity Commission (HREOC) is responsible for overseeing compliance with the DDA, and the Anti-discrimination Board is responsible for the ADA. Both of these "statutory authorities" were set up by the government, but are separate from government, as they are

intended to be impartial (Giorcelli, 1997). HREOC was empowered, both to conciliate complaints, and to conduct public hearings if the conciliation process was not successful. Dempsey, Foreman, and Jenkinson, (2002), maintained that it was unclear how many complaints have been resolved by conciliation, and what agreements have been reached between the relevant parties associated with the complaints, because the conciliation process is confidential.

The Australian Government has also, by giving its assent to the Salamanca Statement in Spain in 1994, endorsed the principles of inclusion in education. The purpose of this agreement was to promote inclusive education, so that schools can serve all children, particularly those with special education needs. The statement asserted that:

(a) every child has a basic right to education; (b) every child has unique characteristics, interests, abilities, and learning needs; (c) education services should take into account these diverse characteristics and needs; (d) those with special education needs must have access to regular schools; (e) regular schools with an inclusive ethos are the most effective way to combat discriminatory attitudes, create welcoming and inclusive communities and achieve education for all; and (f) such schools provide effective education to the majority of children, improve efficiency and cost-effectiveness. (p.1)

It is clear that in New South Wales, to discriminate against students with disabilities on the grounds of their disabilities, is unlawful. Denying students with disabilities enrolment in their local schools, could therefore, constitute discrimination. Australia has not only made a commitment to the education of students with disabilities alongside non-disabled peers, it has recognised that schools with an inclusive ethos can best facilitate inclusion. Thus, legislation has been responsible for changes in policy and practice in New South Wales. However, no state has legislated to ensure the phasing out of segregated special educational provision, and Australia has tended not to rely on legislation to guarantee an education, or to specify minimum educational standards for students with a disability, to the extent that has occurred in the United States. No bill of rights exists in Australia, and there is no comprehensive protection of rights in the constitution (Dempsey, Foreman, & Jenkinson, 2002).

2.4.2 What is the current situation with anti-discrimination litigation in NSW?

While acknowledging that DET policy in New South Wales supports inclusion, of widely disparate groups of children with disabilities in regular schools, a reasonable

concern would be in Australia, legislation only makes it unlawful for schools to discriminate against students with disabilities on the grounds of their disabilities. While appropriate classroom practices are recommended, they are not actually legislated for, as yet. It could be argued that unless such a condition is supported by legislation, it will not be realised.

The Family Advocacy (2001) group have criticised the government because, “it has never implemented an independent appeals process so critical to the accountability of a large bureaucracy” (Epstein-Frisch, 2000, p. 22). With the possibility of rectifying that situation, currently, the preparation of a disability Standards for Education addition to the DDA, is being prepared, which will be issued under the DDA, and in which the area of curriculum development, accreditation, and delivery, will describe the legal obligations of education authorities, institutions, and providers, in complying with the standards, if it is accepted. However, it has taken three years for the states and territories to agree on the content of a draft set of standards to be released for consultation (Dempsey, Foreman, & Jenkinson, 2002). Shorten (1995) stated:

Educational malpractice is a term used to refer to acts or omissions that lead to failure to educate a pupil appropriately.... In Australia there has so far been no reported decision dealing with educational malpractice. However, if such an action were to be brought within the rubric of tortious liability of negligence, then certain issues would have to be addressed. It would have to be established that the law recognised a general duty of care on the part of teachers to educate their pupils appropriately. (p. 201)

In America courts have said that because teaching is such a complex process, it makes it difficult to measure a standard of care, making it difficult to prove a causative link. However, parents of children with disabilities in Australia have followed the lead of the USA, where litigation is commonplace, and acted in accordance with the legislation. Litigation in Australia, in relation to discrimination in schools is, however, a relatively recent phenomenon. Not all judgments handed down by the Equal Opportunity Tribunal have found in favor of the complainants, but the NSW DET, and its personnel, have had to face charges of discrimination, based on the treatment of students with disabilities enrolled in DET schools.

In the case of Demmery -vs- NSW Department of School Education, of 1996, the parents of a 10 year old profoundly deaf boy enrolled at Kendall Central school, alleged before the Equal Opportunity Tribunal that the DET unlawfully discriminated against their son both with direct and indirect discrimination. This discrimination consisted of the

alleged exclusion of the child from sport and a class performance, because he was deaf, as well as allegations that the teacher treated the child differently (negatively), because he was deaf. In this case the Tribunal found that the evidence was so tenuous that it could not find that the student had been subjected to less favorable treatment than other children.

Nevertheless, it is important to note that parents of children with severe or profound hearing losses are increasingly aware of their rights at law, in terms of regular school placement, and their right to receive an appropriate education for their children. In the case of *Finney -vs- Hills Grammar School*, before both the HREOC and Federal Court, the school in question was found to have discriminated against the child on the basis of her physical disability. Although the school in question is not a DET school, and the disability not deafness, the case further demonstrates the willingness of parents to invoke the legislation when they perceive discrimination by educational settings of any sort. In the Hills Grammar case, the school was found guilty of unlawful discrimination against a six year old child with spina bifida, on the grounds that they failed to provide her with physical access to the school.

In the case of *Purvis vs. The State of New South Wales* of 2002, claiming discrimination because of school exclusion, the initial findings were against the State of New South Wales, but upon appeal, were reversed by the federal court. Another case cited by Byrnes, Sigafos, Rickards and Brown (2002), involved a statewide support group of parents of students with hearing disabilities, who brought a class action on behalf of all students in government schools in New South Wales. The complaint cited discrimination in the provision of educational services. The action was resolved through two conciliation meetings. An article in the *Sydney Morning Herald* (Lewis, 1995), which described the new legislation as their weapon, claimed parents were fighting to give their disabled children a mainstreamed education. In the same article, it was stated that the outcome of a series of legal struggles had demonstrated the strength of the act (DDA), in forcing schools to accept children with disabilities.

Not only may parents be disgruntled by the refusal of schools to enrol students on the grounds of unjustifiable hardship, which usually means financial hardship in the case of structural modification to schools, parents may also express strong opinions about decisions, which relate to special support of students and the delivery of appropriate programs. In a letter to the editor of *Sound News* Autumn 1997, titled "Lack of Support of a Deaf boy in Kindergarten", a mother of a deaf 7 year old, expressed very strong disapproval of the DET's unwillingness to continue providing an Auslan (the language of the Deaf community in Australia) proficient itinerant teacher, to her son in a North Coast

town, and as a protest decided to hold her son back from school, with the charge that the DET intended to withdraw her son's, "key to learning and his access to bilingualism and to isolate him from Deaf culture within the school system" (p.9).

Epstein-Frisch (2000), described a move involving a Family Advocacy group in NSW, which supports the inclusion of children with disabilities in regular classrooms, which took up the challenge presented by the National Council on Intellectual Disability, to report on the progress of inclusive education in NSW schools. In their report it was stated, "The major theme of comment by participants is that the reality of personal experience of families is quite distinct from what official policy would lead us to believe is true" (p.20).

With this litigious situation in NSW existing, it is clear that schools need to develop effective inclusive educational practices for the deaf students in their care.

2.5 What are the current practices in implementing inclusion in New South Wales?

2.5.1 To what extent is current Department of Education and Training Policy consistent with legislation?

The changes, to policy and practice, are documented in DET literature, which supports the *Special Education Policy* (NSW Department of School Education 1993). The current thinking, and practice, on inclusive education is expressed in New South Wales, by the document titled *Special Education Handbook* for schools of 1998, and encapsulates the DET philosophy on education for individuals with disabilities. The philosophy was also elaborated for NSW (Training and Development for Special Education Executives, 2000) by the *Charter for equity in education and training*, which states that, "The NSW Government believes that education is the foundation of an informed and just society, the key to overcoming social inequality and to achieving its social justice objectives" (p.7). This clearly demonstrates that the sentiment behind the DET policy is one of social justice and human rights.

Prior to the introduction of the policy on enrolment, when a student with a disability enrolled in a regular school, they were required to enrol under "The Students with Disability Policy", requiring parents to notify the school of the student's disability in order that the school had the opportunity to muster relevant resources before acceptance of the student. This policy was abandoned in 1997 as a response to McRae's recommendation, "... a common enrolment policy be formulated to apply to all students.

The choices of parents/caregivers of students with disabilities should be governed by the same general conditions as apply to other parents/caregivers” (p, 100).

2.5.2 What are the current practices?

Currently, every student enrolls in the same way, with no distinction being made between those, with, and those without disabilities (Special Education Handbook for Schools, 1998), but there is a proviso stating that enrolment in regular classes, occurs where it is possible and practicable, and in the best interests of the child. This allows the schools to take into account circumstances that would make such a placement inappropriate for the student. The details of this aspect of the policy are outlined in the *Special Education Handbook*. When a student seeks enrolment, the school principal, in consultation with the parents or carers and the members of the school’s Learning Support Team, and in the case of deaf or hard of hearing students, advisors such as an itinerant support teacher, appraise the student’s needs and goals collaboratively with the parents, whose expectations are taken into account. If it is decided that the student requires additional support, such as an itinerant teacher, an application is made to the district placement panel. It is also, at that point, rigid classification of students occurs, whereby degree of disability is determined through specific assessment procedures. In the case of deaf or hard of hearing students, they must have a bilateral sensorineural hearing loss, with an average loss of 30 dB in both ears. As well as this, any special needs in the area of communication, or academic performance, must be able to be deemed to be a result of the hearing deprivation. This process, is no doubt, a response to McRae’s (1996) recommendation that there be an, “Equitable distribution of available resources regardless of location or setting” (Epstein-Frisch, 2000, p.22).

An alternative to itinerant teacher support, may be an educational provision determined to be necessary by the team. This may be a support class, resulting in an application being made for the student to enrol in such a class. Power and Hyde (2002) stated that in most Australian states this formal system, often called an “ascertainment” process, existed. In rural regions, where special classes do not exist for deaf and hard of hearing students, no alternative recommendations can be made, because there are no support classes available. It would appear that this constitutes expediency, not a direct response to any policy.

Legislation, and policy, are clearly facilitating the move of children with disabilities, away from segregated school settings, towards integrated settings, including deaf students. As a consequence of this policy, parents have taken the opportunity to

enrol their severely and profoundly deaf children in regular schools, especially in rural areas, where segregated educational provisions do not exist, and where it is not legal for schools to deny them enrolment.

A DET document titled *Learning Together* (DET, 1999), which was distributed to schools to elucidate their responsibilities in regard to the enrolment and education of students with disabilities, sought to document not only the legalities involved, but also that schools must provide access to the full curriculum, and provide for the communication needs of students with disabilities. It stated that schools must comply with the Disability Policy Framework by, “providing appropriate support for students to access the full curriculum and meeting their educational needs”, and noted further that it relates to, “more than just physical access - includes communication and attitudes (OHT 7)”. This means that schools are expected to provide full curriculum access, and to meet the communication needs of students, who have high degrees of deafness. This expectation is expressed without reference to the varying degrees of difficulty that the provision of such conditions imply, in the case of severely and profoundly deaf students, and which in the past have proved problematic.

In the document *Learning Together* (1999), reference is made to philosophical statements, such as the *Salamanca Statement*, in order to describe the best way to educate children with disabilities in regular classrooms. Reference is made to an “inclusive” school, but it does not explicate, exactly, what features such a school exhibit. Rather, it suggests that teachers become aware of what inclusive features are. In a section of the document, titled *Effective Classroom Programs*, (Handout 7), practices such as: (1) adaptations to curriculum and instruction; (2) a range of planning, teaching and assessment strategies; (3) a shared curriculum; (4) individualism of the curriculum, assessment or instruction and additional support; (5) those with the greatest knowledge of the student to be involved in determining priorities; (6) prioritising content, determining patterns of study, using technology and support staff; and, (7) sound general teaching methods, are suggested. Also positive teacher attitudes and expectations are noted as requirements, and probably constitute what is referred to as inclusive classroom practices, as well as the notion expressed in the statement, “An inclusive school therefore, is measured by the degree to which each and every student in it is provided for and is successfully achieving, rather than by its type or category” (p.4). The “type” or “category” refers to the range of educational options available and offered by the DET, including special schools, support classes in regular schools, and enrolment in regular schools, all of which the DET acknowledge are relevant and necessary educational placement options, as a result of DET policy.

Segregated placements, for deaf students in country areas, are not available options currently, although it is possible that such an option could be created if there was a perceived need. DET policy does not preclude segregated placement options, as stated; in fact it endorses a continuum of services. It just doesn't provide any segregated options in country regions. As a result regular schools are in the position of being required to provide appropriate educational programs for the students. Policy is generally guided by the principles that all children can learn, that instruction should be individualised, that the local regular school may be the logical place for enrolment, and that regular class teachers have the responsibility to meet the needs of all the students in their classes (Dempsey, Foreman, & Jenkinson, 2002).

Current practice is that parents present their child with a hearing impairment at the local school, at which point a request for special assistance in the form of itinerant teacher and possibly a notetaker / interpreter, is made. The DET personnel then undertake to provide whatever level of support is deemed appropriate, given the level of hearing loss and communication needs of the student.

2.6 Conclusion

It is apparent that philosophy, legislation, and policy combine, to create a climate in which students, with all manner and degree of disability, are educated together in regular schools and taught by teachers who may have had little, if any, experience of the particular disabilities the children possess. Teachers are expected to cater for their complex needs in an appropriate manner, conforming to the dictates of the combined weight of philosophy, legislation, and DET policy.

The current situation is such that insistence on segregated educational settings for certain students is considered discriminatory. International law and philosophy have thus influenced Australia in making it illegal to discriminate against an individual on the grounds of their disability, which includes denying them enrolment in their local school. Litigation supports this doctrine in practice, and DET policy mandates every student's right to an inclusive education with access to the complete curriculum. As a consequence of the changes associated with inclusion, special education has in a practical sense, merged with regular education. Teachers, once not required to deal with students with a variety of disabilities, are currently required to do so, with the assistance of special education teachers. This has not occurred without a good deal of criticism from both sides of education.

The students, currently presenting for inclusion in regular schools, include severely and profoundly deaf students, because in rural regions there are no DET residential, or day facilities operating. It is not apparent, or referred to in any of the above dictates, what the special and unique characteristics associated with high degrees of deafness are. Deafness has a marked impact on the manner, and nature of language acquisition, which contributes to difficulties in learning, becoming literate, and performing associated academic tasks. For this reason, deaf children in the past, were thought to be too difficult for regular schools to educate adequately, and as a consequence were educated in segregated settings, using special devices and techniques to overcome the difficulties, with specially trained teachers.

The next chapter addresses the issue of language acquisition generally, and how it differs for hearing, and deaf students. In the past, the differences in language acquisition for deaf students were considered so significant, as to necessitate special educational treatment.

This chapter has explained why deaf students are currently enrolled in local schools alongside non-disabled students. It is clear that this is a practice, which is enshrined in legislation, and philosophical dogma associated with human rights. It is not a situation about to be reversed. For this reason, the discussion on the paradigmatic dichotomy concerning how inclusion is viewed and assessed is significant.

There is little value in merely attempting to determine which is best, segregation or inclusion; inclusion is an established fact. It is more productive to embrace the ethics paradigm and attempt to determine what it is, that makes inclusion work. Consequently it becomes apparent why it is necessary to know why the particular students in this inquiry, were in their particular schools. The Particular Etic Issue Question to be addressed is, “Why was the severely and profoundly deaf student enrolled in their current school?” The answers could reveal that it was the preferred option of the parents and carers of the students, who may have expected an education whereby their children participated in a regular educational curriculum. It may, alternatively, have been a forced decision with no realistic alternative available. While acknowledging these human rights issues are compelling, meeting educational needs concurrently is not necessarily assured.

CHAPTER 3 LANGUAGE ACQUISITION AND DEAFNESS

Issue 2 The linguistic and educational needs of deaf students

3.1 Introduction

The previous chapter addressed the question of why deaf students with high degrees of deafness are educated in local regular schools. It also demonstrated that the inclusion movement, which is responsible for this phenomenon, applies to all students. Ramsey (1994) stated in reference to legislation designed to ensure equality of opportunity for individuals with disabilities:

The most serious result is that the civil and educational rights of all handicapped people, which indisputably must be guaranteed, gets confused with the specific educational needs of particular groups, like deaf students [Commission on Education of the Deaf, 1988]. Various kinds of students are collapsed into one class of persons on the grounds that they have identical need for access to educational opportunities and protection of their civil rights, even though they may have very different educational needs. (p. 43)

The philosophies and legislation behind and governing the inclusion movement do not take into account the linguistic difficulties associated with deafness, and assume that an integrated educational setting provides more effectively for deaf students than a segregated alternative. Children, who are congenitally deaf, experience difficulties in acquiring language and in learning to speak. Manual methods of communication, as an alternative to speech, have most commonly been associated with segregated school placement for deaf students. This situation is described in some detail in Chapter 4, which also describes the various educational placements for deaf students, including special schools, which still exist. Ramsey (1994, p. 45) stated that it was assumed that education in mainstream classrooms provided deaf students with the opportunity to develop a wider range of communication techniques (including intelligible spoken English) in order to be understood. In an article in *New Scientist* in 1990, Gail Vines described some of the difficulties for deaf students attempting to learn to communicate orally, which are quite often not understood by people unfamiliar with deafness. These problems have, prior to recent technological advances such as cochlear implants, been extremely difficult to address:

For prelingually deaf children—those who are deaf at birth or become so before they learn to speak—the ‘oral/aural’ approach is daunting. Because such children cannot monitor by ear the sounds they make, they have to learn to ‘monitor it by other senses—by vision, touch, vibration-sense, and kinesthesia’, says Sacks. ‘The prelingually deaf have no auditory image, no *idea* what speech actually sounds like, no idea of a sound meaning correspondence...the prelingually deaf must be *taught* how to speak, without any sense or memory of how it sounds. (p. 23).

Regular school programs are delivered orally for hearing students by teachers who are usually unacquainted with the complexities involved with the language acquisition and educational needs of deaf students. As most of the complexities centre on difficulties involving language acquisition, this chapter answers questions pertaining to that issue. It also answers questions about methods used to overcome the inability to hear, and about literacy learning for the deaf. When these questions are answered, it is possible to know what regular teachers must address if they are required to cater for the linguistic, literacy, and academic needs of severely and profoundly deaf students in their classes. For this inquiry, it is essential to understand how language is acquired by children generally, before it is possible to understand how deafness complicates the process.

The question of how deaf students acquire language, and how that has been addressed educationally in the past, and present, makes the recognition of conditions necessary for successful language acquisition in the current climate of inclusion for all students, possible. How the problem of language acquisition and academic learning has been addressed in the past, is dealt with in the following chapter. For the deaf, language acquisition and education are inseparable, as the latter is closely dependent on the former. This chapter, and the next, contribute to addressing the second Etic Issue Question, “How do deaf students perform in relation to their communicative and literacy ability?”

This chapter is organised to answer each of the questions listed below, in order that at its conclusion, the necessary conditions for language learning, for any child, are apparent, and also apparent is the impact of deafness on that process. It then becomes clear what regular schools need to be able to provide in order that language acquisition for deaf students is facilitated, so that they can benefit from the academic programs provided.

This chapter contributes to answering the second Etic Issue Question with the Topical Information Questions providing the background information necessary. The Topical

Information Questions are of two sorts, the Principal, and Contributing, information Questions that together supply the information from which the answers are derived.

Etic Issue Question 2

“How do deaf students perform in relation to their communicative and literacy ability?”

The Principal Topical Information Questions posed to answer this question are:

- 1) How do children acquire language?
- 2) How does language acquisition take place for hearing and deaf children?
- 3) How does the process of language acquisition differ for deaf and hearing children?
- 4) What devices and methods are used to overcome the inability to hear speech?
- 5) How does literacy learning take place for deaf students?

Contributing Topical Information Questions that assist in answering the Principal Information Questions and ultimately the Issue Question are:

Principal Topical Information Question 1

- a) What are the theories of language acquisition?
- b) What is the environmental model of language acquisition?
- c) What is the biological model of language acquisition?
- d) What is the social interactionist model of language acquisition?
- e) What is the impact of language on thought?
- f) What is the impact of language on thought for the deaf?

Principal Topical Information Question 2

- a) What are the similarities between acquiring a visual and auditory language?

Principal Topical Information Question 3

- a) What are complicating factors for deaf infants learning to communicate?
- b) What are the characteristics of the spoken language of deaf children?

Principal Topical Information Question 4

- a) What devices and methods are used to overcome the inability to hear speech?
- b) What are auditory aids?
- c) What are visual aids?
- d) What are some of the benefits or criticisms associated with these methods?
- e) What are some difficulties associated with language learning using artificial methods?
- f) What are the problems associated with interpreting?

Principal Topical Information Question 5

- a) How do deaf students learn to read?

3.2 How do children acquire language?

3.2.1 What are the theories of language acquisition?

This section contains a brief description of the principal, theoretical, models of language acquisition, which may account for human language development. The account is not exhaustive because there is no one definitive theory, which accounts for all aspects of language acquisition.

According to Bohannon and Warren-Leubecker (1989, p. 167) “A true theory of how language develops should, in some sense, organise the facts from these various sources (phonology, semantics, syntax, and pragmatics), generate testable and verifiable hypotheses, and provide an explanation of the acquisition process”. It appears that none of the extant “theories” qualifies in all of these ways (Fromkin, Rodman, Collins, & Blair 1990; MacWhinney, 1978; Pinker, 1979). Despite the lack of a comprehensive and empirically tested theory, a belief system about how language develops and how learning takes place is fundamental for those involved in educating any child. It is even more significant for those working with children who have difficulties in the areas of language development and learning, such as deaf and hard of hearing children. It is the belief system, which motivates teaching practice to the extent that, if a parent or teacher

believes in the concept of reward and punishment, it is more likely, that such strategies will be employed by them. As language acquisition is the basis for virtually all other forms of symbolic activity by humans, such as reading, writing, maths, and science, delayed language development can be devastating with effects spread across numerous domains of development throughout a lifetime (Warren & Yoder, 1994). Therefore, understanding how language is thought to develop should make it possible to replicate similar conditions if they are missing in the education of children with hearing disabilities.

The last 40 years has seen an enormous amount of research, both basic and applied, devoted to the discovery of facts about language acquisition. The development of a coherent theory has proved to be a daunting task (Bohannon & Warren-Leubecker, 1989; Campbell, 1997). Three basic models of language development—(a) the environmental, (b) the biological, and (c) the social interactionist—attempt to account for the process.

3.2.2 What is the environmental model of language acquisition?

The environmental model includes the behaviourist principles of Skinner and Watson. Language is explained as development of a series of behaviour changes brought about by changes in the environment, which serve as stimuli to which the organism responds. This process is known as classical conditioning. The associations formed between arbitrary verbal stimuli and internal responses are cited as the source of word meanings (Bohannon, & Warren-Leubecker, 1989; Fromkin, Rodman, Collins & Blair, 1990; Skinner, 1957; Zimmerman & Whitehurst, 1979). All behaviourist accounts of language acquisition assume that children's productive speech is shaped by differential reinforcers and punishment supplied by environmental agents such as parents. Behaviourists assume that child speech, which most closely approximates adult speech, will be rewarded, while meaningless speech will be ignored and thus punished. This model places a great deal of weight on the role of the caregiver who supplies the child with mature speech exemplars, as well as training in imitation of adult speech.

3.2.3 What is the biological model of language acquisition?

Those who subscribe to the biological model of language acquisition argue that language is innately human, based on a number of assumptions, the foremost being that language behavior is species-specific, unique to humans (Pinker, 1987; Chomsky, 1957). Associated with such assumptions is the belief that such behavior has a strong genetic basis and that patterns of language development are similar across different languages and cultures. In this model, environment plays a minor role in the maturation of language. It assumes that the language environment of a child does not provide sufficient data from which a complex adult grammar could be discovered through known learning principles.

There is a distinct gap between input and output in language learning (Bohannon, & Warren-Leubecker 1989; Pinker, 1987), that is, what the child hears in speech is only indirectly related to the formal grammatical rules that are assumed to be the end product of language learning. The biological model differs from the behaviorist approach in that it assumes that children are never specifically taught the forms of language. Children are never told which sentences are correct and which incorrect in the speech they hear, or through correction of their own productive errors (Bohannon, & Warren-Leubecker 1989; McNeill, 1966). Children are likened to cryptographers who must employ their inherent knowledge of language to decipher their mother tongue. This approach insists that the environment merely triggers the maturation of a physiologically based language system. Children progress towards maturation by testing their own evolving grammars against the data provided by the environment, called hypothesis testing, and which highlights the child's active role in the acquisition of syntactic rules (Pinker, 1987).

3.2.4 What is the social interactionist model of language acquisition?

The social interactionist model appreciates that children do come to the language learning task with incredible learning abilities but which are not language specific. Human biological abilities happen to conform to language requirements because language has been devised and developed by humans with certain abilities. In this model, it is believed that a child must have a systematic acculturation in the society in which he lives and must be exposed to interactions, which allow him to know his role in it (Bates & MacWhinney 1982; Fromkin et al., 1990). This approach recognises that many factors affect the course of development and that these factors are mutually dependent on factors that interact and modify one another. This means that not only will cognitive and social factors modify the development of language acquisition, but also language acquisition

will modify cognitive and social factors. In this way social factors must be explored as causal factors in language development.

Vygotsky (1978) stated, “the most significant moment in the course of intellectual development, which gives birth to the purely human forms of practical and abstract intelligence, occurs when speech and practical activity, two previously completely independent lines of development, converge” (p. 201). He explained that as soon as speech and the use of signs are incorporated into any action, it becomes transformed and organised along completely different lines. The creation of these uniquely human forms of behaviour later produces the intellect that becomes the basis of productive work. He stated that in his experiments that it was clear that speech was necessary while children were performing tasks, not only accompanying practical activity, but also playing a specific role in carrying it out. He stated that, in his belief, children solve practical tasks with the help of their speech as well as their eyes and hands, thus this unity of perception, speech and action ultimately produces internalisation of the visual field and constitutes the central subject matter of the uniquely human form of behavior.

Vygotsky’s theoretical perspective is frequently adopted as a framework for consideration of language development issues relating to children who are deaf or hard of hearing (viz., Cummins, 1989; Mayer & Wells, 1996; Paul, 1999). According to Vygotsky, the developmental roots of two fundamental cultural forms of behavior arise during infancy: the use of tools and human speech. Speech and action are part of the same complex psychological function. Speech not only facilitates the effective manipulation of objects, but also controls the child’s own behavior. At the early stages of language development, children learn to label an object and single it out from a field, at first embellishing it by expressive gestures, to compensate for the lack of more advanced linguistic abilities. Thus, by means of words, they are able to specify and separate items, overcoming the natural structure of the sensory field and forming new artificial structural centres involved with speech and labels. At this time the child begins to perceive the world not only through his eyes but also through his speech.

The immediacy of natural perception is supplanted by a complex mediated process, thus speech, a mediator, becomes an essential part of the child’s cognitive process. Aspects of external, or communicative speech, as well as egocentric speech, turn “inward” to become the basis of inner speech. Thus egocentric speech is the basis of inner speech, and in this way speech serves as a facilitator to action, which it precedes, thus functioning as an aid to planning. As development continues, speech assumes a synthesising function, which is instrumental in achieving more complex forms of cognitive perception.

Signs and words serve children first and foremost as a means of social contact with other people. The cognitive and communicative function of language then becomes the basis of new and superior forms of activity in children. Vygotsky said that the greatest change in children's capacity to use language as a problem-solving tool takes place somewhat later in their development, when socialised speech, which has previously been used to address an adult, is turned inward so that they can appeal to themselves: language thus taking on an intrapersonal function in addition to its interpersonal use. Initially, in the early stages, speech accompanies the child's actions, and at a later stage it moves to the starting point so that it comes to precede action, functioning as an aid to planning. From the very first days of the child's development, his activities acquire a meaning of their own in a system of social behavior.

Vygotsky (1978) argued that second order stimuli, either signs or speech, require an intermediate link between the classic stimulus and response. The individual must be actively engaged in establishing such a link. The sign possesses an inwardly directed action operating on the individual. Sign-using activity in children is neither simply invented nor passed down by adults; it arises from something that is originally not a sign operation but becomes one after a series of qualitative transformations involving social interaction. The internalisation of cultural forms of behavior involves the reconstruction of psychological activity on the basis of sign operations. Indirect, or mediated, aspects of psychological operations are an essential feature of higher mental processes. The internalising of socially rooted and historically developed activities is the distinguishing feature of human psychology.

The social interactionist approach posits that the structure of human language may have arisen due to the social-communicative functions that language plays in human relations. It is unlike the behavioral approach, which views children as passive beneficiaries of the language training of others. While the biological approach acknowledges that children can affect what parents say to them, the social interactionists argue that children cue their parents into supplying the appropriate language experience that the children require for language advancement. They see children as dynamic in the language system with each partner requiring the other for efficient social communication at any point in the development and in the improvement in the child's linguistic skill (Bohannon & Marquis, 1977; Bohannon & Warren-Leubecker, 1989; Nelson, 1977).

This section has briefly examined the theoretical models of language acquisition, without attempting to be a comprehensive exposition of any of the models in their entirety. In having a general understanding of the similarities and differences among the theoretical models, it is possible to recognise instances, in actual situations, which may be

accounted for by the theories, and which warrant further examination of the literature at the relevant point. In this inquiry the performances of students and teachers are examined. Therefore, it is necessary to understand their behaviours in light of possible theoretical explanations.

3.2.5 What is the impact of language on thought?

The cognitive approach of Piaget shares important features of the biological approach to language acquisition (Bates & Snyder, 1985; Bohannon & Warren Leubecker, 1989). Both maintain that internal structures are the ultimate determinant of behaviour and that language is a symbolic system for the expression of intention and meaning. The most important difference is the Piagetian belief that language is not a separate innate characteristic but rather only one of several abilities resulting from cognitive maturation. Johnson (1985) stated that the real challenge was in identifying the specific points, at which developments of nonverbal cognition help determine the course of language acquisition. Slobin's (1973) cross-linguistic studies examined children learning linguistic patterns, which are "easy" or "difficult" to learn. He stated that the necessary resources are of two sorts, conceptual and factual knowledge that give rise to communicative intentions, and cognitive rule processing mechanisms, which participate in rule formation. The latter are assumed to remain constant and the former to change with experience and maturation. Conceptual notions must be acquired prior to verbal expression. According to Johnson:

Young children's utterances frequently suggest that they know what they want to say but have not yet learned how to say it. This gap between evident intention and mastery of linguistic means, is particularly striking when children resort to idiosyncratic forms, but it can also be seen when they draw on familiar, standard forms to express new meanings agrammatically. (p.965)

Vygotsky (1978), on the other hand observed that children solve practical tasks with the help of their internal speech, as well as their eyes and hands. He emphasised that speech not only facilitates the child's effective manipulation of objects but also controls the child's own behavior, and suggests the primacy of language.

These theoretical descriptions of language development, and its impact on thought, highlight the complexity of the process. Whatever the true explanation of language development may be, it is evident that learning language is not something that can be taken for granted if the right conditions do not exist, as exemplified in the case of

deaf children who do not attain spoken language mastery comparable to hearing children. The fact that deaf children have difficulty suggests that the elements they are missing in their environments contribute to their failure and point to the need for those missing elements to be provided by whatever educational system that serves them.

Two very important features, which have appeared in the literature cited so far, are the interactive nature of language development and the active role children play in making sense of the input they receive. With this understanding, it would seem likely that deaf children in regular schools would require opportunities for social interaction and that they would need to be given opportunities to make sense of the input they receive.

3.2.6 What is the impact of language on thought for the deaf?

Marschark and Everhart (1997) suggested that individuals, who lack coherent, rule-governed language, would have cognitive processes somewhat different to those who have formal language. This does not imply that an informal arbitrary system prevents thought or the potential for cognition. They also quoted studies that supported the interactionist view that what children hear influences what they say, do, and think. Siple (1997) stated that according to Vygotsky and White (1987), deaf children, because of their reduced verbal ability, will develop different conceptual representations of the world and may never achieve abstract conceptual thought. Vygotsky's suggestion that children need to be able to use inner speech to mediate their actions and solve problems, if correct, suggests that without inner speech, problem solving and thought enhancement would be curtailed. It also suggests a significant potential for difficulty with literacy acquisition (Mayer & Wells, 1996).

Siple (1997) noted that data from deaf individuals and the study of sign language had been used to support all the major positions on the origins of cognition and language and the relationships between them. She suggested that the influences on language acquisition were not constant but differed for different aspects of language development. Siple stated also, that learning a first language naturally provided the basis for later second language learning. This view could then be extrapolated to suggest that if a first language, which is visual, is acquired naturally, it may follow that the learning of a second language, which is auditory, may be enhanced.

On the other hand, Lillo-Martin stated (1997) that it had not been established that language, any language, is a prerequisite for certain cognitive functions. The conclusion was that some thought, at least, was possible without language. She also stated that auditory deprivation leads to brain re-organisation independent of early language

exposure, so that the modality through which language is first acquired significantly impacts on the fundamental specialisation of the two cerebral hemispheres for non-language processing. Lillo-Martin also stressed the importance of being exposed to an accessible language so that language can in fact be acquired.

In discussing the development of human language, Bellugi (1991) stated that it had been thought that hearing and the development of speech were precursors to cerebral specialisation for language. However, linguistic research has shown that the human capacity for language is not limited to the vocal auditory modality (Bellugi, 1991). Deaf children of deaf parents acquire a sign language in much the same way that hearing children acquire a spoken language (Bellugi, 1988; Newport & Meier, 1985).

Siple (1997) maintained that most deaf children acquired some knowledge of spoken language through lipreading, which may provide the basis for further acquisition of spoken language through reading and writing. Everhart and Marschark (1997) suggested that the child maps language onto the world, with the pre-eminence of cognition over linguistic processes. How this actually takes place has not been satisfactorily explained to date.

From the literature cited above, it appears evident that in providing a systematic, arbitrary symbol system for communication and mental representations, language allows the individual to go beyond the here-and-now and beyond the concrete and linear. It is evident also, that the language learning process is not dependent only on the vocal and auditory modalities. It has been suggested that auditory deprivation impacts on the fundamental specialisation of the two cerebral hemispheres for non-language processing and that the thinking processes of the deaf and hearing may be quite different. Because of the lack of verbal ability, deaf children may develop different conceptual representations of the world. This has significant potential implications when deaf children are included in classes where teaching methods are designed for the ways hearing children perform and which may not take into account the different thinking processes occurring in the deaf.

3.3 How does language acquisition take place for hearing and deaf children?

3.3.1 What are the similarities between acquiring a visual and an auditory language?

Children acquiring a visual language such as ASL, or Auslan, progress through many similar stages to children acquiring a spoken language, notwithstanding the similarities and differences in the two language systems. Newport and Meier (1985)

described ASL as a morphologically complex language, comparable to polysynthetic languages but differing in at least two ways. First, because of its non-linguistic roots in gesture and pantomime, some “iconic” characteristics remain, despite grammaticisation and, secondly, because of the visual-gestural perception and production, much of ASL phonology and morphology consists of units combined with one another simultaneously, rather than sequentially. This has implications for the acquisition of ASL where initially sequential, rather than simultaneous morphemes occur (Newport & Meier, 1985). Unexpectedly, the iconicity of signs does not appear to enhance acquisition; instead, deaf children seem to proceed in sign language acquisition in ways that are analogous to spoken languages. Deaf children have a developmental preference for free morphemes to precede bound morphology and the tendency to rely on syntax before the development of morphology. Thus, they have a preference for linear sequences over co-occurring or layered structures (Snitzer Reilly, McIntire, & Bellugi, 1990).

Bellugi (1988) stated that it appears that deaf children who have early exposure to processing spatial relationships in a linguistic system perform at the same level compared to norms for hearing children, “Yet in our studies of the acquisition process we have found that deaf and hearing children show a strikingly similar course of development if exposed to a natural language at the critical time” (p. 182). Bellugi, Bihrlé, and Corina (1991) stated that:

What is found in fact is that children’s acquisition of ASL proceeds on exactly the same timetable, and with the same developmental milestones as hearing children’s acquisition of spoken languages such as English. Moreover, there is no evidence that the necessity of developing spatial cognitive abilities in any way delays linguistic development in the deaf signing child: on the contrary the evidence points to a selective enhancement of spatial processing abilities. (p.389)

The implications to be drawn from this discussion are that, given appropriate access to interaction with mature users of sign language, deaf children can acquire sign language naturally in the same manner as hearing children acquire an auditory language. It appears evident that the process is similar in nature to that experienced by hearing children acquiring an auditory language. Thus, deafness itself cannot be blamed for the lack of language acquisition, but rather lack of appropriate linguistic input and interaction. It is understandable that, without correct linguistic input for deaf children, the natural process would be curtailed to such an extent that a natural language might not result. Notably, lack of access to a natural language will be likely to impact on thinking abilities to some extent. With thought processes that may be somewhat different to those

of hearing students, deaf students who are expected to perform in learning environments set up to cater for hearing students, could find learning in regular schools to be problematic. Similarly, for deaf children who find spoken language acquisition difficult and for whom a visual first language is not a possibility, academic learning in a regular school could also prove difficult.

The listening capacity of hearing children can be in sharp contrast to that of children with differing degrees of deafness. Thus, a reduced listening capacity accounts for many of the difficulties experienced by those with imperfect hearing. Studies carried out by researchers such as Jusczyk (1997) have shown the remarkable auditory-perceptual skills of hearing infants, and the amount of auditory learning that takes place in the years prior to school.

The studies reported by Jusczyk, clearly illustrate the extent of linguistic input that children with intact auditory capacity receive. Infants in the first six months of life are able to discriminate speech sounds along a number of different dimensions, such as voicing, place of articulation, and manner of articulation for both vowels and consonants. Not only are children in possession of remarkable cognitive skills, which predispose them to learn language, hearing children are in possession of remarkable auditory processing skills. As Jusczyk (1997), and others, have suggested, even in the first few months of life, real language learning is taking place based on the infant's auditory involvement with their native language. For deaf children who do not have sufficient linguistic input in this period, the implications are particularly significant. For deaf children that are not exposed to a natural visual language in the home at this stage, early compensatory measures are of the highest importance.

3.4 How does the process of language acquisition differ for deaf and hearing children?

3.4.1 What are complicating factors for deaf infants learning to communicate?

Kretschmer and Kretschmer (1999) explained how in English acquisition, child rearing practices and communication between infants and their caregiver's focus on the development of turn-taking, topicalisation, and on sustained reciprocal conversational interchanges. Mohay (1992) stated that numerous researchers had found that childhood deafness distorted these normal patterns of mother /child interaction. Hearing mothers of deaf infants experienced considerable difficulty establishing communication. Because hearing mothers appear to find their deaf infants difficult to interpret they have problems responding to them appropriately and often adopt a didactic style in the relationship. In

addition, the establishment of joint attention and the utilisation of the situation for language input can be problematic. Meadow-Orlans, Turk, Spencer, and Koester (1992) reported higher levels of stress in families with infants who were deaf or hard of hearing.

When both participants are hearing, linguistic input can simply overlay an activity. When the child is deaf, visual attention must be split between the activity and the mother, if relevant linguistic information is to be conveyed. The problem is exacerbated by the need for attention to objects or events and the related language input, which must occur sequentially rather than simultaneously.

Kretschmer and Kretschmer (1999) stated that there is strong evidence to suggest that the introduction of disability into the relationship between parents and young children has the potential for disrupting early discourse patterns. Once parents are told their child has a disability, such as a hearing loss, it alters their belief patterns concerning the child's ability to learn how to communicate, which can lead to disruption in typical child rearing practices, which in turn leads to decreased opportunities for engaging in the discourse experiences that allow for social knowledge and language patterns in English (Gumperz, 1982; Milroy, 1987). Early advice from therapists and early intervention specialists often leads to encouraging "teacher" behaviours in parents rather than encouraging them to embed language in the social and communicative exchanges of the family. If parents are encouraged to be the primary language models, children are more likely to be able to benefit from communicative abilities, which are more age-typical.

Children with hearing losses, therefore, have two major tasks to perform early on in life. One is making sense of speech and refining the ability to control vocal-motor patterns, if their input is through the auditory modality. The second task is the development of expressive language competence. If the input is of a visual-gestural nature, the child has to develop skills in the visual-manual modalities but still must develop the competence in expressive language, which reflects the discourse strategies of the community of sign language users.

Reflecting on the linguistic learning that takes place early in infancy for hearing children as explained by Juszcyk (1997), and given the impact of a hearing loss on communication for an infant from a hearing family, it becomes obvious how this problematic situation would need to be redressed. Clearly there is a need for communicative deficits of a deaf child to be compensated for early in their development. It is apparent why appropriate linguistic input for a deaf infant is essential early in their development, just as it is apparent why ineffective language learning that takes place when the necessary conditions are not provided. When hearing impairment reduces auditory input and is allowed to impact negatively on the social interaction between

parents and deaf infants, imperfect language is the result. This is frequently not the case for deaf children of deaf parents who may engage in effective communicative interactions using a natural visual language. This phenomenon can be accounted for by the social interactionist view of language acquisition, which stresses the importance of meaningful interaction for language to develop. When adequate language-based social interaction occurs, either a visual or auditory language may be acquired as a first language.

3.4.2 What are the characteristics of the spoken language of deaf children?

Almost 30 years ago, Kretschmer and Kretschmer (1978) stated that, regardless of whether deaf children use auditory-oral or manual-visual communication as a means of accessing language for their education, there remained a high probability that the linguistic and educational potential of most deaf children would be unrealised. Campbell (1997, p.117) described the differences between hearing and deaf children learning language through speech by suggesting that the hearing baby lives in a nourishing environment of human speech from which the relevant critical phonological contrasts and distinctions that indicate word meaning and utterance structures can be accessed as required.

Deaf children, on the other hand, may be deprived of spoken language-related input during the crucially important early years. They may have only partial access to speech by viewing the speaker. Not only is deafness responsible for loss of linguistic input, acoustic input of a referential nature is lost as well. The multi-modal events, which have a strong effect in orienting the child to regularities of the world, which are important for the development of cognitive and linguistic capabilities, are lost.

A succinct and comprehensive description of the likely linguistic performance of deaf children is difficult, given the numerous and differing circumstances in which language develops. These include acquisition modalities, degree of hearing loss, familial background, and teaching philosophy. This diversity is coupled with the diversity of language forms themselves, which includes oral language, signed and or fingerspelled language, as well as read and written language. Despite the difficulties in providing a definitive, precise, and concise, description of the language capabilities of deaf children, these capabilities could be described in general terms as having different characteristics to that of hearing individuals.

Differences occur in the areas of syntax, semantics, and phonology—the formal aspects of language—as well as the pragmatic aspects of language use. Kretschmer and Kretschmer (1978, p. 126) described some “distinct syntactic structures generated by deaf

children". These features included deviations in verb systems, the use of negation, and the use of conjunctions, complementation, relativisation, and question formation. The extent of the occurrence of these problematic features usually reflects a child's severity or degree of hearing loss. Ling (1976), similarly, noted, "the speech of deaf children differs from normal speech in all regards" (Ling, p. 12). Usually it follows that the more severe the hearing loss the more severe is the impact on both speech and language.

In the case of writing, Kretschmer and Kretschmer (1978) described the self-generated compositions of deaf subjects as uniformly rigid and simple, with problems ranging from formation of simple sentence frames, to incomplete mastery of the lexical items inserted into the sentence frames. Deaf children were described as having difficulty with base structure, and with the use of articles, verbs and prepositions (p.121).

The deaf writer's approach was described as a sentence-by-sentence task, rather than as a discourse task. It was concluded that many deaf children do not master the base structures necessary to generate even simple English sentence frames. In summing up the discussion on abilities of deaf students to generate spontaneous composition, Kretschmer and Kretschmer (1978) concluded that deaf subject's written language was consistently immature and less accurate when compared to hearing counterparts. They noted also that deaf children rely on surface structure organisation in both comprehension and production of English sentences. Deaf children were described as producing very esoteric word arrangements. Consequently, their ability to use language to aid memory, or to understand the implications of discourse organisation and functions of English was limited. It was suggested that the linguistic capabilities of deaf students could be viewed as delayed in nature, deviant in nature, and dialectical in nature. It was not suggested that deaf student's linguistic performance was monolithical in nature, but fragmented, due to the degree of their English fluency (p. 129).

It is easy to appreciate how deficiencies in the acquisition of a first language, either auditory or visual, and the resultant linguistic idiosyncracies, could impact on how easily a child could perform in a regular classroom where other students, by and large, possess intact linguistic capabilities. If a child does not possess an arbitrary symbol system for communication and mental representation, one could well ask how their communication and academic needs could be met in a regular classroom. It becomes apparent why the issue of language acquisition and linguistic capabilities of deaf students included in regular schools is so significant. Deaf students who are included in regular classrooms without comparable capabilities to their hearing counterparts will clearly be at a disadvantage. Whether that disadvantage can be overcome by teachers, unaware of the

linguistic complexity of such a situation, is at the heart of the issues addressed in this study.

3.5 What devices and methods are used to overcome the inability to hear speech?

In the section on auditory input for hearing children, it was shown that hearing children possess capabilities which facilitate spoken language acquisition. For deaf children of deaf parents, it has been shown equally that given the right linguistic circumstances they too can acquire a visual language through visual capabilities. The fact remains that the majority of deaf children do not have the opportunity to acquire a natural visual language because less than 5% are born into deaf families (Karchmer & Mitchell, 2003). The vast majority has hearing parents (Swisher, 1989), and the strategies used to compensate for the lack of auditory acuity quite often centre on trying to compensate for that deficiency. Methods either involve devices to reduce the hearing deficit or attempts to provide supplementary visual aids or systems of communication.

3.5.1 What are auditory aids?

The forms of auditory input available to deaf children are provided either through amplification of sound through a hearing aid, which is designed to boost speech sounds to a level of intensity above the threshold of the person's residual hearing, or through a cochlear implant, which is designed to replicate the inner ear function rather than amplify sound. Despite possible claims to the contrary, neither device works equally well for all children and "success" can be varied. Klieve, Cowan, Galvin, and Clark (1997) stated that cochlear implant users display similar difficulties with noise to that of hearing aid users, with implant users being possibly unable to perceive speech as effectively in adverse listening conditions. Deaf children are often in situations with less than advantageous signal-to-noise-ratios, especially in noisy classrooms.

Australian Hearing (AH) provides diagnostic and hearing aid fitting and maintenance services free for deaf children and young people up to the age of 21 years. Nevertheless, amplification, in the case of hearing aids, and the input available from a cochlear implant, may be either fragmentary, or distorted, and not sufficient for the individual to develop spoken language adequately. To overcome some of the difficulties associated with noisy classrooms in particular, AH also provides deaf children with FM radio frequency aids, which help provide a better quality auditory signal in noisy listening environments. These help overcome the effects of distance, can greatly reduce the effects

of background noise and reverberation, and can improve the quality of the sound reaching the student in poor listening conditions (Hear and Now, Issue 1, 2001). As a receiver has to be worn by the student, and a transmitter by the teacher, not all students respond well to the need to be so closely associated with the teacher, or with the constant intensity of the input.

The number of small children being implanted with cochlear implants is increasing in Australia. In the last twelve years, over 350 Australian children have received a cochlear implant via The Sydney Cochlear Implant Centre, which was established in 1987 as the Children's Cochlear Implant Centre (http://www.stgeorge.com.au/about/foundation/special_prople/implant.asp?orc=about). Children who have received an implant have presented in rural districts, such as the one in which this inquiry was carried out, to be educated in regular classrooms. In 2003 in the educational district in which this inquiry was conducted, there were 9 such children while 10 years previously there had been none.

3.5.2 What are visual aids?

It has frequently been argued that a manual representation of English will provide deaf children with a complete picture of English. In practice, this system of "signing English" has often been used by teachers while they continue to speak, thus enabling the children to listen and lipread as well. In this way it was thought to provide the continuing benefits of oral /aural input to enable the development of speech, speechreading, and listening, at the same time as learning the structure of English. This practice is referred to as simultaneous communication (Leigh & Hyde, 1997) and may be referred to in the literature as Total Communication, (TC), or Manually Coded English (MCE), which uses a formal system of signs like the Australasian Signed English (ASE) system to represent spoken English. MCE is probably the most generic term. Although visual-gestural in nature, MCE is not the same as Auslan, which is a natural language (as are American Sign Language [ASL] and British Sign Language [BSL] for example) and it is not structurally the same as English.

Another visual source of linguistic information is lipreading, which has been referred to above and which may be limited in two major ways (Swisher, 1989). Firstly, because the deaf person must be looking at the speaker's face, conversation behind the deaf person's back, or information the deaf person is not directly focusing on, is not available as input. Consequently, trying to follow a multiparty conversation is particularly difficult. Secondly, the linguistic information available on the lips is far from

complete, with many sounds visible on the lips appearing identical. Some sounds produced far back in the mouth are not visible at all. In casual speech approximately 40% of the phonemes are visible (Swisher, 1989). An associated problem is that lipreading skill is correlated with the language level attained by the individual. If a person knows the language already, there is a greater possibility that he or she will lip read effectively, although this is not assured.

To overcome some of the difficulties involved with lipreading cued speech is a manual method devised to disambiguate the sounds of speech, which appear the same on the lips or are invisible, by the hand movements produced by the speaker as they speak (www.cuedspeech.com). Fingerspelling is another manual visual means of representing words through the use of finger movements to represent the letters of the alphabet to spell English words (Johnston, 1989).

It has also been suggested previously that reading, which is a complete version of written English at least, should be able to assist in the learning of English. Swisher (1989) explained that, although it may seem theoretically possible to provide complete grammatical input via reading to deaf children, this is not, in practice, a real possibility. She cited studies that showed that the average adolescent deaf student at the completion of secondary school had no better reading skills than a third or fourth grade reader. Reading is unlike conversation which focuses on the here and now—“semantically contingent speech” (Swisher, 1989, p. 245) (reading and deaf students is dealt with in more detail in Section 3.6).

3.5.3 What are some of the benefits or criticisms associated with these methods?

As with most other aspects of language acquisition for the deaf, and deaf education, debate surrounds methods developed to compensate for lack of auditory perceptual capabilities. Criticism about MCE centres on the visual load it imparts on the recipient (LaSasso, 2000). As vision is directional, the amount of signed information reaching the person is limited by the fact that one needs to be looking in the direction of the signer. Not all hearing families of deaf children learn to sign, and as 95% of deaf children are born to hearing parents, the child may not receive any signed input at home (Swisher, 1989). Parents, whether their child is hearing or deaf, are ultimately responsible for providing the optimum language learning environment for their child (LaSasso & Metzger, 1998). The home environment may be fully accessible, with interactive spontaneous communicative exchanges, or contrived and formal. LaSasso and Metzger cited Schlesinger's (1988) findings that hearing mothers of deaf children reported

powerlessness over their ability to communicate with their child. This is not a problem of deaf mothers of deaf children (Mohay, 1992). Even if a signed code is used at home, Swisher suggested that it is often only the mother who learns to sign and not always with a high degree of fluency, and messages signed specifically to the child, may be all that are produced:

When signing is used in the home, it is often only the mother who learns to sign with any degree of fluency, and she may sign only messages intended for the child, but not those directed to other family members. Signed input produced by mothers also tends to be reduced, vis-à-vis the spoken message. (p.243)

Similarly, Leigh (1994) concluded that for this majority of deaf students born into hearing families, communication difficulties at home often create situations in which the children enter school developmentally behind other children and with impoverished social skills and experiences. Johnson, Liddell, and Erting (1989) explained that for a hearing person trying to sign and speak simultaneously, the task is overwhelming resulting in either one or both of the parts of the signal deteriorating. This may involve omitting signs randomly, or by deleting those signs that do not fit the rhythmic pattern of English. At the same time, the spoken signal may be slowed down, and altered phonologically, and characterised by hesitations, halting, repetitions, or other delaying tactics, so that much of the communication is unintelligible.

In Australia, MCE involves a combination of deaf signs from visual languages, with fingerspelling and contrived signs, with the purpose of manually representing English, word for word, and morpheme for morpheme. This manual version of English currently comes under a good deal of criticism for a number of reasons, such as those mentioned above, including criticisms from Johnston (1989), who stated, “something which is not understood when written in English is no more likely to be understood when signed in English” (p. 473).

Swisher (1989) suggested that signed codes for spoken language have been termed “secondary” sign languages, and are parasitic on spoken languages, as they use the linear structure and grammar of spoken languages, while employing the manual representations of words borrowed from natural sign languages. Supalla (1991) contrasted MCE to ASL in that it does not rely on spatial devices as possible morphological markers. Although MCE uses a lexicon that borrows heavily from ASL, its morphology is strictly sequential. The borrowed sign’s spatial components do not play a grammatical role. Inflections in MCE involve non-spatial form utilising invented signs that map one-to-one to English morphological markers. The codes are not used by deaf

adults and probably have no community of users for whom they are a first language, (Swisher, 1989).

Newport and Meier (1985) suggested that children exposed to manual signing systems often creolize them into systems that are more like natural visual languages (e.g., Auslan), possibly because they are slower to articulate on the hands, than with the tongue. Signed English must mirror English, which is an analytical, or a fairly “isolating” language as opposed to a visual language, which has agglutinative morphology, allowing for much greater speed, involving single forms carrying multiple meanings. A single signed word, despite its complexity, will be produced faster than several separate words (Gee & Goodhart, 1985). Therefore, Signed English, even if given as consistent input to a deaf child, may not be adequate to meet Slobin’s (1973) charges to language. It is possible that a signed code may overextend a deaf interlocutor’s capacity to process a language unit, because of the greater time taken to produce a sentence, thus being too slow and redundant in a way that is uneconomical linguistically. Gee and Goodhart suggested that systems such as Total Communication, which involve simultaneous spoken English, could be even worse than those that do not combine speech with sign, as the superimposition of spoken English forces the signing to be even more reduced and isolating.

Some authors (e.g., Maxwell, 1990), argue that simultaneous communication, as practiced by some teachers, is ungrammatical and virtually unintelligible, neither corresponding to the grammar of a visual language nor English. Reduced input is usually reflected in the differential representation of content words as opposed to grammatical functors, which may account for some of the difficulty deaf children have in acquiring the grammatical elements of the language.

Davies (1991) reported that researchers at the University of Stockholm decided that the deaf children studied there, learning a language they could not hear, were mainly involved in an “intellectual task”, or even a “memorisation” task, rather than an acquisition process. Johnson, Liddell, and Erting (1989) stated that:

There are no studies demonstrating that the sign supported speech movement has been successful in promoting English achievement...It is still believed, however, that ASL, while possibly a nice means of communicating socially, is unsuited for the educational process. (p. 9)

While criticism such as that described above exists, there are others who are able to point out the benefits provided by the manual representation of English under certain circumstances. Leigh and Hyde (1997) demonstrated that the attitude of the executor of

MCE was a predictor to its effectiveness. They stated that as deaf children's language was related to the quality of the exposure to a particular form of communication. They found that teacher effectiveness was dependent on a positive attitude to the communication method and suggested that teachers should be deployed on their demonstrated commitment to the use of such a communication mode. That position was also supported in findings from a study by Schick and Moeller (1992), which was designed to find out what was learnable through exposure to, and use of, English sign systems. Schick and Moeller found that the deaf students in their study had expressive English skills comparable to a hearing group for some features of English that reflected syntactic and lexical skills, but showed substantial deficits in inflectional morphological skills that were not predictive of the complexity of their language. It showed there were some aspects of English, which were learnable by sign code systems, and some that were not. They stated that the assumption that the use of a manual code for English would result in perfect native English proficiency was not sustainable, but noted that the students from the programs that sought to provide consistent and complete input, did show substantial strengths in their use of English. They also highlighted the capabilities of the MCE exponent. They showed that students who were educated in environments, which paid high attention to teacher capabilities, had sufficient English skills to serve as a foundation for the acquisition of reading.

Branson and Miller (1993) conceded that Signed English had possible educational uses as a vehicle for accessing English as a second language. In its ideal form, Signed English used manual shapes to represent English words, and allowed for a grammatical representation of English. However, they criticised the fact that, for the Deaf, these signs were often devoid of the phonemic level of meaning that is fundamental to the hearing person's reading of the written word, because the construction of written words is based on the arrangement of discrete letters representing sounds. Nevertheless, it is acknowledged that Signed English is a method of relating word for word spoken information in certain classroom circumstances, where text is being dictated, or processed, for the purpose of learning distinct skills of English, such as spelling, attention to grammatical elements of English, or taking notes.

The final word, on the matter, is supplied by LaSasso (2000), who reviewed research related to MCE systems. Some of the conclusions drawn were that while it was possible to infer that some students exposed to MCE systems did reach high levels of English literacy, most did not reach reading or writing levels comparable to their hearing peers. Others concluded that while some aspects of English appear learnable via MCE systems, others are difficult. Hypotheses about why higher achievement levels had not

resulted, involved structural limitation hypotheses, and degraded input hypotheses. It was suggested that much of spoken English was deleted or incorrectly coded into sign, by both MCE using teachers, and hearing mothers of deaf children. Problems were noted about the cognitive overload involved in simultaneous coding through two channels. The recent research findings quoted by LaSasso, suggest the inherent inability of MCE systems to convey English at the phonological level. As it is conveyed at the morpheme level in MCE systems, not at the phoneme level, it prevents the deaf from receiving complete linguistic information in English.

The debate about the benefits, or otherwise, of the use of a natural sign language as opposed to a manual representation of English in education is a continuing debate and far from resolved. The purpose of this section has been to present the arguments. It is not intended to arrive at any particular conclusions, but rather to acquaint the reader with them. This is true of the all the debates and points of view raised in this chapter. Conclusions and assertion relating to any of the theoretical, or philosophical positions, which have been presented here, can only be made when actual situations are examined and appraised in light of the points raised in this, and the next two chapters. For instance, if it is revealed that students perform well in regular schools using one of the methods described, assuming that it is being competently implemented, it is reasonable to conclude that the method has some value. The reverse is clearly, equally true. This applies also to the section describing language acquisition. Understanding the various systems, practices, or philosophies is a prerequisite to recognising their value when encountered in actual situations.

The students in the inquiry reported in this thesis, who used signed communication, all used Signed English in the school situation, as that was the prescribed method endorsed by the DET. Interpreting, another resource deployed to facilitate access to mainstream education by deaf students, is considered below.

3.5.4 What are some difficulties associated with language learning using artificial methods?

Swisher (1989) stated that the difficulty associated with learning an auditory language with limited input, is likely to lead to loss of motivation. For many students, not only speech production, but also the linguistic system itself, never becomes a first language that they can produce with grammatical competence. It may neither become a second language.

The colloquial terms “deaf speech” and “deaf language”, have been used to describe the distinctive features that individuals with hearing impairment often possess, and which are often the final outcome of their spoken language learning and school experiences (see Section 3.4.2). To date, it would appear that no perfect method of overcoming these difficulties has been devised. While each method or device is designed to overcome one or other of the perceived difficulties associated with deafness, no one method works well for all deaf students all the time. It is for that reason that new approaches and solutions are constantly sought. Criticisms of the various methods must be examined to determine if they apply in the actual situations examined in this inquiry.

Swisher (1989) pinpointed the essential difficulty in the cases where less than adequate language learning and academic learning resulted for deaf children. The difficulty is insufficient linguistic input. The previous section has described the characteristics of the manual representation of language used to compensate for lack of hearing and the auditory devices generally employed. If auditory enhancement or manual communication worked satisfactorily, providing comparable amounts of linguistic input that hearing children receive in every case, the issue about language development and linguistic input for deaf children in regular schools, would not exist. Auditory enhancement devices, to date, have proved to be imperfect substitutes for perfect hearing; visual enhancement devices have similarly had shortcomings.

According to Johnson, Liddell, and Erting (1989) the failure of deaf education to live up to its promised results was because of the deaf student’s fundamental lack of access to curricular content at grade level, as well as the general acceptance of low expectations for deaf students. Interpreting, into a signed form of communication, is a possible solution to the issue of deaf students’ need for clear access to classroom communication, but this strategy is also not without difficulties. The problems associated with interpreting are described below.

3.5.5 What are the problems associated with interpreting?

Johnson, Liddell and Erting maintained that educational programs in the United States, at the time they wrote their paper, presented curriculum material in a form not accessible to deaf children. Spoken English is potentially inaccessible to any deaf child, even those without profound hearing losses. If it were possible for deaf students to deal with plain, spoken English, there would be no problem. For profoundly, or prelingually deaf students, with little prior language experience, oral language exposure in school was described as unrealistic and unproductive, as was the verbatim visual presentation of

classroom communication in a signed form of English, if the student did not possess sufficient levels of linguistic competence to comprehend it.

Winston (1994) stated that interpreting was intended to be one of the primary tools for implementing an integrated education, and thus providing access to the curriculum. It is intended to provide non-fragmented input of the communication, which might otherwise occur in schools, and to be a representation of what is spoken in class. Various systems may be employed, including signing, and oral, or cued speech. It is argued that, if the dialogue of the classroom is made accessible through an intermediary, who either uses either the signing system the student used and/or takes notes, as in the case of a notetaker, the communication deficit will be overcome.

Innes (1994), described a situation in which even high quality interpreting, when provided, was inherently inadequate to the task of providing full access to classroom communication:

For normal communication to occur between students and teachers as well as with peers, deaf children, as is the case for all children, must have the opportunity for interaction with peers who share their language and mode of communication. (p. 155)

Stinson and Lang (1994) stated that while an interpreter can significantly increase access, compared to no signed support for communication, students were still not likely to be exposed to all relevant material, or to comprehend the material at a level similar to their classmates. The “unwritten curriculum” (Stinson & Lang, 1994, p.158), or the aspects of learning that fall outside the direct curriculum, but pertain to cultural and social behaviours, lose much when they have to be interpreted, and so further contribute to the general difficulties the deaf student may experience in social knowledge and performance.

Winston (1994) described a number of other problems associated with interpreting. Interpreting cannot provide a language model for a child’s acquisition of any language, and interpreting affects all social interaction by adding a third party, consequently excluding a deaf student from normal peer interaction, and communication with the teacher. Notetaking services are an alternative to interpreting, and pose their own set of problems for those who are not fully literate.

In a Family Advocacy report on inclusive education, authored by Epstein-Frisch (2002) it was noted, in regard to teacher aides who performed as interpreters for deaf children, that they were often used in ways that stifled, rather than nurtured, interaction between students.

Winston claimed that interpreters using English systems, might provide only a rough reflection of English, with the reality that interpreted messages are frequently reduced in structure and complexity, providing a student who probably already has limited linguistic skills, with less information than his classmates (Winston, 1994, p. 57). Someone who already knows English may be able to “fill in” missing information in a message, but someone who does not, cannot be expected to fill in those gaps accurately (Stinson & Lang, 1994). The demands of simultaneous interpreting (LaSasso, 2000; Winston, 1994) can place an extra toll on the perceptual capabilities of a deaf student, whom may have to attend to a variety of competing visual stimuli. Stinson and Lang (1994) stated that one reason why deaf students who use an interpreter may not appear to comprehend as much information with an interpreter, is because the demands of the simultaneous interpreting task are so great that the interpreter may be unable to provide an appropriate signed/transliterated version of the messages. Notably, Jones, Clark, and Soltz, (1997) stated that the most distressing finding in their study was in regard to the low level of qualifications of educational sign language interpreters. They stated that standards needed to be implemented (Winston, 1994; Jones, Clark, and Soltz, 1997).

The problems associated with a lack of experience on the part of the interpreters, and the problems for the deaf student in the comprehension of inadequately interpreted material (i.e., the lack of direct transmission of information between teacher and deaf student, which automatically occurs in the case of hearing students) are significant. It cannot be questioned that, for deaf students with sufficient linguistic skills to benefit from interpreters, the interpreters need to be highly competent. Their efficacy, or value, is not denied in that case. Jones, Clarke, and Soltz (1997) stated:

Without adequate interpreting services the notion of “full inclusion” of all children with disabilities ... is an empty promise for children who are deaf or hard of hearing and who depend on accurate visual input for learning to take place. Deafness requires a linguistic mediation of both auditory and visual communication.... This communication must be accurate to ensure equal access to the myriad information, both auditory and visual, with which school children deal. (p. 266)

The situation in rural New South Wales, in regard to the use of interpreters in schools to assist deaf students, is somewhat different to that of the wider Deaf community, and presents significant problems. In the inquiry area, few qualified interpreters were available, and of the few that were employed, few had adequate signing skills. In these situations, many of the negative elements, which have been described

above, applied. This was because the demand for interpreters in rural schools is low, because the number of deaf students requiring interpreters in rural schools in New South Wales is also very low. Consequently, rural demand is not comparable to metropolitan demand, and there have been associated difficulties with training and recruitment.

In the region in which this inquiry took place, teacher's aide / interpreting jobs were highly sought after, with the only qualification required being attendance at the local TAFE (Technical and Further Education) College to undergo a Signed English course. An individual employed as a teacher's aide to support students with special needs, may also be employed to perform an interpreting role for a student who is deaf, simply because no qualified person is available. Schools may employ individuals as teachers' aides who are familiar to the school, and who may be required to work with a range of students. Thus, working with a deaf student, might on occasion, become additional to teacher's aide work already performed.

The support personnel, working with the deaf students in this inquiry, either the itinerant teacher or teacher's aide, were more likely to be required to "teach" the student concepts through transliteration. This may have constituted translating the class content into a simplified accessible (notional) version of what the class teacher said, rather than in simply presenting it verbatim. Assistance may also have involved the representation of the class content through any graphic method thought appropriate.

Many deaf students integrated in regular rural schools in NSW do not have linguistic competence of an order to benefit from verbatim signed reproduction of classroom dialogue, the usual function of someone simply performing the role of interpreter. For deaf students, who are proficient users of Auslan, it has not been DET policy to support that communication system in rural government schools by qualified Auslan interpreters. Qualified Auslan interpreters have not been employed nor regarded as necessary.

3.6 How does literacy learning take place for deaf students?

3.6.1 How do deaf students learn to read?

Deaf students often have abilities in reading well below their hearing counterparts (Power & Leigh, 1998). Musselman (2000) emphasised the importance of learning to read because of its implications for educational, vocational, and social development. Language delay, the hallmark of deafness, increases the challenge in acquiring this skill.

Musselman (2000) explained that deaf children might only have limited knowledge of the spoken language print represents (p. 9).

The questions of what the significant likely impediments to the acquisition of literacy skills by deaf students are, and the likely pedagogies needed to ensure that effective literacy development occurs, were considered to be essential understandings for this inquiry. Mastery of the appropriate discourse strategies for school success, and adequate reading ability, could be predictive of successful classroom interaction and inclusion. Conversely, the opposite may equally be true. To understand the educational situations in this inquiry, it is important to determine the literacy abilities of the students, and the strategies employed to develop them, which can then be related to performance in school. Thus, it is necessary to know whether the students had access to the full range of reading strategies, and if so, how they came about. If a student does not possess effective reading strategies, being able to access print in a regular classroom, to keep pace with hearing peers, is unlikely. It is necessary to determine what strategies, if any, had been developed, to overcome reading difficulties of the particular students, and consequently to recognise what deficiencies needed to be overcome.

Apart from being attributed to language delay, the deficits in reading skills of deaf students have been attributed to an inability to employ a variety of strategies to decode print. Some of the reasons for the lack of strategies given by Paul (1999) include (a) ineffective teaching methods, (b) deficits in world experiences and knowledge, and (c) lack of facility with the complexities of the formal language encountered in print. Numerous authors have posited reasons for the failure of deaf students to read as well as their hearing peers. Most would agree that it is not due to one all encompassing factor. Reasons given by others have included type of instructional input, the teacher's skill, curriculum design, parents involvement, and conversational skill development, also oral English language ability, including vocabulary, syntax, and discourse skills, or the working knowledge of the alphabet principle (Paul, 1999).

Brice Heath, Mangiola, Schecter, and Hull (1991) argued that requiring students to first understand the "basic literacy skills" before they move on to "higher order skills" contravenes the natural process of language learning. The fact that young children learning a mother tongue do not learn individual sounds first, before words, is given as an example of the falseness of this premise. They defined the two areas of literacy skills revealed in the context of schooling: The mechanistic abilities that focus on separating out and manipulating discrete elements of a text such as spelling, vocabulary, grammar, topic sentences, and outlines outside the text as a whole; and what they termed literate behaviors. These literate behaviours, they stated, were the key to academic literacy and

include the ability to provide sequenced explanations, logical arguments, grounded interpretations, and abstract analyses. Apart from their role in cognition, these behaviors also form the basis for social interaction in classrooms.

Brice Heath et al. stated that pedagogical approaches that promote academic literate behaviours rest on the assertion that we cannot expect students to be able to write about what they are reading and thinking, unless they can talk through their ideas and information. Being academically literate, means more than the mechanics of writing and reading, but also learning to (a) interpret texts, (b) say what they mean, (c) tie them to personal experience, (d) link them to other texts, (e) explain and argue with passages of text, (f) make predictions, (g) hypothesise outcomes or related situations, (h) compare and evaluate, and (i) talk about doing all of the above. It is this area of literacy that children with hearing impairment have the most difficulty.

Erting (1992) stated that the roots of literacy lie in dialogue, and the development of literacy, is inseparable from the development of language. She stated that it is beginning to be understood that the development of literacy is related to, and in fact proceeds in tandem, with the development of face-to-face communication competence. Literacy emerges through the development of complex symbolic processes that develop concurrently, rather than sequentially, in both the face-to -face and written language domains.

In this view the child gradually develops as a reader / writer in everyday activity settings. Literacy events take place in settings that include domestic chores, entertainment, school related tasks, work tasks, religious activities, communication, and storybook time. Such events are experienced as social, collaborative, enterprises, with goals embedded in everyday activity settings, with only rare events in which reading is specifically taught in the family situation (Brice Heath, 1983). This view correlates closely with the social interactionist model of language acquisition in which language is said to develop in meaningful social interactions. This is not to say that the connection between reading and writing is not taught, because it must be taught by bringing everyday concepts into connection with the system of writing, in a context of joint use. It is not always approached this way.

Different instructional practices have caused a great deal of debate about the best way to teach reading, as stated. The debate, because it tends to be polarised, further complicates the understanding of an already complex process. Most would agree that the teaching of reading is complex, and cannot be reduced to a few simple absolutes. Therefore, the either /or dichotomy of word-identification, versus comprehension debate, is probably unproductive (Paul, 1999). According to Paul, evidence shows that word

identification facilitates comprehension, and comprehension facilitates word identification, demonstrating that both aspects of reading are essential. Paul summed up his article on the subject with the statement that students must have a working language for communication and thought, and a working understanding of the alphabet system, and that time and effort need to be directed at activating and enriching the prior knowledge and metacognitive skills of hearing impaired readers, if they are to be successful.

This “Bottom Up”, or “Top Down” debate, was also described by Kelly (1994), who stated that reading is a set of multiple processes that interact to produce meaning for specific words, sentences, or passages. Bottom up processes tend to deal with the actual visual data that reader’s find on the printed page, including students’ knowledge of English letter combinations and sentence patterns, and their ability to recognise words as single units. Top down processes, in contrast, emphasise the conceptual information stored in the readers mind, such as prior knowledge about a topic, or about how stories are organised. The interaction between those two kinds of processes ideally occurs in both directions, up and down, each affecting the other (Paul, 1999).

In examining the reading process in hearing and deaf people, Hirsh-Pasek and Treiman (1982) found that, for hearing people, reading depended on the ability to translate printed letters into their associated sounds, or sound recoding. They suggested that there might be several processes involved. Overt speech, or covert “inner voice”, may be involved while reading silently. The sounds may be mouthed or internalised. Phonological recoding offers the hearing reader at least three advantages: Word identification, comprehension, and memory. Studies cited by those authors, have shown that for individuals who have significant degrees of deafness, there may be a combination of hearing, speaking ability, and lipreading skill, brought to bear, with some individuals recoding into articulatory form, but for others, sign can serve as a memory code. The studies reported by Hirsh-Pasek and Treiman have suggested that deaf people have used the structural features of sign to retain sign information in short-term memory. Another suggested option used by deaf people, is the recoding into fingerspelling, which is the direct mapping of the alphabet.

Hirsh-Pasek and Trieman (1982) stated that the practical applications of knowledge of recoding skills to enhance the reading acquisition of the deaf, included the notions that children who are sensitive to the mapping between letters and sounds can recode the printed text into the language they already speak and understand. Thus mastery of spelling rules is of significance. Deaf children, who do not possess a strong language base that is compatible with the alphabetic writing system, or who do not have extensive articulatory or fingerspelled vocabularies, recoding into either of these codes, is

on the other hand, unprofitable. It was suggested that if teachers build deaf student's vocabularies, by capitalising on their preferred recoding options, they could better place those students for future reading skills. For those students, who are profoundly deaf, and use sign language, increasing the fingerspelled lexicon within the child's sign language, could be advantageous. It was emphasised that the theoretical connection to practice was speculative, but increasing a deaf student's vocabulary could ultimately, be beneficial.

Hirsh-Pasek and Treiman emphasised the duality of the reading process—skills based word recognition abilities, and language ability. Both aspects are essential components of successful reading for any child, and the degree to which each can be called upon in the reading performance of deaf subjects, constitutes a major component of determining reading ability. The strategies employed by the reader, are significant as they demonstrate the level of mastery of the different aspects of the reading process, which have been attained. Kretschmer (1982, p.119) emphasised that the goal of reading was “reading to learn”, rather than “learning to read”, with readers actively engaged in the process of constructing meaning from text, which was a function of their semantic, and world knowledge. He suggested that the initial efforts at establishing reading should be postponed until some basic language / communication system was developed.

Mayer and Wells (1996) drew on the theoretical perspectives of Vygotsky in describing the relationship between inner speech, and written language, to support their argument that inner speech stands in an intermediate position, between oral speech, and writing. They noted that the poor reading abilities of deaf children might be attributed to their lack of an internal language code that is compatible with spoken English. They did note, however, that deaf people, whose native language is sign, could manipulate meaning in “inner sign” in a functionally comparable manner to the acoustic-articulatory properties of words in “inner speech”.

The lack of inner speech experienced by deaf readers, furthers the argument that deficits in linguistic competence, is a component of poor reading ability. Being able to draw on inner speech, is emphasised by Mayer and Wells, and other literature referred to previously, in the section on the social interactionist model of language development (Vygotsky, 1978). Without inner speech, which is dependent on English language knowledge and facility, it is not possible for deaf children to process written English in working memory as a phonological code as hearing readers do. Being unable to decode words, similarly poses impediments to reading. For a deaf student with an adequate visual language for communication, but without the ability to decode text phonologically, it is unlikely that they will be able to draw on their linguistic competence to comprehend

the text, demonstrating the interrelatedness of linguistic, as well as other processing abilities.

Other findings reported by Mayer and Wells, in agreement with those cited by Hirsh-Pasek and Treiman (1982), concluded that there was a positive relationship between phonologically based coding, and reading, in the deaf population. Campbell (1997) stated that the deaf were not necessarily living in a world in which the phonological structure of speech plays no part, stating that their reading, writing, and remembering, can bear traces of speech structuring, just as those of hearing people. She also claimed that the deaf might have partial access to speech by viewing the speaker. Sound and vision events are likely to signal a range of other important regularities in the world, which can trigger protolinguistic, communicative behaviour in the infant, thus extending the child's perception beyond the immediate visual field. Campbell cited studies in which written lists of words that were better discriminated by lipreading, were better recalled by deaf subjects. Studies using cued speech also reported considerable achievements in reading and writing and immediate memory in deaf subjects.

Mayer and Wells (1996) also described the added complexity of reading for deaf children who use a sign language as their first or preferred language, because there is no direct relationship between the signed and written language. Written language is synoptic, with meanings foregrounded through grammatical metaphor, rather than being organised like spoken conversational text. This suggests that, compared to speech, written language is much more abstract, and requires a much greater degree of conscious awareness of the process through which meaning is realized in that language—in this case, English. The difficulty in comprehending more academic text, is that this more advanced type of written language grammar rearranges the agents, actions, and objects in ways that don't reflect the more straightforward categories and order of conversational, every day spoken language, and certainly don't reflect the categories and grammar of sign language.

Despite these linguistic difficulties Ewoldt (1978) posited that the reading process for the hearing and deaf were the same. The outcome of a study conducted by Ewoldt recommended that deaf students be taught in a way that acknowledged their linguistic differences and acknowledged their use of idiolects, dialects or other language systems.

A great deal has been written about the problems of children who have reading difficulties, regardless of any other disabilities they may possess. Government initiatives continue to be put in place in America, England and Australia, to combat the problem of reading failure. Currently, Basic Skill Testing in NSW and initiatives such as Reading

Recovery, and remedial reading programs in high schools, have been instituted to address the problem of poor reading ability in the general population. It would appear obvious that for children with severe levels of deafness being able to read well, could be their salvation in accessing information. As noted in Section 3.5.3, however, children who are deaf often fall into the category of low reading achievers.

To sum up, to be successful readers, deaf children need to have the same abilities as other readers to process written texts, as well as the linguistic ability to comprehend what is read. Teaching strategies need to address both areas. It has been suggested that correlating the development of reading and writing, with other areas of language development, is an appropriate approach to be taken so that literacy and language development can proceed in tandem. It was also suggested that deaf students required systematic teaching to allow them to develop the necessary decoding skills as well as building enriched vocabularies, thus committing word knowledge and recognition, to automatic memory.

In conclusion, according to Kretschmer (1982), reading involves the acquisition of a language system, ability in decoding skills, and metacognitive processes—all of which are necessities. Ideally, to understand the reading abilities of a child, the teacher should have information about each of these processes. Not only do they need the appropriate information about the strategies the child has acquired, they also need to have ways of rectifying the deficits. This provides important perspectives on the performance of deaf students to be considered in the context of this inquiry.

3.7 Conclusion

In the discussion on the theories of language acquisition—although it has not been possible to describe a theory accounting for every aspect of human language development—there are a number of certainties, which have become evident. The first of these is that language does not develop in any child without input from others, which is specific in nature. The weight of evidence supporting meaningful social interaction is convincing. The second is the contrasting amount of spoken input and linguistic learning, which takes place early in the life of hearing infants, when compared to that, which may occur, in the case of deaf infants. The final significant point is the nature of the language learning process itself, which is not curtailed by deafness alone. It is the reduction in the amount of language input that a deaf infant is able to access, which curtails the process. It is apparent that visual access to a visual (sign) language can facilitate the natural language acquisition process. However, the fact that few deaf infants have the

opportunity to develop a visual language through adequate exposure to such language in their own homes is a complicating factor for that scenario also.

When deaf children do not have a naturally acquired first language, either auditory or visual, becoming literate is problematic. While it is thought that the processes involved in learning to read and write for the hearing and deaf are similar, a major component of the process is basic linguistic ability, an area that is clearly compromised for many deaf students. Without ability to read effectively, accessing a regular school curriculum is obviously problematic for many deaf students.

For regular teachers to be able to provide the necessary learning environments for deaf students to succeed in regular schools teachers would at least need to be aware of the complexity of the linguistic and literacy difficulties associated with deafness, and have the necessary pedagogical skills to overcome them. Even then, however, it is clear that the various methods used to overcome language and academic development issues for deaf students, while necessary, are unable to provide a complete answer to the problem of lack of access to sufficient curriculum information for those students in regular schools.

This chapter has addressed the General Etic Issue Question of, “How do, hearing and deaf children, acquire language?” The next chapter addresses the educational aspect of the same issue, and together answers the Second Etic Issue Question of, “How do deaf children perform in relation to their communicative and literacy ability?” The major purpose of this inquiry was to determine how specific students performed and were catered for in regular schools, which leads to the Particular Etic Issue Question, “How did the student perform in relation to their communicative and literacy ability?” that was answered when the actual situations were appraised. The next chapter examines the educational aspect of this issue. It answers questions about deaf education; how deaf students have been educated in the past and at the present time.

After examining the General Issue Question of language acquisition by deaf children, it can be appreciated that educating deaf students is a challenging task. For that reason it has been approached in a number of different ways in the past and present. It can also be appreciated that the move to educate students, with high degrees of deafness, is not automatically addressed by attention to philosophical human rights issues alone, and associated placement in regular schools.

CHAPTER 4 DEAF EDUCATION

Issue 2 The linguistic and educational needs of deaf students

4.1 Introduction

Chapter 3 and Chapter 4 together deal with etic issue 2, which pertains to the language and education of deaf students. Chapter 3 dealt with the issue of communicative and literacy skills for the deaf. It described the complexity of problems associated with language acquisition and literacy learning, and methods used to overcome them. This chapter deals with the educational aspects of the issue.

To understand the educational provisions, which are currently provided for deaf students, it is important to understand what they were in the past and to recognise the strengths of the past and the present, in order to contribute to positive future directions. If the special education of deaf students in segregated and integrated settings had historically been problem free, it would be unlikely that the recent trend towards full inclusion of deaf students in regular schools would have been so readily pursued by parents and education systems. It is acknowledged that the inclusion movement was born out of human rights matters and not educational or linguistic issues. Nevertheless, historical accounts do not reveal that the deaf have a history of high academic outcomes at the end of schooling, or equal access to superior occupational opportunities comparable to their hearing counterparts. Vines (1990) described this aspect of past educational practices for the deaf:

The legacy of a century of such misguided attempts to ‘integrate’ the deaf into the hearing world is that deaf people now leave school with an average reading age less than nine. Books, even the subtitles on television or films are beyond the grasp of many. Moreover, deaf adolescents and young adults are usually socially isolated even in their own families. At work, most deaf people are underemployed and have little chance of promotion. ‘It is almost impossible for hearing people to imagine the experience’, says Elizabeth Wincott the chief executive of the British Deaf Association. (p. 24)

The previous discussion in Chapter 3, which answered questions about language acquisition, literacy learning, assistive devices, and methodology, revealed difference of opinion, or uncertainty, in all of those areas. Major debate exists about how and where the deaf should be educated. There is also debate about the communication modality used for language acquisition and for education. These debates remain as polarised today, as they were when education for the deaf began. These are the concerns addressed in this chapter.

The intention in this chapter, as it has been in previous chapters, is to introduce the debates, but not to attempt to resolve them. Decisions about what is, or is not, effective practice and methodology, can best be decided in the field where they can be observed and appraised. While this chapter is devoted to addressing the educational side of the issue as stated, it does not attempt to provide definitive answers, as possibly there are none to be had that apply in every case. Answers to background questions can hopefully improve understanding of actual situations.

In understanding the current educational situation, for particular deaf students in this inquiry, it is important to know what educational provisions were provided in the past. It has been shown that recent changes made to the education of the deaf have arisen out of philosophical and human rights concerns, not necessarily those relating to specific educational requirements. Argument abounds relating to the current situation, which sees the inclusion of severely and profoundly deaf students in regular schools. It could be argued that there is little value in suggesting further changes to current practice, unless it is clear that that which is thought to need replacing is demonstrably unproductive. If past provisions were unproductive, it is important to know why they were so. Similarly it is important to know what specific improvements could make the situation for deaf students productive and to determine if those conditions currently exist in situations examined.

Etic Issue Question

“How do deaf students perform in relation to their communicative and literacy ability?”

The Principal Topical Information Questions posed to answer this question are:

- 1) How were deaf students educated historically?
- 2) How are deaf students educated currently?

Contributing Topical Information Questions that assist in answering the Principal Topical Information Questions and ultimately the Issue question are:

Principal Topical Information Question 1

- a) How were deaf students educated in the past?
- b) What is decentralisation?
- c) What were residential schools?
- d) How did the students differ across placement types?
- e) What are itinerant teachers?

f) How have the interpretations of the itinerant teacher role changed?

Principal Topical Information Question 2

a) How are deaf students educated at the present?

b) How is the itinerant teacher role performed with integrated students?

c) What is the DET policy on deaf education?

d) What is the current educational situation for deaf students in NSW?

e) What is the rural situation for deaf students?

f) What is the criticism of the inclusion of deaf students?

g) What have studies on deaf education in the past revealed?

h) What evidence is there to support either integrated or segregated placement?

i) What do studies investigating the social competence of deaf students reveal?

j) What are the views of the National Association of the Deaf (American Association of the Deaf) on the inclusion of deaf students?

4.2 How were deaf students educated historically?

4.2.1 How were deaf students educated in the past?

Deaf children, in the past, fell into the category of students too difficult to educate in regular schools, to such an extent that the first segregated special schools in Australia were schools for the deaf. In 1860 there were two such schools for the education of deaf children operating in Australia (see Section 2.2.1). The genesis of deaf education occurred in segregated, private, residential settings, established initially in Sydney and Melbourne (Crickmore, 1990). These schools were founded by deaf people (Johnston, 1989). During the early years of Australia's history, education was provided for the privileged few, and by the mid 1800s education was available through two systems, national and denominational (Ashman & Elkins, 1998). In the mid-1850s, when education was available only for the few, the demand for schooling for the handicapped had no substance. But with the beginnings of compulsory education late in the nineteenth century, the exceptional child, along with other children, presented for schooling (Andrews, Elkins, Berry & Burge, 1979, p. 235). As public education systems were in their infancy at the time, they could not cater for the specific needs of severely or profoundly deaf students (Ashman, & Elkins, 1998).

The first school in Sydney, The New South Wales Institution for Deaf Children, enrolled its first blind students in 1869 and its name was changed to The Sydney Institution for Deaf, Dumb and Blind (Crickmore, 1990; Plowman, 1985). The residential school for deaf and blind children later moved to North Rocks in Sydney. The Rosary convent opened in 1875 and was the second school for the deaf to be established in New South Wales, at Waratah in Newcastle, providing education for Roman Catholics. These schools relied heavily on community support for existence initially, and the schools for the deaf required fees from students. Later in the 20th century, the state took over the running of The New South Wales Institution for Deaf, Dumb and Blind.

Unlike the public school system, many disabled students who did not live close to a special school, had to live-in residentially. Severely and profoundly deaf students from country regions generally had to move to a metropolitan centre for their education. Special training for teachers in special schools, and classes for the deaf, began in the 1950s (Crickmore, 1990). Different methodological philosophies were usually characteristics of particular schools and units. In other words, schools offered either an oral or manual communication program. By the early 1950s, Australian decision-makers were working to find the best solution for deaf students. English specialists, the Ewings, were invited to make recommendations pertaining to deaf education. One of their strongest recommendations was that oral methods be used to educate students with a hearing loss to replace the combined method, which had prevailed since the 1900s (Crickmore, 1990).

Branson and Miller (1993) stated that because the Deaf in Australia are a small population there is little sense of inherited tradition, as traditions grow from shared experiences in schools, clubs, and family interactions. In Australia, for many educated in oral schools, their introduction to Auslan, the visual language of the Deaf, comes in adulthood. The visual language of the Deaf serves as a unifying factor when it is used in residential schools for the deaf. In Australia, a strong tradition of oralism in schools was established from the start. Early on, there was a move to ban manual communication in education. There was a trend, according to Branson and Miller (1993), to segregate any student not capable of benefiting from oralism, and only capable of achieving a basic education, away from those working in the purely oral tradition. Children with deaf parents were consequently kept away from those with hearing parents.

Despite the history of the education of the deaf in the 20th century in Australia, Auslan survived, and continues to survive in the Deaf community (Johnston, 1989). In fact, Johnston stated that the state-run residential schools for the deaf played a major role in forging, and sustaining, the Deaf community in Australia.

It is relatively recently that visual signed languages, such as ASL and Auslan, have been attributed the status of natural languages (Newkirk, Klima, Pedersen & Bellugi, 1980). This has led to an acceptance of natural visual languages in education, to a degree. LaSasso (2000) described the emergence of bilingual-bicultural programs for deaf students in the United States, which reflects the expansive bilingual education movement in general education. It is sometimes argued that children who have an intact first language, such as ASL, are better prepared to acquire a second language, and to develop literacy through that language. As noted by LaSasso, professional literature related to bilingual-bicultural education for deaf children, supports the use of ASL as a deaf child's first language in preparation for English literacy, but others such as Mayer and Wells (1997), have argued that although deaf students can acquire educational concepts through ASL, the major issue for them is becoming literate in English. The challenge is making sense of educational knowledge, as it is written, not signed. Mayer and Wells stated that being able to "sign about" a topic, will undoubtedly assist a student in formulating the content, but it does not necessarily assist in making correct lexical, morphological, and syntactic, choices in English. On the other hand, it was stated by those authors that ASL might develop the cognitive power that would support broad cognitive and conceptual transfer between ASL and English. This subject stimulates much debate and disparate views.

In New South Wales, bilingual programs have largely been the province of independent schools, rather than DET schools. The problem of deciding on which method of communication for education is preferable, either oral or manual, has persisted.

4.2.2 What was decentralisation?

After the Second World War (Ashman & Elkins, 1998) a small number of new state controlled schools for the disabled were started as well as Catholic schools. In the 1950s a small number of other private programs were founded, which were often parent- initiated, because of dissatisfaction with the existing provisions. By the mid - 1950s, students with disabilities were provided with free transport to and from school (Crickmore, 1990), and were placed in special classes with a smaller student/teacher ratio in local schools, both in rural and metropolitan areas. The moves to decentralise provisions away from the traditional big state schools resulted in units being established in the grounds of regular primary and secondary schools. Through the 1950s and 1960s these tended to be mini-schools for the deaf, with the major intention to provide education for deaf children as near as possible to their homes, rather than with integration in mind (Crickmore, 1990, Walter, 1960)

At the time of the Schonell report, titled *A Survey of Special Education in Australia* (1979), it was stated that approximately one third of deaf children were in special class situations, about one third in special schools, and about one third in regular schools with itinerant teacher of the deaf support. Differentiation of students according to their disability was undertaken by the relevant professional personnel. To be defined as deaf, a student usually required a hearing aid. At the time of the *Schonell Report*, there were 7000 students identified with hearing disabilities in regular government schools. That over 58,000 children in regular schools were judged by their schools to have a disabling condition was an indication of the changing policies and attitudes towards the disabled throughout Australia. Moves towards educational integration were part of a wider movement to provide students with a disability, with as normal an environment as possible, within the mainstream of the community (p.124), a situation that has also been described in Chapter 2.

Students in special schools were said in the *Schonell Report*, to be provided with reading, writing, and mathematics, in the majority of schools. In government schools the modal academic program was described as having duration of 15 hours a week, with a range of 45 hours a week, presumably including a homework component (p. 195). Relatively few schools were said to have students who reached academic standards equivalent to completing high school. Many of the schools provided counselling and training in social skills and behaviour, including personal hygiene, deportment, dress, appearance, diet, and sex education. About half the schools used a curriculum with some structured aspects, about a quarter with a highly structured program, and about 10 percent used informal procedures. It was noted that resource areas capable of being used for many aspects of the curriculum common to special schools was typically lacking. Availability of activities to enhance the transition from school to adult life was typically low.

According to the *Schonell Report*, an account of an article by Dunn amplifying objections to segregated provisions in special education, set the stage for a major review of special education practice. The report stated, "Children with special educational needs are increasingly catered for in regular schools" (p. 301), but the continuing need for special schools was expressed also. Their place and role in the education of students with disabilities was said to be changing, but it was stated that the quality of provision in special schools ought to be outstanding. The report recommended that more basic research be undertaken concerning the learning and development of students with disabilities. The differences between regular, and segregated educational settings, in Australia's early history, had been described by Cowley (1996) as not being uniformly well equipped, or staffed by motivated trained teachers. That situation was improved as state Departments of Education accepted

increased responsibility for subsidising or providing education for all children even with severe disabilities.

4.2.3 What were residential segregated schools and what did they achieve?

The lack of academic achievement of deaf students in residential schools was reported in the 1960s and 1970s (Crickmore, 1990). Crickmore cited studies in America, which revealed that grade levels for the deaf in residential schools were significantly lower than for hearing students, with only about five percent achieving tenth grade level, while about thirty percent achieved fourth grade level or below. Crickmore stated that those levels had been reported in many schools for the deaf throughout the world in the late 20th century. She attributed the lack of academic achievements to the lack of language skills, either oral or manual, which the student had brought to the school environment.

However, it was in residential schools that Deaf culture was fostered. Stinson and Lang (1994) stated, when referring to the United States, that the culture within the Deaf community had emerged strongly in recent years as deaf individuals recognised their commonalities. Johnston (1989) described a similar situation in Australia where he stated that the state-run residential schools played a seminal role in sustaining the Deaf community and standardising sign usage in Australia. He described the move away from residential schools for the deaf, as a serious blow to sign language usage, and the policy supporting oralism in education for the deaf, as responsible in some ways, for the plummeting general education levels of many deaf children moving through the system. He described the eventual revival in the use of sign language in education as a double-edged sword, because it saw the rise in the use of Signed English as a method in which the deaf could be taught the “proper” English way.

Branson and Miller (1993) stated that in the climate of fervent mainstreaming, with the Victorian School for the Deaf as an example, that school had become a repository for those judged profoundly deaf and who could not cope with integration, as well as the multiply disabled, who were constantly educationally devalued. They maintained that segregation was viewed in a negative light associated with not coping, or not being normal. They claimed that the educational transformation of segregated education for the Deaf, lay in the provision of comprehensive, primary and secondary curriculums, providing the sort of education for the Deaf that all-girl schools provide for girls. As the all-girl schools transformed the discriminatory preconceived curriculum, based on the notion of what “normal” girls should know, to a comprehensive curriculum free from the male competitive presence, so too, it was contended, should such a curriculum be provided for the Deaf in segregated settings.

The Deaf, it was stated, were only linguistically disadvantaged and devalued when compared to hearing people. Branson and Miller (1993) maintained that in segregated schools, access to, and competence in a first language, which is a native sign language, could be achieved.

Stinson and Lang (1994) referred to the commonalities shared by the Deaf, as having to do with language or ways of communicating, and shared values, which may be different from those held by the hearing community. Because residential schools involved everyday interaction with a large number of deaf peers, provided many deaf adult role models, offered links to social organisations for deaf people, and sponsored special cultural activities, they have been seen as vital in the promotion of deaf culture.

According to Reagan (1994) there are two views of deafness: the dominant perspective in which deafness is viewed as a medical condition characterised by an auditory deficit known as the “pathological” view, and the “sociological” perspective on deafness in which it is seen not as a handicapping condition but rather as a cultural condition. In the view of those who subscribe to this latter perspective, deaf individuals should be compared to other non-dominant linguistic groups rather than to individuals with physical disabilities. Members of the Deaf cultural community identify themselves as socially and culturally Deaf, maintaining a clear distinction between audiological deafness and sociocultural deafness. It was in the residential deaf schools that this perspective was nurtured.

It could be concluded that Deaf education in Australia was originally segregated, centered on communication, and fostered Deaf identity and community (Johnston, 1989; Crickmore, 1990). The *Schonell Report* (1979) stated that the literature had indicated that the demands, for increased educational integration for students with special needs, had been founded on five main points. First, there was little evidence, if any, on the advantage of segregated special education programs over integration into regular programs. Second, there was parental and professional disenchantment with diagnostic procedures. Third, there was a reaction by the same groups, to segregating many children who could be better catered for in integrated programs for those with mild intellectual disability or cultural deprivation. Fourth, there was parental pressure towards mainstreaming wherever possible. Last, there were the rapidly increasing costs of special school provision. It would seem, according to these views, that the moves towards integration were largely based on weight of opinion, parental pressure, and economical considerations, rather than empiricism.

4.2.4 How did the students differ across placement types?

While it is not possible to make categorical claims about the degrees of deafness experienced by deaf students in either a special class, a separate school, or in a regular school facility in Australia (*Schonell Report, 1979*), a study in America, which is examined in some detail in a later section (see Section 4.3.7) provides an indication. Schildroth and Hotto (1994), indicated that in their study, a general rule of thumb was that the deafest students and those who relied on manual means of communication, were those educated in segregated special schools, ranging down to the students with the least severe degrees of deafness, who were educated in integrated units or mainstreamed in regular classrooms with itinerant teacher support. Traditionally the more deaf a student was, and if dependent on sign language communication, the more likely they were to be educated in a segregated setting. The less deaf or hard of hearing students were most likely to be educated in regular school settings with itinerant teacher support.

This tendency was exemplified in the area in which this inquiry was conducted, a rural area without a history of segregated educational placements options for the deaf. Up until the 1980s, students with high degrees of deafness who lived in the inquiry region, moved to a metropolitan area to access a segregated education. This occurred as recently as 1990 (personal records of the researcher's own caseloads). On the other hand, the first profoundly deaf manually communicating deaf student moved into the district in 1989 and was enrolled in his regular local schools from Year 5 until his completion of Year 12.

4.2.5 What are itinerant teachers?

For this inquiry, it is important to understand the role and responsibilities of itinerant teachers, as they play a significant part in the education of deaf students, enrolled in regular schools in the inquiry district. For students who have high degrees of deafness, and who, in the past, may have been educated in segregated education settings, the itinerant teacher is a major source of assistance, to the students, and regular teachers in whose classes the deaf students are enrolled. The role of the itinerant teacher has changed, as the number of severely and profoundly deaf students in regular classes has increased.

The service provided, by an itinerant teacher for the deaf, was originally designed to offer assistance for mainstreamed hard of hearing students with mild to moderate hearing losses. It has been noted that in the 1970s when the *Survey of Special Education* was carried out (*Schonell Report, 1979*), there was a third of the population of deaf and hard of hearing students educated in regular settings assisted by itinerant teachers, while two thirds were in varying degrees of segregation. At that

time, children most able to function in regular classrooms were the ones assisted by itinerant teachers. Dale (1967), when describing the English equivalent of itinerant teachers, who were known there as “peripatetic” teachers, said they were employed to:

...help parents of preschool deaf children and those children who wear hearing aids but are able to attend ordinary schools without daily specialist help (p. 84). [and further] A second type of visiting teacher, here [in England] called an itinerant tutor, is required for children with hearing losses who attend ordinary schools and are sufficiently handicapped in their learning to require a limited amount of additional individual assistance (If they are so handicapped that they require daily help, then they should be enrolled in a unit in an ordinary school...). (p.91)

This description covers the essential elements of the itinerant role when it was first created and applies to the Australian version as well as those in other countries.

Itinerant teacher assistance in the era described by the *Schonell Report* (1979), allowed the students to receive help in subject areas where they were having problems, and generally provided tutorial assistance, speech and listening training, and language remediation, as well as being responsible for providing information about deafness technology, and best classroom seating arrangements for hard of hearing students. Students may have received one or two hours itinerant teacher assistance per week, which was considered enough to provide adequate support in that era (Schonell Report, 1979). As the itinerant teacher service developed, over half of all children wearing hearing aids were in regular schools (Schonell Report, 1979).

4.2.6 How has the interpretation of the itinerant teacher role changed?

In a study by Luckner and Miller (1994) carried out in the United States, itinerant teachers were described as a teacher for the deaf, who traveled from school to school, and who provided instruction to deaf and hard of hearing students, as well as consulting with families and school personnel. They were typically responsible for scheduling and providing services for students, who displayed hearing losses from mild to profound, and who ranged in age from birth to 21. The service had especially been relied upon to provide services to deaf and hard of hearing students in rural parts of the country. They stated that in the United States, research on the effectiveness of the itinerant teacher was sparse.

The itinerant teacher has at times been narrowly perceived as a specialised tutor in speech and language, involved in “pull-out” service delivery, with little concern for overall academic or personal development of the child. They may be seen

as an advisory support for the regular classroom teacher, who has had to assume the major responsibility for academic and general development. Other itinerant teachers have assumed the role of counsellors to the child and family. In practice, most have assumed the need to assist in all aspects of the development of the child, dealing with problems as they arise, or trying to forestall problems by setting up school and family facilitating structures (Ashman & Elkins, 1998; Luckner & Miller, 1994).

Luckner and Miller (1994) drew conclusions about the effectiveness of itinerant teacher methodology. That study consisted of a survey of 319 itinerant teachers. It examined the specific job responsibilities of the itinerant teachers, their perceptions about the job, their preparation, and the characteristics of the students who received their services. It indicated that a high percentage of the students with whom they worked, communicated orally, wore hearing aids, had intelligible speech, and good social skills.

The primary goals, of the itinerant teacher support program, were identified as language development, as well as writing, reading, and study assistance. The adaptations made by the regular teacher for the student, were in regard to preferential seating, use of visual materials, small group teaching, individualised instruction, cooperative learning, the use of manipulatives, peer tutoring, and extended time limits for activities and assessments. Most itinerant teachers (71%) “pulled” the student from the general education classroom and worked with them individually in a separate room. A small group worked with them in the classroom and a very small percentage team-taught with the classroom teacher. Many teachers, that is 41% of the 319 surveyed, indicated that they had never seen a job description for the role of itinerant teacher.

One of the teacher response areas, considered particularly worthy of special discussion, was the practice of removing the student from the classroom. The efficacy of this service delivery model, has been questioned by writers such as Stainback and Stainback (1984). The contention was that most of the work that the one-to-one situation provided could be done in the classroom with the student, and some of their peers who would also benefit. Another criticism of the pull-out model was that the teaching, frequently, had little to do with the curriculum maintained in the classroom. Rather, it was suggested that the skills and concepts that students need should be taught in the environment in which those skills and concepts are most likely to be used—the classroom. Another limitation was that minimal generalisation transferred to other settings. Offering services in the classroom was deemed by Stainback and Stainback, to offer more opportunities for the students to interact with peers, thus increasing the likelihood of better generalisation. Students who were pulled out of

class often missed lessons being taught by the regular education teacher, which may have needed to be made up, often without the assistance of the teacher.

Luckner and Miller (1994) concluded the report of their study by stating:

The data from the study suggests that the itinerant model of service has a place on the continuum of services for deaf and hard of hearing students. Obviously, as a service-delivery option, it has its strengths and weaknesses. The appropriateness of the approach should be determined by the IEP developed for each student in accordance with the IDEA (EHA). Careful, ongoing systematic observation and assessment provided information that allows parents and professionals to provide assistance according to the needs and capabilities of the student, to make adaptations when necessary, and to make judicious decisions about the appropriateness of the placement... Given the time, energy, and finances that have been invested in implementing mainstreaming, it is disturbing to realise that we are relatively uninformed about how to make it work effectively. (p. 117)

The Luckner and Miller (1994), study suggested that in-class service delivery was preferable to a pull-out model. Further, and perhaps most significantly, that study lends weight to the notion that this model of service delivery is supportable to the extent that it is one of a range of available options for students with impaired hearing—specifically, those with particular characteristics that make them amenable to this form of service delivery for their educational program. The study does not lend support, nor argue for, the notion that this should be the only available service delivery option for students who are deaf or hearing impaired.

A recent Australian study, by Power and Hyde (2002), was similar in nature to that previously described by Luckner and Miller in the USA. The Australian study was based on a national randomly selected survey of deaf and hard of hearing students included in regular classes from kindergarten to high school. It involved a questionnaire that surveyed the demographic characteristics of such students, and a set of characteristics of their behaviour in their placement, in terms of “participation” in aspects of regular class activities. These involved level of integration, academic participation, level of independence, and social participation. A questionnaire partly based on the Luckner and Miller survey examining the characteristics listed above was mailed to all itinerant teachers in Australia, including those working in Catholic schools, independent schools, and government services for deaf and hard of hearing students.

To explore the issue of patterns of participation, a scale devised by Mirenda, was used. Mirenda had described a set of patterns of participation in regular classrooms accounting for both social and academic aspects of integration, as discussed in the deaf and hard of hearing literature.

Power and Hyde reported that two-thirds of the sample of students were regarded as fully integrated into an age-appropriate regular classroom for the entire day, a similar proportion were regarded as “competitive” with their age peers in regard to academic participation. In the area of “levels of independence”, a little fewer than a third were regarded as completely independent, and in the “levels of social participation”, the itinerant teachers regarded one third as being “competitive”. Two-thirds of the students were regarded as rightly placed. The researchers regarded these proportions of positive findings as indicating a satisfactory state of affairs for students integrated in regular classroom, in their opinions (Power & Hyde, 2002):

In general, these data present a reasonably encouraging picture of the deaf and hard -of -hearing students who are integrated into regular classes. With appropriate support from regular teachers and itinerant teachers of the deaf and hard of hearing, most seem to make satisfactory adjustment to academic and social life with hearing peers. Some undoubtedly find it more difficult than others and the data on participation in various aspects of life in the regular classroom should enable teachers and administrators to develop programs to target better development for those students in areas in which they have some difficulty in adjusting. (p. 309)

When a comparison was made with the United States study by Luckner and Miller (1994) on the models of service delivery, it was noted that somewhat more time was spent in the classroom by Australian students. Generally, it was thought that the models of support, and results of regular classroom placement were similar in the United States and Australia. Power and Hyde (2002) concluded that in general, their data presented an encouraging picture of the situation of deaf and hard of hearing students who are integrated into regular classes.

It is evident that the role of the itinerant teacher has been variously interpreted over the years the service has been in operation. Konza and Paterson (1996) maintained that for itinerant teachers to be effective, they needed to possess a wide range of personal and professional qualities and be able to adopt many diverse roles. They stated that an itinerant teacher needed to be a highly skilled teacher, possess high levels of organisational ability, have highly developed collaboration skills to be able to work in the classrooms with different teachers, and be able to advocate for his or her students. They concluded that to be truly effective an itinerant teacher, therefore, had to be highly skilled, independent, and autonomous, a skilful negotiator, an enthusiastic advocate, and committed to the principles of collaborative teamwork.

A comprehensive description of the changing and varying role of an itinerant teacher was provided by Higgs (1998). Higgs highlighted the lack of knowledge about the best way for an itinerant teacher to support integrated deaf students. She

also suggested that determining the “best practice” models of service delivery would be a useful undertaking.

The role of an itinerant teacher has historically been an assistive one, involved primarily in pull-out assistance. As auditory training is of importance for the child with a hearing loss in mainstreamed situations, the suggested format for such assistance is in a one-to-one session involving removal of the student from the classroom (Higgs, 1998). Advocates of full inclusion, reject the removal of a hard of hearing child from the classroom, as it is considered detrimental to social acceptance by peers (Higgs, 1998; Luckner & Miller, 1994). The itinerant teacher role has never been described, and regarded, as the primary source of academic program delivery for deaf students. The role is not as clearly defined as it could be (Higgs, 1998; Luckner & Miller, 1994).

4.3 How are deaf students educated in the present?

4.3.1 How are deaf students educated currently?

As a result of the move towards educating deaf students with increasingly severe degrees of hearing loss, which may extend to profound deafness, in regular schools, it would be reasonable to assume that the role of the itinerant teacher, whose role it is to provide educational support for the student, would require reappraisal and modification. Instead, policy dictates that the role remains a supportive one, and does not assume the primary education delivery responsibility. It remains an assistive role aiding the classroom teacher perform this task.

This policy is expressed in the *Special Education Handbook for Schools* (1998), which states the prime responsibility for meeting the educational needs of all students lies with the school, with the itinerant support teacher assisting in this task. “The prime responsibility for meeting the educational needs of all students lies with the school; the itinerant support teacher (hearing impairment) (IST-H) supports the school, to meet the individual needs of the student” (Special Education Handbook, 1998, p. 1, 3.4).

With the increased time allocation, from either one or two hours a week, when the service began, and currently up to six hours, or in special circumstances 10, as an indicator, the role of the itinerant teacher has been expanded. The change has been quite gradual and not comprehensively defined. In reality, what has occurred, is the inclusion of very deaf students has taken place, and in individual cases, itinerant teachers have then, had to decide independently, how best to meet the needs of the student by appraising the situation and devising strategies. This has occurred without

specific guidance from DET personnel or policy in how best to do so (from personal experience). In a DET *Resource Bulletin* (Vol 2, 1992), this was described eloquently by the Senior Education Officer II (Hearing Disability):

Teachers of deaf students are constantly called upon to judge the degree of integration a student should undertake and often face the nerve-racking experience of deciding that a child must participate in some activity without what we feel, is adequate support.

Experienced teachers of deaf students have dealt with the problem in a vast number of ingenious ways. Often we do not share these ideas effectively and good practices come and go unnoticed, unapplauded, and worse, discontinued.

I intend, in the near future, to call together a group of these experienced teachers to develop a 'collage' of such ideas for printing and distribution to all teachers. (p.3)

The *Special Education Handbook* describes the functions that an itinerant teacher may currently be expected to perform. These include providing programs in oral and written English, speech, auditory learning, and where necessary, sign communication, or augmentative communication strategies. Augmentative communication refers to a range of ways to help disabled individuals communicate, such as communication boards (Bernstein Ratner, 1989). In reference to communication, the *Special Education Handbook* (1998) states:

It is important that students be able to interact with others, to receive and convey a message and to participate in the learning environment in the classroom.... The system of communication used by the student needs to be understood and readily accessed by peers and those with whom they interact on a regular basis.

and further,

Communication is fundamental to all key learning areas in the curriculum ... communication is developed through opportunities that occur through the day in natural situations involving meaningful interaction. (p. 2.3-4)

Language development and communicative facility, in conversational, as well as literary modalities, are essential precursors to educational success. To quote the *NSW English Syllabus* (Board of Studies, NSW, 1998), "Language is central to student's intellectual, social, and emotional development and has an essential role in all key learning areas" (NSW English Syllabus, 1998, p. 6). The philosophy of that syllabus is based on three main interrelated uses of language, to interact with others, to create and interpret texts, and to develop understandings about the world and

ourselves. In a NSW DET document titled *Focus on Literacy: Writing* (2000) it is further stated that the current approach to writing in schools is based on a view of language, which recognises that texts are socially constructed, with an emphasis on the social contexts in which meaning is constructed, which they term a functional model of language. Given that the above documents are those on which the current approach to language teaching is based, it would be expected that that was the current practice and focus in schools.

4.3.2 How is the itinerant teacher role performed with integrated deaf students?

The DET requires that the itinerant teacher “empower” the class teacher with enough knowledge and skills to work with the deaf student, giving “ownership” of the student’s program to the class teacher, in what is referred to as a transfer of skills (oral communication delivered by C. Curry at an in-service education program for itinerant teacher executives at Bridge St., Sydney, June, 2000). To highlight this expectation, Training and Development funds were provided to schools to provide in-service education to class teachers in audiological matters relating to integrated deaf students (DET Training and Development directive, July, 2000). It was stated that for very deaf students, a completely differentiated program might need to be designed and delivered by the itinerant teacher. The onus of primary educational provision, at least for some students, would then seem to be upon the itinerant teacher. In these cases, the curriculum content may, or may not, consist of the whole or portion of the regular class program. In such circumstances, it is likely that a completely differentiated program would be delivered in a withdrawal situation, and may not involve other students at all, and would need to be delivered in a maximum of 10 hours a week.

Actual circumstances often prescribe that in the case of severely and profoundly deaf students with severe language deficits, the itinerant teacher has to be responsible for program delivery, especially if the student is reliant on manual communication (see Section 3.5.2). If very deaf students are to be successful in the fully integrated settings mentioned, practicality dictates that the itinerant teacher has to take a central role in academic program delivery. This position is based on personal experience, and occurs when class teachers do not assume any responsibility in program delivery for the deaf student, and when it is the expectation that the itinerant teacher will ensure that the curriculum content is delivered to the student. In such cases, in the experience of the researcher, it may be necessary to actually withdraw the deaf student to deliver the content of the lesson in a one-to-one situation. This is necessitated because of the need to clarify content, model examples of answers, and go to whatever lengths are necessary to guarantee understanding.

Such a process can be disruptive in a classroom where others students are working quietly, and possibly independently, and where class teachers do not welcome distractions that such assistance offered the deaf student may incur.

Policy and practice may be at odds in a situation such as this, because the student may not have freely available access to the communication of the classroom, or to the range of curriculum options that the other students receive (Shaw & Jamieson, 1997).

With the list of service delivery options provided in the *Special Education Handbook* (1998), all possibilities appear to be covered, but there is no expression of a preferred option, and choosing the “best” in the interests of the student, can be open to wide interpretation. It is reasonable to assume that this situation has occurred because the role of the itinerant teacher has expanded with the inclusion of students with high degrees of deafness in regular schools. The role of the itinerant teacher is currently extensive, challenging, and with high levels of autonomy (Konza & Paterson (1996), because a “best practice” model of service delivery has not been determined (Higgs, 1998). Therefore, given the range of possibilities for service delivery options offered in the handbook, there is little wonder that itinerant teachers may feel justified in deciding on which option suits them best.

4.3.3 What is the DET philosophy on deaf education?

Although it is an historical fact that people hold very strong views about linguistic and educational practices in relation to deaf students, it is not categorically stated what philosophical stance the DET takes in relation to these matters. It is not clear what philosophical belief, in regard to language development for deaf children, underpins the educational provisions. In a policy paper issued by the DET it was stated:

With a newly diagnosed baby or young child, an auditory approach is usually employed. This is because almost all children who have hearing impairment are able, with training, to hear the entire speech spectrum in quiet listening conditions with appropriate amplification. Research tells us that only a very small percentage of children are unable to develop spoken language skills and that listening skills and speech must be taught in the early years to develop natural sounding spoken language (Hearing Impairment Fact Sheet 3).

This statement appears to mandate an oral / aural approach, as the preferred option of the DET, and makes little reference to alternative perspectives and possibilities held by others in relation to Sign Language use. The description of language development for deaf children and communication provided in Section 3.3

clearly shows these DET claims in regard to the development of spoken language, are not universally agreed.

The services offered by the itinerant teacher in integrated settings, strongly favor students that are oral / aural. Those students who rely on signing, especially in rural regions, are less well catered for. Even students who communicate in an oral /aural modality, but whose linguistic abilities are less developed than their peers, find it difficult to access the full range of communication in a regular classroom. As noted previously, in country areas there are currently no special education segregated placements for children who are severely deaf. People may once have been inclined to move to metropolitan centres, or board their children at DET residential schools; that option does not now exist. The need to move has been removed with the government's inclusion policy. Regular schools are now in the position of having to address the problems such inclusion presents. The situation in rural regions of New South Wales is more fully described in a later section (see Section 4.3.5)

The policy of the DET in New South Wales, for all students, even those with profound hearing loss, is for regular school education in which they are afforded the full range of educational opportunities to be available as an option, for all families. This includes the requirement that they be provided with the opportunity to communicate freely in that environment (see Section 4.3.1). Policy also states that the responsibility for providing an inclusive education lies primarily with the school, with support personnel provided to assist in the process. It does not provide details about how best this is to be achieved, other than emphasising that attention to the oral / auditory needs of a deaf child as early as possible is essential. No distinction is made between the perceived effectiveness of a pull-out approach, in contrast to an in-class, interactive one. Nevertheless, in metropolitan settings the primary option of inclusive education on a regular school environment is augmented by the possibility of education in hearing support units or in special schools for children who are deaf and have additional disabilities.

4.3.4 What is the current educational situation for deaf students in NSW?

Figures released by the Board of Studies (Hearing Resource Bulletin, 1997) demonstrate a sharp increase in the number of severely deaf students completing the Higher School Certificate. This increase points to integration in regular schools in which academic programs are offered. Reports such as the *Schonell Report* of the

1970s and the *McRae Report* of the 1990s confirm this claim. The *Schonell Report* of 1979 stated that in Australia, approximately one third of hard of hearing students were in special class situations, and about one third were in separate schools. In contrast, the 1996 *McRae Report* gave the percentage of students with hearing impairment in special classes and special schools as 9.7% of the total. This indicates a significant reduction in segregated placement in the last twenty years.

The deployment patterns of teachers of students with impaired hearing in New South Wales serve to further illustrate this point. The *Resources Bulletin and Compendium*, 1997, vol. 1, quoted figures indicating that there were almost twice as many itinerant teacher positions as positions for teachers in special support classes. The actual numbers of students with hearing impairment who receive support in New South Wales DET settings was provided in a similar DET publication (*Resources Bulletin and Compendium* 1997, vol. 2). The figures show that a large majority of students were on itinerant teacher case loads and that the 54 signing students, on such case loads, represent about 20% of the number of students in total communication classes using manual means of communication, and would constitute a group, who in the past, would probably have been educated in segregated special schools or classes (Schonell Report, 1979).

Byrnes, Sigafos, Rickards, and Brown (2002), quoted figures from a DET Resource Bulletin, which stated that 73.8% of the primary support classes and 77.8% of the secondary support classes, were located in the Sydney metropolitan area. The remaining proportion occurs only in large rural centres such as Lismore and Newcastle. Byrnes et al. (2002) stated that, "This concentration of support classes in Sydney suggests that, for some rural students, an inclusive provision is a forced choice" (p.247). In a study carried out by Power and Hyde (2002), which involved a national survey of deaf and hard-of-hearing students included in regular classes from kindergarten to high school, 32% of those students had a profound hearing loss greater than 90 dB, which demonstrates the changing hearing characteristics of many included deaf students.

To conclude, regardless of whether the preferred educational option for severely deaf students is a segregated, or inclusive setting, the latter has become the reality for students educated in rural areas, as there is no other option available. The school is required to offer the student the full range of curriculum options with the primary role of program delivery in the hands of the school. The itinerant teacher supports the regular school, but it is not clear how this should be carried out.

4.3.5 What is the rural situation for deaf students?

It has been shown, given the legislative support for the rights of individuals to be educated in their local schools (see Section 2.4.1) that there is no “mandatory” movement towards inclusion in New South Wales by legislation or DET policy, but the principle of normalisation behind the legislation applies to all students. While there are no alternative segregated options available in rural regions, and no existing DET metropolitan residential schools currently operating, the compulsion to enrol deaf students in their local school exists by default.

In rural regions there are no alternative special educational settings for deaf students, as explained previously; consequently there is no choice. In the educational region in which this study was conducted, there were no support classes catering for students with hearing impairment, but there were four itinerant teacher positions. In the adjacent region there were six support classes catering for students from nursery to high school and in the combined regions 18 itinerant positions. The support classes existed in the large city (the State’s second largest city) to the south of the study region. There were no residential facilities provided by the DET at all. This is in contrast to the early history of special education in Australia, which has been described.

With philosophy, legislation, and policy, united in mandating the right of the individual to be educated in their neighbourhood school, it is not surprising that parents have taken the opportunity to enrol their severely and profoundly deaf students in rural regular schools. In the first instance, there may have been choice involved when segregated residential schools existed, and integration was an alternative option. With the closure of both residential schools, and the last remaining day school for the deaf at Croydon in Sydney, DET segregated schools for the deaf have ceased to exist in NSW. Whether parents welcome the fact or not, there are no special school, unit, or class placement opportunities, in the country region in which this study was conducted. This has always been the case, but currently there is no DET residential option in a large city as an alternative. This is true of the other country regions as well.

It could be hypothesised that parents may prefer to have their deaf children educated in their local school. Indeed, it is unlikely that parents would relish the prospect of having to move their place of residence to a large metropolitan centre if they weren’t compelled to, or to send their child away to a residential school, when they are offered inclusive appropriate education for their child in their local school. Answers to what parents actually felt about this issue, will be provided by questioning parents and guardians of students involved in this inquiry. Gregory (1995) found that the parents of deaf students could see reasons for both integrated and segregated educational provisions, but essentially wanted their sons and daughters to be prepared

for the hearing world, and to take their place in it, but did not necessarily see integration as the best means of achieving this.

4.3.6 What is the criticism of the inclusion of deaf students?

The trend towards educating deaf and hard of hearing children in regular school settings is not approved of by all. Opposition can be emphatic and sometimes harsh. Cohen (1995, p. 3) referred to the “militant push for full mandatory inclusion” in the USA. Ramsey (1994) claimed that supporters of full inclusion for all students with a disability, do not necessarily have the support of any theory of human development and learning, nor do they take into consideration the culture or history of deaf people. According to Ramsey, the assumption that deaf children’s communicative abilities and social assimilation will be enhanced through contact with “normal” children, cannot be supported. Reagan (1994) titled his paper presented at the Annual Meeting of the American Educational Studies Association, “Towards an analysis of Epistemic Violence” in reference to inclusion and the deaf. He labeled the move towards inclusion, for this group, as a potential threat to the very heart of the Deaf cultural community, and as such, he claimed it raised issues of access, equity and fairness, as well as the cultural and linguistic rights of members of subcultures, in society generally. As Reagan pointed out, for many deaf people, deafness is defined not so much in terms of audiological issues but rather, with respect to linguistic, social and cultural issues (see Section 4.2.3). The Deaf community does not see deafness as a disability but as a sociocultural definition of a linguistic minority speaking a native sign language, and no more in need of a cure than any other linguistic minority (Reagan, 1994; Cohen, 1995).

Branson and Miller (1993) were responsible for the term “Epistemic Violence” used by Reagan. This pertains, in their view, to the practices of many, hearing, English-speaking professionals, who are convinced that their deaf clients must be reoriented towards “normality”, and who concentrate on promoting hearing and speech of the dominant language. Branson and Miller listed, cochlear implants, hearing aids, speech therapy, educational promotion of oralism, and Signed English, as the ways of achieving this normalising orientation and establishing the professional’s positions of control. This orientation, Branson and Miller say, is acultural, as it implies that the Deaf are not “normal” members of society.

The views of Branson and Miller on mainstreaming, or integration, are equally critical. They claimed that these practices show, contrary to the ideals outlined at the inception of inclusive movements, regular schools often in the past, acted to exacerbate disabilities, that is, produced handicaps and should therefore

rectify their practices. In the opinion of Branson and Miller, this should not happen via an orientation towards the “special educational needs” of the child, since that belongs to a deficit or pathological model, but rather via a provision of alternative educational practices and orientations within the schools generally. As a result, the proposed changes would place the onus on the education system to change to cater for individual differences, thereby reducing the educational handicap, which can follow disability. This criticism parallels the criticism of the mainstreaming model generally, which resulted from the Education for All Handicapped Act (EHA) described in Section 2.3.3 and 2.3.5. Branson and Miller (1993) stated that their research showed there had been no inclination for schools to adapt their curriculums to cater for the diverse and formerly hidden potential of new integration students, but rather, the students were expected to assimilate and change to fit into the school’s existing ethos.

As noted, (see Section 2.3.2) one of the original terms frequently used in reference to “inclusion” is “normalisation” (Leigh, 1994). This notion implies that if disabled children are supplied with social conditions equivalent to the norms and patterns of their surrounding society, it will create “normal development” for those children. This is somewhat problematic when it is applied to deaf children. A child could well be the only deaf child in a school and far from feeling “normal” could feel they were the only such person in the world. Clearly, isolated deaf students may not have access to deaf role models, which is a problem for any minority group, and one that can seriously affect self-esteem and self-image (Leigh, 1994; Stone, 1994). Vines, (1990) quoted a deaf boy who had grown up in the United States, “I was the only deaf child in the school. I could never be part of a group or join in a family discussion, because of having to concentrate on one person at a time”. (p. 24).

In trying to overcome communication difficulties, the provision of educational interpreters has created another set of difficulties, and further set the deaf student apart, rather than making them more “normal” (Innes, 1994). The provision of an interpreter in the classroom to facilitate communication has become a common practice in recent years, both in primary and high school years (Stinson & Lang, 1994) (see Section 3.5.5).

It is reasonable to question why a situation exists where deaf children are being educated in settings that appear to present some of them with extra burdens because of their communication difficulties, rather than in situations that seek to ameliorate these difficulties. While perfect educational provisions for the deaf have probably never existed, it seems that this linguistically exclusive group have been included in a philosophical movement that has not necessarily considered their exceptional needs. The deaf have been included in the zeitgeist of the “inclusion”

movement, which has proliferated as a response to philosophies such as those of Nirje and which is based on human rights, (Dempsey, 1996):

The core of our present belief system about the education of people with a disability is reflected in the ideas of human rights, equity and social justice...it has been seen as 'unfair' that some students with a disability have been excluded from regular schools and regular classes. (p.28)

As a result of legislation supporting inclusion, parents have been willing to put the legislation to the test in courts of law (see Section 2.4.2).

4.3.7 What have studies of deaf education in the past revealed?

The problems in relation to education, which severely and profoundly deaf students have traditionally encountered, are a result of difficulties involved with language development, as shown in the previous chapter. Facilitating language development is clearly crucial in educating deaf students in any setting, as it is the area of learning, which has historically proved so complex, and at the centre of debate about how best to overcome inherent problems. As a consequence of poor language development, deaf students have historically achieved less well than their hearing counterparts in aspects of schooling that rely on the ability to understand the language through which education is delivered.

Academic comparisons between deaf students' performance with their hearing peers are plentiful and their findings consistent. Researchers such as, Allen, 1986; Flexer, Wray, Millin and Leavit, 1990; Gentile, 1972; Osberger, 1986; and, Schildroth and Hotto, 1994, and others, have identified that, on average, deaf students do less well academically than hearing students. Studies, which compare the performance of deaf students in integrated, as opposed to segregated settings, are also plentiful. In the latter case, however, conclusions are not categorically able to attribute differences to any one factor. Studies have resulted in differing, and conflicting, conclusions (Holt & Allen, 1989; Kluwin, 1993; Kluwin & Moores, 1985; Stoefer-Fisher & Balk, 1992; Zweibel & Allen, 1988)

Phenomena related to language development, and the education of deaf children in different settings, have been examined in different ways in numerous studies in the past. The brief review of selected studies which follows, considers research examining the academic performance of deaf and hard of hearing students in different educational settings, as well as that which has examined their social performance. The studies reviewed were essentially quantitative and demonstrate inconclusiveness in relation to the placement of deaf students, as well as some

specific problems associated with inclusion for deaf students. As a consequence, the review reveals a number of concerns about the most appropriate setting for educating deaf students.

Studies making separate setting comparisons have demonstrated also, the areas where deaf students do less well than their hearing peers. A study by Schildroth and Hotto (1994) on the Achievement Test results of Deaf and Hard-of-Hearing Youth, based on a national data collection project, confirmed the existence of a wide discrepancy between the reading achievements of hearing children and of deaf children educated in a range of educational settings. Studies, which confirm these findings, are numerous. For example, Allen (1986) and Gentile (1972) both showed that relative to their hearing age peers, deaf students' results on the Stanford Achievement Test were markedly depressed in spelling, paragraph comprehension, vocabulary, mathematics concepts, mathematics computation, social studies and science, and also, that for each school year, deaf children fell behind their peers in reading and mathematics achievement. Osberger (1986) described a study which quantified the performance of a large group of profoundly deaf students on a battery of tests which assessed a wide range of language, academic and related learning skills, revealing that deaf students were severely delayed in language and language-based academics. More recently Flexer, Wray, Millin, and Leavit (1990) concluded that many students with impaired hearing were significantly behind their peers in terms of receptive vocabulary skills.

A more detailed examination of the comprehensive study by Schildroth and Hotto (1994) explains these findings more fully and the effects of the educational setting. That study examined the performance of deaf and hard of hearing students in four separate settings: residential schools for the deaf, day schools for the deaf, local non-integrated schools, and local integrated schools. The data for that study were collected from the Annual Survey of Hearing Impaired Children and Youth, which is a national data collection project conducted by the Center for Assessment and Demographic Studies in Gallaudet University's Research Institute (Schildroth & Hotto 1994).

One of the areas, included in the survey since its beginnings, was the type of facility in which the children were enrolled (see above). The data for this question in recent surveys reveals a steep decline in enrolment in residential schools between 1973 and 1993, with a loss of 47% in 17 years. Both day school and non-integrated local school placements also experienced enrolment declines, although of a less severe nature. At the same time, there was a dramatic increase in integrated local school placements. Apart from an increase in children with less-than-severe hearing

loss included in the Annual Survey, the placement shift was attributed to the effects of PL 94-142, and the inclusion movement.

Enrolment in residential, and day schools, consisted largely of children and youth with severe to profound hearing losses. Thus, a majority of children integrated with hearing students in local schools were in the less-than-severe category. The communication methodologies reported in the 1979-93 Annual Survey in the different placement settings revealed signing was used in large measure for children with severe to profound hearing impairment. Auditory / oral communication was used in the vast majority of integrated classrooms, which is consistent with the less-than-severe nature of the hearing losses experienced by those children generally. Sign language, either alone, or in combination with speech, was the preferred method of instruction in the special schools, both residential and day.

There was a corollary noted between higher achievement on the standardised tests and enrolment in integrated local settings that was not observable in the non-integrated classrooms, suggesting a relationship between the severity of hearing loss and achievement test results. A comparison with the performance of hearing children in regular schools on standardised reading comprehension subtests (for the period from 1990) indicated a wide discrepancy in reading achievement between the hearing and deaf children. The average student with impaired hearing in the 1990 survey was reading at only the 3rd or 4th grade level. There was a similar disparity found between hearing and deaf students in the Stanford Achievement Test mathematics computation results, although not as great as in reading:

Based on results from several different studies using Stanford Achievement Test, deaf students are generally performing at a consistently lower level than hearing age mates in both reading and mathematics. Many of these students are also achieving in mathematics at a different, usually higher, level than the level at which they are reading....An added complexity in the achievement test area is the fact that deaf students in special schools and in local self-contained classrooms are reading at a lower level than deaf students of the same age in the local integrated classrooms. (Schildroth & Hotto 1994 p.21)

The conclusions made were that severity of hearing loss had a profound effect on the communication and achievement attainments of deaf children and youth. While it was revealed that the deafest students were most likely to be educated in segregated settings using sign language communication, the analysis did not lead to the conclusion that the setting was responsible for a lower performance. Whatever the cause or nature of the relationship between hearing loss, communication methodology, and achievement, it manifested itself in both integrated and segregated settings.

A study conducted by Walter and Welsh (1987) looked at the achievements at post secondary institutions of deaf students who had come from three different types of educational setting (i.e., segregated, mixed, and inclusive). That study focused on the cohort of deaf students attending Rochester Institute of Technology (RIT) from 1976-1980. The students were at all times registered in programs at the National Technical Institute for the Deaf (NTID). Students at different times, were registered in programs both at the NTID and in at least one of the other colleges in RIT. Students at all times, were registered in programs in the other colleges of RIT. The study analysed data relating to the skills of the students, the graduation rates for the students, and the occupational levels of graduates from each of the various categories of enrolment: segregated, mixed, and inclusive.

It was found that in the three environments, students represented three distinct groups in terms of the variables evaluated in the study. Those that were exclusively enrolled in the segregated setting had the lowest academic achievement and oral / aural communication skills, but the highest sign language ability. They also had the highest attrition rate at the post secondary level. The second group, the mixed group, who at different times were registered in programs at both NTID and at least one other of the colleges of RIT, had a significantly lower attrition rate than the previous group. The third group, the integrated group, was enrolled only in the Bachelor of Science course and had been educated previously in an integrated school setting. On entry at the post secondary level study, this group's average achievement level was better than the 10th grade level.

The conclusion was made that only the latter group could complete a program of certification in a regular college without the traditional support services of tutoring, notetaking, and interpreting, because unlike the segregated group they did not require major alterations and additions to traditional methods of delivering education at the post secondary level, and unlike the mixed group they did not require extensive remediation before being fully admitted to the fully mainstreamed RIT environment.

The study suggested that success for deaf and hard of hearing students at post secondary level could be dependent on the ability to communicate in an oral / aural modality, but did not take into account the relative degrees of hearing loss experienced by the three groups. It appears that integrated students perform better academically than non-integrated students. However, the reasons for this remain unclear. Kluwin (1993) conducted a longitudinal study of deaf adolescents in the USA, and stated that the initial between-group differences accounted for the greatest proportion of variance in achievement. Advantages that accrued to the more mainstreamed students may have been, in his view, due to overall course selection and attendance in more academically demanding classes. He also concluded that the

better outcomes associated with mainstream placement may be as much, if not more, a product of different patterns of educational programming, as of the advantages of a specific placement.

Stoefen-Fisher and Balk (1992) reviewed the findings of many comparative studies including those of Holt and Allen (1989), Kluwin and Moores (1985), and Zwiebel and Allen (1988), and noted the variables that contribute to differences in achievement of students in alternate settings. Some of these variables were, degree of hearing impairment, age of onset of the hearing impairment, additional handicaps, and ethnicity. Other variables that they identified but which are less easy to control were, ability, past experience, teacher ability, and most importantly, communication skill. Each of the studies reviewed by Stoefen-Fisher and Balk (1992) suggested that children who were integrated achieved at a higher level in reading and mathematics than those who were not. The difference in achievement in these areas has primarily been attributed to several other variable factors, such as the higher expectations of the regular classroom teachers, and increased academic demands. The challenge of more difficult, but richer reading material may, in part, result in higher reading achievement. The higher achievement in mathematics was attributed to teachers being better prepared in mathematics.

Holt (1994) examined reading comprehension and mathematics computation achievements of deaf and hard of hearing students in a variety of school settings. Holt also suggested that for those students educated in regular classrooms, achievement was higher than for those in segregated settings. She noted, as did Kluwin (1993), that it was not possible to determine whether the higher achievement was because of inclusion in regular schools or because the students were selected for inclusion due to their previous higher achievement levels. This remains a potentially confounding factor in many of the studies of this type.

In studies reviewed by Power and Hyde (2002), similar findings were reported to those described above, but a study they reported by Geers (1990) found that early integrated students appeared to do well socially and academically, but also that separate special education throughout elementary school may improve the success rate in mainstream high school. She thought that successful academic integration might be the result, not the cause, of well-developed language and reading skills, these skills having been developed previously in special school placements (Allen, & Osborn, 1984). Either way, the students in her study who were successful in the mainstream environment were those who brought higher levels of language and communication skill (including reading ability) to the integrated environment.

Sociometric studies reported by Power and Hyde (2002), demonstrate differences between the groups, as has been demonstrated in other areas in the studies

reported to this point. They found that deaf and hard of hearing students integrated into regular classrooms received lower likeability and social preference ratings than their classmates, and on sociometric analyses were chosen less often than hearing peers. Studies dealing with social aspects of integration are more fully discussed in a later section (see Section 4.3.9).

A study by Shaw and Jamieson, (1997) described the patterns of classroom discourse experienced by an integrated deaf child with full-time interpreting services in the elementary setting. The child was an 8-year-old boy with additional health and physical concerns. His hearing loss was in the moderate to severe range. At school and at home he used oral language with gesture with people who did not sign. Since school entry at age 5 he had always been the only student who signed in the school district.

Analysis of the videotaped data revealed that the regular students received 81 minutes of direct instruction in the observation time; in contrast the deaf student received 48.5 minutes of the lesson, which was interpreted for him. During this time he was engaged with the teacher in 11 interactive bouts, 6 of which were initiated by the teacher, the other five by the student, which were not directly related to the information of the lesson but rather to practicalities such as pencil sharpening. Whereas the other students either received class-directed lessons from the teacher or completed seat work, the deaf student only spent 62% of the time involved in these activities, the other 38% of the instructional time was spent receiving tutorial assistance from the interpreter. The quality of the interactions between the deaf student and the teacher was noted to be different from her interactions between the hearing students, with whom she readily communicated, in contrast to her hesitant interaction with the deaf child. There was little evidence of the teacher actually attempting to help the deaf student directly.

The conclusions of that study were that the classroom discourse experienced by the deaf student was consistently characterised by features of language use that were unavailable to him, but available to his hearing peers. The most striking finding was that the deaf student received considerably more direct instruction from the interpreter than from the class teacher. That student, who arguably needed more assistance from a qualified teacher relative to most, actually received less. While the deaf child did receive more explicit instruction than the other children, it was of a different nature to the cultural rules of the classroom experienced by the other children. In the case of the deaf child, much of the background knowledge of language and its function was missing, which accounted for the need for more supplementary tutoring. This in turn made less time available for seat work, which was considered a way for students to make apparent their understanding of the

concepts being taught. The teaching-learning experience of the deaf child, therefore, was largely one-way, with the emphasis on instruction rather than displaying what had been learned. The deaf child did not have access to much of what was whispered or spoken social discourse, which was considered responsible for the large gaps reported in his knowledge of the cultural rules of interaction in the classroom. Neither did he have time to be able to learn about, or benefit from the other student's conceptions about the phenomena being taught. It was concluded that mere physical proximity to his hearing classmates did not guarantee the deaf child full access to their academic, social or cultural experience.

A study conducted by Murphy Hulsing, Luetke-Stalhman, Frome Loeb, and Wegner (1995) focusing on deaf and hard of hearing children was designed to examine the communicative interactions of three mainstreamed children in a kindergarten class who were deaf and hard of hearing, matched with classmates who had normal hearing. The subjects were videotaped and the data were analysed for average length, frequency, and total number of communicative interactions. The results suggested that children who are deaf or hard of hearing are less successful at initiations than peers who are hearing. However, that study did not find that the children with normal hearing always produced a higher percentage of successful initiations than their deaf peers. The differences could be attributed to the fact that some deaf or hard of hearing children used oral communication, which was intelligible to their peers, while another subject did not have intelligible speech, did not seem to use her interpreter effectively, and spent a lot of time watching the activity elsewhere in the room. It was noted that all the children in the study had a higher percentage of successful initiations to one peer, than to a larger group of peers.

The study by Murphy Hulsing, et al. (1995) also provided evidence that children with normal hearing modify their communication because of familiarity to the specific subject who is deaf or hard of hearing. The subjects, who were deaf, also modified their communication with their hearing peers by not signing to them if the normally hearing peer had signed to them first. This was probably due to the deaf children having learned that signing to peers was not a successful way to communicate and that using gestures, words, and actions, often was effective. The study highlighted the differences between successful communicative behaviours of deaf and hard of hearing children, and that oral communication, which was intelligible was an important component.

A description of a study of high school social interaction involving deaf students provides detailed evidence of in-class interactions of an older age group. Mertens and Kluwin (1986) examined the academic and social interaction of hearing impaired high school students. The study included 18 teachers of mathematics at the

secondary school level, 11 teachers in regular mathematics classes with hearing students and hearing impaired students, and 7 teachers in self-contained classes for the deaf. They came from three different schools in three cities.

The results revealed that the number of interactions that occurred in both mainstreamed and self-contained classrooms, between and among students, was quite low, as the classes were not structured to encourage interaction between students. In the mainstreamed classroom, no hearing student interacted with a deaf student and no deaf student interacted with a hearing student. Social comments, by individual hearing students, were frequently observed in all the mainstreamed classes. In five of the mainstreamed classrooms, no social comments were observed coming from the hearing impaired students. In the self-contained classrooms social comments were observed from the students. When the totals were corrected for different class size, it was revealed that the average hearing student made 1.25 social comments per observation period while the mainstreamed deaf student made an average of 0.09, and self-contained student an average of 0.65.

All but one of the mainstreamed teachers had a bachelor's degree in mathematics or maths education. Only one of the six teachers in self-contained classrooms had a bachelor's degree in a maths related field. None of the self-contained classroom teachers were certified to teach maths, while seven of the mainstreamed teachers were.

While no differences were found between mainstreamed and self-contained teachers, major differences appeared within each group in terms of the frequency of each behaviour. In mainstreamed classes 53% of the time was spent in individual contact, of which 3.5% occurred with the hearing impaired students. When analysed, hearing students received 4.0 individual contacts in a 140 minute period, compared to 0.3 for the hearing impaired classmates. In the self-contained classroom 69% of contacts were of an individual nature, averaging out to 28.1 per 140 minute period.

There was a significant difference in the degree of difficulty between the quantity and difficulty of the work in the two environments, ranging from a scale of 4.81 in mainstreamed classes to 1.82 in the self-contained classes. It was noted that students in the self-contained classes asked questions of the teacher, but that did not occur with hearing students in the mainstreamed classes.

The conclusions made in that study were that no interactions between hearing and hearing impaired student occurred in the classroom. Mainstreamed teachers were found to be more often trained in mathematics than those in self-contained classes. It has been suggested elsewhere that this makes a significant contribution to student achievement in mathematics (Stoefen-Fiser & Balk, 1992). The lack of interaction at an individual level between the teacher and the hearing impaired, when compared to

that between the teacher and the hearing students, was significant. The classes where the greatest communication took place between the teacher and hearing impaired student were those in which the teacher used simultaneous communication (see Section 3.5.2). The lack of communication in situations in which an interpreter was used was considered due to the communication lag time. Students in the mainstreamed classes were generally working at a higher level than the students in the self-contained classes.

The lack of student participation in the classes would seem to indicate that the teachers did not structure their classes to encourage questions from any of the students. These researchers concluded that the largest single factor in the achievement of hearing impaired students in public school programs was their initial ability, with family factors, course content, and teacher expertise, comprising other contributing factors. Finally, the opportunities for interaction between teachers and students, and between students themselves, was thought to contribute to a student's social and emotional development, with interactions typically not occurring unless they are structured into the situation.

4.3.8 What evidence is there to support either integrated or segregated placement?

Carlberg and Kavale (1980) questioned whether the move to educate students with a variety of disabilities, other than deafness, in mainstreamed settings was justified. They stated that the arguments on mainstreaming were built on philosophical rather than empirical foundations; the former of which they stated was firmer than the latter. As reviews addressing the question had been inconclusive, they used meta-analysis on the data on the subject of special versus regular class placement as a method of examining all the available information. They reported that a review of the literature had failed to reveal unilateral evidence that established the superiority of one educational arrangement over another on academic or social criteria. The first step in the study was identifying properties that related to the efficacy of special versus regular class placement. They looked specifically at studies on children who were behaviourally disordered, emotionally disturbed, and learning-disabled, with IQ another characteristic considered. Studies involving students who were deaf were not included.

Meta-analysis provided a means of simultaneously analysing unlike components with a unit of analysis, a statistic known as Effect Size. In this way meta-analysis provided a procedure that allowed large numbers of primary data analyses to be integrated and subjected to reanalysis. The findings indicated that the variable of special class placement reduced the relative standing of average special class subjects

by five percentile ranks. In grade equivalent units, this reduction represents 1 or 2 months on most tests used in the elementary grades. When the category of exceptionality was examined, however, differential special class effects emerged. Special class placement was most disadvantageous for children whose primary problem was lowered IQ, but the average behaviourally disturbed/emotionally disturbed child, or learning disabled child, was better off in special class placement, being better off than 61% of his /her counterparts. They concluded that regular class placement, may not be appropriate for certain children: "Special class placement was not uniformly detrimental and showed differential effects related to the category of exceptionality" (p. 304).

It is clear that the benefits of integrated placement are not entirely related to the placement itself, but to the characteristics that students bring to that placement, and the quality of the response available in that placement. The potential for such placement to be beneficial, or even practical, for deaf students would appear to be dependent upon a range of individual and placement characteristics.

The studies reviewed above do not provide certainty about the best setting for educating deaf and hard of hearing children. It is not unequivocally clear which setting ensures the best outcomes. Given that the deafest of students have traditionally been educated in segregated settings, because of the difficulties they experience in the areas of communication, an assurance that an integrated setting can provide for better educational outcomes cannot be made unreservedly. This suggests that for some deaf students, at least, inclusion may not be the best placement for academic achievement. The next section reviews research concerning the social needs of deaf students and suggests that these are not necessarily well met in inclusive settings.

4.3.9 What do studies investigating the social competence of deaf students reveal?

Antia (1985) stated that a major purpose for educating deaf children with their normally hearing peers was to promote the socialisation process, assuming that physical proximity would increase the opportunity for social contact, ultimately leading to social acceptance. A positive relationship was thought to exist between social interaction and social acceptance, since a child is more likely to interact with children he or she accepts as friends. But, according to Antia, studies that have examined the frequency of social interaction between hearing and deaf peers in integrated settings showed that physical proximity alone was not enough to ensure interaction. Therefore, in the view of many researchers, placing deaf and hard of hearing students alongside hearing students was not enough to ensure effective

integration. Antia (1985) suggested instead that both linguistic proficiency, and the nature of the integrated setting, influenced the amount of interaction that takes place.

Brancia Maxon, Brackett, and van den Berg (1991) listed some of the social difficulties inherent in placing students with hearing impairment in regular education settings, conditions which they stated can precipitate feelings of social separateness. These conditions included: (a) being the sole deaf student in a regular educational setting, (b) wearing special classroom amplifiers, (c) receiving support services that require being taken out of the classroom, (d) experiencing breakdown in communication during social and academic interactions, and (e) having difficulty in some classroom listening situations. Atypical social behaviors can ensue from these feelings of being an outsider.

A study by Bodner-Johnson (1986) correlated the quality of the family environment with deaf children's school achievement. That study showed that parents of proficient readers were characterised as being well adapted to their children's deafness, involved in the deaf community, and permissive, rather than over-protective in their child rearing orientation. High achievers had parents with high educational and occupational expectations and standards. A number of other studies have examined the social characteristics of deaf and hard of hearing students, in integrated environments (Antia, 1985, Raimondo and Maxwell, 1987; Saur, Popp-Stone, & Hurley-Lawrence, 1987).

The studies described by Antia (1985) and Brancia Maxon, Brackett, and van den Berg (1991), as well as those cited above, suggested that social benefits of an integrated setting were not always realised. A review of studies on the matter by Lee and Antia (1992) revealed that few studies indicated that social interactions between mainstreamed deaf students and their hearing peers were satisfactory. It was noted that deaf students generally interacted more with their teachers than peers, and also, that deaf students were not favored by their hearing peers. It was also found that deaf college students were not generally accepted by hearing young adults.

Antia (1985) listed several of the factors which she considered needed to be addressed to improve social acceptance of deaf students, including linguistic competence, the ability to initiate and maintain interaction with hearing peers, and the dependence on adults rather than peers for rewarding social interaction by the deaf students. Raimondo and Maxwell (1987) stated that deaf students may be reliant on different forms of communication including sign language, fingerspelling, writing, an interpreter, pantomime and gesture, as well as speech, or any combination of the above. The absence of these types of communication may prevent the deaf student from receiving and transmitting information, leading to difficulties in academic or social skill development. They stressed that if the deaf student was to take part in

classroom discussions, someone must make a change in the turn taking norm in the classroom and otherwise help the student to follow. They exhorted teachers to find workable ways of including the deaf students in classrooms. Lee and Antia (1992) also stressed that specific strategies should be put in place to develop improved social relationships between the deaf and hearing students.

Brancia Maxon, Brackett, and van den Berg (1991) demonstrated that self perception of deaf mainstreamed students was affected by hearing status, age, and gender, with verbal abilities related to emotional expression and verbal aggression. They, too, recommended that it might be beneficial to include specific training in social skills for deaf students with an emphasis on the language involved in appropriate social interactions. As with academic performance, there are no assurances that an integrated setting can guarantee improved social outcomes for deaf students.

4.3.10 What is the attitude of the National Association of Deafness (NAD) of America to the inclusion of deaf students?

Maximising the benefits of education in relation to deaf students is paradoxical. The National Association of Deafness (NAD) in 1994 was responsible for a document titled *Statement on Full Inclusion*, which expressed its concern about full inclusion for all deaf students. The movement towards full inclusion was considered, by that organisation, to be conducted with complete disregard for the provision of essential services based upon a comprehensive assessment of each child. The Association claimed that full inclusion was in violation of the Education of All Handicapped Children Act.

The NAD also claimed that placing deaf and hard of hearing children in fully inclusive settings creates language and communication barriers, which are potentially harmful, and actually deny these students education in the least restrictive environment. They acknowledged that a regular classroom may be appropriate for some deaf and hard of hearing students, but for others it is not. They were most concerned that there should be expansion of the full range of services, rather than contraction, so that each deaf or hard of hearing child receives a quality education in an appropriate environment.

The NAD argued that an appropriate placement for a deaf or hard of hearing student is one which:

- ...enhances the child's intellectual, social, and emotional development: is based on the language ability of the child: offers direct communicative access and opportunities for direct instruction: has a critical mass of age appropriate

and level appropriate peers: takes into consideration the child's hearing level and abilities: is staffed by certified and qualified personnel who are trained to work with deaf and hard of hearing children: provides full access to all curricular and extra-curricular offerings customarily found in educational settings : has an adequate number of deaf and hard of hearing role models: provides full access to services: has the support of informed parents: is equipped with appropriate technology. (Statement on Full Inclusion, 1994, P78)

The NAD expressed its belief in the right of all children to a free and public education in an environment that enhances the intellectual, social, and emotional development of the child, but agreed that this should be one where there is direct and uninhibited communicative access to all facets of a school's program. This latter consideration is in fact central to the DET policy on inclusive education (see Section 4.3.1). The DET policy is expressed in Special Education documents as well as documents dealing with the literacy syllabus, which have been described previously. In accordance with the views of Byrnes, Sigafos, Rickards and Brown (2002), it is a common observation that;

...variance in the implementation of the policy has been observed at both school district and school levels. Some school districts interpret and implement aspects of the policy rigidly, while others apply a more liberal approach.... Such variance in interpretation by school district personnel may lead to a student being educated in an included setting, when their needs may in fact be better met in a support class. While some schools willingly accept and accommodate students with disabilities, other schools seem reticent to do so. (p. 246)

It would appear that the issue is, or should be, one of appropriateness of educational support option on a case-by-case basis. There should be support in policy and practice, as defined by the research literature, for the concept of no singular "inclusive education" approach being deemed to be appropriate for all deaf or hard of hearing children.

4.4 Conclusion

A broad summary of the findings of studies examining both educational and social aspects of deaf education, demonstrates that;

- (a) on average deaf students do less well academically than hearing students,

- (b) it is not possible to categorically attribute the better performance of deaf students educated in an integrated setting, to the setting,
- (c) certainty about the best setting in which to educate deaf students cannot be held, and,
- (d) the social benefits of an integrated setting cannot be guaranteed.

Table 4.1 Summary of findings of major studies examined

Researchers	Title	Findings
1. Schildroth and Hotto 1994	Achievement test results of deaf and hard of hearing youth	<ol style="list-style-type: none"> 1. Deaf students enrolled in segregated placements declined 2. Increase in integrated placements 3. Integrated less severe levels of deafness 4. Corollary between high academic performance and integrated placements 5. Hearing loss profound effect on communication and academic achievement
2. Walter and Welsh 1987	Achievement of post-secondary deaf students from segregated, mixed and integrated educational settings	<ol style="list-style-type: none"> 1. Level of achievement differed from the three placements: a) segregated group, lowest academic achievements and highest attrition rates: b) mixed group lower attrition rate and higher academic achievement than segregated group: c) integrated group lowest attrition rate and highest academic achievement 2. Did not take into account the relative degrees of hearing loss in the three groups
3. Shaw and Jamieson 1997	Classroom discourse experienced by integrated deaf child with full-time interpreter	<ol style="list-style-type: none"> 1. Classroom discourse less available to deaf child than hearing children 2. Deaf child received more direct instruction from interpreter than class teacher. 3. Explicit instruction different in nature for hearing peers 4. More supplementary tutoring for deaf child and less time to demonstrate understanding of concepts-instruction 1 way
4. Murphy Hulsing, Luetke-Stahlman, Froem Loeb and Wegner, 1995	Classroom interactions of three mainstreamed deaf and hard-of-hearing children	<ol style="list-style-type: none"> 1. Deaf and HoH children less successful initiators of communication than hearing peers 2. H and D modified their communication using more gestures, words and actions rather than signing 3. Oral communication the most important communication component

5. Mertens and Kluwin, 1986	Academic and social interactions of hearing impaired high school students in mathematics classes in regular and self contained hearing impaired classes	<ol style="list-style-type: none"> 1. Both sorts of classes had low levels of interaction among students 2. Mainstreamed classes no hearing student /deaf student interaction 3. Hearing student / hearing student social interaction 4. Self contained deaf class social interaction 5. Mainstreamed maths teachers more highly qualified than the self-contained class teachers 6. Hearing students received more individual contact with mainstreamed teachers than deaf students 7. More teacher /student interaction in self-contained classes 8. Students in mainstreamed classes generally worked at a higher level than in self-contained classes 9. Classes were not structured to encourage questions
6. Carlberg and Kavale, 1980	Meta-Analysis of data on special and regular class placement	<ol style="list-style-type: none"> 1. Special placement was not uniformly detrimental 2. Differential effects depended on category of exceptionality
7. Lee and Antia 1992	Review of studies on social benefits of integration for deaf students	<ol style="list-style-type: none"> 1. Few studies indicated that social interactions between mainstreamed deaf students and hearing students were satisfactory 2. Deaf students interacted more with teachers 3. Deaf students were not favoured by hearing peers

When the weight of research findings such as these is considered, it is clear why DET policy, and practice, can be problematic for some integrated deaf students. It makes it apparent why it is necessary to answer questions about the nature of the current educational experience for integrated deaf students, especially those educated in rural areas. It is apparent that the education of deaf students has been challenging historically. The current changes to policy and practice, which makes inclusion in a regular school the only option for rural deaf students, changes which are not necessarily supported by empiricism, cannot be guaranteed to be superior to the practices of the past. The problematic nature of deaf education is exacerbated further in rural NSW because of the lack of educational alternatives that are available in metropolitan areas.

In answering the question asked at the commencement of this chapter, it is apparent that, in the past, degree of hearing loss and communication modality, had a large bearing on whether a deaf student was educated in a segregated or integrated setting. Students who used manual means of communication were possibly those considered too difficult to teach in classes where students and teachers could not communicate with them.

Studies have not been able to identify conclusively the reasons for better performance of deaf students in integrated settings. It has not been possible to differentiate between the qualities of the students educated in either setting that were independent of the educational setting. It has been suggested that the higher expectations and qualifications of the teachers in regular schools may have contributed to higher academic performance on the part of integrated deaf students. Communication modality appears to have a major bearing on whether a student performs well in an integrated setting or not. Aural /oral communication appears to be a contributing factor in the success of integrated students.

Residential segregated deaf schools have been attributed with forging Deaf identity, social unity, and a common language. These features may be seen to be lacking for the deaf in integrated settings. The quality of the educational experience in some segregated settings has been questioned. Social interaction, which was one of the primary aims of inclusion, has been shown to be problematic. In many cases, the philosophy behind the inclusion movement, of being part of the local community and interacting with peers, has not been realised for many deaf individuals.

Studies on integrated deaf students have shown that the experiences for hearing and deaf students in the same class can be quite different. Social interaction, access to information, student / teacher interaction, can all be reduced in the case of the deaf students. This situation is compounded further when intermediaries such as interpreters and itinerant teachers are involved.

In the case of itinerant teachers, as the nature of the job they are expected to carry out has changed with the advent of severely and profoundly deaf students in regular classes, their role has become somewhat undefined. In reality, it would seem to have become more central in program delivery requirements, but policy dictates that the primary program delivery role remains that of the classroom teacher. This could be problematic in situations where classroom teachers are not willing, or capable, of taking on the primary role.

Educational policy and curricula indicate that deaf students, as well as any other students with disabilities, are entitled to communication partners, and access to the complete curriculum in an inclusive education setting. In the case of the New South Wales DET, no policy statement or document described how this should take

place in the case of the deaf. DET curricula, in some cases, mandate an interactive approach to teaching. This is especially so in the language areas, and would seem to facilitate the inclusion of a deaf student with a language delay. Such an approach complies with the preferred theoretical model of language acquisition, the social interactionist approach, and would facilitate language development and access to the curriculum. It is questionable, however, whether regular teachers are able, or willing, to embrace such an approach, or whether such methodology is in common use.

One of the criticisms, which has been directed at special education, and the movement of students with different disabilities into the mainstream, is that it has occurred without a sound empirical base (Gow, 1988). This remains true today in regard to the inclusion of severely deaf students in regular classes. There is no research available, which unequivocally demonstrates that an inclusive education is best for all deaf students. In the case of severely and profoundly deaf students in rural regions, it would appear they have no choice.

At present, deaf students in NSW are educated in regular schools where regular class teachers have the primary responsibility for the provision of access to the curriculum, with the support of itinerant teachers whose role it is to assist the class teachers.

There has been criticism of full inclusion for all deaf students because inclusion is considered unable to fulfil the requirements of a satisfactory inclusive education in every case.

Given these complexities, it is clear that placing students with high degrees of deafness in the classes of teachers who know nothing of the complexities, and who are trained to provide for students with the ability to access speech automatically, is questionable. The question of how those teachers can overcome the complexities and provide access to the curriculum for the deaf student in an inclusive educational setting is critical. The next chapter answers questions about the nature of regular schools and teachers and seeks to describe the characteristics of schools, and the deaf students, which may facilitate access to the curriculum for fully included deaf students.

Answers to the questions addressed in this chapter suggest particular research questions to be asked in the individual situations examined. Those questions relate to the linguistic capabilities of the individual students, as well as to their literacy abilities, and to their educational backgrounds. The Particular Etic Issue Question to be asked in each case is, "How did the deaf student perform in relation to their communicative and literacy ability?"

CHAPTER 5 SCHOOLS AND TEACHERS

Issue 3 Regular schools and teachers' ability to cater for the educational needs of deaf students

5.1 Introduction

The previous chapters have addressed the issues of the inclusion of deaf students, their linguistic characteristics and requirements, and the educational provisions of the past and present. It has been shown that these issues are complex and unresolved. The complexities of the issues are exemplified in the polarised opinions that relate to each of them: Whether deaf students are educated in segregated or integrated settings, and whether they use manual or verbal communication. The final issue to be addressed, that of schools and teachers, is of particular significance to this inquiry because it is regular schools and teachers that have to deal with the reality of the complexities that the inclusion of severely and profoundly deaf students brings to regular schools. Regular teachers have to deal with the full range of disabilities in their classes. For many it is a daunting task.

It has been shown that, in the past, students with high degrees of deafness have generally been educated in segregated educational settings with teachers specifically trained to deal with their communicative and educational needs. The inclusion of severely and profoundly deaf students in regular schools currently imposes significant demands on regular teachers, who frequently have little knowledge of deafness, the linguistic characteristics of the deaf, nor the communication modalities often employed by deaf individuals. It has been shown that the various devices intended to overcome the problem of not being able to access spoken language, do not always succeed, and cannot be relied upon to completely overcome a severe lack of auditory acuity.

In Chapter 2, inclusion was described as an educational provision, which mandates that students with any sort or degree of disability should be entitled to the full range of educational opportunities that any other student enjoys. Being fully included in a regular class implies access to educational, social, and communicative involvement, in the same way as students who do not have a disability. Being present in a classroom does not ensure that a student is fully included in the general round of

school activities, and full inclusion can mean a variety of different things in individual cases (MacMillan, Gresham & Forness, 1995).

Classroom teachers have the responsibility of providing inclusive educational opportunities for the severely and profoundly deaf students who may be enrolled in their classes. Given the obvious difficulty involved in performing this task, it is apparent why the issue of schools and teachers is significant, and why it constitutes the principal Issue under scrutiny in this inquiry. The criticisms leveled at the inclusion movement include the charge made by MacMillan, Gresham, and Forness (1995) and others, that the approach is based on ideology rather than a sound empirical base. Those authors have charged the proponents of full inclusion with relying on anecdotal reports and descriptions of individual cases, where a child with a disability was included in regular classes, and had a good experience. This criticism could well be leveled at the practice of full inclusion for severely and profoundly deaf students in New South Wales. There is no empirical evidence that guarantees that full inclusion for all deaf students is appropriate, or that segregation will be appropriate. For that reason, examining the issue in depth has immediate relevance for individual deaf students included in regular schools.

The Etic Issue Question to be addressed by this chapter is, “How do regular teachers provide inclusive educational opportunities for the severely and profoundly deaf students in their classes?”

The Principal Topical Information Questions posed in this chapter, which are intended to provide the background information to answer the Etic Issue Question, are:

- 1) What are the characteristics of regular schools?
- 2) What are the characteristics of regular teachers?
- 3) What are the different teaching styles?
- 4) What are the characteristics of inclusive schools?
- 5) What practices can facilitate inclusion?
- 6) What are the linguistic characteristics thought necessary for deaf students to be able to access the curriculum?

For questions 1, 2, 5 and 6, the Contributing Topical Information Questions are:

- 1) a) What are the common features of regular schools?
- 2) a) What are the common features of regular teachers?

- b) How does teacher belief impact on teaching style?
- 5) a) What is differentiation?
- b) What is co-enrolment?
- c) What are adhocratic solutions?
- 6) a) What are the different discourse types?
- b) What is Initiation Response Evaluation (IRE)?
- c) What are narration, description, persuasion, comparison and argument?
- d) How is mastery of discourse types achieved?

When these questions are answered it will be possible to identify the essential qualities displayed by individual teachers, who facilitate inclusive educational opportunities for students in this inquiry, when observed. Also, there will be an understanding of how the communicative abilities displayed by particular students contributed to either inclusive, or non-inclusive, educational situations for those students.

The regular teachers involved with the students in this inquiry had not been specially trained in deaf education, and in many cases knew nothing of deafness prior to their involvement with the students in this inquiry. The teachers involved had educational responsibility for the students—with all of their very specific difficulties—placed upon them without any consideration of the need for prior training, or preparation, in regard to meeting those needs. As evidenced in the data presented herein, some teachers did not feel confident or positive about this situation.

This is consistent with the investigation of McRae (1996). McRae found small groups of educators who had entrenched negative attitudes towards inclusion—negativity, which was also held by the Teacher’s Federation (the body that represents teacher interests in NSW)—and was previously well documented by authors such as Kenny (1994). Byrnes, Sigafoos, Rickards and Brown (2002) suggested that the attitudes of teachers reported by Mc Rae related to an underlying belief in the value of special schools and classes, or a conviction that only specialist teachers had the necessary skills to accommodate students with special needs. Also reported by Byrnes et al. (2000) was the perception of some deaf or hard of hearing students that their inclusion was not consistent with a welcoming educational environment. Rather, it was perceived purely, as inclusion at a physical level, with social and emotional separation perceived. Such separation and feelings of isolation could be responsible

for educational, social, emotional, and linguistic outcomes being compromised, thus causing some students to fail to reach the goals of the educational system for all students.

Parent groups have expressed concern about the ability of teachers to make the necessary curriculum adjustments to accommodate the needs of students with disabilities (Epstein-Frisch, 2000). Byrnes et al. (2002) suggested that this might reflect teachers' beliefs that it is the responsibility of individual students to adapt to the school setting, rather than for the school curriculum to make concessions for the individual.

Studies reviewed in Chapter 4, dealing with the education of deaf and hard of hearing students, have suggested that teacher performance is an important component of school success. Another critical component of school success was shown to be the ability of students to communicate effectively. The latter is not surprising, given that school instruction is delivered through linguistic modes of one kind or another, which require both expressive and receptive abilities on the part of the learner, in order for them to perform satisfactorily. Therefore, the language capacities of both protagonists—teachers and students—will ultimately impact on educational outcomes for students. The competence of the students to perform certain linguistic tasks adequately is clearly a key contributor to successful regular school performance. Therefore, the linguistic abilities that are thought to be necessary requirements for regular school success are also examined in this chapter.

5.2 What are the characteristics of regular schools?

5.2.1 What are common features of regular schools?

To discuss the issue of schools, it is necessary to return to the debate introduced in Chapter 2, on the REI (see Section 2.3.5), which called for a restructuring of regular education in order to deal with the needs of all students, including those with disabilities of one sort or another, who are currently included in regular schools (Knight, 1994). Goodman (1995) stated that educators were called on to “rethink” how schools were designed, how school systems operated and how teaching and learning were pursued, and what goals for schooling were sought. He

stated that the making of changes in schools that result in substantive transformations for teacher and student experiences, was difficult to envisage.

Despite the calls for change that have been made in the past, schools have retained the ways of educating students from the past. Goodman noted that it is possible to make a distinction between ameliorative and radical reforms. The former merely make the on-going practices more efficient and effective, while the latter confront the cultural and pedagogical traditions and beliefs that underlie current practice. Despite the fact that each decade has brought forth reforms in schools, the changes have not necessarily gone beyond the ameliorative, with the underlying assumptions and predispositions often remaining hidden from scrutiny.

Goodman (1995), like Skirtic (1987), stated that throughout the last century schools were based on a model of the efficient and productive business organisation. Test scores became the product of schools, and the students the workers who produce the products, using instructional programs provided by the organisation. In this paradigm, teachers have been equated with shop floor managers who over-see the students to make sure the work gets completed, and principals compared with the supervisors who manage school personnel (Weick, 1982). Emotional concerns, of students and their families, are attended to by specialists, such as social workers and school counsellors. Without exception, schools in our society view learning as an individual experience with “individualised instruction” being a popular educational goal for decades. Reforms such as assigning more homework, lengthening the school year, or raising academic standards, fail to address the central issue of educating children, in the view of commentators such as Goodman and Skirtic.

In a similar vein, Cazden and Dickinson, (1980) described the “Back-to-Basics Movement” of the late '70s in the USA, which was characterised by a reliance on standardised tests and the associated belief that schools were not doing as well as in some idealised past. As a response to community pressure, teachers all over the country provided abundant practice in discrete measurable skills, while classrooms where children were integrating those skills in exciting, speaking, listening, reading, and writing activities, were rare exceptions. They stated that a fragmented approach to teaching is to be expected when teachers have to work in environments where children's learning and their own competence in teaching are judged by performance on standardised tests. Although teachers reported by Cazden and Dickinson were seen as being made aware of the complexities of language and cognitive development,

these authors also argued that they could not afford the time to teach language in an integrated manner for fear of being accused of ignoring the subskills if test scores were low.

In NSW there is a concerted move towards Basic Skills Testing and identifying children experiencing literacy difficulties through standardised testing, which also compels classroom teachers to abandon the sorts of teaching practices which may leave them accused of neglecting the basic skills. This is what Goodman referred to when he accused schools of employing reforms, which failed to address the central facets of educating children. The current push towards increased state control of schools, as exemplified by the Basic Skills Testing and standardisation in NSW, suggests that NSW is currently pursuing a similar bureaucratic path to that described by Cazden and Dickinson (1980). In a memorandum to Principals from the Deputy Director-General Development and Support (1999) in New South Wales, it was stated that “Primary teachers will receive support to work with students who have been identified as requiring additional support in literacy, as part of ‘Targeting the Basics’ program”. Evidently decades later than the “Back to Basics” movement, which occurred in the USA in the late ’70s, NSW is following a similar “return to the basics”, in a perceived response to public opinion and a collective wish to return to the past, with students requiring additional support being identified through statewide-standardised Basic Skills Testing.

In the *Vinson Report* (2002) it was stated that it is important to distinguish between assessment for accountability, and assessment for learning. The assumption behind external accountability measures such as the Basic Skills Test is that, once a teacher knows the levels at which their students perform, they will have the information to decide on the next step in teaching and learning. According to the *Vinson Report*, that is a false assumption, and the appropriate assumptions can only be made through assessment for learning. These are the types of complex professional judgements made on a day-by-day basis by teachers. This kind of assessment for learning, it was claimed by the *Vinson Report*, is at the heart of improved learning outcomes.

In a paper published in 1987, Skirtic charged special education practice, and the organisation of schools, with being instrumental in actually creating the category of “mildly handicapped students”. He described the practices of the schools, both those in special education and regular education, as atheoretical, stating that the

discourses in both areas of education were carried out in the absence of a guiding theory. He described the official discourse on students with disabilities as grounded on the assumption that essentially disabled people were thought to be distinct from people without a disability, and that they needed special services to help them. Improvement was thought to be made by improvements in diagnosis, intervention and technology, essentially grounded in psychological and biological explanations of deviance, (sometimes referred to as the “pathological model”). He described the organisation of regular schooling as based on the notion of “scientific management”, which is the approach of industrial organisations that yields the familiar hierarchical administrative structure of those organisations. Such structures are characterised by the pyramidal, top-down structure of formal control relations, or the “machine bureaucracy”. From this perspective, organisations and the people who inhabit them are viewed as physical entities, as machines that can be rationally fine-tuned to achieve endless efficiency.

When this is applied to schools, educational administration becomes a prescriptive discourse of scientific management and administration, as opposed to the discourse of philosophy of curriculum and instruction. Thus, school administrators become experts in how to administer and control organizations, rather than educating students. The first casualties of such an organisation, according to Skirtic, are students who are difficult to teach and manage in regular classrooms. This includes students who have disabilities, or cultural or linguistic differences to the norm.

According to Skirtic (1987) the set of skills a professional teacher in such a system stands ready to use, can be thought of as a repertoire of standard programs that are applied to predetermined situations, posing real problems for those with a “disability”. He argued that teachers, like all professionals, apply their standard programs according to a circumscribed process of “pigeonholing”, which matches a predetermined contingency (a perceived client need) to an existing standard program. This confuses the needs of the client with the skills the teacher has to offer them. This is not a problem as long as the student’s needs are actually the same as the skills the teacher has to offer (Goninan, 1995). When the learning style and individual needs of a particular student do not match the professional’s repertoire of standard programs, the student gets forced artificially, into one program or another, or out of the system altogether. Skirtic stated that professional behavior in schools was governed more by institutionalised, cultural norms, than by rational, knowledge-based actions designed

to improve instructional effectiveness. Things are done in a certain way simply because they have always been done that way. Teaching, in this view of education, is a professional bureaucracy, applying standard, conventional programs in a ritualised way that takes place in an institutionalised environment.

Although paradigm shifts can occur, resistance often takes the form of political clashes between advocates of a new paradigm and the defenders of the old one. Conservative attempts to patch up the system incrementally increase ritualised activity. The identification of many, if not most, students with a mild disability, according to Skirtic (1987; 1991), comes from this inability to fit professional pigeonholes. In other words, students with a “mild disability” are typically those whose needs do not fit the available standard programs. From such a school’s perspective, “disability” of any type is a matter of not fitting the available standard program. In some cases, schools are required to make fundamental changes that require teachers to do something other than what they were standardised to do. This can be, and often is, resisted according to the strength in which their beliefs were originally embedded. For some teachers, facing the new demands of inclusion for students with severe disabilities threatens their fundamental beliefs about schooling and the programs they have to offer (Sailor, 1991).

The views expressed by Skirtic (1987) and others are really a restatement of the position put by those who advocate the full inclusion of students with disabilities and who call for changes to regular education to benefit all students, not only those with disabilities (see Section 2.3.5 regarding the REI debate). These views are consistent with those expressed by the Family Advocacy Group of NSW and reported by Epstein-Frisch (2000). That group argued that NSW schools lack any proactive approach to address the climate of the school to ensure that all students are valued. Specifically, they also claimed that the NSW DET had not taken steps to skill teachers in the area of curriculum inclusion to enable all students to learn together in the regular class. It was suggested that too often, the student was physically present, but not challenged to participate in the full curricula of the class. It was suggested that there was a lack of attention to teaching strategies, which would allow teachers to implement classroom plans to interweave the individual and class activities in a meaningful way.

According to the report of the Family Advocacy Group of NSW (Epstein-Frisch, 2000), The New South Wales Board of Studies had indicated that

implementation of programs designed for curriculum inclusion for all students was the responsibility of school authorities. School authorities were thought not to provide additional training and support to teachers to implement a rich curriculum for all learners. Because schools were said not to display expertise, or confidence, in curriculum inclusion, there was a tendency to engage in a range of practices that were not of direct developmental benefit to the student. The report, made by the Family Advocacy Group, emphasised an urgent need for the training of teachers in how to include students with disabilities in classrooms and curricula. There was said to be not enough use made of co-operative and peer structures, and that a “special” education mind set was inappropriate and could not be drawn upon to learn about inclusion. Byrnes, Sigafoos, Rickards, and Brown (2002), similarly noted the concern that some teachers make limited curriculum adjustments to accommodate individual needs. Given the change in policy to support the inclusion of students with disabilities in schools, clearly, training and curriculum support material are needed to facilitate such a policy (Epstein-Frisch, 2000).

The criticisms of regular schools described above include the charge that the past practice in schools, both in special and regular education, is atheoretical. Similarly the move towards full inclusion for all students has been charged with not having an empirical base. For this reason, it becomes apparent why being aware of theoretical models of language acquisition and learning itself is important if current educational practices are to be understood or improved. Practice, which contravenes theoretical precepts, is unlikely to be effective and could consequently account for unsatisfactory learning experiences for deaf students included in regular schools.

5.3 What are the characteristics of regular teachers?

5.3.1 What are common features of regular teachers?

The critical views outlined above are largely in regard to schools as organisations, with some reference having been made to teachers and their individual practices. There has been more specific criticism directed at teachers from a wide variety of sources for a considerable period of time (Carrick, 1989; Doherty, 1985; OECD, 1989), with calls for better training of teachers to improve the quality of education. In a paper written by the Schools Council (1989) it was stated that:

The quality of teaching is central to the quality of our school... we must examine means of improving the initial and on-going training of teachers to meet the demands of a changing educational, economic, and social environment. (p.v)

New teaching awards described in *Inform* (Feb. 2001), a Public Education publication, described Quality Teaching awards, which have been designed to recognise quality teaching and to learn from the best practitioners in NSW. This would seem to be a positive way to improve the situation. The need to recognize quality teaching was also noted in the *Vinson Report* (2002). The *Inform* article stated teaching needs to become a quality, rather than a mass, profession. For teachers to deal with the influx of new and demanding students, high levels of skill need to be identified and reproduced. A DET initiative titled *Quality Teaching in NSW Schools* (2003) is a recent plan to improve pedagogy in departmental schools. Similarly the recently legislated Institute of Teachers, of 2004, is designed to improve the quality of teachers in all NSW schools. The changes associated with the move include: setting standards to be met by new teachers; mandatory competency checks for new teachers; and recognising teachers' achievements through a four-tiered accreditation system (www.icit.nsw.edu.au/news/1080101646_3305.html).

Teachers are not universally ready to adopt the changes, which have been suggested. Goninan (1995) stated that one of the potential threats to teachers is their autonomy and decision making, when instructional modifications are recommended, which are perceived to interfere with the classroom teacher's design of teaching. It has been suggested that for students with mild disabilities, where there are minimal discrepancies between their needs and the current teaching strategies, it may be possible to use modifications, which closely resemble the classroom teacher's current instructional program, and build on what he or she knows well. However, for students with more significant disabilities, the current methods may be widely divergent from those needed by the student (Goninan, 1995, p. 29).

5.3.2 How does teacher belief impact on teaching style?

Teachers, or parents, whose belief system falls into one of the three main areas of language acquisition outlined in the previous chapter, the biological, environmental or social interactionist models, will behave in ways in relation to teaching practice, or

child interaction, which reflect those beliefs. Berry (1992) maintained that an effective educational program for children with hearing loss considers communication to be at the core of the program around which other skills are built. Fischgrund (1995) stated that the issue of how deaf students should be taught continues to revolve around the fundamental issues of language and communication, in relation to the form of the language of instruction, but noted that there had been little debate about the content, and quality, of the language used in the instruction of deaf students. He noted that choosing the most appropriate language or modality does not alone guarantee full access to the curriculum. He stated that what is communicated in instructional settings, how interactions with the deaf and hard of hearing takes place, and what is expected of language interactions with children with a range of hearing losses, are as important as the form of the language used. He stressed that it is not only the form, but also the content and function of language in the classroom that determines accessibility of the curriculum. Thus, it is the more complex issue of how language functions in the classroom, which determines access to the curriculum (p.233). Therefore, according to Fishgrund, in the past in special educational settings for deaf students, the mode of the communication system itself was the focus, rather than the form and function of the language.

Teachers who believe in environmental theories will likely see reward and punishment as central to the learning process. In such situations, the teacher assumes a major role and is responsible for “teaching” the child, who is mostly expected to be passive in the process, as the environment is thought to be responsible for shaping the child’s behavior. Padden (quoted by Fischgrund, 1995) stated that the trend over the last two decades towards more individualised service-driven educational programs is basically flawed. A service delivery model, which holds that there must be a one-to-one teacher student relationship in which the teacher carefully controls each child’s input, is in Padden’s view, inappropriate. A more appropriate one is that in which there is more interaction, talking back and forth, and sharing, among students.

Structural methods designed to “teach” language, which have dominated language and literacy instruction for the deaf, need to be replaced by ones that call for the abandonment of the “teaching language” paradigm, and focus on the establishment of environments where deaf and hard of hearing students can acquire language through more natural processes (Fischgrund, 1995). In a situation such as

this, the teacher would be in control, but the students would be learning from, and with, each other.

There are many classrooms where the above approach is not evident. Indeed, arguably, this is case in the majority of classrooms. In the *Vinson Report* (2002), it was stated, a 'policy vacuum' in relation to teaching practice, exists. Adjustments in curriculum and assessment, in and of themselves, cannot generate changed outcomes without a focus on classroom interaction (p. 41).

Traditional programs are teacher centred. The children sit and listen, and are rewarded for correct responses and punished for incorrect ones. Student-teacher interactions are structured in a clearly defined way, which does not reflect normal discourse. At all times, the teacher's role is the principal one and student responses are secondary.

In the context of infant-parent interactions with this approach, parents prod and probe attempting to shape the child's response. This fails to take into account the stages of language development demonstrated by children generally, which has been shown to be remarkably similar (Berko-Gleason, 1989), and described in Chapter 3. It assumes that every parent is on the same reinforcement schedule, which is clearly unrealistic, as is the belief that everything the child learns is taught by the parent or teacher, not accounting for the obvious impact of learning from other children. If this was the way children developed linguistic rules, the imperfect rules they actually produce are unaccounted for, as they would instead, all be idiosyncratic, when in reality they are strikingly similar across languages. In reality, rule formation is progressive, going from imperfect ones, to gradually more perfect and adult-like rules, demonstrating similar stages throughout the process (Tager-Flushberg, 1989).

Given the amount of discourse to which they are exposed, an environmental, behaviourist, reward and punishment approach might have few detrimental consequences for a hearing child. However, if such an approach were the only one pursued with a deaf or hard of hearing child, it may have detrimental consequences, which are far more significant.

Some cultures have very little child-adult interaction, and children develop language in association with other children. This was observed in certain black American families and described by Brice Heath (1983). Similarly, Givon (1985) described the Utes' child rearing practices in which children are supposed to listen,

but not talk to, adults. In these situations, peer group input is responsible for most linguistic and interactional skill development.

The biological model, which highlights the innateness or inevitability of language learning, is responsible for educational practices in which children are immersed in discourse and information, out of which they are expected to develop their own conclusions and rule formation. The environment is thought to be the provider of the input with which the child interacts to develop language and understandings. Fischgrund (1995) stated that in recent years, the approach known as “whole language” has been introduced in the education of learners who are deaf and hard of hearing, as a promising approach to literacy learning. In this approach there is more focus on the development of “top down” theories of the reading process, as opposed to “bottom-up” theories, which emphasize decoding skills. Questions about the efficacy of this method have been raised. Specifically, there is a question as to whether the whole language approach leaves gaps in the learner’s basic skills repertoire, because direct instruction is not used—indeed, it is considered unnecessary—for teaching certain basic-skills.

It could be hypothesised that teaching practices where children are not provided with meaningful interactive communicative opportunities, but are expected to come to understanding on their own, without any specific teaching, could be regarded as adhering to the biological model of learning. Language learning programs, which involve incessant talking on the part of the teacher, without relating or responding to what the child is doing or saying, would appear to be based on this model. In such a situation, the genetic predisposition of the child would be expected to provide the child with the wherewithal to acquire language from the language surrounding it. If children were not engaged in interactions, which were meaningful, and were able to acquire language by merely listening to the radio or TV with the outcome satisfactory language, then it would be evident that engagement was not essential, and that an automatic process was in operation merely requiring exposure to language (Bonvillian, Nelson, & Charrow, 1976). Such an outcome would indicate that the “innateness hypothesis”, described by Chomsky (1957), was operating (Fromkin, Rodman, Collins, & Blair, 1990). Clearly this is not the case.

Kretschmer (1997) described an interactive classroom for deaf students, which contrasted to a non-interactive approach, and demonstrated that instructional goals could be achieved through a process of natural interactions. Kretschmer and

Kretschmer (1999) similarly described early communication interactions in which adults engage in turn-taking experiences with infants in which there is a strong effort on the part of the adults to sustain exchanges as long as possible. These interactions are viewed as important in English, as they are shown to lead to the eventual development of socially appropriate discourse and language patterns. These social interactions are viewed as critical in helping young children to learn how to communicate.

The concepts of engaging in meaningful turn-taking, where each turn builds upon the preceding turn; of utilizing shared or common topics; and of modeling the idea of “conversing” on topics; are all fundamental to the underlying organisation of English conversation (p. 18). The child’s communication partners must engage the child using the discourse patterns expected by that society. In the course of these interactions, the communication partners use the syntactic and semantic features of the language, to enhance, promote, and sustain interaction (Vygotsky, 1978). The child eventually uses these same forms to accomplish the same goals as the communicative partners. From this input, the child formulates, discourse, semantic, and the syntactic rules of the language. As with the biological model, this model allows for the progress from imperfect to perfect language forms. Both participants are partners in the process, but unlike the biological model, the latter emphasises the importance of discourse.

Vygotsky’s notion of a zone of proximal development, sprang from his theoretical perspectives on language and cognition, and relates well to teaching practice. He explained this concept, as the distance between the actual developmental level of the child, as determined by independent problem solving, and the level of potential development, as determined through problem solving under adult guidance or collaboration with more capable peers. He stated that learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers. Once these processes are internalised, they become part of the child’s independent achievement.

This discussion highlights the similarity between the processes involved in language learning and learning in general. It is apparent that the methods teachers employ in their classrooms will have a particular significance in the cases of the deaf students included in this inquiry who, in most instances, had been enrolled in regular

schools with imperfect language capabilities, and consequently, were particularly vulnerable to less than adequate teaching practices.

Berry stated (1992) that training in particular deficit areas is often so detached from meaningful contexts that the child who is hard of hearing or deaf never learns the power or value of communication. Kretschmer (1997) stated that classroom based discourse differs significantly from interpersonal discourse and has to be learnt. It was noted that often there was little recognition of the need for integration of meaningful communication and curriculum issues.

The communication priorities for children who are deaf or hard of hearing can be seen to need to change over time. A young child requires social communication, and pre-academic readiness, with pragmatic skill development, and confidence building. Later in school life, the communication priorities should shift to a relatively equal balance between academic and social skills, with many variables having significance in the development of effective classroom communication (Berry, 1992). Targeting communication priorities, and developing communication competency, were, in Berry's view, critical elements to the classroom success of any deaf or hard of hearing student and required cooperative efforts among all those involved in the student's academic environment.

The previous chapter has described the three theoretical models of language and learning. The following figure is intended to summarise the implications of the three models in the context of teaching in schools.

Figure 5.1 Theoretical models of language and learning

Environmental Approach to Language Learning and Learning	Social Interactionist Approach to Language Learning and Learning	Biological Approach to Language Learning and Learning
<ul style="list-style-type: none"> • Teacher centred • Child passive • Rewards for correct responses • Punished for incorrect responses • IRE discourse • Passive learned helplessness for students at risk • Drill and practice, decontextualised • Code based teaching the elements of the code 	<ul style="list-style-type: none"> • Language input structured through prescribed social interaction • Discourse patterns expected by the society • Active interaction on the part of both adult and child • Child formulates discourse, semantics, and syntactic understanding going from the imperfect to the perfect • Zone of proximal development • Internal developmental process operates when child interacts with environment, peers and people • Talking and writing a means to learning • Variety of discourse strategies • Problem solving 	<ul style="list-style-type: none"> • Immersion in discourse from which child expected to develop rules on own • Going from imperfect to perfect rule development • Natural conclusion of this model would suggest that being exposed to language through electronic media would lead to successful language development

5.4 What are the different teaching styles?

Cummins (1989) described the difficulties experienced by minority language groups reported in a number of countries, and attributed much of their disadvantage to pedagogical style. He stated that children who were “at risk”, frequently received intensive instruction that confined them to passive roles, and induced a form of “learned helplessness”. On the other hand, instruction that empowers students, will aim to liberate them from dependence on instruction, in that it encourages them to become active generators of their own knowledge. He identified two major instructional models, which he termed “transmission”, and “interactive or experiential”. The basic premise, of the transmission model, is for the teacher to impart knowledge or skills, which he or she possesses and which the student does not possess. The teacher initiates and controls the interaction, constantly orienting it towards the achievement of instructional objectives. This model of teaching clearly

mirrors the behaviourist view that behaviour and learning are dependent on reward and punishment. Bohannon and Warren-Leubecker (1989), stated that “language is a special behavior only because it is behavior which is reinforced exclusively by other organisms... many behaviorists prefer the term *verbal behavior* to language, emphasising the similarity of linguistic skills to all other learned behaviors.” (p. 173)

In this view the child is typically viewed as a passive recipient of environmental pressures. Behaviourists rarely acknowledge that children may affect their environment, thus believing they have no active role in the process of language behaviour or development.

Alternatively, a central premise of the interactive model is the belief that “talking and writing are means to learning” (Cummins, 1989). Intrinsic to this model also are: 1) genuine dialogue between student and teacher; 2) guidance and facilitation; 3) encouragement of student talk and collaboration; 4) encouragement of meaningful language use by students rather than correctness of surface forms; 5) integration of language use and development of curricular content rather than isolating language teaching; 6) a focus on developing higher level cognitive skills rather than factual recall, and; 7) task presentation that generates intrinsic, rather than extrinsic, motivation (p.115). Learning is viewed as an active process that is enhanced through interaction rather than the passive and isolated reception of knowledge (Vygotsky, 1978).

Fromkin, Rodman, Collins & Blair (1990) described Halliday’s argument that children develop a meaning potential for interpreting their environment in terms of their own experience. At the same time, there occurs a generalisation of the instrumental, regulatory, and interactional functions, into a pragmatic function of satisfying their own needs and controlling and interacting with others, such that they can request, direct, demand, and be able to both observe and interact with the environment at the same time. In the DET document *Handwriting NSW style: a paper for discussion*, (1984) it was stated:

Learning is engendered through language reception (listening and reading) and language production (talking and writing). The production particularly enables the learner to manipulate and develop concepts by manipulating language. Language externalises thought which when examined and manipulated can better help us internalise understandings: we can both talk and write our way to meaning. Language production helps personal learning because it requires the learner to find the words to express the concept being learned. (p. 23)

As the students in this inquiry, did not all have levels of linguistic ability comparable to their classmates, and in some cases, were in need of opportunities to acquire language, as well as access curricular content, the impact of classroom teaching practice was thought to be of special significance. Teachers who employed a transmission style of teaching, and who did not engage the students in meaningful interactions, were thought unlikely to be able to provide both opportunities for language development, and access to academic content. In classes where a transmission style of teaching is employed, reading, writing, listening, and speaking, are not all employed equally, in the learning process. Instead, listening and reading, both aspects of learning that do not necessarily necessitate interaction between students, and the skills severely lacking in the case of many hard of hearing and deaf students, are focussed upon. In light of the above discussion, on the relative merits of the two teaching styles described here, the data gathered in each of the educational situations, will need to elucidate this important aspect of the educational provisions. It will be necessary to ascertain what the teacher beliefs are, that motivate their teaching practices, and to determine if the teaching practices do lead to inclusive learning opportunities for the students in this inquiry. In this way, teaching style will be of particular interest in answering questions relating to the success or otherwise of the students' inclusion.

5.5 What are the characteristics of inclusive schools?

The important question, which arises from the discussion to this point, is: how can schools overcome some of the difficulties, which have been inherent in their nature to facilitate a new clientele, and become inclusive? Skirtic (1991) described structural reform in school organisation based on social constructivist principles and theory, which are related to the inclusive reform movement. He described a new, and alternative, structure of schools, referred to as an “adhocracy”, in which all parties are expected to work together to create cooperatively devised programs and goals for students, based on their needs. An adhocracy is essentially the opposite of a bureaucracy. Skirtic described school restructuring as the latter part of a phase—the so-called excellence movement in general education.

Initial school reformers sought to improve schools' performance and achieve excellence through further bureaucratisation of schools, rather than the adhocratic approach described by Skirtic. Bureaucratisation in education has the effect of driving the professional bureaucracy structure of schools further towards the machine bureaucracy. The intended outcome, to make the structure more efficient, instead, proves counter productive, by turning the goal of higher standards into more standardisation. This results in additional rationalisation and formalisation, and ultimately more state control, with its emphasis on producing standardised results through regulated teaching.

The restructuring that Skirtic (1991) referred to argues for seeking excellence by reducing standardisation. Proponents reject the traditional bureaucratic school outright, as well as reform efforts that merely try to make more efficiency through further rationalisation and formalisation. School restructuring advocates believe that educational excellence requires a completely new structure for schools; one that eliminates the traditional homogeneous grouping practices of in-class ability grouping and curricula tracking, and questions the legitimacy of some "pull-out" programs. The envisaged structure is premised on personalised instruction through collaborative problem solving among students, parents, and professionals, at local school sites. From a structural perspective, reform movements are calling for the elimination of specialisation, professionalism, and loose coupling, with teachers minimally dependent on one another (Weick, 1982). These characteristics were described as the determining features of the professional bureaucracy. Instead, those seeking reform seek an adaptable system in which teachers collaborate amongst themselves, and with their consumers, to personalise instructional practices.

School restructuring and inclusive education are both arguing for collaboration, mutual adjustment, and discursive coupling, the determining structural features of the adhocratic form. They are arguing for consumer-orientated, interdisciplinary forms of professionalism in the field of education, and a postindustrial or adhocratic structure for schools, and thus, for the institutionalisation in education of the social constructivist principles of voice, collaboration and inclusion (Burbules & Rice, 1991; Skirtic, 1991; Skirtic, Sailor, & Gee, 1996; Weick, 1982).

The restructuring, which has been called for and described above, is likely to meet with a good deal of opposition from teachers who are firmly established in their

practices and beliefs, which have served them in the past. Opposition, on the part of teachers, to the full inclusion of students with severe disabilities, has been noted at the commencement of this chapter, and throughout. It is not realistic to assume that there will be a whole-hearted positive response to recommendations made by writers, such as Skirtic, who call for an all encompassing restructuring. It is more likely that teachers and schools would accept less far-reaching changes, which do not challenge their fundamental beliefs about their role, and the role of the students they are responsible for.

There has been much written about inclusive classroom practices, which extend from the radical practices such as the restructuring described by Skirtic (1991), to simple classroom modifications, and what Goodman (1995) referred to as ameliorative reforms. Ameliorative changes may not be as pervasive as radical restructuring, but they may offer certain improvements, which can realistically be achieved.

Rallis (1995) described learner-centred schools where the success of the school was judged by the quality of the experiences provided for the learner, the depth and meanings the learners create for their experiences, and the ability of the learners to communicate, and act on their learning. This sort of school may appear quite unrealistic, or unacceptable, to those used to “pigeonholing” and grading children according to a predetermined set of criteria. The learner-centred school does not dismiss a child as a failure because they do not conform to the norm. In such environments, the prevailing belief is that all children learn, but in different ways. Learning, in such schools, is understood to be the individual’s construction of their own meanings for an event, object, person, idea, or activity. Deep understanding occurs when new information prompts the learner to rethink and reshape prior ideas, thus constructing their own meaning, and thus owning it, enabling them to manipulate it, to use it in different ways, and to be able to teach it to other people. Creating a school in which the above practices could exist, would necessitate changing the structure, as well as the culture of many existing schools.

Practicality suggests that other less radical measures can provide for inclusive practices also. Astuto and Clark (1995) described cooperative environments, collaborative teaching, collaborative learning, collaborative assessment, and collaborative school improvement, as features of learner-centred schools. Things they regarded as impediments to such institutions were the documentation of failures

through narrow testing programs, labeling and excluding students from learning environments, and instituting personal evaluation systems that strive to uncover weaknesses and foster competition. Learner-centered schools consciously avoid competition and punitive processes that impede productivity and growth. This contrasts with the documenting of perceived failure, which can be the outcome of the application of the Basic Skills Test (BST) in NSW, where schools are required to explain and remedy perceived failure, in areas where a student is considered to have performed poorly.

The DET has implemented a project called Data on Disc in which all Year 3 and Year 5 students in NSW, who sit for the BST, have their responses to each of the questions in the literacy and numeracy tests recorded on compact disc, for distribution to their school for perusal and comparison. This is an expansive enterprise clearly designed to examine areas of weakness and failure, in order to overcome the perceived deficiencies.

A response to the need for restructuring will obviously be a complex task, and given the forces in operation in NSW, is unlikely to occur quickly. This is despite the fact that the total restructuring of schools, to make them more accommodating to a wider range of diversity than ever before, has been demanded (Westwood, 1996). Gradual change, however, is a more likely possibility. Yet, while there remains a concentration on skill testing, there would appear to be a barrier to change in the desired direction.

Westwood (1996) claimed that inclusive practice requires significant changes to mainstream program in terms of organisation, content, and delivery, in order to accommodate a wider range of ability and disability than ever before. Nevertheless, he also stated that he doubted that it would be ever possible to provide all the needed services in the one place to all types of children. In Westwood's view, while trying not to exclude anyone, there was said to be no credible research to show that regular classrooms can actually provide superior services for all kinds of disability, including, speech therapy, self-care training, physiotherapy, orientation and mobility training, as well as alternative methods of communication (see Section 3.5.2).

Dorn, Fuchs, and Fuchs (1996) argued that advocates for full inclusion of all students with disabilities in mainstream education often express unrealistic optimism about the ability and willingness of regular classroom teachers to accommodate a

much greater diversity of students. In other words, they doubt that most teachers will tolerate students who are more difficult to teach than the students they currently have.

Slee (1995) argued that it was up to individual teachers to try and promote cooperative learning programs in the midst of a largely competitive curriculum, and up to teachers to create change in local endeavors in individual classrooms. Zigmond and Baker (1996) also concluded that in the general education classrooms that they had observed, “direct and focused intervention” (or individualised instruction) could not have been provided. Shay Schumm, and Vaughn (1991) found that teachers did not find making instructional, curricular, and planning adaptations feasible, or desirable. They were willing to include mainstreamed students within whole class activities and to provide encouragement and support for their academic success, but less willing to make specific modifications in their instruction, use of materials, or environment.

Shay Schumm, and Vaughn (1995) also expressed concern for teachers who were unclear about what inclusion was, fearful about what it might mean for them, and uncertain about whether they had the necessary competency to teach in inclusive settings. They stated that teachers must have clear examples of how strategies work for different types of students, and how to manage the whole, and that there is no simple package to enable teachers to become proficient instructors in inclusive classrooms. Villa, Thousand, and Chapple (1996) called for more preservice and inservice programs to be delivered, which means that in the New South Wales context, coordinated actions needs to be undertaken on the part of local schools, higher education, and DET personnel. Thus, upgrading of teacher skill and knowledge, would no doubt, need to involve attention to pedagogy, as well as attention to language and learning theory, so that students are presented with programs that actually address their fundamental learning requirements.

Such programs as *Time for Teamwork*, which is a DET initiative in response to the *Vinson Report* (2002), are aimed at addressing inclusive teaching practices. *Quality Pedagogy for NSW Public Schools* is an in-service tool for teachers’ professional self-reflection and school improvement practices in NSW public schools. These projects appear to be attempts to achieve an improvement in teaching practices, which can lead to successful inclusion of students with special needs. *Quality Pedagogy for NSW Public Schools* is claimed by the author, to be a consultation draft, the purpose of which is to encourage teachers to find pedagogical means through

which intellectual work is made meaningful to students, both individually and as members of social groups, through in-service initiatives.

Inclusion, it would appear, is set to be part of the educational landscape for some considerable period, if not permanently. Paul and Ward (1996) talked of the two broad paradigms of inclusion (see Section 2.3.6): the comparison paradigm and the ethics paradigm. The former is motivated by the mostly quantitative research, which sets out to determine whether inclusion works, and the latter is most interested in the question of what needs to be done to make inclusion work. Proponents of the ethics paradigm argue that inclusion is the most fair and ethical way to proceed. They argue that individuals should not have to be modified, or improved, to meet the arbitrary criteria or standards of a school or institution, but rather the institution must be encouraged to change in order to accommodate the diverse needs of individuals. Proponents of the ethics paradigm are focused on ensuring that the individuals receive the most appropriate education within the same environment as their non-disabled peers. Separate treatment must meet the test of not being either elitist, or unequal. The question is, can schools change enough to accommodate students who are very different to those they are familiar with?

Westwood (1996) described the need for several factors, which are evident in settings where inclusion is working most successfully, but which do not require radical degrees of change. Among others, these factors include the need for: (a) teachers and school administrators to have a positive attitude towards inclusive schooling; (b) each school to develop a policy statement which includes a commitment to incorporate inclusive practices; (c) planning to be proactive not reactive; (d) all interested parties to be involved; (e) support networks to be identified for students with special needs; (f) regular classroom teachers to work closely with special education staff; (g) classrooms to be places where cooperative learning and group work and peer assistance are encouraged; (h) instruction to include clear modeling, explaining, practicing and strategy training for all students; and (i) additional in-service education for teachers.

The discussion to this point, would suggest that there are preferred methods of teaching, which could accommodate a range of students with disabilities in the one class. These methods involve student interaction, and using, talking, reading, and writing, for learning, rather than learning those skills in isolation. It is evident that these methods are not the most commonly employed methods in use in regular

classroom currently. It is also clear that testing for weakness, as exemplified by the BST, is the prevailing force in operation in schools in NSW, which could militate against change in teaching practice in the desired direction. On the positive side, the *Vinson Report* (2002) has effectively highlighted some of these impediments to effective inclusive practices, and as a result, the issue of classroom pedagogy may be addressed in the future.

5.6 What practices can facilitate inclusion?

5.6.1 What is differentiation?

Differentiation (Bearne, 1996; Good & Brophy, 1994) is fundamental to the notion of inclusion if instruction is to be flexible enough to cater for the individual differences of students with special needs. According to Quicke (1995, quoted by Westwood, 1996), the purpose of differentiation, in teaching practice and curriculum design, is to ensure that all children maximise their potential, and receive a curriculum through which they can experience success. Differentiation includes, adapting instruction, modifying instructional materials, and task analysis. It does not necessarily imply a completely alternative program. Effective instruction or good teaching strategies, which work well with children without disabilities, are also those required to work well with students, who do have disabilities. The principle, of differentiation in educational programming, applies as much in addressing the characteristics and needs of gifted and talented students, as it does in meeting the needs of students with disabilities (Westwood, 1996). Bloom's Taxonomy of cognitive processes (1956) accounts for different levels of complexity in the thinking process, which, when incorporated in the structuring of class programs, account for individual differences among students. Consideration of these levels allows for appropriate differentiation without necessitating a completely alternative program. Luetke-Stahlman (1997) provided an extensive list for incorporating principles of effective instruction into lessons for students who are deaf and hard of hearing, in integrated environments. The list includes both program modifications and teaching strategies.

5.6.2 What is co-enrolment?

Difficulties associated with support for students who are deaf or hard of hearing by itinerant teachers, have been noted previously (see Section 4.3.2). It has been suggested also, that inclusion, or mainstreaming, may turn out to be more isolating than what was stated in the concept of Least Restrictive Environment (Kirchner, 2000). Kirchner suggested that the anticipated social results both personally, and involving peer interaction, are never achieved. This has been attributed to classroom instruction, which happens via a third party. The support person often becomes responsible for the deaf or hard of hearing student's affairs. Kirchner also stated that deaf and hard of hearing students were often placed in the regular classroom environment, without addressing the underlying educational issue, of needing to effectively change the learning environment, without changing the curriculum content. Co-enrolment was an option designed to address these concerns (Kirchner, 2000):

Co-enrolment is the placement of deaf or hard of hearing students in general education classrooms utilizing the school district designated curriculum with instruction facilitated through a team teaching approach, i.e. a general education teacher and a credentialed teacher of deaf/hard of hearing students. Placement is on a full day basis, allows for direct communication among students and between student and teacher and does not involve the services of an interpreter (3rd party). (p. 3).

Kirchner (2000) stated that the co-enrolment option was developed to eliminate the "in/out" approach to the support of mainstreamed deaf students, with an interpreter or itinerant teacher, because the latter was seen as not allowing for the development of peer relationships for the deaf students, or ownership of the classroom program by the itinerant teacher. In a co-enrolment program, the four basic elements regarded as necessary for success by deaf and hard of hearing students are: (a) critical mass, (b) a linguistic peer group- deaf /hard of hearing students, hearing students, (c) academic challenge, and (d) social companionship. The achievement of these ends requires that co-teachers perceive each other as equal partners within the classroom, and that all students are recognised as academically capable, without different classroom standards being applied. Co-enrolment provides the flexibility to avoid pull-out programs. Classroom composition can allow for critical mass, through different enrolment formulas.

Whatever approach is taken, flexibility, and adaptability, would appear to be essential elements in successful inclusive schools.

5.6.3 What are adhocratic solutions?

Schools have been likened to productive business organisations (Goodman, 1995; Skirtic, 1987) or machine bureaucracies. An alternative approach has been dubbed an adhocracy. Skirtic (1991) stated that student diversity was only a problem when schooling is premised on standardisation, and schools configure themselves as performance organisations that perfect standard programs for known contingencies; essentially machine bureaucracies. Skirtic, Sailor, and Gee (1996) described an alternative classroom where teachers were viewed as agents, who encourage students to be thinkers, and who involve students in the whole problem-solving enterprise, rather than deciding on, and delivering programs, in a preordained, specified manner. Embedding instruction in meaningful activities, and assessing student progress within the context of teaching, lies at the heart of integrated community-based instruction. An adhocratic form is premised on innovation, such as that envisaged by the co-enrolment option (Kirchner, 2000). In that approach, the perceived problems of a pull-out support service delivery model, for students who are deaf or hard of hearing, is replaced by an innovative option, designed to overcome the perceived problems. An adhocratic solution to education configures itself on a problem-solving organisation for inventing new programs for unfamiliar contingencies.

Student diversity (Skirtic, 1991) is not a difficulty for a problem-solving organisation. Rather, it is an asset of enduring uncertainty, which is the driving force behind innovation, growth of knowledge, and progress. A proper response to student diversity requires a collaborative division of labor, coordination premised on mutual adjustment, and a discursive form of interdependency. These are adhocratic arrangements, in which multidisciplinary teams are forged around specific projects of innovation, transcending the boundaries of conventional specialisations. In political and democratic terms, education cannot be excellent, and equitable, unless school organisations are adhocratic. That cannot happen, without the uncertainty of student diversity (Skirtic & Sailor, 1996). Burbules and Rice (1991) stated that, “a third idea that recurs in the Postmodern literature is the celebration of ‘difference’... post

modernity means a resolute emancipation from the characteristically modern urge to overcome difference and promote sameness” (p.396).

Resnick and Klopfer (1989, cited by Skirtic, 1991), argued that, given the subjectivist position on the relationship of knowledge and thinking, the thinking curriculum is based on the constructivist, self-regulated assumptions about the nature of learning. Cognitive research shows that knowledge cannot be given directly to students. The thinking curriculum must provide students with a base of generative knowledge, which can be used to solve problems, to think, and reason (p. 281). Thus, rather than teaching “the facts” of a particular discipline, the cognitive science approach, teaches its key tenets, which become generative, and utilised to link and interpret, and explain new information.

5.7 What are the linguistic characteristics thought necessary for deaf students to be able to access a regular class curriculum?

Standardised tests, such as the Basic Skills Tests (Vinson Report, 2002) have been criticised because they are premised on the assumption that once teachers know the levels at which their students perform, they will have the information to decide on the next step in teaching. This is ostensibly, a flawed assumption. The test results may exert a pressure on the teachers to lift their students’ achievements to higher levels, but provide little if any detailed information about particular students’ learning styles, the inconsistencies in their learning, and their strengths and weaknesses (p. 63).

Alternative forms of assessment involve complex judgements about a range of student behaviours, which do not involve assessment for accountability. Such alternative assessment, was termed in the *Vinson Report*, “authentic achievement” which could be characterised by depth of understanding reflected in students’ use of disciplinary concepts, high level analysis, or higher order thinking, which occurs when students manipulate information and ideas in ways that transform their meanings and implication, and elaborated written communication (p. 68).

While these methods of assessment refer to any student, for deaf and hard of hearing students, it is even more critical. This is because linguistic ability, the area most problematic in the case of deaf students, and the area on which so much other learning is dependent, is the specific area, which requires authentic achievement assessment. To decide on ways to assess authentic achievement, it is necessary to

know what linguistic achievements are the likely facilitators of successful inclusion for deaf and hard of hearing students, and then to decide on ways to determine the degree to which they have been developed. Once these abilities have been determined, it is possible to understand where problems lie, how they could account for behaviour, and what would need to be addressed in the future.

According to Kretschmer (1997), in order to succeed in regular classrooms, students with hearing losses must be able to accomplish certain tasks. Linguistic abilities of a prescribed nature are therefore the parameters by which a student's capacity to perform in a regular classroom could be judged. The important consideration is how they are judged. According to Kretschmer (1997) the first requirement is a clear understanding of what constitutes effective communicative interactions. Secondly, assessment procedures that support this perspective must not describe how the code is acquired apart from the context of its actual use in communication. Exclusive use of context-stripping language tests, must be abandoned, and replaced with examples of actual language use, such as samples of interpersonal, classroom, or written products, for analysis and reflection (p.377).

The important thing is to decide upon a relevant yardstick and one which actually accounts for the understandings regular schools are likely to expect, and which actually facilitate learning. It is understood that deaf students usually possess reduced linguistic abilities. This is not to suggest that their abilities cannot be enhanced by schooling, but it is unlikely that the linguistic abilities will develop unconsciously, and automatically, given the discussion on language acquisition (see Section 3.3) dealt with previously. It is also important to recognise when the linguistic capacity of a student is so low as to make adequate performance in accessing a regular school curriculum, unlikely.

To function adequately in school in order to benefit from the programs teachers offer, deaf students need to be able to perform a number of communicative skills, and discourse strategies of a social, as well as a scholastic nature. Knowledge of a variety of discourse strategies is necessary to be party to the same sort of understandings as other students. Specifically, Kretschmer (1997), noted that:

Because most children who have hearing loss come to school without a fully functional language system, the need to learn language and subject matter simultaneously is a common one. It is possible to learn language and content simultaneously, but altering classroom discourse towards naturalistic,

interactive, group-supported learning rather than typical IRE sequences [see Section 5.7.3] provides a better climate for progress. (p.376)

Teachers in regular schools expect students to be proficient language users when they come to school, with school programs aimed at delivering academic content. It is difficult to develop language competence, and to deliver content at the same time, but it is not impossible, as noted. It would be reasonable to assume that if teaching style involved classroom discussion between students and teachers, and encouraged contextual learning, and the development of thinking strategies, then linguistic development and academic learning for deaf and hard of hearing students, could take place.

5.7.1 What are the different discourse types?

School age children are expected to comprehend and produce a range of discourse types (Hadley, 1998). They may be expected to listen to, and retell stories, relate personal experiences to parents and teachers, follow directions, and provide factual descriptions, or explanations of events.

According to Hadley (1998) discourse can be unplanned (i.e., that which lacks organisation and forethought), or planned (i.e., that which has been thought out and planned prior to execution), with everyday discourse falling in between. Some discourse requires one utterance at a time to be planned, which is utterance level discourse. In other cases the speaker is required to plan extended discourse, known as text-level discourse. Text-level discourse requires pre-planning, organisation, formulation, and monitoring the communication into a coherent sequence of events or details to the listener. A third form of discourse is described as contextualised, or decontextualised language, which relates to how the discourse and the topic correspond to the physical and perceptualised characteristics of the situation, and the experiential involvement in the topic. Hadley defined the three broad discourse types as conversational, narrative, and expository discourse.

5.7.2 What are conversational, narrative, and expository, discourses?

Conversational discourse (Leadholm & Miller, 1992; Lund & Duchan, 1993) is characterised as unplanned or unstructured interactional exchanges between two or

more partners. Management skills required for successful conversational discourse include for example, turn taking, topic joint negotiation, repairs, and regressing, requiring utterance level planning. Narrative and exposition require higher order planning to give meaning to coherent and cohesive texts, either of a fictional or personal nature. Expository discourse is that which covers factual, or technical, information such as description, directions, or cause and effect, explanations, and comparisons.

Kretschmer (1997) maintained that deaf and hard of hearing students need to be able to master the key discourse structures that are commonly used, for either interpersonal exchanges, or print, to share knowledge, and solve problems. He stated that they must also be able to reason through academic and social problems to develop logical solutions.

The importance of text level discourse for school is fairly obvious, given that schooling employs such structures continually. Some important discourse strategies for school success include the ability to tell a personal and a formal narrative, to describe, to persuade, and similarly, to have the ability to conduct an argument along acceptable lines, a skill which becomes increasingly necessary as students progress towards formal levels of schooling. Also necessary is an awareness of the Initiation Response Evaluation (IRE) process (see Section 5.7.3). These abilities, which indicate a level of competence in interacting in social situations of a specific nature, as well as in academic learning, are more important than the simple ability to process specific grammatical elements of written texts in isolated contexts. Discourse strategy competence is the ability to perform in social contexts, even if some of the grammatical elements of the language are missing or atypical, such that students who possess effective discourse strategies can interact successfully in the ways that support school success (Gumperz, 1982; Milroy, 1987).

Discourse strategy competence also involves knowledge of the discourse strategies used in literature. Brice Heath, Mangiola, Schecter, and Hull (1991) stated that literate behaviours enable students to communicate their analyses and interpretations of extended text. They argued that literate behaviours are the key to academic literacy, which is independent of any particular academic subject. Further, they noted that providing a wide range of opportunities to sustain talk with others on a single topic is an effective way to build effective writing and reading. Brewer (1980)

similarly described how written discourse is organised on particular underlying structures, and was specific discourse, which people comprehend.

The previous discussion has centred on the structural organisation of spoken and written discourse, not the mechanics of speaking, listening, or decoding text. The structures are learned through engagement, and participation, in the various forms of discourse (Kretschmer, 1997) and not on focusing on the code itself (Wood, Wood, Griffith, & Howarth, 1986).

5.7.3 What is Initiation Response Evaluation (IRE)?

The most prevalent discourse pattern in classroom interactions is the initiation-response-evaluation cycle (IRE) (Cazden, 1988; Kretschmer, 1997; Mehan, 1979; and Wells, 1994). In this cycle the teacher has the dominant role and the student is expected to respond in a designated way. Classroom-based discourse is different from other discourse in a number of ways, which include: (a) all partners do not have equal opportunity to contribute, (b) conversational cycles do not build, and, (c) they are typically dominated by teacher talk. IRE involves the teacher posing a question to which the students respond followed by the teacher's evaluation of its correctness. This cycle may be repeated if the response is incorrect, or the teacher may reduce the complexity of the initial question. Such a cycle does not normally occur in conversational exchanges outside the classroom. Exclusive use of this discourse model in schools for deaf or hard of hearing students could be negative, unless other strategies such as cooperative learning, and situational learning, are also included (Kretschmer, 1997). The following section describes the major discourse strategies in more detail.

5.7.4 What are narration, description, persuasion, comparison, and argument?

As noted earlier, one of the most important discourse strategies is narration. Kretschmer (1997) went so far as to say, "a knowledge of narration may make or break a child's successful inclusion in regular educational settings" (p. 378). Narration involves the ability to tell stories, both personal and literary. Ability in this area is important both for academic access, as well as for peer interactions, and thus, social success. Kretschmer (1997) stated that children with hearing loss may not overhear

home narratives, or may have limited opportunities to construct their own. Because of this, they may begin the task of learning to use classroom narratives with much less information than is typical, and with less experience. Teachers have high expectations that children will be able to perform sufficiently competent narratives to keep listeners oriented early in their school careers. The ability to tell a personal narrative is also important as a vehicle through which social belonging can be achieved—particularly given that in school, the ability to talk to peers is of equal importance to the ability to talk to adults.

Hedberg, and Westby (1988) stated that narratives play a role in many classroom activities, such as storytelling, sharing times, running commentaries, and explanations, with a number of different types of narrative existing. They stated that constructing a story involves more than stringing words and sentences together. While young children may be able to converse with adults, it can take many years before they are able to become proficient at describing an experience, telling an imaginative story, or explaining how to carry out a task to listeners. They stated that while nearly everyone achieves sufficient competency in oral conversations to be self sufficient in life, large numbers of people do not gain enough competency in narrative language essential for literacy and school success. They emphasised that it was essential to be able assess the language skills essential for children to be able to participate effectively in classroom activities through authentic assessment (p. 2).

Hedberg, and Westby (1988) stated that narrative analysis provides a means of understanding a person's language development and conceptual development, beyond the level of words and sentences. Stories require that children operate on texts, at both a local, and global level. The local level is the representation of words, sentences, and links between sentences. The global level represents the content, or conceptual level of the story. Narratives are not only a reflection of the speaker's linguistic ability, but also their cognitive understanding of the world and the people in it.

Paul, Hernandez, Taylor, and Johnson (1996) stated that narrative skill as measured on a standard storyretelling task was one of the best predictors of school success in 4-year olds with language disabilities. Narrative skills were thought to form a bridge between oral language and literacy, by providing examples of the extended decontextualised, cohesive discourse units that children encounter in written text (Westby, 1989). Klecan-Aker and Kelty (1990) reaffirmed that the narrative was a

fertile database for the study of child language, because children must have a variety of cognitive and linguistic skills to be able to tell, or write narratives.

Paul et al. (1996) described the abilities involved with story telling, which contain a number of higher-level language and cognitive skills. These skills include the ability to sequence events, to create a cohesive text through the use of explicit linguistic markers, to use precise vocabulary, to convey ideas without extralinguistic support, to understand cause-effect relationships, and to structure the narrative along the culture specific lines that aid the listener in comprehending the tale. Narrative skills are thought to form a bridge between oral language and literacy, by providing examples of the extended, decontextualised, cohesive discourse units that children encounter in written texts.

Klecan-Aker and Kelty referred to Halliday and Hasan's (1976) theoretical basis for the study of narrative or text, as referring to any passage, written or spoken, of whatever length, that forms a unified whole- from a single sentence to a novel. The narrative is considered a fertile database for the study of child language, because children must have a variety of cognitive and linguistic skills to be able to tell or write narratives as stated. They must be able to present knowledge linguistically in the appropriate rhetorical mode, and possess knowledge of causal, intentional, spatial, and role relationships. Apart from this, stories are an integral part of a child's experiences, both at home and at school. Klecan-Aker and Kelty referred to Applebee's (1978) suggested six stages of narrative development. The earliest, pre-narrative structure is termed "heaps" (p.208). In heap stories children talk about whatever attracts attention, with no relationship or organisation among the elements of microstructure or macrostructure of the story. The story consists of labeling items or describing activities. The second stage, according to Applebee, of pre-narrative development is termed "sequence", which may be misleading, because although there may be an apparent time sequence in the story, it is not actually planned by the storyteller.

The next conceptual level is called "primitive narratives", which puts story characters together, objectives, or events that have perceptual association in some way. The elements of the story follow logically from the attributes of the center. The next stage is towards the true narrative structure of the "unfocused chain". In such stories, the individual elements or events, are linked together in cause-effect relationships, and often resemble adult stories in surface appearance, because they consist of central characters with true sequence. In focused chain stories, an ending

may follow the preceding event, but the listener may not be able to decipher from the ending how the story began. True narratives, the final stage, are normally used by children once they reach the age of five or six. This is the stage of conceptual thought that enables them to formulate a true narrative that has the components of a story grammar. Most children are able to tell a true narrative, with two or more episodes, before entering the first grade.

Sarachan-Deily (1985) stated that literature had indicated that written language might be the best indicator of a deaf child's command of English structure. She used the written recall of narratives to compare the ability of hearing and deaf students to recall propositions and inferences from a story. The findings indicated that the better deaf readers were more accurate in recalling explicit propositional information, suggesting the use of written narrative tasks to reveal the linguistic strengths of deaf students.

Description, or expository discourse (Hadley, 1998), is a strategy used extensively in school learning. Hadley described expository discourse as that discourse that conveys factual or technical information, such as descriptions, procedural directions, or cause and effect explanations. It is through description that a great deal of information is delivered—especially in subjects such as science and geography, where new information based on the specific features of a topic, are an essential component of the subject. There are usually two discourse strategies used in description (de Villiers, 1988). The first, involves providing a sufficient picture of an object or location to ensure it can be chosen from all others, and the second involves making a verbal photograph (Ehrich & Koster, 1983). The organisation of each is different, with the first predominant in every day conversation, but in classroom discourse, the latter predominates (Kretschmer, 1997).

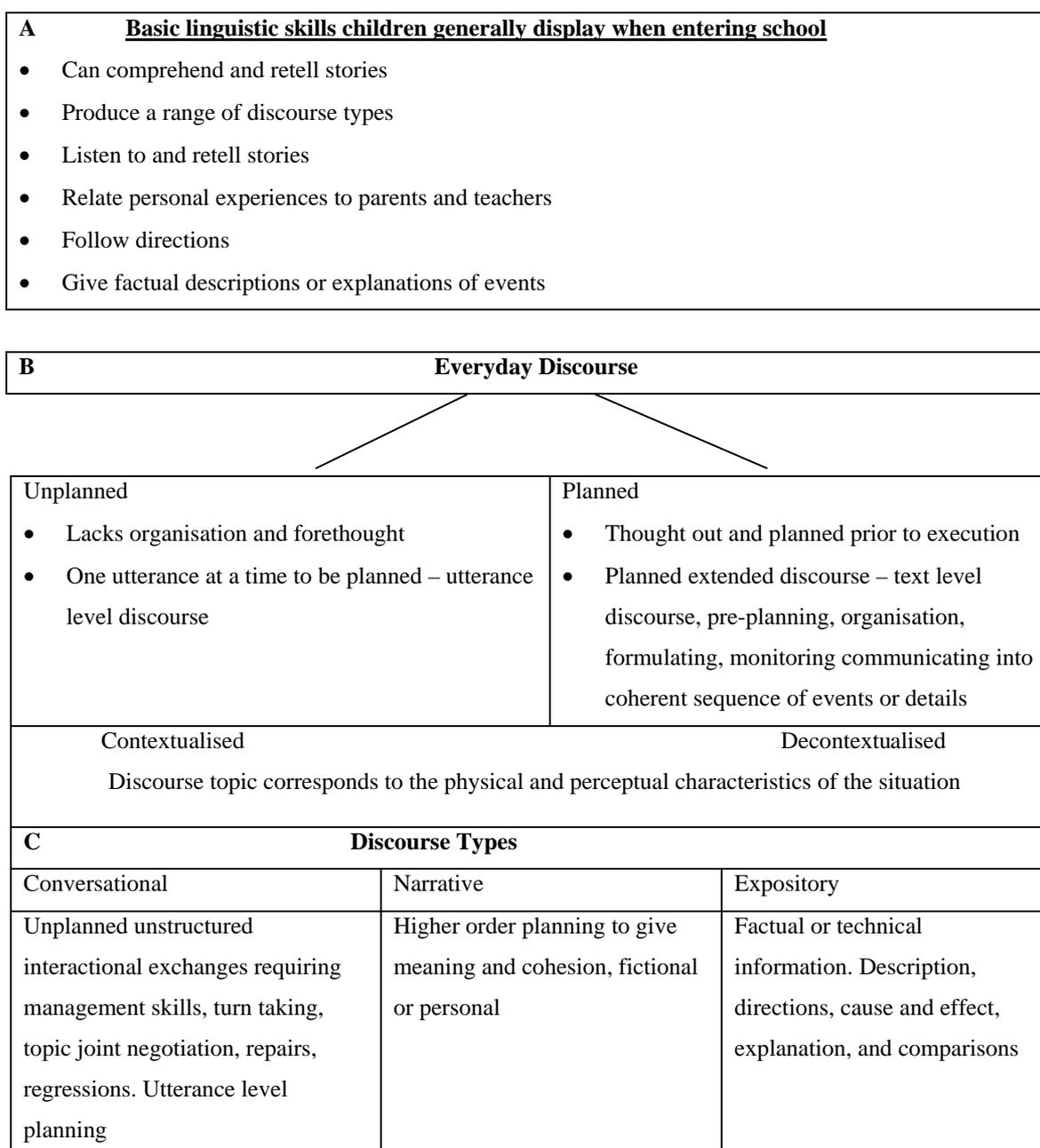
The ability to persuade (Hadley, 1998) becomes more important academically as students reach advanced levels of schooling. Deaf students need to be able to persuade, not only academically, but also in a social sense. They need to be able to perform the function of persuasion themselves, and to recognise when they are being persuaded, and to be aware of appropriate responses to it. Persuasion plays a significant part in media advertising, and thus impacts on life in general.

Comparison involves the ability to provide an account of the good, and bad, features of a number of items, and to give an account of their relative qualities. The ability to conduct an argument successfully using the necessary strategies, applies in

social interactions where students need to be able to put forward a logical point of view, and becomes an increasingly important requirement in formal aspects of schooling as students progress to higher grades (Hadley, 1998).

Figure 5.2 is a summary of the linguistic skills described in the previous section. It is intended to clarify the information by diagrammatically portraying the various components of linguistic skills and how they relate to each other.

Figure 5.2 Linguistic skills considered necessary for successful school learning and discourse types



5.7.5 How is mastery of discourse types achieved?

Kretschmer (1997) stated that social interaction is a critical element in the mastery of interpersonal classroom and print discourse, including English, with the assumption that children, whether hearing or deaf, and especially deaf children, learn language best when they are attempting to communicate in that language. This view was expounded by Vygotsky (1978) in relation to the development of language generally and has been explained in some detail (see Section 3.2.4).

According to Kretschmer (1997), as well as others such as Berry (1992), Clark, (1989), Erting (1992), and Fischgrund (1995), the best way to achieve mastery of the various language forms is through the engagement of the child in meaningful communication with others—that is, through authentic communication interactions, and not through isolated drill and practice. The latter, has been a common feature in special segregated educational facilities for the deaf and hard of hearing in the past. Such facilities could involve special programs where language features are arranged in a hierarchical way through which the class progresses in a preordained sequence (Fischgrund, 1995; Mayer, & Wells, 1996; Wood, Wood, Griffith & Howarth, 1986). Thus, traditional, remedial methodologies in segregated placements, it is claimed, have concentrated on hierarchical skills-based teaching of decontextualised language features.

Alternatively, deaf students may be surrounded by, but not engaged in, spoken, written or signed language in an attempt to have them acquire language through exposure. In an example of communication in an interactive classroom, where students were engaged in the text with the teacher, Kretschmer (1997) described an interactive teacher. The teacher, rarely failed to respond to an initiation by a student, focused on showing links with a particular child's world knowledge, defined unknown vocabulary, made inferences in stories explicit, predicted story outcomes, deduced clues from pictures, and rephrased the text in more accessible discourse that the students might understand. In this way, the students were engaged in the text, which in this case not only surrounded them, but reached them as well (p.377).

The practice of school language learning, based on mastery of the code itself, is therefore regarded as inappropriate. In such cases children, hearing or deaf, are taught the various elements of the code that make up English, through countless

practices of the elements, and is as such, a reductionist approach, and one which is followed in many areas of education, including special education.

It was mentioned previously that Kretschmer (1997) maintained, for students with hearing impairment to succeed in regular educational settings, they need to be able to perform two important tasks: (a) the ability to reason through academic and social problems to develop effective solutions; and, (b) the ability to master the key discourse structures that are commonly used interpersonally or in print, to share knowledge, and solve problems. To be able to reason through social and academic problems, it can be assumed, a fairly well developed symbolic communication system would be in place. As already noted (see Section 3.2.6) it is apparent that without such a system, the ability to engage in high levels of abstract thought is compromised (Marschark & Everhart, 1997).

To achieve proficiency in problem solving, children with impaired hearing also need to achieve mastery in the primary discourse patterns of English through which knowledge is obtained and shared. Mastering the processes, such as narration and description, allow the child to communicate in utterances beyond two sentences in length. This has obvious importance in school. Ability to engage in narrative is also essential for establishing friendships and other social contacts, and one of the key foundations upon which most academic disciplines are built, including bridging to literacy.

In common school situations, children are exposed to problems, and may have conversations with experts about how to solve them, but rarely have access to the stages in the solution process, or to adult “self-talk”, used in arriving at the solution (Kretschmer, 1997). While this may have negative implications for any child, it is even worse for a hearing impaired child who does not have the required skills in talking through problems. To achieve proficiency in problem solving, children who are deaf, need to be able to achieve mastery in the prescribed discourse patterns through which knowledge is obtained and shared. They also need to be in situations where they have access to more proficient language users, to witness them going through the stages of problem solving. Often, communication between students who are deaf and hearing students is minimal at best. Children, who are deaf, may not be privy to the student discourse patterns that operate between peers, and which are different from those of the teacher directed discourse. The structure of each of the various discourse strategies is distinctive and has to be learned.

To determine the linguistic proficiency of the severely and profoundly deaf students involved in this inquiry, and thus assist in understanding their classroom performance, it is necessary to devise strategies to assess their level of functioning in these areas considered important prerequisites for successful regular school inclusion. Hadley (1998) stated that many aspects of linguistic vulnerability were not ordinarily evident from performance on standardised language tests, they may, on the other hand, be revealed through language sampling analysis. It was also stated that sampling a range of discourse types is necessary. Hadley cited Evans (1996) who focused on the need to sample and compare across multiple discourse types when sampling school-age children's spoken language abilities. The principles guiding Hadley's language sampling protocols for school-age children were intended to obtain a picture of the children's most advanced language performance using different types of discourse structures. Similar principles, in deciding on assessment tools, are intended to ensure a proper gauge of authentic competencies achieved by the students, and provide an accurate account of their strengths while revealing their weaknesses, in this inquiry.

It is easy to imagine the difficulties involved for a student who has problems hearing, if most of the content of the lesson in regular classes is delivered through the communication mode so weighted in favour of those with intact listening abilities. Deaf students have to be aware of the differences between classroom discourse and social discourse. The classroom discourse requires that students know how to listen (or watch in the case of signing students), and take turns in answering questions, by putting up their hand and waiting to be asked. Social discourse, on the other hand, does not require these strategies, but involves other strategies that are based on specific responses and initiations appropriate to a range of different social situations. Being able to participate in social interaction is as important for successful school experiences as is the ability to perform adequately in learning situations. Not to have the appropriate communicative skills, for either social or academic learning, would render inclusion in a regular school somewhat less than the ideals expressed by the philosophies behind the inclusive movement.

Kretschmer (1997) stated that for a satisfactory development of communication there needs to be: (a) communication interaction among all partners, (b) a reasonable opportunity for each partner to contribute, (c) value for each partner's effort, and (d) a situation where each contribution builds on, and is responsive to the

contributions previously made. This view is closely allied to the social interactionist view of Vygotsky (see Section 3.2.4).

To reiterate, the most obvious method of learning effective discourse strategies is through using them in meaningful situations. Providing interactive teaching activities can both facilitate language development, and deliver academic content (Kretschmer, 1997, p. 376). The applicability of the claims, made by authors described in this chapter, will be evaluated by the appraisal of the performance of the students in the educational settings of which the students in this inquiry are a part.

5.8 Conclusion

This chapter has addressed the General Ethic Issue Question pertaining to regular school and teacher characteristics, and describes how teachers may, or may not, provide inclusive educational opportunities for the severely and profoundly deaf students in their classes. It is by no means assured that deaf students included in regular classes do receive inclusive educational opportunities, for a number of reasons. According to authors cited in the early sections of this chapter, regular schools with an inclusive ethos are not necessarily in preponderance in NSW. Neither, according to the information contained in the chapters, on the linguistic characteristics of deaf students, or their educational history described previously, are deaf students who enrol in regular schools, all in possession of the linguistic characteristics considered necessary for them to perform successfully. The earlier chapter's description of theories of language learning, and the discussion on inclusive teaching practices, support the view that for language learning and academic learning to be successful, social interactionist methods of instruction have the best chance of success.

Deaf students, it has been suggested, need to be able to perform a number of discourse strategies of a social and formal nature, to be able to access the regular school curriculum, and to be socially and academically included. Reading and writing, it is claimed, should be used as a route to learning in meaningful situations, not as discrete skills to be learnt in isolation. The latter was the approach taken in the past in segregated settings, and an approach in keeping with the pressures on schools exerted by the BST program of NSW. Nevertheless, an integrated approach to the teaching of literacy skills, is in fact, supported by the various educational documents and

curricula, which are intended to mandate teaching practice in NSW. These curricula are based on the various functions of language, rather than the reproduction of perfect surface forms.

For deaf students to be able to perform adequately in a regular classroom, it is suggested that they require opportunities to develop language in an interactive learning situation, so that language learning and academic learning, can take place coincidentally. It has been suggested that an interactive model of language learning accounts for language acquisition in the case of hearing children, and is also a necessary condition for language acquisition for the deaf. When deaf children experience reduction in linguistic input, by virtue of their deafness, being exposed to the optimum language-learning environment is critical. It is more critical in the case of the deaf, than in the case for hearing children, who have automatic access to many and varied communicative events, simply by being able to overhear them.

It has been argued that regular schools are likely to be incapable of changing to meet the needs of students with complex needs such as those deafness presents. Regular schools have been likened to industrial structures where students are expected to fit existing programs. Regular teachers have been criticised for being unable to modify their practices to cater for difference. They have been charged with being capable of offering only standard programs, aimed at regular students, using teaching styles based on the behaviourist principles of the environmental or biological models of language acquisition and learning. It has been argued that inclusive schools do not embrace either of these models of language acquisition and learning. Instead they are said to use social interaction, and individual difference as basic premises. Regular teachers, capable of using an interactive teaching style, as opposed to a transmission style of teaching, could possibly be capable of catering for the needs of student diversity, and the specific needs of deaf students.

The creation of inclusive schools can be achieved, according to a school of thought described in this chapter, either through radical remodeling, or ameliorative changes. These changes to practice could entail differentiated programs, co-enrolment, and an adhoc approach to problem solving. These educational options are the suggested possible solutions to problems associated with the inclusion of students with a range of disabilities, most notably deafness.

This chapter concludes Section 1, which has shown why severely and profoundly deaf students are being included in regular schools in rural NSW. The

section has described how language acquisition is thought to occur in a general sense, and the necessary conditions required for successful acquisition for hearing and deaf children. It has shown that regular schools and teachers are thought to require certain specific characteristics if the deaf students in their care are likely to have successful inclusive educational opportunities. It has also described the characteristics deaf students require in order to be successful in regular schools. The research instruments, which are described in the next chapter, were designed with the discussions presented in this and previous chapters, in mind.

Thus, to appreciate the realities of the situations, and to see how both the students and the teachers performed in their respective roles, it is necessary to be aware of differing views relating to crucial aspects of inclusion, and the various positions taken on the matter. The next section describes how the pertinent issues were revealed and manifested in the individual situations.

The General Etic Issue Question has been addressed in this chapter, with the Particular Etic Issue Question posed at its conclusion, “How did the regular classroom teachers provide inclusive educational opportunities for the severely and profoundly deaf student in their classes?”

Section 2

CHAPTER 6 METHODOLOGY

6.1 Introduction

The discussion, to this point, has identified the characteristics of the regular schools, and the educational requirements of deaf children if they are to achieve equality of opportunity relative to their hearing peers in regular educational classrooms. Thus, it has answered the Issue Questions in a general sense, and provided the background understanding of the etic issues.

Section 1 has shown that since the advent of the Disability Discrimination Act (1992), students who experience even profound degrees of deafness, may not lawfully be refused enrolment in a regular local school, other than in particular circumstances. It has shown that deaf children require a similar linguistic environment to acquire language, as hearing children, even if the modality is different. That environment, required by all children, is essentially meaningful social interaction. It has shown that while hearing students may be able to perform adequately in school with traditional transmission styles of teaching, deaf students who have imperfect language, and possibly other students with special needs, are likely to require a more interactive teaching style to be included in the full round of class activities, and to be able to access the regular curriculum while developing language. It has also shown that there are likely to be certain linguistic skills required that are necessary precursors for deaf students to perform adequately in regular classes. From these understandings, the three Particular Etic Issue Questions were derived, which are addressed in Section 2.

Section 2 delineates the three Particular Etic Issue Questions and describes how they pertain to the individual situations. In this chapter, the methodology used to answer the Issue Questions as they applied to the particular individuals and situations (i.e., how the particular teachers and students interacted in their individual situations) is described. The remaining chapters in Section 2 provide the descriptions and interpretations of each student's situation, of how individual teachers and students performed in their particular contexts. Therefore, Section 2 deals with the issues

relating to the individuals involved. The Particular Issue Questions addressed in Section 2 are as follows.

1. Why was the deaf student enrolled in their current school?
2. How did the deaf student perform in relation to their communicative and literacy ability?
3. How did the regular classroom teachers provide inclusive educational opportunities for the severely and profoundly deaf student in their classes?

As stated in the overview to this thesis, this collective instrumental case study was designed to understand the phenomenon of the inclusion of severely and profoundly deaf students in regular classes, and the relationships and events, which occurred within it. It was intended to interpret and recognise the contexts, puzzle out the meanings, and present a “naturalistic” (Stake, 1995, p. 85) account of what was perceived to have taken place in the regular classrooms, where 5 severely or profoundly deaf students were enrolled. The intention of the inquiry was to determine what would have happened in the contexts observed, regardless of the presence of the researcher, and to be non-determinist in making interpretive observations (Stake, 1995).

As it was not possible to see all that occurred, or what preceded the recorded events, opinions of others were sought, as well as historical documents, and textual records, to create a comprehensive constructivist interpretation of the contexts. Because of the nature of the Particular Principal Issue Question, which asked how teachers provided an inclusive education for the students, a good deal of the emphasis was evaluative. This was because the quality of activities and processes was central to answering that question. The design of the inquiry follows the principles for case study, according to Stake (1995), as outlined in the overview and described more fully in this chapter.

The examination of the background information in the preceding chapters served to identify the variables to look for, to answer the Issue Questions in the particular contexts examined. The variables of Teaching style, Communication, Participation, and Curriculum adaptations were obvious components of classroom interactions and characteristics in regular schools, and of initial interest to this inquiry. Other variables became apparent when the actual classroom situations were appraised. The analysis of the data presented in this thesis sought to identify patterns of behaviour or circumstances existing within the specific cases, and to recognise

unexpected relations between the capabilities of the students and teachers and their performances. The emergence of emic issues (Stake, 1995), derived from the data analysis, contributed to the interpretation of each case, as did the identification of inclusive teaching practices. The descriptions, interpretations, assertions, and generalisations are contained in the individual case chapters that follow.

After the Information Questions were answered, the background understood, and the Particular Etic Issue Questions compiled, it was apparent where to direct data gathering. Explanation of how the data were gathered, the nature of the data, and how they were analysed and synthesised, is outlined below.

6.2 Commencement of the inquiry

6.2.1 The students and researcher

The researcher was an itinerant teacher who worked with, or supervised, the support of five severely or profoundly deaf school age students in a particular rural educational district in NSW. The researcher had a depth of background knowledge on some of the students, especially those on her caseload. There were occasions when this knowledge provided an insight into particular situations that became apparent in the course of the data analysis, but had not been preempted in the original design of the inquiry. These insights generally centred on the issue of the Deaf identity of the students. In some cases, insight in this matter was gained through interview data. In other cases, it did not arise in the course of the interviews, but was apparent to the researcher, who knew which students were interested in attending specific events designed with a Deaf emphasis, and which students were not. She also was aware which students referred to themselves as “deaf”, and consequently different from their hearing peers, and which students sought other deaf friends where that was possible.

The five students comprised a group of students, who were of different ages, and used different communication systems. They had different etiologies for their deafness, were enrolled in different schools, and were supported by different itinerant teachers. They had hearing losses in the severe or profound range, and were selected because they represented diverse representations of the phenomenon of interest. The diversity was manifested in their age differences, communication modes, and backgrounds. Thus, each student presented different characteristics, which it was expected would pose different challenges to the personnel responsible for their education, and consequently demand different solutions to their educational needs.

When these solutions were eventually observed, they were expected to contribute to comprehensive perspectives and understanding of the phenomenon. Consequently, the conclusions, which were ultimately drawn, contained an information base as broad as possible. Therefore, the diversity of cases provided the best likelihood of describing the various facets of the phenomenon comprehensively. Having cases, which were multiple representations of the same characteristics, would have had less likelihood of providing contrasts leading to in-depth understanding of the phenomenon under scrutiny generally. To provide opportunities most likely to lead to accurate understandings, a selection of cases, which could be considered typical, as well as atypical, was considered desirable (Stake, 1995):

The first criterion should be to maximise what we learn. Given our purposes, which cases are likely to lead us to understandings, to assertions, perhaps even modifying generalizations?...If we can, we need to pick cases which are easy to get to, and hospitable to our inquiry....Of course we need to carefully consider the uniqueness and contexts of the alternative selections, for these may aid or restrict our learnings...but many of us case workers feel that the good instrumental case study does not depend on being able to defend the typicality. (p. 4)

Three of the students in this inquiry communicated using Signed English and were enrolled in classes ranging from Year 1 to Year 10 at the time of the data collection. Two other students, who were profoundly deaf, either congenitally or from infancy, had been fitted with cochlear implants. One student had been fitted with an implant when she was in Year 1, after the inquiry commenced. That student had used Signed English as her main mode of communication and had worn hearing aids prior to receiving her implant. All of the students were being educated in their local schools, and taught by teachers untrained in the field of deaf education. Each of the students, and their respective teachers, were supported by itinerant teachers who had specific training in deaf education.

For the purposes of this report of the research findings, each of the five students was given a pseudonym to protect his or her identity. The historical information, which is presented at the commencement of each of the case chapters, was drawn from interviews with parents or carers, school personnel, and school records, such as reports from review meetings or audiological and etiological information from hospital and audiological records. Table 6.1 presents basic descriptive information for each of the students.

Table 6.1. Student details

Name	Age at Time of Study	Grade	Degree of Hearing Impairment/aids, Etiology,	Communication Mode
Case 1: Todd	17/18	Year 9/10 Segregated for early education, integrated in primary and high school	Profound, Hearing aids (HA), Waardenberg's Syndrome	Signed English
Case 2: Kelly	8/9	Year 3 /4, entirely integrated	Profound, Cochlear Implant (CI), Meningitis	Oral/ Auditory, some Signed English
Case 3: Wayne	6/7	Year 1 / 2 segregated preschool, integrated preschool and primary school	Profound, CI, cause unknown	Oral/ Auditory
Case 4: Maisie	6/7	Year 2, entirely integrated	Profound, HA, CI, unknown illness at 18 months	Mixture/ Signed English, Oral/Auditory
Case 5: Michael	11/12	Segregated early years, integrated, segregated, integrated Year 7	Profound, HA genetic / Deaf parents	Auslan, Signed English, Oral

6.2.2 Study design

In this inquiry, the case really refers to the multiple actors in each of the five settings. Each deaf student alone was not the case. Rather, it was the interactions between the students, and the educational personnel involved with their educational environments that constituted the individual cases. There were two stages of data analysis described more fully in a later section. The analysis of the data provided three outcomes. The first stage of analysis was progressive summarising, which when completed, provided the first outcome, which was a description of events and opinions. The second outcome was a series of emic “issues” (Stake, 1995) or concerns that emerged, and were recognised at the end of the first stage of analysis. The second stage of analysis provided one outcome, which was evidence of different inclusionary practices, which were identified in the five settings.

These outcomes formed the basis of the interpretations, which led to assertions and generalisations. It is clear that a good deal of researcher interpretation took place. This occurred throughout the process of data gathering, as decisions were made about which events and happenings were relevant to record. It was necessary to collect sufficient evidence to ensure that understanding of the complex interactions was

achieved. The evaluative assertions and generalisations in each case provided the basis for the extrapolations, which led to recommendations for future action in similar situations. The culmination of the analysis, the generalisations, is presented in the final discussion chapter.

6.2.3 Validation techniques

Morse (1994, p. 230) listed several methods for ensuring rigor in qualitative work. These are; criteria of adequacy and appropriateness of data, the audit trail, verification of the study with secondary informants, and the use of multiple raters. Other authors may give these methods different names. Adequacy refers to the amount of data collected, rather than the number of subjects. Adequacy is attained when sufficient data have been collected that saturation occurs, and variation is both accounted for and understood. The audit trail refers to the careful documentation of the conceptual development of the project, providing an adequate amount of evidence that interested parties can reconstruct the process by which the investigators reached their conclusions. Verification of the study with secondary informants refers to the practice of taking the resulting model back to the informants and presenting them with it to allow them to confirm the accuracy and validity of the study. Finally, the use of multiple raters refers to the practice of the investigator using another investigator to read and code transcripts, or to check the validity of the variables selected by asking that he, or she, confirm or deny, their presence (i.e., by confirming that they are “seeing” what is there).

Janesick (1994, p. 214) provided examples of triangulation, one of the most recognised ways of ensuring the veracity of qualitative forms of inquiry. Data triangulation is the use of a variety of data sources in a study, investigator triangulation is the use of several different researchers or evaluators, theory triangulation is the use of multiple perspectives to interpret a single set of data, and methodological triangulation is the use of multiple methods to study a single problem.

6.2.3.1 Validation techniques used

Data triangulation was used in this inquiry as one of the principle methods of validation. Data was collected from a number of sources from classroom observation, interviews with parents and teachers, language performance data, and historical records. Sufficient appropriate data was collected until saturation had occurred, and the audit trail has been clearly documented.

In this inquiry the assistance of other raters was enlisted so that researcher rating of the data could be compared to that of other raters. The other raters involved were the supervising researcher and fellow itinerant teachers, who were asked to provide either alternate descriptors for the raw data, or additional descriptors to designate raw data, in essence confirming the presence of the variables (Morse, 1994). Data triangulation refers to the use of multiple data sources. This process of verification was also employed in the current study (see Section 6.3).

“Member checks” (Stake, 1995), which is another way of describing the enlisting of other raters, were carried out in this inquiry by providing a page of data from both the observed woodwork lesson and the interview with the woodwork teacher in Case 1, to ten fellow itinerant teachers, who work in the inquiry region and the adjoining region. Each rater was given a copy of the variables, which had been selected as a result of information gained from Section 1 in regard to deaf education, and regular schools and teachers, which included variables such as Communication, Teaching style, and Curriculum adaptations, for observation and interview data. They were asked to designate the raw data with the relevant variable numbers. They did not receive any information about how the researcher had designated the data. They were asked to indicate whether they believed that other variables should be included, or if they disagreed with the designated variables and descriptors that were chosen. They, like the researcher, identified two or more variables in the same raw data on occasion, which indicated that raw data could refer to different aspects of the phenomenon at the same time.

The observation data fell into six natural divisions, which appeared to coincide with both researcher’s and member’s designations, as they placed their variable indicators in similar places to the researcher. A majority of designations coincided with the researcher’s, in four of the six divisions. These indicators referred to the variables of (1) Accessibility of content and Classroom and curriculum adaptations (which were two variables referring to the same data), (2) Teaching style, and Curriculum and classroom adaptations, (3) Curriculum and classroom adaptations, and (4) Communication and Level of success of student participation. The two divisions which did not receive a majority of indicators that coincided with the researcher’s were (1) Communication and level of success of student participation, which the other members designated as Lesson type and Teaching style, and, (2) the researcher designated Communication and Level of success, which the other teachers designated Teaching style.

The interview data fell into 11 natural divisions, which were perceived similarly to the researcher’s view. It was easier to isolate the variables in the interview data, as the text fell into question / answer divisions. As this was a telephone

interview, there was less expansion on the part of the interviewee than in some of the other interviews, and the answers were fairly concise. In 10 out of the 11 divisions there were a majority of designators, which agreed with the researcher. The only designator which did not agree with the researcher was the category Observed Lesson, which was clearly not an event the other members were party to, so they were unable to respond in the same way as the researcher.

That different individuals perceived the data in slightly different ways has little bearing on the outcome, as the purpose was to sort the data into bundles of like variables for summarising, and facilitating the ensuing description of events. If there had been a number of researchers analysing the complete data set, it would have been important that they all agreed on the designators for the data variables, as certain variables contribute to different educational practices, which had to be recognised and described. As there was only one researcher doing the actual analysis, it was important that she was consistent in what she regarded as raw data contributing to whatever designator she had decided upon.

The member checks indicated that members generally agreed on the designators, and what the data revealed, but the members had not been party to the background information contained in Section 1 of this thesis, and which had largely influenced and determined how the researcher had arrived at the actual data descriptors.

The supervising researcher was given the raw data, reduced data, and the issues, which had been determined by the researcher, which had emerged from Cases 1 and 2, after the initial reduction and analysis. The supervising researcher agreed with all of the issues listed, which were determined to have been revealed, but regarded “locus of control” a desirable addition. The variable “locus of control” (see Section 6.10) was, as a result, included.

The summaries, derived from the first stage of analysis condensed all the observations under the variable headings, and described what actually took place in the classrooms. Together with the other data sources, they contributed to the eventual interpretations and assertions in each case.

6.3 The data sources

There were four major data sources, which reflected four aspects of the same phenomena (i.e., the classroom performance of the deaf students and the educational personnel in providing inclusive educational opportunities for the student). The Classroom Observation Data (COD) was a record of how the events took place in the regular classrooms, and the Language Performance Data (LPD) provided a detailed

description of the student's relevant linguistic abilities. The latter data source was based on the information derived from Chapter 5. These data were generated as a basis for better understanding of the student's classroom performance, and specifically, given the background information presented on language performance of deaf students, one possible source of limitation of the student's classroom performance.

The Semi-structured Interviews (S-sI) provided varied opinions and explanations of why the events took place as they did, from the point of view of all of the critical participants involved in the phenomenon. The language performance and classroom performance were considered to be intricately related, as classroom performance essentially depends on communicative ability. Descriptions of the Classroom Observation and Semi-structured Interview Data were based on the concentrated summaries of the accumulated data. They were combined with the Language Performance Data, to provide an interpretation of each case situation, which are presented for each case in the individual chapters.

A fourth data source comprised the historical records from school, as well as each subject's medical and audiological records.

6.3.1 Classroom observation

Simpson and Tuson (1996) stated:

The personal experience of just looking must be transformed into a public event by the systematic recording of what we see and by subsequent analysis and interpretation. By thinking through and writing down exactly what information we want to collect, how we are going to collect it, and what we think it will demonstrate, we begin to make explicit our underlying assumptions about what is going on. As a result we open up opportunities, for ourselves and others to examine our assumptions, to challenge them and to offer alternative viewpoints. Making things public and open to scrutiny and discussion is one part of the process of making the 'personal' less subjective. It is also necessary, particularly when observing your own familiar area of work, to 'make the familiar strange'— that is, to try and detach yourself from your own personal automatic interpretation of what is going on, and try and see events from different perspectives. (p.2)

Observation, and the recording of events as they unfolded in the classroom, was the principal source of data for this inquiry. This perspective was expanded by the S-sID, LPD, and historical records.

6.3.2 Semi-structured interviews

Drever (1996, p.1) stated that interviewing is a very flexible technique, suited to a wide range of research purposes. Semi-structured interviewing lies between the two extremes of (a) a completely directed list of questions and alternative responses from which the interviewee simply chooses a response, and (b) a non-directive and almost conversational style allowing the interviewee largely to determine the course of the discussion. The semi-structured interview means that the interviewer sets up a general structure, by deciding in advance what ground is covered and what main questions are to be asked. The detailed structure is worked out during the interview. The interviewed person answers in their own words and the interviewer responds using prompts, probes, and follow-up questions, to get the interviewee to clarify or expand on their answers. The information gathered can be factual, a collection of statements of preferences and opinions, and the exploration in depth, of experiences, motivations, and reasoning.

Semi-structured interviews, in this inquiry, provided background information and explanation about observed performances. While not all of those interviewed agreed on all aspects of the situation being examined, their differences of opinion were themselves valuable in offering insights in the final evaluations made by the researcher (Section 6.11.2).

6.4 The data set

The collection of the Classroom Observation Data (COD) involved the researcher performing as a non-participant observer for the students that were not on her own case load (i.e., the students for whom another teacher was directly responsible), or as a participant observer in the cases that were on her own caseload. Observation notes were collected in a series of lessons. All relevant events involving the deaf students were recorded. Some lessons were recorded on audiotape as well, and the transcriptions of those lessons accompanied the observation notes. The purpose of this source of data was to record events accurately as they occurred and to make accurate records of dialogue.

Semi-structured Interviews (S-sI) were conducted with the relevant personnel involved with each student's educational situation. The S-sI data were intended to provide background information to describe each student's history and characteristics, and to facilitate interpretation of the events, which occurred in the classroom, by giving the perspectives of the other personnel involved in the lesson, as well as that of the researcher. The interviews followed a particular format, but were carried out in

keeping with the semi-structured nature of the technique. A copy of the interview scheduled is provided as Appendix C.

The Language Performance Data (LPD) consisted of conversational exchanges, written language, formal language assessment, graded test material from two standardised reading tests, and a listening test. The specific purpose of the language assessment was to examine the language ability of the five students as it related to their ability to perform the usual tasks required in regular classrooms. The reading assessment was intended to isolate the reading strategies the students used to access text; so that future judgements could be made about how likely they were to have been able to participate in lessons requiring a mastery of text. The listening test was intended to determine how much access the students had to spoken language through listening and/or lipreading.

To answer the three Issue Questions, it was necessary to create a number of “Research Questions”, which were considerably more detailed than the broader Issue Questions. These were necessary to determine the intricacies of the situations. Each of the data sources lent themselves to answering specific Research Questions, because the different data sources applied to different aspects of the phenomenon, and together contributed to answering the Issue Questions. The interpretation of the data provided the basis for the assertions and generalisations made as a result of the analysis of the intricacies of each case. For instance, Research Questions posed for the Classroom Observation Data to answer, referred to classroom events, Interview Research Questions referred to opinions of those involved about events and past happenings, Research Questions referring to the Language Data, asked specific questions about the students’ linguistic abilities.

Historical information was collected from school records and audiological records as well as from parental responses to the Semi-structured Interview Questions. This data answered the background questions, as well as answering the Etic Issue Question of, “Why was the student enrolled in their current school?”

It was shown in Chapter 4 that mainstreaming deaf students does not automatically foster increased interactions between hearing and deaf students. Lee and Antia (1992) described Allport’s Contact Theory, which may explain why integrated deaf students, such as those in this inquiry, were not always well accepted. The theory posits that there are two types of contact (a) casual contacts, which are superficial and which do not reduce prejudices, and (b) acquaintance, which lessens prejudice. Allport’s theory states that when members of different groups become acquainted with each other, attitudes improve. The conditions, which Allport suggests encourage positive intergroup relations, are cooperative contact, equal status, supportive institutional norms, and perceived similarity between groups. The reverse conditions

lead to negative intergroup relations, competitive contact, unequal status, and unsupportive institutional norms.

Because the deaf students in this inquiry received “special” treatment in class, which may have been considered unequal treatment by some of the hearing students, it was an example of how the situations for the deaf and hearing students differed, and which may have contributed to the deaf students being less well accepted than other students by setting them apart. It was considered desirable to determine if the deaf students were well liked by their peers, as acceptance was possibly significant in relation to a student’s performance. Social acceptance may also have been a reflection of a student’s abilities and characteristics. While it was clear that Observation and Interview Data would reveal this information, the use of simple sociograms involving peer ratings, for the younger student’s classes, was a further device used to supplement the Observation Data and corroborate it.

Observation of students is a method used to determine social behaviour, with schedules designed to measure individual student’s interactions in school situations (McCauley, Bruininks & Kennedy, 1976). Findings can be grouped according to category of student and compared. Similarly, socialisation studies may involve a child report scale, or a teacher report scale. According to Brancia Maxon, Brackett, and van den Berg, (1991), there are problems inherent in both of these methods because of language deficits on the part of the deaf students, or different criteria used by regular classroom teachers when assessing deaf student behaviours. As the purpose of the sociograms was not to compare, or correlate, the behaviours of the five deaf students, but rather to aid in describing each situation accurately, they were not statistically examined, other than to note the number of responses in each class involving the deaf students, as opposed to their classmates.

Sociograms, or peer rating scales, were used to determine the level of social acceptance of the younger students, to determine if classmates were willing to list the deaf students as one of three preferred people with whom they would like to play. According to Vaughn, Elbaum, and Shay Schumm (1996), peer ratings have been found to be a valid and reliable index of peer relations, with the stability of the type of measure established through third to sixth graders. The peer ratings occurred for the younger three students, and were included with the data as an added perspective of the deaf student’s social realities, and used to assist in a comprehensive understanding of the individual situations. If deaf students received comparable numbers of selections as the other students in the class, it could be assumed they were as well liked as the other students. Alternatively, if they were selected differently to the other students, that too could indicate social differences. The judgments were simple comparisons

between the deaf students and their classmates, not between the five deaf students themselves.

In the case of the high school age students, the sociogram was not attempted. It was considered, by the researcher and the other itinerant teachers involved with a high school student, unlikely that such means would produce accurate results from older students, as the method used to elicit the information was fairly transparent. It could not have been assured that older students, would have been inclined to give open and honest responses to a question, such as “list three people you would like to play with / interact with from your class”, while young children are quite happy to do so. Determining the levels of social acceptance of the older students occurred through direct observation and the interview data.

6.5 Data collection

At the commencement of the inquiry, all the schools where the five students were enrolled were approached. The personnel involved directly with the education of the students were invited to participate in the inquiry. Participation involved agreeing to have lessons observed and recorded, and agreeing to be interviewed. Participants were provided with written information about the study and what it set out to achieve. They were asked to sign letters of agreement to participate. An example copy of the letters for school personnel, and parents and guardians, is included as Appendix B.

There were no dissenters as the attitude in all cases was positive. All potential participants agreed that a study such as that outlined would eventually assist people such as themselves to perform the task of educating severely and profoundly deaf students. In all of the schools involved, the researcher was known, in some cases very well, as a consequence of her role (both current and prior) in the support of certain students, which had occurred over a number of years. In many ways, the collection of data was an extension of the role already performed by the researcher.

6.5.1 Classroom Observation Data collection

As noted, classroom observation and the collection of field notes by the researcher was the principal method of data collection in each setting. In the two cases in which the students were on the researcher’s own case load, Kelly and Wayne (Cases 2 and 3), the observations were carried out in the role of participant observer, while in the other three cases the researcher was usually a non-participant observer. In those cases, there were occasions when the researcher participated in the support of the student, as she was able to communicate with them, and the teachers looked to her

for assistance when the regular support personnel were not present, or had difficulty with some element of the lesson. The observations were a direct record of classroom events, which involved the whole class, but principally were focused on the interactions of the deaf students with their teachers, their peers, and their support personnel.

6.5.2 Pilot study

To assist planning the methods of data collection to be employed, a pilot study was carried out in the classroom of Kelly (Case 2). Practice was gained in collecting observation notes and deciding what they revealed. Initially, the notes were written in the class as events occurred, but this proved to be disruptive, as it caused so much interest among the children who wanted to see what was being written. Consequently, notes were written up immediately after each lesson.

Some lessons were audiotaped to capture the dialogue spoken in the lessons, and the transcriptions were combined with the observation notes. This was not carried out in every lesson, because it became evident that the data revealed in this way, was in the end, very repetitive. Teachers were given an opportunity to read the notes, but in all but one instance, declined. The teacher, who did read the notes, only did so on one occasion. In each case, a selection of lessons was observed so that differences in performance in different types of lessons could be noted. Also, some students, even in primary school, had different teachers for different subjects. This of course is the norm in high schools. It was necessary to obtain observations of different support personnel in operation as well. In the cases where interpreters / teacher's aids were involved, they were also observed assisting the students in most cases. All those observed gave their permission. Information relating to particular instances is included in the relevant chapters on the individual cases.

Observations ceased when it was decided that the information being collected was in fact repetitious of previously collected data—that is, when saturation had occurred (Morse, 1994). When uncertainties occurred in deciding which variable the data referred to, further observations were made to clarify the uncertainties. There is a difference in the amount of data collected in each case, because some cases proved more complex than others. Cases 2 and 5 had the most observations made, while 3 had relatively few. For Case 1, it was not possible to collect more classroom observations of a varying nature, because of the changes in school programming. More interviews were collected, in that case, to provide evidence of information that may have been missed because of the fewer classroom observations.

6.5. 3 Semi-structured Interview Data collection

All of the essential personnel directly involved with the cases were interviewed. Initially these interviews were audio taped and later transcribed. On some occasions, direct interviewing proved problematic because of the distance involved, so telephone interviews were carried out. The responses to the questions were written as the interviewee spoke or at the completion of the interview. There were two interview schedules, one for school personnel, and another for parents and guardians. The length of the interviews varied, as initially the researcher allowed too much digression, which, when the transcripts were examined, did not actually reveal significant amounts of added information. As time progressed it was possible to curtail some of the extraneous information by moving onto the next question without encouraging elaboration. Some of those interviewed were naturally in better positions to provide more detailed information than others. Some interviewees were very succinct others were not.

The questions for the interviews were compiled after the initial pilot study and the examination of the COD. Interview Research Questions were chosen to fill in gaps of information not obvious from the COD. Some of the questions such as, "How did the school personnel regard the integration?" were open to wide interpretation, as the semi-structured nature of the interview technique allowed the interviewer to steer the interview in the direction thought most appropriate for each situation. Question 3, "What was the perceived level of success of the placement?" allowed for opinions about the reasons for the success, or otherwise, to be included in the response. In one case, more interviews were carried out because of the unavailability of further classroom observations, as noted above. The interviews also provided the teachers with the opportunity to comment on the observed lessons, and affirm their typicality and that what the researcher observed, was representative of what usually occurred.

6.6 Research Questions

The Classroom Observation Data were intended to provide evidence of how the teachers catered for the needs of the particular students, and how the students performed. These data were gathered to address the Particular Etic Issue Questions, which related to the specific needs of the deaf students and the characteristics and abilities of the regular teachers who taught them. These questions were broadly, "How did the students perform linguistically?", and "How did the teachers provide for access to the curriculum, language development, and literacy learning?". In other words, "What was the nature of their inclusive educational environments?" The aim

of this part of the investigation was to determine whether the learning environments contributed to the characteristics that were previously identified as being conducive to effective educational provision of an inclusive nature (see Section 5.6). The Research Questions related to the key variables, which were revealed primarily in the background information.

6.6.1 Classroom Observation Research Questions

- 1) Were special provisions made for the students to participate in the class program?
- 2) What were they if they existed?
- 3) Who was responsible for the delivery of classroom information?
- 4) What methods were employed to deliver the classroom information?
- 5) With whom did the student interact, and how?
- 6) Were the students able to perform the same tasks as the other students?
- 7) If so, how was that facilitated?
- 8) If not, what were they able to achieve?
- 9) What style of teaching was employed?
- 10) What facilities were available for language development if this was a necessity?

6.6.2 Semi-structured Interview Research Questions

The Interview Data were intended to provide information to answer the following questions, by providing the background information to that which was gained from the COD, and which was not apparent from observation alone. These questions complemented those asked of the Observation Data. They were as follows:

- 1) How did the school personnel regard the integration?
- 2) Why was the student in the particular setting? (from parents)
- 3) What was the perceived level of success of the placement?
- 4) What knowledge and experience did they have of deafness?
- 5) What was the educational history of the student? (from parents) and the support history
- 6) What was the etiology and nature of the deafness? (from parents)
- 7) What provisions were in place for the teaching of literacy skills? (If this was not evident from the COD)

Together the COD and S-sID Research Questions answered the Particular Etic Issue Question, “How did the regular classroom teachers provide inclusive

educational opportunities for the severely and profoundly deaf student in their classes?”

6.6.3 Language Performance Data

The LPD were intended to provide evidence of each student’s communicative abilities, and were based on the descriptions of linguistic characteristics thought necessary for deaf students to effectively access a regular classroom program (Chapter 5). It was intended to create an “authentic assessment” (Hedberg & Westby, 1988, p. 2), which measures the subject’s performance on actual tasks. Hadley (1998) stated that, “language sampling is widely recognised as a necessary component for describing children’s language abilities accurately” (p. 132). She also claimed that it was important to engage children in discourse, which was challenging enough to promote the use of more advanced language abilities, as well as revealing linguistic vulnerability. According to Hadley, many aspects of linguistic vulnerability are not as readily evident from standardised language tests. Therefore, to create a comprehensive understanding of a student’s linguistic ability it is necessary to sample a range of discourse types.

In the protocols created by Hadley to obtain a picture of children’s most advanced language performance, she required a sample of discourse types that promoted the use of the most advanced linguistic structures possible. She suggested that the usefulness of only conversational discourse was questionable, as with older children conversational exchanges may not be challenging enough to reveal communication breakdowns and production errors. Similarly, only using discourse types, and not including text-level discourse, may not be challenging enough to reveal difficulties either. It was suggested there needs to be discourse types, and text level discourse, and both contextualised and decontextualised, language use.

Hedberg and Westby (1988) stated that it was clear that there was a need to assess language skills of school-age children, especially those language skills related to school success. It had been thought that children achieved almost adultlike competence in phonology, and syntax, by age seven, but studies in recent years, according to Hedberg, and Westby, have indicated that syntactic and morphological rules continue to be acquired throughout the school years, which were not accounted for in the construction of the tests. They claimed that while numerous language tests have been developed for the school age population, they are not based on any theoretical model, and consequently there is no rationale for the specific language content or procedures, which are selected for inclusion. It was suggested that shortcomings in standardised tests available could be overcome by analysis of

students' abilities to produce and comprehend stories. Narrative analysis, it was claimed, provides a means of understanding a person's language development and conceptual development beyond the level of words and sentences.

Stories require that children operate on texts at both a local (microstructure) and global (macrostructure) level. Most traditional language analysis evaluates a speaker's microstructure knowledge for morphology and syntax. With narrative microstructure analysis, attention is directed at the individual's knowledge of how to achieve cohesion and coherence for different genres. Narratives are not only a reflection of a speaker's linguistic ability, but also of their cognitive understanding of the world and how people operate in it.

Hedberg and Westby described a study by Wells (1986) in England, which showed that exposure to stories in the preschool years was a better predictor of later school success than any single language measure. Hedberg and Westby also said that narratives serve as a bridge to literacy. Storytelling is an extended discourse, which transcends all cultures and is central to the school curriculum. It is through stories that children vicariously extend the range of their experience beyond their immediate surroundings. Stories represent an early step into the rhetorical and referential abstraction, which is necessary for school success (p. 9).

Chapter 5 described other skills considered necessary for school success, such as the ability to describe, persuade and argue, the ability to respond to IRE classroom questioning sequences, the ability to gain meaning from text, and to write employing different discourse strategies. Collecting samples of all of these abilities was the purpose of the data gathering techniques employed in this inquiry.

The students were engaged in conversations of both a contextualised and decontextualised nature, they were asked to write examples of different discourse types, and to read a selection of standardised reading texts to reveal the strategies for decoding and understanding text, which they had developed. A formal language assessment test was employed as well, as it was considered useful to determine how much English grammar was understood by the students. This may not have been revealed in their writing sample, especially if their writing skills were not well developed. The listening test was used to determine how effective listening and lipreading skills were, if in fact they existed. How the students performed in class linguistically was revealed by the Classroom Observation Data and born out by the Interview Data, and explained by the Language Performance Data.

The Language Performance Data collected were intended to explain how the students performed. They were not intended to be an in-depth linguistic analysis of every detail of a student's capabilities. The data were intended to complete the picture for each case. It is clear that if students could not retell a narrative of any kind, they

were well behind the capabilities of most hearing individuals, who can perform this task before they enter school. The linguistic data were essential to understand the classroom performances of the students. It is unrealistic to expect a deaf student to gain meaning from a regular high school textbook, when they can't understand text intended for a six year old. Unless the particular linguistic capabilities were revealed and described, there was no possibility that an insightful evaluation of a student's performance could be made.

6.7. Language Performance Data (LPD) collection

The LPD was a collection of varied records of communicative performance of both a receptive and expressive nature. These data provided evidence of linguistic ability—information necessary to explain the student's capacity to receive and transmit information. Some examples were videotaped and transcribed, and some were written records. The information provided by the LPD illuminated the student's own classroom performance, and consequently highlighted the capacity of the teachers to provide the necessary learning conditions for each student. Examples of the conversational exchanges have been presented in the actual case chapters, and the writing examples have been included in the case chapters, to illustrate the descriptions of the student's performances.

The particular characteristics of each student's ability are important information in interpreting their difficulties, or abilities, in accessing the classroom program, as well as highlighting teacher communicative and adaptive strategies. The reasons for the choice of language data are based on the background information provided in Chapter 5 (see Section 5.7), which described the skills considered necessary for a deaf child to perform adequately when they attend a regular school. The data included examples of planned discourse of a conversational, narrative, and expository nature. Other evidence of linguistic ability especially of an informal nature was gained directly from the Classroom Observations, or from Interview data. Neither Classroom Observation Data, nor Semi-structured Interview Data were sufficient to create a thorough picture of linguistic skill alone; consequently the Language Performance Data collection was designed to uncover those aspects of the student's ability, not available through those sources.

6.7.1 Language Performance Data Research Questions

The Language Performance Data (LPD) was collected to answer the following questions.

1. What was the student's receptive language capacity to understand English? (Through Signed English, or audition / lipreading)?
2. What was the student's expressive language capability?
3. What were the strategies the student had mastered for accessing text?
4. What were the student's listening / lipreading abilities?

The responses to these questions answered the Particular Etic Issue Question, "How did the student perform in relation to their communicative and literacy ability?"

6.8 Instruments for Language Performance Data collection

6.8.1 Formal Language Test

The *Test for the Reception of Grammar* (TROG) (Bishop, 1989) was included to provide a common element across all the cases, which was more likely to achieve a response than a writing sample alone could. It was not guaranteed that all of the students had sufficient writing skills to be able to get a comprehensive example of their true ability with the formal aspects of English, from their writing alone.

The *Test for the Reception of Grammar* was used to determine the student's receptive abilities with English grammar. This is an individually administered multiple-choice test designed to assess understanding of grammatical contrasts in English. The test consists of 80 four-choice items. For each item the subject is required to select from an array, the picture that corresponds to a particular phrase or sentence, which are spoken or signed by the tester. The test was standardised on more than 2,000 British children and norms are available for the age range from 4 to 12 years. The test takes 10 to 20 minutes to administer. No expressive speech is required of the subject. The test pictures are clearly drawn and brightly coloured. The use of simple vocabulary in test sentences was used to minimise the likelihood of failure due to the subject not knowing the meaning of individual words.

The purpose of administering this test was not to determine the age equivalents of the student's linguistic abilities, but rather to ensure that a complete picture of the student's capabilities was created, and to determine which grammatical elements of English the students were able to understand. Written language samples are a useful means of revealing a student's mastery of the grammatical elements of English (Sarachan-Daily, 1985). However, if a student is unable to write, this method of assessment may be inappropriate. A student who may not have mastered writing skills, may still have developed many, or all, of the formal elements of spoken

English. It was considered important to include a test that would not preclude the students from demonstrating their receptive mastery of the formal elements of English.

The aim of the LPD collection process was to create a comprehensive picture of the student's grammatical capabilities without making the task too daunting. Specifically, the purpose was to determine the extent of the student's abilities, rather than their limitations (Hadley, 1998). While ability to understand English grammar alone was not a skill likely to impact on the student's informal ability to hold successful conversations, inability to draw on knowledge of grammar would likely have an impact on a student's ability to comprehend text successfully, and to perform formal academic tasks in school. Having a knowledge of what elements of English the student could, and could not understand, made it possible to appreciate those aspects of their class programs, which were accessible to them and those which were not. Knowing what chronological age their linguistic abilities equated with had little significance when their actual classroom performance was considered and appraised. Therefore, scoring the formal language test was rejected in favour of describing the students' responses to the language elements.

6.8.2 Conversational skills

The data on the students' conversational skills consisted of transcripts of videotaped conversations carried out with the researcher, or the regular itinerant support teachers. This information focused on particular abilities, such as narration, description, and comparison, which is discourse of a narrative and expository nature. The students were asked to relate recent events, or, in the case of narration, retell a movie, describe their room, compare two known events or items in their life, persuade the researcher about a given topic, or argue about a certain event. In each case, the person who best knew the likes and dislikes of the student was asked to interact with them in these tasks.

The reason narration was selected as a major source of linguistic data has been described previously. The conversational exchanges began in each case by requesting the students to relate personal narratives, as they are the form of narration first developed by young children. They were then asked to retell a movie they had seen as a method of eliciting the retelling of a formal narrative. There was a greater likelihood that all of the students had been exposed to movies at some stage, than that they had all had experiences with story telling or storybooks. If the students had success in their narrations they were asked to describe, persuade, and argue, as all these tasks are required in school in increasing degrees, as students progress through school.

The conversational skills data were collected through videotaped exchanges with the researcher in the case of the students on her caseload, as well as Maisie (case 4), who was known to the researcher. In the other instances, they were collected with the itinerant teachers who supported the students. All of the discourse tasks selected for examination are used every day in schools by students with normal linguistic skills, and called upon regularly by teachers in every day school activities. In some cases all of the tasks were not collected or attempted because it was clear that the students had difficulty with the prior tasks attempted. Selected sections of the LPD transcripts have been chosen as the best examples of the targeted tasks, and are included in the relevant case chapters.

6.8.3 Writing skills

Examples of writing using narrative, description, and exposition (comparison), were collected where possible, to determine how well the students could perform written tasks and master the grammatical conventions of English. Young students were asked to produce only a narrative. In deciding on what written tasks to use, Brewer's (1980, p. 223) description of written discourse was referred to. According to Brewer there are three basic types of written discourse: description, narration, and exposition. Descriptive Discourse is discourse that attempts to embody in linguistic form a stationary perceptual scene, in other words a verbal picture. Narrative Discourse is discourse that attempts to embody in linguistic form, a series of events that occur in time. The events underlying a narrative must be related through a causal or thematic chain. Expository Discourse is discourse that attempts to represent in linguistic form underlying abstract logical processes. Thus, typical descriptive passages can be represented by a verbal picture, typical narratives can be represented by a motion picture, and typical expository passages cannot be represented by pictures or movies, but could best be converted into some abstract form of representation, such as a particular logical notation such as an advertisement.

These underlying embodiments of the linguistic forms were used to elicit the written samples, the students were asked to write a description of their bedroom so that the tester would know what it looked like, to describe a series of events or retell a story depending on the age and circumstances of the child, and finally to compare two items with which the child was very familiar, to explain which was best and why.

Modifications of these tasks were dependent on the age and particular interests of the children. It was obvious that consideration had to be given to the children in infant's classes, who would not be expected, as a general rule, to be able to perform writing tasks in all these different genres. Those at the early stages of writing

were only expected to perform in the ways that would be expected of them in class. In the cases of the three students not on the researcher's caseload, it was apparent that assistance had been given to two of them, as there is evidence of adult intervention. The teacher-assisted examples were retained because it was considered, that even though they were assisted, the efforts did not reveal high levels of performance capability. Instead they represented minimum attainments. Without assistance the students probably would not have performed the task at all. This was borne out in the observations of the lessons in which the students in question were later observed when they were expected to write. They were not seen performing this task unassisted, and when there was no one to support them they simply did not perform at all.

6.8.4 Listening Test

Evidence from the listening test provided information about whether the students were able to receive spoken information through lipreading and through audition. It was apparent that school personnel sometimes assumed that students could hear if they were spoken to emphatically and slowly. If school personnel were seen to expect the students to respond to information transmitted through this mode, it was necessary to determine if the students had the ability to access speech with or without lipreading. It was not performed in one case because it was apparent that the student did not use audition at all. In the other cases, a listening assessment using the *Auditory Skills Program for Students with Hearing-Impairment Placement Test (ASPSHIPT)* (NSW DET, 1990), was administered to determine the extent that the students were able to access information by audition alone or whether they were in possession of lipreading abilities as well.

The *ASPSHIPT* is a test, which has been distributed to itinerant teachers in NSW by the DET, and is a standard tool used for purposes similar to the one for which it was employed in this inquiry. Using the placement component of the test is a common first step in assessing the listening capacity of a student with a hearing impairment when they are included on an itinerant teacher's caseload. It is a test, which indicates where to begin auditory training by demonstrating what a student is able to hear and what they are unable to hear. It is not usually used as a method of comparing students' ability to some standard, but rather, one of determining a student's capabilities. It is more applicable to actual communication situations than a hearing test using pure tone audiometry.

The *ASPSHIPT* has 9 items, which were presented to the students in this inquiry by audition alone, by the researcher repeating the test items with her mouth obscured by her hand. In this way the student could not read the researcher's lips, as

well as listen to the test item. The test items range from Sound Awareness, to Auditory Comprehension, at Word, Sentence, and Discourse levels. The specific skills each item tests are listed below.

- Item 1. Detecting the presence of a speech syllable with varied intonation
- Item 2. Detecting the sounds of the seven sound test,
- Item 3. Identifying rhymes, songs or jingles
- Item 4. Identifying familiar stereotypic messages
- Item 5. Identifying one, two, and three syllable words
- Item 6. Recalling critical elements in a message
- Item 7. Recalling elements in a sentence (open-set)
- Item 8A. Retelling a story with the topic disclosed, recalling as many details as possible in the correct sequence
- Item 8B. Retelling a story with the topic undisclosed recalling as many details as possible in correct sequence
- Item 9A. Identifying words in which the initial consonants are identical but the vowels and final consonants are different
- Item 9B. Identifying words in which the initial and final consonants are identical but the vowels/diphthongs are different
- Item 9 C. Identifying words in which the vowels and final consonants are identical but the initial consonants differ by three features— manner and place of articulation and voicing
- Item 9 D. Identifying words in which the vowels and final consonants are identical but the initial consonant differ by two features
- Item 9 E. Identifying words in which the vowel and final consonants are identical but the initial consonants differ by only one feature
- Item 9 F. Identifying words in which the vowel and the initial consonant are identical but the final consonant differ by only one feature –voicing
- Item 9 G. Identifying words in which the vowel and final consonant are identical but the initial consonants differ by only one feature – place of articulation.

The test was administered to Test Item 8B, because discrimination and identification of words differing only by manner of articulation, voicing, or place of articulation of the initial/final consonants, require advanced listening skills. If the students had advanced listening skills, it was apparent in their classroom performance, and revealed by the Classroom Observation.

When the student was unable to respond to the auditory stimulus of items in the early section of the test, the test was used to test the student's lipreading ability, to determine if they were able to repeat the sound or word with lipreading, as well as audition. This is a contrived, but useful additional use to the prescribed use. It is a

simple technique, similar to countless other expedient methods teachers devise in the field, to make quick and effective assessments. It was used to determine if lipreading was used, and the extent of the student's ability to access different elements of speech, both auditory and visual. If a student could not respond accurately to a test item with audition alone, but could with lip patterns, it was evident that lipreading was of some benefit to that student. If lip patterns made no difference to the performance, it was evident that lip reading did not assist the student access speech; so making attempts to communicate with a student using skills they did not possess was of little likely value.

There was no intention to score the test and determine how well the student listened and lipread in comparison to any normative scale, or rate, but rather to understand what the student was capable, or not capable of doing. Where the student had had a cochlear implant, information about their listening abilities was also drawn from their Children's Cochlear Implant Centre (CCIC) assessment records. That assessment is similar in many ways to a pure tone hearing test, in that scores are compared to an external standard. A description of each student's abilities is included in the case chapters.

6.8.5 Reading

The reading data were used to demonstrate the student's ability to access textual information, by identifying their reading strategies. This aspect of deaf education has been discussed in some length in Chapter 3, where it was established that deaf students generally have reading ability well below their hearing counterparts. However, it is through reading that a great deal of information is delivered in school—particularly in the regular school classroom. The ways deaf students learn to read, it is claimed, are similar to those of hearing students, but without a sound language base, and opportunities for communicative interaction, literacy learning has been shown to be problematic. Knowing the literacy capabilities of the students in this inquiry was essential to understanding their classroom performance.

It was intended to reveal the reading strategies the students had developed to understand textual material, to explain why some classroom tasks were accessible, while others inaccessible for certain deaf students. Information from the semi-structured interviews explained how difficulties in these areas were addressed, if in fact they were.

Miscue analysis as described by Goodman (1973) was an approach considered to be likely to reveal the reading strategies of the students in this inquiry. Goodman, when describing the reading process, stated it is evident that when oral reading is performed, it is not always the accurate rendition that it is assumed to be. Even good

readers make errors, which are linguistic in nature and not random (p.4). A miscue in reading is defined as an actual observed response in oral reading, which does not match the expected response, and which is like a window to the reading process. Both the reader's expected responses, and his miscues, reveal the processes being used to create meaning. Goodman noted that there were three kinds of information available to the reader. The first is the graphic information, which reaches the reader visually. The other two—syntactic and semantic information—are supplied by the reader as he begins to process the visual input. These three elements are combined by the reader to construct meaning. "In reading what the reader thinks he sees is partly what he sees, but largely what he expects to see" (p. 9).

Ewoldt (1982) described how miscue analysis could be performed to assess the ability of deaf children. To evaluate the transcript of an audiotaped reading session, the tester identifies each miscue used by the reader. Anything a reader says or signs, which is not what one would expect for the word, is coded as a miscue, with the exception of regressions. The miscues are then classified as being a result of the use of a divergent language system, a correction, syntactically acceptable or not, semantically acceptable or not, a meaning change, sound similarity, or a result of choosing a word with a similar sign (p. 90).

At the completion of the evaluation it is possible to see what strategies the child is using to read. It may be that the student is able to correct a miscue using a semantic or syntactically acceptable correction, indicating that the student is using knowledge of the syntax and semantics of English, to read for meaning. On the other hand, if miscues are not corrected with a correction that is semantically, or syntactically correct, it would seem that the student does not bring a mastery of English conventions to the reading task to contribute to comprehension. Students concerned with correcting miscues that do not impact on meaning are likely to be those students who have a good command of the mechanics of reading, but do not understand what they read.

Using a reading assessment approach that examines how the students correct reading miscues is a method of gaining insight into the process used by the students. Observing the reading process, and analysing the miscue correction, makes it possible to identify strengths and weakness in decoding and understanding text. It is then possible to appreciate why some students have difficulty accessing regular class programs relying on reading ability, and why others do not. As a result, it is possible to understand the behaviours of students in lessons that rely on reading as information input. If they have sound reading strategies, which are robust facilitating comprehension, and thus indicating a satisfactory level of reading skill, it would be expected that those students would be able to perform well in class.

While the original testing plan for this inquiry was to use the Miscue Analysis technique outlined by Ewoldt (1982), the process was modified. In the case of older students it was very difficult to find suitable reading material, which was of interest to someone the student's age that they could attempt. Rather than selecting individual reading material for each student, it was decided to revert to graded material from a standardised reading test, but to evaluate the reading performance along the same lines as those described by Ewoldt, noting the strategies the students were able to use in accessing the text. In no case was the reading ability, of any student, so great that graded reading material was too simple. The miscue corrections the students used were recorded and analysed along the lines outlined by Goodman, and any idiosyncratic devices employed by the students were recorded and described.

The reading material in the *Revised Edition of the Neale Analysis of Reading Ability* (1988) was used for all the students. The early stories and examples are presented in a storybook-like edition with simple pictures accompanying the text. Providing a story with literary merit, and sufficient length as recommended by Ewoldt (1982), is difficult when dealing with students who have emergent reading abilities. Using the same material for all the students meant that it was easier to compare how the students approached the task, and to note their relative success. For the students with poor reading skills compared to other students, finding out why this was so, was important. Answers to that question, may have been obvious from the classroom observation, or it may have been provided by data gained from the interviews. While other comparisons have not been made because of reasons that have been mentioned previously, such as different communicative backgrounds, knowing the comparative reading abilities of the five students was important, because reading age scores are a common assessment tool used in schools. They are a yardstick upon which judgements are made about school success, especially in the junior grades. Student assessments frequently include comparisons of reading ability to that of other students of a similar age.

The students were all tested by the researcher using the *Neale Analysis of Reading Ability* (Revised). The passage reading component of the Neale Analysis was videotaped for later analysis using a miscue analysis approach. This proved to be quite a difficult task, because most of the children became more difficult to understand as the material became too difficult for them. Goodman (1973) noted that once reading material becomes too challenging, the reader treats it as if it is meaningless. However, recognising how the students performed under the pressure of the difficult material, assisted in revealing what strategies they used in such situations.

The timed portion of the test was not attempted, because in the first case to be tested, when the timer clock was produced, the student became so preoccupied with

time that her responses ceased to reflect an attempt to create meaning from the text. This supplanted the purpose of the miscue analysis, as she rushed to make a response without considering what it meant. It was decided that the timer created too much tension, which militated against determining how the student derived meaning from text, so the approach was abandoned in all the cases in an attempt to avoid creating undue tension for the students.

A second reading test was administered to determine a reading age for each student. *The Waddington Diagnostic Reading Test* (2000) is a test that begins with phoneme recognition, single words, and then sentences of increasing complexity. This was thought to be a useful addition, as it was of interest to see how the students performed in comparison to age expectations, and to determine if the strategies revealed in the miscue analysis-type evaluation were similar to those of the second, more structured test. As the students were all integrated with hearing children, knowing how their reading ability compared to hearing averages was useful. *The Waddington Diagnostic Reading Test*, which was standardised in 1988 using 2575 children across Australia, has sections on phonological knowledge as well as contextual understanding.

In the case chapters detailed descriptions of the language performance of each student are accompanied by summaries of their language performance (i.e., the Language Performance Data Figure—see Figure 6.1). The LPD figure was designed in a similar way to one designed by Bialystok (1991), who used the Cartesian space to plot the level of learner proficiency at a particular point in time. In this inquiry the intersection of the X and Y-axis created four domains on which the linguistic abilities of the students were plotted. On the left half of the figure the conversational skills of the students were recorded. This included their ability to respond to spoken or signed communication, and to perform using signing or speaking. Recorded on the right half of the figure were language skills, which were based on the formal aspects of language learned at school. These involved the skills of reading, and writing, and attending to IRE exchanges. The receptive skills were recorded in the top half of the figure, and the expressive skills, in the bottom half of the figure. All of the skills that were identified by the assessment strategies employed in this inquiry were plotted on this diagram, as well as skills, which were in evidence through the interviews or observations of the researcher. The latter included observations of the conversational abilities of the students in informal situations, such as playground interactions.

Figure 6.1 Representation of LPD using the Cartesian space created by the intersection of the x and y-axes.

	<u>Conversational communication</u>	<u>School Learning (Reading)</u>
<u>Receptive</u>	Responded to: Spoken /Signed English /Auslan Reversible passive Comparative /absolute Singular /plural noun inflection Reversible active, masculine, feminine personal pronoun Singular/plural personal pronoun, Three element combination Negative, Two element combination Understood, nouns, verbs, adjective Uses audition, lipreading, signs Touching, concrete props,	Understood formal narrative structure Used contextual clues in reading Used experiential clues in reading Could blend phonemes in words Recognised single words and their meaning Used picture clues in reading
<u>Expressive</u>	Used: Contact communication, touching Gesture, mime Turn taking, initiating, maintenance Contextualised conversation Decontextualised conversation Speaking, signing, Says/ signs personal narrative, Says /signs formal narrative Says /signs description, argument, persuasion Classroom interactions of a social nature Playground interactions of a social nature Negotiates socially to suit own ends	<u>(Writing IRE):</u> Wrote unstructured strings of words Wrote words with idiosyncratic word order Wrote grammatical simple sentences using SOV word order Participated in IRE discourse Wrote personal narratives /description Wrote description, comparisons with English conventions Wrote formal narratives with correct English grammar Wrote / exposition with correct English grammar

This diagram is a visual representation of the linguistic skills demonstrated by the Language Performance Data. It is after the style of Bialystok (1991) who used the Cartesian space created by the x and y axes to plot levels of learner proficiency at a particular point in time. The purpose of this chart is to present linguistic skills in such a way that the attainment of the five students can be easily described and so that performance in particular domains could be easily visualised. This figure 6.1 contains the essential skills that were intended to be evaluated in this inquiry. Ultimately, for each student only those skills evidenced by that student were represented in the individual figures in the case chapters. Skills nearest the point of intersection of the two axes are those most basic and rudimentary. Receptive and expressive language are represented above and below the x axis and the skills required in conversational exchanges and those resulting from school learning on either side of the y axis.

6.9 Data management

Huberman and Miles (1994, p.429) described three linked sub processes of data reduction, data display, and conclusion drawing/verification, for data management and analysis. Data reduction refers to the reduction of the potential universe of data, to manageable concepts based on an anticipated conceptual framework, research questions, cases, and instruments. Once actual field notes, interviews, tapes or other data are available, data summaries, coding, finding themes, clustering and writing stories are all instances of further data selection and condensation. Data display is an organised compressed assembly of information that permits conclusions to be drawn and/or action to be taken, and is a second inevitable part of analysis. The researcher typically needs to see a reduced set of data as a basis for thinking about its meaning. More focused displays may include structured summaries, synopses, vignettes, and networklike or other diagrams. Drawing conclusions and verification, involves the researcher in interpretation and drawing meaning from displayed data, which Huberman and Miles termed “data transformation” (p. 429). They stated that in their opinion, social phenomena exist not only in the mind, but in the objective world as well, with reasonably stable relationships found among them. The sequences and regularities, which link phenomena are those from which constructs that account for individual and social life are derived. Reduced data allow the researcher to recognise the sequences and regularities linking the phenomena, and thus construct accounts that reflect them.

Huberman and Miles (1994) stated that qualitative studies tend to have a peculiar life cycle, which differs from experimental research, one that spreads collection and analysis throughout a study, and that calls for different modes of inquiry at different times. In fact the changes in observational protocols, or interview schedules usually reflect a better understanding of the setting, heightening the internal validity of the study:

Conclusion drawing and verification involve the researcher in interpretation: drawing meaning from displayed data. The range of tactics is large from typical and wide use of comparison / contrast, noting patterns and themes, clustering and the use of metaphors, to confirmatory tactics such as triangulation, looking for negative cases, following up surprises, and checking results with respondents. (p. 429)

Huberman and Miles explained that there are two levels of understanding that eventually evolve within case study analysis. The first is descriptive, which describes “what” is going on, by making complicated things understandable, by reducing them

to their component parts. The second is explanation, which can make the description intelligible. Case study analysis, which examines multiple actors in multiple settings, enhances generalisability but it is not a simple process, as the individual cases can have very different profiles, unless more abstract common characteristics are concentrated upon. In this way, however, there is the danger that multiple case studies will be analysed at high levels of inference, aggregating out the local web of causality, and ending with smoothed out generalisations that may not apply to a single case. It is therefore necessary to preserve uniqueness, yet make comparisons.

It is possible to tease out configurations within each case, and subject them to comparative analysis, in such a way that underlying similarities and associations are sought out, with regard to the main outcome variable. Variable – oriented strategies involves finding themes that cut across cases. Often a key variable becomes clear only during cross-site analysis. Huberman and Miles stated that there were some procedural commonalities in the process of analysing, concluding, and confirming findings, in field study format. The researcher shifts between cycles of inductive data collection and analysis, to deductive cycles of testing and verification. Exploratory, and confirmatory sampling, drive the collection of data, which once analyzed, lead to decisions on what data to collect next. Triangulation, the term, which refers to the practice of using multiple measures to ensure that the variance reflected, is that of the trait or treatment, and not of the measures. By self-consciously setting out to collect and double check findings, the researcher builds triangulation processes into the ongoing data collection. Huberman and Miles stated:

The conventions of quantitative research require clear, explicit reporting of data and procedures. That is expected so that (a) the reader will be confident of, and can verify, reported conclusions; (b) secondary analysis of the data is possible; (c) the study could in principle be replicated; and (d) fraud or misconduct, if it exists, will be trackable.... In our view, the same needs are present for qualitative studies, even if one takes a more interpretative stance. (439)

Strauss and Corbin (1990, p.21) suggested that controversy pertains to the question of approach in qualitative inquiry. Some researchers believe that data should not be analysed, but rather that the researcher's task is to gather data and let it speak for itself. The philosophical principle underlying this approach is that in presenting this faithful account, the researcher's biases and presence, will not intrude upon the data. The researcher's obligation is to hear and report somewhat like a journalistic reporter. Other ethnographic researchers are concerned with accurate description when doing their analysis and findings, this being the case in this inquiry. The data were selected and analysed, not only to describe a phenomenon, but also, to determine

“how” individuals performed in a certain context and to do that, the variable-oriented themes that cut across cases were what determined “how” teachers provided inclusive educational opportunities.

In this inquiry, the design of the data collection and analysis is “tight”, (Huberman and Miles, 1994, p. 431) or deductively orientated. This involves the researcher taking a more explanatory and / or confirmatory stance involving comparable cases. In this situation, the questions for analysis are deduced initially, not arrived at inductively. Such designs are indicated when the researcher has good prior knowledge of the setting, as is the case in this inquiry, and a bank of well delineated concepts allowing for an explanatory or confirmatory stance, rather than a completely exploratory one. Hence, in this situation, as much raw data as possible has been provided to illustrate how the conclusions were drawn, and to provide as much transparency as possible. Qualitative studies principally aim to describe and explain a pattern of relations through a set of conceptually specified analytic categories or variables.

The design of this inquiry centred on a number of Issue Questions, which the researcher brought to the inquiry. Etic Issue Questions, or concerns about the phenomenon (Stake, 1995), when answered provided the background understanding of the etic issues as they applied to the individual cases. To answer the questions, which were of a general nature, as well as answering them as they applied to the particular cases, involved an iterative process—a succession of question-and answer-cycles—that entailed inductive and deductive analysis. This involved bundling up like-variables in summaries, which described situations, and unbundling them at a later date to find particularities, which related to practices evidenced in lessons, which had been categorised in terms of their inclusiveness.

Because the investigator cannot possibly present all the data in toto to the readers, it is necessary to reduce these data in an anticipated way, by data reduction (Huberman & Miles, 1994). In this inquiry, data summaries are the results of data reduction and allow for finding patterns and thinking about their meanings and describing situations. The summaries are the result of a series of processes whereby the data were systematically condensed to a final summary of manageable proportions. The principle is to present an accurate account of what is being studied, though not all of it. Reducing and ordering materials represents selection and interpretation. Illustrative materials (i.e., examples of the data that the researcher’s interpretations were based upon) are meant to give a sense of what the observed world was really like, while the researcher’s interpretations are meant to represent a more detached conceptualisation of that reality. Interpretations vary in their level of abstraction.

The raw data collected in this inquiry involved observation notes and transcripts, interview notes and transcripts, examples of written language, video recordings of conversational exchanges, video recordings of the students reading texts, as well as historical data that applied to each student. This material all reflected different aspects of the reality of each situation, as perceived by the researcher. These included the activities in classrooms, the beliefs of those involved contained in the interview data, the communicative performance of students, and the historical backgrounds from which they had come. To view the whole data universe in such a way that sense could be made of it, it had to be condensed and organised. The final analysis was based on the concentration of data of each sort, and not on any preconceived ideas. Indeed, in many instances the preconceived ideas held by the researcher were shown to be wrong, and new insights were gained as a result of the analysis.

Observation notes, and interview notes, were perused and sorted into preconceived and unexpected variables, which applied to the data, which were summarised and consequently condensed. Many of these variables became obvious from the background chapters in Section 1; others were revealed when the data were examined. Video and audio recordings were transcribed, and in the case of the performance data, described. Thus, reduction allowed the raw data to be described and interpreted. Summarised versions of reduced data allowed for the recognition of commonalities, and contrasts across the cases and the recognition of the emic issues, which emerged from the situations.

Data displays, presented in this thesis, included figures designed to represent Language Data, variables leading to high levels of inclusion, and emic issues for all the cases. The Emic Issue Chart is presented as Appendix E.

6.9.1 Data reduction

In this inquiry there was a need for general understanding of the phenomenon of the inclusion of severely and profoundly deaf students in regular schools and the study of cases was instrumental in understanding that phenomenon (Stake, 1995). The issues in such a study are dominant.

The first Particular Etic Issue Question, “Why was the severely and profoundly deaf student enrolled in their current school?” was answered by data drawn from the Research Questions, asked of the historical records and parent interviews. Determining causality is a retrospective matter requiring attention to how some events had occurred in the past in a particular case, and requires gathering of events to account reasonably for later circumstances (Huberman & Miles, 1994, p.

435). The data answering the historical questions was presented as “factual” backgrounds for each case. They were the first order concepts, the so-called “facts of a study”, (p.433).

The second order concepts, the “notions used by the researcher to explain the patterning of the first-order concepts” (p. 433), was used to create the descriptions of the situations, which were drawn from the data collected from answers to the Interview and Classroom Observations Research Questions, as well as contributing to the later interpretations of the situations. Answers to the second Particular Etic Issue Question, “How did the deaf student perform in regular classes in relation to their communicative and literacy ability?” were gained from answers to Language Performance Research Questions used to explain and interpret the particular situations. The Language Performance Research Questions were answered descriptively in the case chapters, after the descriptions of the situations, by referring to the Language Performance Data in its entirety, and which was represented diagrammatically for easy appraisal.

The data from the semi-structured interviews, which applied to classroom performance, as well as the data from the classroom observations, were extensive and had to be organised consistently. It was these data, which answered the third and Principal Particular Etic, Issue Question, “How did the regular teachers provide inclusive educational opportunities for the severely deaf student in their classes?” This question had two aspects to it, calling for a description, which answered the part of the question pertaining to “how” the teachers performed, as well as a qualitative appraisal of the teacher performance, as it also asked how they provided “inclusive” educational opportunities, which required judgments to be made.

It was necessary to devise a system of data organisation, which was consistent across the whole data set of Semi-structured Interview Data, applying to classroom and school performance, and the Classroom Observation Data. The specific purposes of the inquiry, which were to describe, interpret, and understand, as well as to determine inclusive classroom practices, called for two distinct methods of analysis as noted, which are referred to as the first and second stage of analysis respectively.

The analysis of the data from which the descriptions were created, called for reduction of the data. That end was achieved through reduced data summaries, as stated, to describe the events and situations observed. The process involved the initial identification of variables from which the summaries were compiled (Stake, 1995). Bundles of like data were collected under variable headings. From these summaries, it was possible to gain an appreciation of the essence of each situation and then to describe it in an interpretative manner. The reduced data and the summarised description, which evolved, also allowed for the recognition of “emic issues. Emic

issues are those issues that emerged from the data itself, and may have been similar to the “etic issues” (Denzin & Lincoln, 1994; Stake, 1995; Vidich & Lyman, 1994), which had been brought to the study by the researcher and had contributed to the posing of the General Issue Questions. Those questions were answered in Section 1 of this thesis and provided the background understanding of the phenomenon.

Thus, in this inquiry, the raw data collected from the CO and Ss-I were reduced through a series of clustering and summarising processes, until it was possible to present a condensed version of what happened, and to identify and describe a number of emic issues in each case.

The first stage of data analysis, which produced the summaries, had four levels of reduction. Level 1 involved sorting all raw observation notes using the variable designations to group them. Data were then physically placed together for each observation under those variable headings. The level 2 reduction involved summarising the raw data bundles into the essential elements according to what that data revealed. Level 3 involved putting all the summarised data from all observations together under the variable headings. In level 4, because there were repetitions of the summarised data, it was necessary to eliminate the repetitions (i.e., summary observations that did not add any new information to the inquiry) and express the summaries in a more cohesive, readable form. From the final summary it was possible to get a condensed description of what happened in all the observed lessons for each student.

The S-sID were dealt with in the same way. Thus, stage 1 of data analysis accounted for the description of how events in the situations for the five students took place. An example of level 4 data reduction, for the variable “Communication” for Case 1, is included as Exhibit 6.1 below.

Exhibit 6.1 An example of level 4 data reduction for the variable “Communication” for Case 1

Case 1. Variable 4 Communication.

“Communication was ineffective when the topic was removed from Todd’s immediate frame of reference. It was successful when the teacher used contrived signs, which referred to objects that Todd understood and had had experience with. In such instances he could read and understand a standard technical plan used in metal workrooms so that it made sense to him to the extent that he could ‘discuss’ it with the teacher and could ‘advise’ the teacher on a tool he thought better for the teacher to use. When the content of the discourse consisted of objects not present or ideas that Todd did not have a high degree of familiarity with, he had difficulty understanding. He had difficulty gaining information from text because of his limited reading capacity and immature grammatical structures. He was an effective and eloquent user of gesture and diagrams”.

A table depicting the emic issues for all the cases is presented in Appendix E. When the five case's emic issues were summarised, comparisons could be made in the final discussion chapter.

Examples of the actual observations and interviews are presented in the case chapters, as exhibits, to illustrate the descriptions and explanations. Appendix G contains an example of a summary of stages 1 and 2 data analysis.

6.10 Data analysis

When the original observation notes were appraised, it was evident that the information revealed by them fell into certain domains. The domains roughly related to the specific Classroom Observation Research Questions (see Section 6.6.1) initially posed. This is consistent with typical, and predictable characteristics of classroom environments, and the Observation Research Questions were designed to examine classroom events. The important task was to decide on the domains of interest that related to the deaf students involved, and the specific Observation Research Questions being asked, as well as allowing for unexpected events to be recognised and included. These domains, or variables, had to account for all the data in the raw observation notes. The variables were determined after direct appraisal of the raw data contained in the observation notes, and thus were not wholly preempted by the preconceived ideas, which had contributed to the construction of the Observation Research Questions. The answers to the specific questions as well as the unexpected information contained in the variables decided upon, all contributed to answering the Particular Etic Issue Questions. New meanings about the cases were drawn through direct interpretation of the individual instances, so that they could be discussed as a class. Therefore, the instances were pulled apart and put back together in a more meaningful whole (Stake, 1995, p. 75). Collective instances were noted, with the expectation, that from the aggregate, issue-relevant meanings would emerge. However, it was also possible to derive meaning from single instances.

As was expected, the variables related to teacher activity, student activity, and the interaction between them. Other variables related to the material being presented, and were determined from perusal of the data itself. If data revealed information that appeared to fall into areas unaccounted for, new variables were devised such as "Where the lesson fell in the program", as well as "Locus of control". Not all variables applied to all lessons observed, or to all cases. The purpose of the variable designator was to account for all of the data, so that it could be arranged in like bundles. It is possible that different names could have been given to the variables, but the chosen descriptors allowed for recognition of similar characteristics in the events,

which then facilitated analysis and interpretation, in answering the Observation Research Questions. Some data were accounted for by more than one variable.

The Classroom Observation variables were: (1) Classroom and curriculum adaptations, (2) Accessibility of content, (3) Lesson type, (4) Communication, (5) Teaching style, (6) Level of success of student participation, (7) Position of lesson in overall program, (8) Student interaction, and (9) Locus of control.

6.10.1 Explanation of classroom observation variables

1. Classroom and curriculum adaptations ranged from special seating arrangements for the deaf student, to a completely individualised program that the student may have been undertaking. It may have involved the teacher in completely redesigning the program to cater for the needs of the deaf student.

2. Accessibility of content referred to the ability of the deaf student to understand what was being presented in the lesson. This was determined by the student's ability, or otherwise, to respond appropriately in the lesson, and reflected in the final product of each lesson, which was the performance of the designated task.

3. Lesson type referred to the nature of the lesson, from its content, to whether it was practical and interactive, or concerned with information transmission.

4. Communication referred to the strategies employed to allow the deaf student to receive information and transmit it. It may have involved an interpreter relaying information to the student, or it may have involved the teacher speaking directly to the student. It could also refer to instances where other students communicated with the deaf student. In this way it was a broad category open to a range of possibilities.

5. Teaching style referred to the philosophical stance that the teacher assumed in the delivery of the lesson, ranging from a purely transmission type approach, in which the teacher was central, to one in which the students interacted and the teacher took a less central role.

6. Level of success of student participation referred to the ability of the deaf student to perform the tasks set out by the teacher. It was judged at the end of the lesson by the teacher's satisfaction, or otherwise, with the student's efforts, and by direct observation of their efforts.

7. Position of lesson in overall program referred to differences between introductory lessons, or those where the content had been previously dealt with and practised.

8. Student interaction referred to exchanges between the deaf student and fellow students.

9. Locus of control refers to a personality dimension, which is a generalised expectancy about the degree to which individuals control their outcomes (Weiten, 1992) (see Section 6.10.3).

While variables such as (4) were broad, they allowed for multiple, connected features to be bundled together. This allowed interrelationships to be recognised and patterns to emerge. These patterns of behaviour are described in the interpretive sections in the later chapters. For example, Communication covered effective communication as well as non-effective communication. Because the Issue Questions pertaining to the individuals were designed to perform two tasks when they were answered, they needed first, to answer questions that called for descriptions about what the situations were, and second, to determine “how” the teachers performed an educational task of including the deaf students.

In fulfilling the first task of describing the situations, there was no need to discriminate, or qualify “desirable”, or “undesirable” situations. In fulfilling the second tasks, there had to be a hierarchical categorisation from desirable to undesirable practices, to determine how teachers provided “inclusive” educational opportunities for the students (i.e., desirable conditions). For that reason, categorical analysis was required to determine how the various elements of the different variables in different lessons related to inclusive or non-inclusive situations. Teacher behaviour had to be appraised in the different lessons to determine how the different levels of inclusion came about. For that reason it was necessary to return to the variable bundles to determine which aspects of them referred to inclusive, or non-inclusive practices.

6.10.2 Semi-structured interview variables

For school personnel the variables were: (1) Description of communication, (2) Perceived success of communication, (3) Success of integration and perceived reasons, (4) Level of social interaction, (5) Previous experience and knowledge of deafness, (6) Teaching style and adaptations, (7) Benefits gained by placement, (8) Level of assistance from support personnel and its effectiveness, (9) Attitude towards inclusion and segregation, (10) Observed lesson, (11) Attitude towards interpreter in the room, (12) Personality of student, (13) Anomalies, (14) Problems, (15) Possible solutions to problems, (16) Academic performance, (17) Special school provisions, (18) Interpreter training, and (19) Locus of control.

For parents the variables were: (1) Cause of deafness, (2) Previous school placement, (3) Preference for school placement, (4) Success of current placement, (5) How the school has catered for the child, (6) Social success of child, (7) Attitude

towards segregation and inclusion, (8) Personality of student, (9) Reasons for school placement, (10) Reasons for success or otherwise of school placement, (11) Anomalies, (12) Language and communication, (13) Expectations of the school, and (14) Problems.

6.10.3 Explanation of variable evolution

The variables, into which the data were organized, are closely related to the specific Research Questions, but were finally decided upon after examination of the raw data provided by the observation notes and interview transcripts. The previous chapters have dealt with the general etic issues of the language and communication skills of deaf students, teaching style, language development, and reading instruction. These concepts underlie the choice of the specific Research Questions, as well as the variables that evolved. All of these variables are directly related, as they are the essential elements of classroom activity in a regular classroom and in the education of the deaf.

One of the main variables was Communication, which encompassed not only the type of communication but also its vehicle of delivery, and the interactants. Most of the variables are self explanatory, except for variable 13 in the school personnel list, and variable 11, in the parent's list, which were titled "Anomalies". These variables were evolved to cater for the perceived differences, which were apparent to the researcher, between what was actually observed and what people stated. These variables also accounted for outright contradictions between different data sources. Huberman and Miles (1995) described these differences, and suggested how to deal with them:

In the disorderly world of empirical research, however, independent measures never converge fully. Observations do not jibe completely with interview data, nor surveys with written records. In other words sources can be inconsistent or even conflicting, with no easy means of resolution. In such cases, in fact, we may need to initiate a new way of thinking about the data at hand. (p. 438)

These differences are examined in the case chapters, with possible reasons for them discussed. Variable 19, Locus of control, refer to a personality dimension, which is a generalised expectancy about the degree to which individuals control their outcomes. Individuals with an external locus of control believe that their success and failures are governed by external factors such as luck, or fate, while those with an internal locus of control believe their success, and failures, are determined by their own actions and abilities (Weiten, 1992). This variable was suggested by one of the personnel involved during the member checks. The variable "Problems" for both the school personnel and

the parents, and “Possible solutions”, contained the expression of opinions by those involved.

The variables were not arranged in any particular hierarchy, or grouped in any way. Relationships between variables became evident in the analysis, especially in the second stage of analysis, which examined inclusive practices through categorical analysis. When sections of raw data were designated for a number of different variables, this provided a clear indication that those variables were related. This occurred often with variables, such as “Communication”, and “Reasons for success,” indicating that there was a possible association between those variables. In such instances it was necessary to examine the non-reduced data from the different observations, to determine which part of the first variable may have been associated with the other (for example, which aspect of “Communication” may have accounted for the “Reasons for success”).

While some variables may seem to refer to similar features of the situation (e.g., “Success of integration and perceived reasons”, and “Academic performance”), they may not have had a relationship in every case, and therefore needed to be specified separately. Decisions about how, and where, to differentiate between variables, was dependent on the understanding of the contexts in which the data were collected. For example, in one case, those interviewed stated that they thought the integration of one of the students was successful, but the reasons they gave were based on social factors, not academic. Clearly, in that case, “Success of integration” and “Academic performance”, were not related, demonstrating the need for separate variables.

Because the information supplied by parents was of a different nature to that provided by the school personnel, the variables for each data set were slightly different. As a consequence, the Interview Questions asked of each group, were slightly different. Nevertheless, in some cases, the variables derived from the data from both sources coincided, such as “Success of current placement”. The Interview Questions asked of both parents and school personnel, may have been worded in a similar manner, with similar names for the variables for that data. For example, the answer to the Interview Question “Do you think the current placement is successful or not?” evolved into the variable “Success of current placement”.

The data from the Classroom Observations, and the Semi-structured Interviews, were essentially very different in composition. The observation notes were raw field notes, which needed to be corrected, and extended for readability, and typed up. The observation notes were a record of a series of events unfolding over time, and were therefore, unorganised, requiring preparation before they could be perused for sorting, recognising, and identifying variables. On the other hand, the interview data

were responses to Interview Questions, and were more orderly and easy to sort into variables, because they were related closely to the Interview Question, hence the naming of the variables in the Interview Data closely resembled the Interview Questions asked.

The variable “Observed lesson”, in the Interview Data, gave the class teacher or support personnel, the opportunity to confirm the accuracy of the researcher’s observation, as the CO’s preceded the Ss-I’s. This is exemplified in the section of transcript of an interview with a particular student’s itinerant teacher (Case 4), included here as Exhibit 6.2.

Exhibit 6.2: Section of transcript of interview taken at the end of one of the Case 4 observations between the researcher (Res) and the itinerant teacher (I.T.)

Res.: What do you think she got from that lesson? What does she understand about pirates?

I.T.: She did not get what everyone else gets. She knows they are good and they are happy. Gold is happy. She got that from one of the stories but not today. Over time she got the idea. She said “happy” when I read the word “gold”. Well that comes from one of the stories they have been doing and they have been watching the video “Treasure Island”.

Exhibit 6.3 Notes from post observation discussion between the itinerant teacher and researcher with the researcher’s comments for the same lesson

The itinerant teacher thinks Maisie understood the concepts such as “same, under, beginning, end, capital letter, and full stop”. The tracking along the text as the pattern was pointed to was said to be useful, (in the itinerant teacher’s’ opinion). “Hurry up” was another concept stressed - Maisie had no concept of speed. New vocabulary “jelly-baby, gold, pirates” were new words that kept popping up that she hadn’t had before according to the itinerant teacher. These concepts did not relate well to what the rest of the class were doing, or to the essence or purpose of the lesson.

An example of the summaries, which were sorted into the variables are included as Appendix F.

6. 11 The second stage of analysis—categorical analysis

Power and Hyde (2002, p. 307) explored the issue of “success”, in relation to the integration of deaf and hard of hearing students in regular classrooms. In that

study, itinerant teachers were asked to respond to a survey of “patterns of participation”, following a similar scale to Miranda. That scale provided four aspects of a framework for description of participation in regular classrooms. These included three levels of integration, four levels of academic participation, three levels of independence, and four levels of social participation.

In instrumental case studies, such as the one described in this thesis, which sought to understand how the teachers provided inclusive educational opportunities for the deaf students, there was a need for “categorical” rating of data (Stake, 1995, p. 29). In this inquiry actual lessons were categorically rated, rather than aggregated. They were coded as being highly inclusive, moderately inclusive, or not inclusive. The classroom variables, which had been identified in each of the lessons, were then extracted from each of the categorised lesson summaries and combined to determine which variables and which aspects of them, contributed to each rating. This did not involve counting or making tallies of inclusive instances, but rather rating observed lessons on the perceived degree to which the students were included in the regular classroom activities. The level of inclusion was dependent on different teaching and learning situations, or responses, or student prior capabilities. In this way, it was possible to determine how the inclusive learning opportunities for the students were provided—the primary purpose of the inquiry.

In this manner, the second stage of analysis classified each lesson according to an “inclusiveness” rating, which was derived from identification of variable academic performance. How the inclusion came about in each observed lesson, was identified, and a categorical distinction made between the lessons and what occurred in them. Categorical analysis involved an appraisal of the summary of events provided by the first stage of analysis. Information, which had been represented in summary form was examined and classified in a categorical hierarchy of inclusion, from high to low levels of inclusion, as perceived by the researcher.

The variables, which contained the information of relevance in this aspect of the analysis, and on which the differing levels of inclusion were thought to be dependent were, Teaching style, Classroom and curriculum adaptations, Accessibility of content, Communication, and Lesson type. While other variables were identified, such as Student interaction, the information contained under that heading was in the final analysis, included under the more encompassing variables, such as, Communication, and Teaching style. The features of the individual lessons, which related to the different levels of inclusion, as defined by the researcher, were derived entirely from the data analysis from this inquiry, and did not employ a categorical scale designed elsewhere. From the information contained in this inquiry, it was possible to describe different practices and characteristics that led to high, medium, or

low, levels of inclusion for each student. Overall, there were five distinctions contained in the three levels of inclusion that isolated and described different teaching practices. This was the major purpose of the inquiry: to determine how the particular students and teachers performed in the settings in their everyday situations. The inquiry did not attempt to compare the performances with some predetermined external criteria.

Examination of the summarised data revealed the variables responsible for the differences in inclusion. It was necessary to look at the summaries derived from the reduction of data, to recognise the parts of the variables relating to the inclusiveness in each lesson. However, the summaries did not reveal the particularities of each situation. A full explanation of the practices necessitated a return to the earlier less-reduced and condensed data, which still referred to the individual lessons. It was then possible to examine the data in each of the variables, for the rated lessons, and determine which part of the variable related to the difference in inclusion for the students. For example, the variable “Classroom adaptations”, contained information of a very different nature. Some practices in this variable were inclusive, while others were not. Once the lessons had been rated according to their inclusiveness, it was possible to determine by comparison, which elements or practices for each variable related to the differences in inclusive provisions. The second stage of analysis was described as an Inclusiveness Rating.

6.11.1 Definitions of inclusion as defined by the researcher

The first stage of analysis revealed that there were differences in the amount of involvement in the lessons for most of the deaf students, in other words, the degree of inclusion the deaf students received was quite apparent from reading the raw observation notes. The different practices, which applied to different lessons, were apparent in the data summaries. Examination of the unreduced observation data revealed these differences in the phenomena quite clearly, with examples of unreduced data in the case chapters to illustrate this. In some lessons the deaf student did not communicate with the other students or with the classroom teacher, and did not receive an equivalent amount of lesson information, while in others there was a high level of communication, and a high level of information input between the deaf student and the classroom teacher and other students. In some lessons, the deaf student received enough information to be able to perform the required tasks in much the same way as the hearing students. It was the opportunity to access the lesson content to a comparable degree to hearing students, which was regarded as highly desirable, and highly inclusive, by the researcher.

Chapter 3 described many of the practices, which have been used in the past to assist deaf students receive an education in integrated settings, from Manually Coded English systems, to the use of interpreters and notetakers, and other assistive devices and practices. It was also demonstrated that none of the devices or practices, which had been designed to overcome the problems of deafness, were consistently effective. The problem, for integrated deaf students, has been described as a serious reduction in input (Swisher, 1989). The criticisms of full inclusion of students with high degrees of deafness have been discussed in Chapter 4, with claims that full inclusion creates language barriers, which are potentially harmful, and actually deny deaf students education in the least restrictive environment, with organisations such as the National Association of Deafness (1994) acknowledging that a regular classroom may be appropriate for some deaf and hard of hearing students, but not for others. Chapter 5 explained that schools in NSW with an inclusive ethos are not necessarily in preponderance, so that classrooms where deaf students are able to receive academic learning, as well as develop language skills, are not guaranteed. It was with all of these caveats in mind that the actual classrooms were appraised; for the amount of inclusion the five deaf students were afforded.

The rating of lessons, which occurred, was based entirely on the performance of the students and the teachers that was observed and recorded. One of the difficulties involved in making distinctions between inclusive, and non-inclusive situations, is the definition of inclusion that one is prepared to accept. It is apparent that to some, being present, is equivalent to being included, a belief held by different personnel who were interviewed in this inquiry, and whose responses are included in the case chapters. On the other hand, if DET curriculum documents such as, *Focus on Literacy* (2000), *Learning Together* (1999), and *Syllabus: English K-6* (1998), are the parameters by which inclusion can be judged, it is clear that to be included in a regular classroom is to be afforded the same educational opportunities as any other student.

Being afforded the same educational opportunities as the other students was the aspect of the lesson used as the yardstick by which the lessons were categorised. If the deaf student was offered the same experiences, and was able to perform the same task at the end of the lesson as the other students, that lesson was considered to have been one in which the student was successfully included. Consequently, it received a “highly inclusive” rating. There may have been a number of different variables, which contributed to that situation occurring. These were later identified from the data summaries and raw data, and described. Another major criterion, on which the inclusion was judged, was the amount of direct interaction that occurred between the deaf student and the class teacher. Studies have shown this to be a problematic aspect

of inclusion for some deaf students (Mertens, & Kluwin, 1986; Shaw & Jamieson, 1997). The problems associated with an intermediary in the process, and the difference in treatment that deaf students have been reported to receive in integrated settings, was a basis for this judgment (Jones, Clark, & Soltz, 1997; Stinson, & Lang, 1994; Winston, 1994). While these practices were identified in the previous background information presented in Section 1, the actuality of the problems was clearly reflected in the practices when the actual classrooms were observed. So it was with assurance that the categorical distinctions were made.

When the deaf students received reduced information and interaction opportunities, and when they were not expected to access the same content, yet were physically present, they were not considered to be included in the full range of curriculum and program opportunities, and as a consequence those lessons received a low Inclusiveness Rating. It was not feasible to say that students did not have the capacity to be included, if at some point depending on different circumstances of the lesson, they were included. Knowing what the different circumstance were that allowed the deaf student, under certain circumstances, to be included in the same activities and opportunities as the other students, was the purpose of rating the lessons. Determining the differing levels, and causes of inclusion, was a major purpose of the inquiry. The fact that students with disabilities require the same academic goals as other students is explained by the DET document titled *Learning Together* (1999), which states:

A common perception however is that all students with disabilities require separate instruction and a program which differs significantly from that being offered to the majority of students in the class. Students with disabilities share with their peers common educational goals, and their social and academic behaviours lie within a continuum shared by all. A separate curriculum is not necessarily what is required, rather, it is a shared curriculum, which accommodates their needs and fosters success for all. (p.10)

The same document quoted Cowley (1996), who stated that sound teaching methods and teaching expectations, are important components of inclusive schooling. It also stated that effective teaching for students with disabilities is essentially the same as effective teaching for all students (de Lemos, 1994; Vinson Report, 2002). Approaches such as those encapsulated in Bloom's Taxonomy (1956) allow for differentiation, involving differing levels of cognitive activity, in lessons. Task demands can range from simple, to complex levels of sophistication, depending on what is asked of students. Programs, which allow for different levels of cognitive activity in the one lesson, embrace the notion of differentiation, acknowledging that thinking and performing, can vary in complexity, and accommodate different levels of

student's capacity, without excluding students, on the grounds of their being either too bright or not bright enough.

The data analysis described previously in this chapter highlighted the fact that there were major differences in how the diverse needs of the students were met. Even the students with the greatest communication disabilities were catered for in an inclusive way, in some instances. If being party to the same experiences as the other students is a major reason for students with disabilities to be educated together with their non-disabled peers (UN Declaration of Rights, 1948, cited by Nirje, 1985), then to be excluded, and required to work in isolation, would seem to be contrary to the very concept of inclusion.

Understanding, how some teachers did provide for inclusive educational experiences, was the central aim of the inquiry. Isolating the inclusive practices was essential when the cases were described individually, and the later assertions made in the case chapters, and in contributing to the generalisations, which were extrapolated to other similar situations. Generalisations and recommendations for future action, in similar situations, were presented in the final chapter, and constituted the final outcome of the data analysis; the final results of the inquiry.

6.11.2 Formulation of the Inclusiveness Rating

As stated above, consistencies became apparent after the early analysis. Some lessons, in particular circumstances, were accessible in all settings to the deaf students, despite communication difficulties. There were other occasions, because of high levels of communicative ability on the part of the students, where traditional teaching styles also provided inclusive educational opportunities. The differences, which were revealed, were the distinct teaching/support modes, which the students were involved in, and the communicative abilities of the students. These variables varied along a number of parameters, which had a direct impact on the levels of inclusion that were afforded the deaf students. The distinct teacher/support modes were recognised in the first stage of analysis.

It appeared that there were five teaching/support modes. These ranged from the deaf student performing totally independently of any support personnel (i.e., receiving instruction directly from the class teacher and performing in a manner comparable to the other students), to working in isolation on a completely individualised program with an itinerant teacher in a one-to-one situation. The hierarchy of inclusion was designated in the following way, and is hereafter referred to as the Inclusiveness Rating.

1) In highly inclusive lessons the deaf student worked on the same material concurrently with the rest of the class, was able to answer questions posed by the class teacher related to the on-going lesson content, was able to complete the same written or performance tasks as the rest of the class, and at the end of the lesson, was able to answer questions or perform in such a way that it was apparent that the essential lesson concepts had been understood. The essential lesson content was delivered by the class teacher, who may have had some assistance from support personnel, but the class teacher directly communicated with the deaf student. There was a further division in this variable, which was a) as above with the same theoretical component as the rest of the class, and b) as above without the theoretical component.

2) The second rating was as for rating 1, with support personnel involved in information delivery. This may have occurred in a small group situation, or in the classroom. In this instance, there was no direct student/class teacher dialogue, and the support personnel delivered the entire lesson content.

3) In moderately inclusive lessons, the deaf student worked on the same material as the rest of the class with their support personnel, but at a different rate to the rest of the class, so that they were not able to access the same demonstration material and examples at the appropriate stage of the lesson as the other students, but were able to complete some tasks to the satisfaction of the teacher.

4) In lessons, which were not inclusive, the deaf student worked alongside the hearing students with their support personnel, but on a completely different set of tasks or outcomes.

5) Less inclusive were the situations, where the deaf student worked in isolation from the rest of the class, in a withdrawal situation with support personnel, on completely different tasks to the rest of the class, either on a) a similar topic or, b) completely different material.

6.11.3 Categorical Inclusiveness Rating of the observed lessons

The lessons observed for each case were assessed using the above categorisation scheme, for inclusiveness. Each lesson observation was rated according to the above scale. The lessons, which afforded a high level of inclusion for the deaf students enabled them to participate in much the same way as the other students in the lesson activities, and learning outcomes were comparable for hearing and deaf students, either with a theoretical component, or without one. The high rating, for 1B lessons, was because it was thought that they remained more inclusive than a lesson in which the content was delivered by someone other than the classroom teacher. Being taught successfully by the classroom teacher was the ultimate test of inclusiveness, in

the view of the researcher, as there was no third person involved to impede the process. The class teacher was able to demonstrate that they were able to facilitate learning for the deaf student, either through their own efforts, with or without, support personnel help, or by virtue of the ability of the student. For that reason, those lessons delivered by the classroom teacher, with or without, a theoretical component, were rated above lessons in which support personnel played a major role in information delivery.

There were no lessons observed for these students in which support personnel operated in a purely interpretive role, where they relayed information that was spoken by the teacher standing at the front of the room, apart from the deaf student. In every case for these students, the support personnel performed the task of modifying the information the teacher delivered, to a simplified version of what was said, and in fact, added other explanations, clarifications, and transliteration. These personnel were not purely interpreters, but had an intermediary teaching role. The fact that some students were not exposed to the theoretical elements of lessons, or subjects, is discussed in some detail when the interpretations of the cases are made.

The lessons, which were excluding, that is, not inclusive for the deaf students, were those in which the outcomes for the lesson were completely individualised, simplified, or had a marked reduction of input, so that the deaf students were either entirely apart physically from the class activities, or the outcomes expected of the hearing students, were not expected of the deaf students. The deaf student's accepted outcomes did not relate to what the hearing students were expected to attain.

Once the lessons were classified from highly inclusive, to not inclusive, it was possible to determine which variables and their component elements related to, or were associated with, each Inclusiveness Rating for the lessons observed in the five cases. It was possible to distinguish the components of the variable bundles into those aspects that related to high inclusiveness, and those aspects that did not.

A summary of both stages of data analysis is included as Appendix G.

6.12 Conclusion

The design of this collective, instrumental, case study was created to answer questions about the phenomenon of the inclusion of severely and profoundly deaf students in regular schools of rural NSW. The issues the researcher brought to the inquiry, the etic issues, were concerned with, (a) the inclusion movement itself, and why deaf students with high degrees of deafness were being educated in regular schools, (b) the special linguistic needs of deaf students, which have been traditionally addressed with varying degrees of success in segregated settings, and (c) the

capabilities of regular DET teachers to meet their academic and linguistic needs. It is clear that the phenomenon is complex and not easily addressed. The use of issues, as the basic constructs on which the inquiry was designed, has allowed the Topical Information Questions relating to each of the issues, to be answered or addressed in Section 1, thus providing understanding of the phenomenon, and a foundation for the design of the instruments used to investigate the issues as they related to the five particular individual students and settings.

Because this inquiry is qualitative in its approach, it is not possible to “prove” any of the assertions or generalisations, made as a result of the data analysis, and which constitute the results of this inquiry. It was the weight of the data, which led to the conclusions, which were the results of this inquiry. This chapter has described how the data gathering was approached to answer the Issue Questions, as they applied to the particular individual cases. There is an appendix, which contains a selection of raw data, and which is available for perusal to assess the interpretations and assertions, made as a result of the analysis of them, as well as the exhibits in the case chapters. The data were drawn from four sources, to provide sufficient evidence to validate the results, but ultimately the argument presented has to be appraised by the reader, who will determine if the results appear to be a logical, and well-founded, description of the data, reflecting what actually took place in the five cases.

The outcomes of both stages of Classroom Observation, and Semi-structured Interview Data analysis, when combined with the historical data and the descriptions of the student’s Language Performance, provided the basis for forming conclusions about the individual cases, and provide the basis for the subsequent generalisations to wider circumstances.

Each of the 5 case chapters that follow is arranged in a similar format. Background information, gained from historical records and interview data, are provided to answer the Particular Etic Issue Questions: “Why was the deaf student enrolled in their current school?” The description of the student’s linguistic performance answers the Particular Etic Issue Question: “How did the deaf student perform in relation to their communicative and literacy ability?” This precedes the description of each situation, and contributes to an understanding thereof. The descriptions of the classroom performances were in answer to the Classroom Observation Research Questions, and in part, answer to the Principal Issue Question.

The descriptions are presented under titles, which contain the essential elements of the phenomena examined. These descriptors are: (a) Adaptations, (b) Communication with teacher, (c) Student interaction, (d) Classroom performance and inclusion, and (e) Teaching style. These descriptors encapsulate the essential

outcomes of the analysis of the Classroom Observation Data and which describe the situations.

The emic issues, for each case, were examined in the interpretation, and led to the “assertions” and “generalisations”, which together with the results of the categorical analysis, completed the answers to the Principal Issue Question of, “How did the regular teachers provide inclusive educational opportunities for the severely and profoundly deaf student in their classes”. Each chapter concludes with generalisations made as a result of the analysis and interpretation of the data about specific aspects of each case. In a number of the case chapters, further literature reference is made to assist in understanding, and interpreting, those individual cases.

In Chapter 12, comparisons are made across the five cases, drawing on the assertions and generalisations, made in each case. These generalisations are extrapolated to a plan for future action as the final component of this thesis.

CHAPTER 7

CASE 1

7.1 Introduction

Todd's situation was somewhat different to that of the other students in this inquiry, as he was in his last year of schooling when most of the data were collected. It was not possible to observe a wide range of lessons, because by the time the inquiry was underway Todd's program had been significantly modified. He spent two days at school being assisted by two different itinerant teachers, and the other three days he was accompanied to an agricultural college by his teacher's aide, who was paid with DET funding to attend the Joint School TAFE (JST) program. His original itinerant teacher, who had assisted him for a number of years and been responsible for his transition to high school, had left. For a period of about two weeks before the alternate arrangements had been put in place, the researcher assisted Todd. It became apparent at that time that the regular lessons Todd was attempting to access were well beyond his capabilities, and for that reason the researcher was party to the organisation of the alternative arrangements. An excerpt from the interview with the science head teacher in Exhibit 7.1 below describes his performance.

Exhibit 7.1 Excerpt from interview with science head teacher

S.T.: The language problem was a major one as far as Todd was concerned. He was interested in the practical work. He would go well then he would get dreadfully lost in the more theoretical part of it. It is because of some of the aides that he has managed. He certainly wouldn't have managed without the assistance. I've found communication with him in the classroom very difficult. The itinerant teachers were helpful. When the initial itinerant teacher was there it worked extremely well because she could sign very well and she could give him all the bits and pieces and as a general comment without that kind of assistance in science it was very difficult. You certainly need the one to one. In practical times I think he gets a lot out of it, in lots of ways, because he was part of the group. Although he sat for the exams he didn't achieve particularly well in the exams but the exams didn't measure what he gained. Probably in the practical work, I don't think he gained a whole lot of extra knowledge, but he gained socially. It was the close interaction socially and fitting in was probably more important than any science fact.

When the researcher first visited the school, she noted that Todd was in the playground by himself. She did not see him interacting with any students. He followed the researcher out to watch her get material from the car park at recess and

was interested in the make of car, a very ordinary Corolla, and used that as a topic of conversation when they returned to the withdrawal lesson after recess. No other student had shown such keen interest in the car before, as most were too busy involving themselves with other students at recess. Exhibit 7.2 below is representative of the communication Todd engaged in with the researcher. This indicates his capacity to communicate with people who were able to use some signed communication skills.

Exhibit 7.2 Excerpt from Observation 2, the woodwork lesson

Res.: (signed) What time does the lesson finish? (indicating her watch)
 T.: Indicated his watch at half past.
 Res.: Half past?
 T.: Nodded. You home now?
 Res.: No, at end of lesson.
 T.: Long, short?
 Res.: Long way, one hour and a half.
 T.: 1 hour?
 Res.: No, 1 and ½ hours.
 T.: What time?
 Res.: 5 o'clock
 T.: Good?
 Res.: O.K.
 T.: Tractor?
 Res.: Yes
 T.: (gestured for height)
 Res.: Big, a big tractor.
 T.: 4 wheel, 2 wheel?
 Res.: I think 4 wheel drive.
 T.: Dog?
 Res.: Yes, Polly
 T.: (gestured biting)
 Res.: No, she's a good dog.
 T.: Cat?
 Res.: No
 T.: Dead?

The following section draws on interview data relating to Todd's history, attitudes, and opinions of those interviewed; subsequently answering the Particular Issue Question of, "Why was Todd enrolled in his current school?" Interview Research Questions are listed in Section 6.6.2. The following section records Todd's historical information, the etiology of his deafness, previous school placement, the

reasons for his current placement, as well as further attitudes and opinions about Todd's inclusion collected from school records and interviews.

7.2. History

Todd was born with a congenital, profound, sensori-neural, bilateral hearing loss. The cause of deafness was Waardenburg's Syndrome and there was a suspicion of autism. He communicated using Signed English and did not rely on audition at all for information input. His mother had limited signing ability, and his father, who had separated from the mother before the time of the data collection, and siblings, had little or no signing ability. He had attended speech therapy lessons when he first attended school with little success.

On the recommendation of his then itinerant teacher, Todd was enrolled in his local primary school at the age of nine years, after having attended a segregated special school in a city in the neighbouring school district for his earlier years of school. He later progressed to the local high school—a medium sized country school. That school's population was drawn from a range of socioeconomic groups, including townspeople, farmers, hobby farmers, and people seeking a rural lifestyle. Many of the students from Todd's primary school also attended the same high school, but he was the only deaf student enrolled there. The school had a clearly defined policy on inclusion with an emphasis on a Transition Education program to accommodate students' needs for pre-vocational and vocational training, with an emphasis on encouraging students to remain at school for Years 11 and 12. The student population was generally friendly, and the atmosphere of the school was relaxed and congenial. The following Exhibit 7.3 is an excerpt from the interview with Todd's mother, which describes his previous school experiences.

Exhibit 7.3 Excerpt from Todd's mother's interview

Res.: Can you tell me about the schools Todd's been to?

M.: He started in two support units in the city. When we moved to the country he was fully integrated when he was about 9 or 10. Then we had the itinerant support and a full time teacher's aide who was partially deaf.

Res.: How did he go in the segregated setting?

M.: Very different. You can't slot Todd in anywhere. He is one on his own. He is not just deaf. Todd has brain damage as well. He is congenitally deaf. All the little other deaf ones would mingle together but Todd was always off on his own somewhere.

Whether it was with the deaf ones or if it was the whole school Todd was always on his own. He is still to a certain extent but it was very noticeable back then, didn't matter what happened. It didn't mean that Todd didn't like the other kids. He was just happier over there. I wouldn't have integrated Todd if it hadn't had the original itinerant teacher's total support. I wasn't saying I didn't agree with it but all these normal deaf kids were integrated, he's the one with extra problems we are going to integrate. But the itinerant said, "No, no he needs something different", and it worked 100%.

Todd was initially supported by the itinerant teacher who had organised his enrolment in the local primary school, and was then supported by her until half way through his Year 9, when he was subject to a number of itinerant teacher changes. The remoteness of the school posed some difficulty in maintaining the high level of itinerant teacher support of 10 hours per week, travel time having been deducted from the total time allocation. In Todd's final year at school, the itinerant teacher component of his support was shared by two different teachers. He was supported by either an itinerant teacher, or a teacher's aide, for the whole school week. However, not all of these support staff members were proficient Signed English users. Finding suitable teacher's aids was a problem when personnel were absent, and in one period, his mother acted as his teacher's aide. This support had never been reduced, as the interview with the metalwork teacher suggested. This spurious opinion is revealed in Exhibit 7.4 below. It was not DET policy to reduce teacher's aide support over time to save money. This attitude was an example of some of the misinformation school personnel held about inclusion and departmental policy and procedures.

Exhibit 7.4 Excerpt from interviews with metalwork teacher and woodwork teacher

Metalwork teacher

Res.: How successful do you think his inclusion has been?

M.T.: The successful things were that he wanted to come to school and he did that for the major part of the time till half way through the very end of last year when problems arose because there was a clash between him and the signing coordinator and the initial itinerant teacher had moved up and moved out. The Department had changed the allocation of time and resources and he was reduced, and half the problem was his signing teacher, he just had a personality clash. He was getting bored and his mother told me a couple of times that she was having trouble getting him to school because he didn't want to come. The mainstream was getting too hard for him to follow and he would get more enjoyment sitting at home and that was when his mother got him into the private agricultural college. He has a job at a dairy coming up part-time. They think very highly of him. We have been spoilt by Todd.

Res.: What do you think if he had been different?

M.T.: He would not have fitted into this school. The department would have failed him because they would have cut back on resources. They will cut back on the aides regardless of how good or bad the kid is because they just cut back on his time and it took a lot of hard arguments to maintain his time. It took a lot of time on the part of the Support Teacher (Learning Difficulties) and the Principal to maintain his time. If it had been a child with less integrity than Todd he would have been just lost and he wouldn't have come to school. He would have been a drain on the whole education system.

Res.: What do you think were the main benefits of his inclusion?

M.T.: The only failing I saw with Todd was that I would have loved for him to be involved with some sort of team sport. Loved for him to have moved in the whole school body but that was his personality. He was happy. The biggest problem as I see it is that the resources are there for the initial, then the philosophy comes in. It is never stated but the meaning comes through that "you have the skill now therefore you can do it, so we can save money by cutting your time down". You are taking on the extra load in the classroom. It happens that it starts off that they help you a lot, but what happens that the constrictions come in and I haven't had an aide in my classroom now for 12 months. My biggest worry in the future and someone might know I have this skill and send them here. That is what the Department will do. They will use you and they won't care, they'll grind you into the ground. Do a good job on a foreign order and they'll come back. It is better to stuff it up then they wont come back.

Woodwork teacher

Res.: Is there anything else you think is important?

W.T.: Yes it worries me how integration takes up so much time for the teacher to the detriment of the other students. The way things are going we are having class size increases that makes it even more of a problem. What would happen if you had two kids like Todd in the class?

Todd was 17 years old when the majority of the LPD were collected, and enrolled in Year 10. His regular class teachers did not have specific training in deaf education. One of the people interviewed was a trained teacher for the deaf, but untrained in Signed English, and she was one of his support staff, and lived locally. Of the other teachers interviewed, one had experienced an oral deaf child enrolled in another school for two years, another had known a blind person who was a family friend, and as such, maintained it prepared him to deal with people with disabilities. One teacher did an after school school-sign course for 10 weeks.

7.3 Attitudes and opinions of those interviewed about Todd's inclusion

In this case, all of the personnel interviewed, agreed that Todd's inclusion had provided positive outcomes rather than negative ones. There were varying degrees of enthusiasm about how positive it was. The perceived success was put down to four

factors, the student's docile and obliging personality, the modifications and practical nature of the program that was developed, the fact that it was a small country school without the pressures of a big city school, and the supportive staff. The indicators that suggested to the interviewees that it was a success were that Todd had a job prospect in a dairy farm as a result of the JST program, and that he wanted to come to school. Another positive aspect mentioned was that Todd had positive social experiences at school. These opinions are reflected in Exhibit 7.5 below, taken from interviews with his metalwork and woodwork teachers, as well as Exhibit 7.1 above.

Exhibit 7.5 Excerpts from interviews with the metalwork and woodwork teachers

Metalwork teacher

M.T.: All the kids were positive and helpful. No one ever did anything to Todd. If he weren't deaf he would have been a model student. We had one or two minor incidents but the school nipped that in the bud before it could develop into anything. He integrated himself into the school except for totally being integrated into a group of kids.

Woodwork teacher

Res.: Would you say it was a successful integration for Todd?

W.T.: Yes, the outcome was good because of what became available to Todd (this referred to job prospect in a local dairy). It was probably successful because this is a small school, country school and the tone is not tough. In a different school Todd would have been a target and picked on. He was picked on a bit when he was in the lower years but that was soon stopped. The curriculum changes were made to suit his needs. He didn't have to tackle the theoretical side of it so much.

Res.: What would you say about him socially?

W.T.: He was very much a loner. Some students did learn how to sign early on but they drifted away. He had no communication with the other kids.

The opinions of the staff, about inclusive education, ranged from the view that for a profoundly deaf student, inclusion was not feasible, to ambivalence. None of those interviewed clearly supported inclusion without reservation. Most argued that it was an imposition that the DET placed upon teachers without sufficient support. There was an expression of the opinion that, if a teacher did succeed with a profoundly deaf student, more such students would be sent to that school and teacher (see Exhibit 7.4). It was apparent that at least one teacher believed that failing might have been a means to prevent that from happening, and another was concerned that there may be two such students placed in the one class.

All those interviewed agreed that success depended on the personality of the student. Several were concerned about the time it took to have a student with special needs in a class and were worried about increasing class sizes and the possibility of having more than one deaf student in the class. These opinions are reflected in Exhibit

7. 4. There was unanimous agreement that the assistance from support staff—both itinerant teachers and teacher’s aides—was essential. Some teachers (i.e., those that received some support for every lesson) were satisfied with the amount of support they received.

Others, however, including the principal, felt that Todd should have an interpreter with him at all times—including while in the playground. The teachers were generally of the opinion that teacher’s aides were able to convey all the information needed, while some thought that some interpreters were unsuitable, especially females in the manual arts rooms. The one teacher who was able to communicate effectively with Todd, and in whose lessons he participated well, felt he needed an interpreter just in case there was a concept too difficult for the teacher to relay that the interpreter could have. This opinion is reflected in Exhibit 7.6 below. That teacher, as well as others, believed that the DET had a policy of providing sufficient support initially and then slowly diminishing it. The metalwork teacher was convinced that if there were more support, more success would have resulted.

Exhibit 7.6 Excerpt from interview with metalwork teacher

Res.: Was the program effective? It looked effective to me.
 M.T.: I would have loved someone there just for the little times so that I could say this had got to be done this way because a signing teacher could fully interpret the information. Whereas I can tell him to do things but the reasoning behind it is not fully explained and that is why the aide in the room would be helpful. But as I say, I gave up the aide because of the other staff. They didn’t feel confident and didn’t know him as long. If the school had been able to maintain, things would have improved a lot. I would have been able to do things and I would have had the backup of the aide. We have had some really good aides. At one stage we had a young male. Male on male for practical work. He could handle the smells. He could handle the activity. We had a female aide came and Todd didn’t like her for a starter, and she was dressed up to the nines. She would come in. You could tell she was naturally uncomfortable with – for a busy heavy practical work and at times fifteen-year-old boys are fifteen-year-old boys. His mother was there for most of last year and filled in. The aide could do more in-depth signing.

All of the staff interviewed agreed that the lack of language and communication skills was the most serious problem and that without adequate signing skills teaching Todd was very difficult. They noted the impact of poor language skills, even in practical subjects, rendering some of Todd’s projects worthless because of poor design. They recognised that Todd didn’t have sufficient signing skills himself, as he didn’t have signs for all the words required.

The interviewees noted that the remoteness of the school was a problem, as it impacted on continuity of support staff. They commented also, that there was a lack

of rapport between Todd and some of his support staff. There was an amount of criticism about the inadequate level of support. Increasing the level of support was generally thought to have been the solution to improving the situation. There was agreement with the notion of segregated placement for formal subjects, and integration for the practical subjects—which, it was thought, were more appropriate for Todd.

Todd's mother, however, was satisfied with Todd's inclusion because she maintained that because of the concentration on Todd's practical ability, he was able to attain his School Certificate. This was of most significance to her. She had included Todd in the regular school on the advice of his original itinerant teacher. She had been happy with the segregated situation he had attended when first at school. She too, regarded the location of the high school a problem, because of the difficulty in getting support staff replacements. When there were staff absences, Todd had to stay at home. For a period of time his mother performed as his teacher's aide/interpreter. The following exhibit 7.7, an excerpt from the interview with Todd's mother, illustrates her attitude towards his inclusion.

Exhibit 7.7 Excerpt from interview with Todd's mother

Res.: You wouldn't have considered a high school deaf unit?
 M.: No, because Todd had been integrated for four years. It was an easy school and easy life, they really pushed to send him back to town but I didn't want to after four years at a country school. I wouldn't send him back to a town school. He came here when he was about in fourth class and there were about four years above him by the time he started high school of kids that knew him. If I had sent him back he would have been totally lost and isolated and I wasn't prepared to do that.
 Res.: When he went to high school what was the outcome you wanted for him?
 M.: Mainly teachers who would give him a go and accept him. I think there was only one teacher who kicked up a fuss and I think the itinerant got them to go down to the primary school to have a look at Todd and then I think they were OK, no problem. I wanted Todd to achieve something.

His mother acknowledged that the content of both the regular school and the JST programs was too difficult for Todd. She gave as her reasons for the success of the school placement, the fact that it was a country school where people were more supportive, and because Todd was a novelty people tried a bit harder because of the challenge. She felt there was always good liaison between her and the teachers, and the flexibility of the program, which allowed him to attend the JST program, was attributed with much of his success.

While the school staff acknowledged that Todd's personality was compliant, well-mannered, patient, not aggressive, single minded and not distractible, they all agreed that he did not interact socially with the other students at all. It was agreed by most of those interviewed that Todd needed someone with him at all times. He had very little say about what took place, and had little independence in the school situation, as his communication was so limited. His mother did not regard this as a problem, as she stated that even in the support unit, he did not have friends and always preferred adult company. She claimed a number of married men, who took him fishing, were his friends. She suggested that he was not really mature, but behaved in ways that were older than his years. He had no best friend, but the other kids looked out for him. She made it clear it was very important to her that Todd be awarded a School Certificate. This view is expressed in Exhibit 7.8 below.

Exhibit 7.8 Excerpt from mother's interview

Res.: So it was really lucky he was good at practical things?
 M.: Brilliant. If Todd hadn't been he wouldn't have got half way through Year 9. It was just that they recognised what he was good at and targeted, that saved the day and he got his School Certificate. Which to us is a really big deal. Plus he has a certificate in agriculture, which to us is brilliant.

7.3.1 Anomalies

In this case, the most anomalous data was derived from individual opinions expressed in the interviews. Contradictory statements were made about the need for access to an interpreter to convey complex information, yet another teacher attributed the success in his class to not having an interpreter. All those interviewed agreed that language was a problem for Todd, but some also suggested that an interpreter full time would have been able to impart complex information to him. Significantly, it was noted by some, that the skills of some interpreters were not adequate, because they were not all appropriately trained.

Todd's mother stated that he was both part of the classroom, yet isolated, that he had personality clashes with support personnel, and did not want to come to school. Nevertheless, she claimed that the whole experience was positive and successful. In a similar way, she noted that when his itinerant teachers were sick, he had to stay home, but insisted he was independent when in the community. This

anomalous view is expressed in the following excerpt from his mother's interview, Exhibit 7.9

Exhibit 7.9 Excerpt from mother's interview

Res.: What happened when itinerants were sick?

M.: He didn't go to school.

Res.: So the last year his original itinerant was sick a lot what was the arrangement with the school?

M.: Yes, it was really difficult. There was one day when she had left and the local itinerant who lived in the town was there. Someone had rung in sick to the school, I tried to get them to ring me at home but this time they had rung the school. Todd was on the bus. It was good when the local itinerant was in the town and free she could go to the school and fill in but otherwise there was no support and Todd was there with no one.

M.: It was interesting, they started Todd off on work experience in Year 8. One day a week that Todd was out in the community and he was with normal men and women. I am only realising how much Todd benefited from that now. How much independence it gave him, confidence that is another reason his self-esteem is so great.

Res.: I wonder what the situation would have been without that?

M.: Well, without that Todd wouldn't be half the person that he is today and you can't change his personality but his outlook you would. The agricultural college wouldn't have worked so well.

Res.: I know what happens when you expect Todd to do a lot of reading etcetera.

M.: Oh you have lost him. I know the frustration levels are too high because I cop it the night before "I don't want to go to school tomorrow". We have had some horrendous battles the last 12 months.

These anomalies suggest, perhaps, a lack of understanding of Todd's language capabilities, the effectiveness of the interpreters, and/or a different perspective about what constitutes independence, or a satisfactory level of involvement with other students. Alternatively, they may represent a different standard for judging the success of the educational experience for Todd—one that is fundamentally altered as a consequence of inescapable consequences of his disability. These issues are considered in the discussion later.

7.4 Data collection

The completion of a Sociogram and the Listening Test were both considered inappropriate in Todd's case. Todd was 17 years old and it was clear that he did not respond to spoken language at all, and he did not interact with any students in the playground, or to any significant degree in most classes. Both of these observations

were supported by all of the individuals interviewed. Exhibit 7.9 below with the Support Teacher Learning Disabilities (STLD) is an example of these opinions.

Exhibit 7.10 Excerpt from interview with STLD

STLD: Todd was the first student I had anything to do with who was deaf. I was skeptical that his inclusion in the school could work for him from a communication aspect. I think it worked reasonable well but I am not sure that it was the best placement for him given that the socialisation fell off. While there was someone there pushing for him in the case of the initial itinerant teacher and there were signing classes, by mid Year 8 I feel that kids would go off and Todd was isolated. I think he did care about that, though his mother said he didn't. He was seeking adult company around the place. The kids being kids were very tolerant of him but they couldn't communicate with him so they would go off. I never observed them playing with Todd. In this case because of the profound communication problem I wonder if the kid was getting much out of it from the socialisation point of view. Maybe for kids with profound hearing problems there needs to be another approach.

Todd experienced a completely individualised /differentiated program. Therefore, it was not possible to collect samples of a wide range of lessons, as he did not participate in a wide range of lessons. This differentiation is explained in Exhibit 7.11, which is an excerpt from the metalwork teacher's interview.

Exhibit 7.11 Excerpt from metalwork teacher's interview

M.T.: The original itinerant teacher and I did a lot of work when he first came here. We did an accelerated progression. That means that if a child is gifted and talented, we focus on that and they can progress through. We knew that at the end of Year 7 we were going to lose Todd because he would not consider himself worthwhile. Well his mother said he would leave school because he would not want to come to school. From previously we knew he was very good at practical things so we organised that he would leave his normal academic and literacy based classes in Year 8 and come to practical classes and come to a Year 9 and 10 practical class. He would be doing about four periods a week with metalwork instead of the other subjects. Well he was getting one on one tutoring with those academic subjects and he was getting other extras [individual attention] with me in the practical work in respect to the accelerated progression. He started work on his Year 10 work in technics in Year 8 and that's how we worked it from there.

During Todd's final year, he only spent the first and last days of the week actually at school, and the other days were spent at a private agricultural college, as stated previously. The DET monetary provision for an interpreter was completely used on his out of school support. The school days were spent with itinerant teacher support, which provided one-to-one pull-out assistance. The sessions dealt with

language tuition, literacy learning, and living-skill tasks, such as form filling banking procedures, and he was enrolled in regular metalwork and woodwork lessons. The itinerant teacher support was provided, at this latter part of his education, by two itinerant teachers. This was necessary because of caseload constraints for the itinerant teachers.

Todd's metalwork teacher had developed some signing skills and did not have any special assistance in his class for Todd. The itinerant teacher time allocation, and interpreter time allocation, was expended either in the out of school experience, withdrawal, or in-class support of the woodwork teacher, who had no signing skills. They had also developed some of their own signs for the metalwork vocabulary. For a very short period after the transfer of Todd's previous itinerant support teacher, the researcher had a brief period in which she supported Todd. Two of the lesson observations were collected during that period, and consisted of a regular maths lesson and a withdrawal lesson, which involved preparation for a science test in the regular Year 9 class in which Todd was then enrolled. The other lessons, which were observed, were double lessons in woodwork and metalwork. Because of this difficulty in accessing a range of lessons, a larger number of interviews were conducted than occurred in the other cases to ensure that the observations made had revealed the true nature of the integration, and that information saturation had been reached (Morse, 1994).

In all, there were five lesson observations. Lesson one, was the withdrawal lesson, lesson two was woodwork, lesson three was metalwork (session 1), lesson 4 was metalwork (session 2), and lesson 5 was maths. While the researcher was supposed to be a non-participant observer in the metalwork lessons, it was necessary to interact to a certain degree. She replaced the regular itinerant teacher in the woodwork lesson. Both the teachers did appeal to her for communication assistance. The observations covered the duration of the lessons. Lessons were forty minutes in length.

The Language Performance Data were collected on three different occasions with either of Todd's two itinerant teachers. The reading, writing, and conversational skills, tasks were collected in a withdrawal situation, and in the case of the reading and conversation performances, videorecorded by the researcher for later transcription and analysis.

In performing the written tasks, Todd responded to his itinerant teacher who asked him to describe his house and his bedroom. For the conversational exchange, he was to describe his day at work experience in an endeavour to elicit a personal narrative. This was also asked of him as a writing task. He was asked to compare ride-on lawn mowers in both the writing, and conversational tasks, as that was his favourite topic of conversation. He usually carried a catalogue about mowers or tractors to school, and would indulge in exchanges with any willing partner, usually an adult, using his catalogue to illustrate the various mowers and tractors. This was virtually the only conversation topic he engaged in, and he had been known to do so for many years. As Todd did not watch videos, or read books, it was not possible to ask him to retell any other narrative. In this case, it was thought inappropriate to attempt to elicit more than a personal narrative. He was asked to give directions to his house in the conversational tasks as well. He did not respond to spoken sound at all, but did watch a speaker's face when he was being spoken and signed to.

7.5 Language Performance

The following section contains answers to the Language Research Questions relating to Todd's linguistic performance, which answer the Particular Issue Question, "How did Todd perform in a regular class in regard to his communicative and literacy ability". Language Performance Research Questions are listed in Section 6.7.1.

Following the examples of Todd's Language Performance Data is a description of his linguistic performance, including a description of his responses to the formal language and reading assessment tests, and a graphic summary of his performance in carrying out the linguistic tasks. The linguistic tasks were designed to portray his communicative capabilities and to illuminate his actual classroom performance.

7.5.1 Language Performance Data

Exhibit 7.12 Personal Narrative / Signed (Excerpt from transcript of exchange between Todd and his itinerant teacher)

<p>I.T.: Did you go to (name of work experience college)? Tell me what you did there. T.: (He had his hands apart then one hand on top of the other clenched fist making a sign which was probably one of the technical created signs). Bin.</p>

I.T.: Bin (hammering action)
 T.: (Gestures with hands extending).
 I.T.: Yesterday, just yesterday?
 I.T.: What's this? (She repeats the sign with the closed fist)
 T.: (Draws it on the paper).
 I.T.: Fence?
 T.: (Draws and uses more gestures).
 I.T.: Is that for cars?
 T.: Cars. No.
 I.T.: Was this all day?
 T.: Before.
 I.T.: What about Thursday?
 T.: (Draws again)
 I.T.: Finish Thursday?
 T.: (Gestures planing and then draws again).
 I.T.: (Same sign with the hand over the fist), different, cut (then draws again), good.
 I.T.: Was just you made this?
 Just you?
 T.: He was fingerspelling a name and indicating a beard.
 Res.: (interrupted and suggested he fingerspelled ROD)
 T.: Farm school.
 T.: (Points to the page)
 I.T.: Farm school. Is that your teacher?
 T.: No. Maybe.
 I.T.: Help?
 T.: Nods.

It is evident that Todd's conversational skills relied on short exchanges and were predominantly responses to questions. It could not be considered to exhibit even primitive narrative structure (Klecan-Aker & Kelty, 1990).

Exhibit 7.13 Written language sample

1. Description.
 Question (asked by the itinerant teacher): What is your room like? Can you write down what it looks like for me?
 "cat, T.V. Bed, Bath, toilet, Tabre, chrse
 Book Toys wood"

2. Narrative (Personal)
 Question: Can you tell me about your day at work experience? Tell me everything you do in the day.
 "20 tractor
 10 mower-Rover, 4 - mower Victa
 Milk dairy cow
 Beef horse, cow, sheep
 hen

3. Comparison

Question: Which is the best mower? Why is it best? Which is the worst mower? Why is it worst?

“VICTA - is bad Engine too old.

VICTA is new Engine is Good

~~Rover is bad~~ engine too old

Rover is new engine is best Mower.

7.5.2 Description of Todd’s Language Performance

7.5.2.1 Conversational exchanges

Hadley (1998) described how school age students are expected to comprehend and produce a range of discourse types. It is evident that Todd had developed very few discourse strategies and yet he was almost ready to leave school. His discourse was unplanned, that is, lacking any organisation or forethought. He was unable to organise his communication into a coherent sequence of events, or details, for his interlocutor. Todd relied on a question-answer routine to express his ideas. He had acquired a one utterance level, highly contextualised, discourse strategy. His questions began with “You” (signed), followed by subject (S), or verb (V), with facial expression to indicate a question. His string of signs did follow SOV, SV, and OS2O (object, subject, second object) patterns.

Todd changed topic by questioning. In attempting to relate a narrative, Todd could not sustain a series of ideas in a sequential order, indicating he was not able to present even prenarrative “heaps” (Klecan-Aker, & Kelty 1990). He needed the question-answer format to lead him to divulge his information. He relied on gesture, drawing, and individual signs. When eliciting the conversational exchange, his adult interlocutor’s language was markedly reduced in complexity and grammatical elements—most probably in an attempt to facilitate comprehension. Todd had not acquired the ability to converse using decontextualised planned discourse strategies. In attempting a description, he responded only to questioning, and provided lists of features and relied on drawing and gesture to transmit his information. When attempting to give directions Todd relied on gestures and mime, which were

sequentially organised with single lexical signs incorporated. He used drawing to clarify in this instance also.

7.5.2.2 Writing

When performing the writing task requiring a description, Todd used lists of features. When he wrote a narrative, he used lists, and 1- and 3-word sentences, with VS word order. When writing a comparison (i.e., of motor mowers), he used SVO word order with juxtaposition of “good” and “bad” examples on the page, instead of grammatical devices, such as relative pronouns or conjunctions. He used some adjectives and modifiers, making this the most sophisticated of the three writing tasks attempted. Kretschmer and Kretschmer (1978) noted that the writing of deaf individuals might be rigid and simple, with problems ranging from formation of simple sentence frames, to incomplete mastery of the lexical items inserted into those sentence frames. Todd’s writing samples were an extreme example of these characteristics.

7.5.2.3 Formal Language Test

The *TROG* indicated that Todd knew all the vocabulary items of common nominals, verbals, and adjectives of size and colour. He knew the two element combinations, the three element combinations, and actives with operative at the front of the sentence. He passed items A, B, C, D, F, H. Items A, B, C, D, and F assess whether the language user has the prerequisite skills to cope with grammatical structure. These items indicated that he could identify individual words, and simple word combinations in situations where understanding of function words, word order, or inflectional endings was not critical.

Todd’s test performance related closely to his written language performance, revealing similar characteristics. Kretschmer and Kretschmer (1978) had described the ability of deaf children to use language to aid memory, or to understand the implications of discourse organisations and functions of English, as being frequently limited.

As Todd did not understand, or use grammatical English structure, it is easy to appreciate that grammatical versions of Signed English at the stage of his education in

which he was observed, would have been unlikely to have clarified the complexities of the high school curriculum. His lack of understanding of the formal aspects of English probably accounts for the stripped down agrammatical version of Signed English employed by his itinerant teacher when communicating with Todd.

7.5.2.4 Reading

When performing the *Neale Analysis of Reading Ability*, (see Appendix D), Todd signed and fingerspelled the text. In the practice story for 5 to 7 year olds, he used fingerspelling for five words and signed 40. He made 1 omission, and 2 substitutions for words that had similar spelling—one was syntactically appropriate, and the other was syntactically inappropriate. In question 1, he needed help to agree to an answer. In question 2, which asked what the story was about, he gave an inappropriate answer. This was the easiest story and he demonstrated that he could recognise the words by using the appropriate signs, for 40 words. Even so, he could not answer the questions correctly.

In the story called “Bird”, which was the first test passage, he fingerspelled 3 words, signed 19, and made 3 substitutions, two of which were syntactically appropriate, and one semantically inappropriate. Only one question was answered correctly by indicating the correct place in the text where the answer occurred. It was probable that he was looking for key words in the question and the text, consequently finding the correct location of the answer—through deduction, not comprehension.

In the next passage titled “Road Safety”, the number of fingerspelled words increased markedly, indicating that he did not recognise as many words. There were 28 signed words, and 20 fingerspelled. He made 4 substitutions, all for words that had similar initial letters but were syntactically inappropriate. He answered one question correctly — a fairly easy deduction from the picture. Once again, it is likely that he drew on his observational and deductive abilities, not on comprehension. The only other correct answer was to a yes-no question, which, given his other responses, may have been a successful guess.

Todd had apparently developed bottom up strategies based on the visual appearance of words and his deductive capabilities, but was unable to employ

contextual cues based on knowledge of the structure of English, and certainly not on an expectation of how language and/or literary structure operates.

When performing the *Waddington Diagnostic Reading Test*, Todd recognised all initial sounds, except “g”. He recognised the single word names of pictured items, except, lamp (list), thumb (tent), horse (house), all starting with the same letter. In the sentence completion with pictures section, he got 6 out of 7 correct, once again suggesting he was using deduction based on the pictures, and recognising the words that matched the pictures. The nursery rhyme completion was incorrect, and for the sentences without pictures, he got five correct out of a possible 24. He did not appear to use contextual clues at all, as he scanned the set of words rather than the sentence. His raw score was 31, which gave him a reading age equivalent to a 7.9 year old, and a chronological age of 17.5.

Figure 7.1 summarises Todd’s linguistic abilities. Todd’s case exemplifies the position expounded by Brice Heath, Mangiola, Schecter, and Hull (1991), (see Section 3.6.1), who argued that requiring students to first understand the basic literacy skills before moving on to higher order skills, contravenes the natural process of language learning. The higher order skills, they termed literate behaviours—the ability to provide sequenced explanations, logical arguments, grounded interpretations and abstract analyses. These behaviours, they maintained, also form the basis for the social interaction in classrooms. It is evident from the above data that Todd possessed few if any of these higher order skills, yet had mastered a number of the basic literacy skills such as word recognition and the recognition of individual letters. It subsequently explains why he could not participate in parts of the high school program relying on literate behaviours. Instead, he used memory for words, and picture association, to come to conclusions about the meaning of text, and engaged in little, if any, higher order processing of texts.

The results of Todd’s Language Performance Data analysis demonstrate the difficulties he experienced when required to read high school text books based on topics about which he knew nothing, and to perform writing tasks in school, based on a knowledge of stories or text, let alone take part in meaningful communicative exchanges about anything, which did not have some sort of concrete representation on hand. It can be appreciated how difficult it was for him to access a curriculum, which was designed for students with levels of competence in communication skills, both expressive and receptive, well in excess of those possessed by Todd, and why it was

possible for him to access only those parts of the curriculum, which did not require proficiency with text. If knowledge of narrative structure is in fact, a predictor of school success as suggested by various authors (see Section 5.7.4), there is little wonder Todd had so little success in accessing the curriculum in high school. He had no knowledge of the structure of narration. It made it clear why teachers unaccustomed to students possessing such significant linguistic deficiencies resorted to eliminating all aspects of their programs and curriculums, which could not be visually represented.

Figure 7.1 Language Performance Summary for Todd.

	Conversational communication	School Learning (Reading)
Receptive	Responded to: <ul style="list-style-type: none"> • Signed English three element combination with operative at front of sentence • Signed English two element combinations • Signed English nouns, verbs, adjectives 	<ul style="list-style-type: none"> • Recognised single graphemes • Recognised single words • Fingerspelled unknown word • Used picture clues in reading
Expressive	Used: <ul style="list-style-type: none"> • Facial expressions • Gesture and mime, turn taking • Initiating • Drawing Contextualised conversation (showing concrete props) • Single Signed English signs 	(Writing IRE): <ul style="list-style-type: none"> • Wrote unstructured strings of words • Wrote words with idiosyncratic word order • Wrote grammatical simple sentences using SOV word order

7.6 Description of the events and practices in the lessons observed for Todd

The following section responds to the Classroom Observation Research Questions, which are listed in Section 6.6.1, as well as to the Interview Data. Answers to these questions provide a description of the classroom events, and in part answer the Principal Issue Question of, “How did the classroom teachers provide

inclusive educational opportunities for Todd?" This section was derived from the summarised and condensed Observation Data sorted according to the variables evident in the observed lesson situations.

7.6.1 Adaptations

The classroom and curriculum adaptations observed in Todd's classes varied. In mathematics (maths) he was engaged in the regular program, which was designed to facilitate understanding for the lower-ability maths class. In science, he was involved in doing that part of the regular curriculum, which was of a concrete nature (i.e., with tutoring and exam modifications being made by the support staff). In other subjects (e.g., metalwork), he participated in a totally adapted curriculum that included an advanced practical program (i.e., more advanced than his age peers), but with no theory involved. The regular class teachers did not do any program modifications themselves, other than the advanced practical manual arts programs, and no modifications were made to teaching style for Todd's benefit. Todd took part in a "work experience" program, which began in Year 8 and was extended into Year 10, to become the major part of his week. This exemplified an observed practice of avoidance of difficult subjects and concepts to teach.

One lesson recorded was a revision lesson covering material presented in regular science classes that Todd had participated in with a teacher's aide/interpreter, or an itinerant teacher. The revision lesson was a one-to-one lesson in which words, signs, mime, and diagrams were used in an attempt to establish recall of facts. The topic had been selected for its ease of visual representation, but the concepts were too difficult for Todd to recall. Exhibit 7.14 is an excerpt from Observation 1.

Exhibit 7.14 Excerpt from Observation 1, withdrawal lesson for revision of science topic

One question asked for the listing of the functions of the skeleton. There was a white board in the withdrawal room, which the researcher used. She asked Todd what the skeleton was in a Signed English sentence "What is the skeleton?" He didn't know the sign for "skeleton". The researcher drew a skeleton on the board and wrote the name beside it demonstrating the sign for skeleton. She asked, "What is the skeleton for?" Todd shook his head and shrugged. She drew a heart inside the ribcage and put an arrow to it from the word on the diagram. The researcher signed and fingerspelled "it protects (FS) the heart". Then she gestured a punch to the chest and demonstrated

how a punch to the heart didn't harm the heart because of the ribs. She continued in this way using diagrams, his notes, gesture and mime, to work through the other functions of the skeleton, such as allowing the body to stand upright.

The word "function" was written on the board. The researcher signed a question "What is the function of the skeleton?" Todd shook his head. She wrote and signed. "This is what the skeleton is for. What it does" and pointed to the word "function". Todd's expression was attentive but clearly with no understanding. The researcher went through the first four or five questions in a similar manner. She then wrote the questions on a piece of paper such as "Write down four functions of the skeleton". She helped Todd find the answers either from the notes, or on the board, and from the diagrams. They worked through the majority of the section on the skeleton.

He had a sheaf of papers with diagrams, which were labeled, and questions and answers. They went over the same material three times. Eventually he made tentative attempts to write the appropriate answers and find them in the material just dealt with. He was not consistently correct and looked for reassurance throughout. He was clearly becoming very tired.

All of the lessons observed had a high visual component. In metalwork, woodwork, and even maths, which was presented in stages and represented on the blackboard, he was able to follow the visual cues. The maths lesson involved the teacher delivering information to the class and the class answering his questions. Accompanying this aspect of the lesson was a visual representation of examples, which were logical and explicit, and recorded on the blackboard from which Todd could access the numerical information. Exhibit 15, an excerpt from the interview with the maths teacher, describes his views about Todd.

Exhibit 15 Excerpt from interview with mathematics teacher

M.T.: He was no different from the other kids in the ability band he was in. He had the same problems of memory. They perform when they do the work then they forget. He could see the mathematical patterns. There was no change to the program for Todd. The aides were always there to help. The language was no real barrier. He performed with the numbers just as easily as the rest of the class. He never really saw the significance but could apply the rules easily.

7.6.2 Communication with teacher

The woodwork lesson had parts where the teacher delivered information to the whole class. Todd did not participate in these sections at all, because they occurred spontaneously, were of short duration, and often referred to tasks he was not doing at that time. There was no obvious expectation that the teacher wanted Todd to

be party to that information. He did not ask the interpreter to relay the information to Todd and did not ask for his attention to be gained. Instead, Todd had instructions delivered by demonstration, both when he sought the information, and when the teacher wanted to tell him something, or through the interpreter if the referent was not immediately apparent. Exhibit 7.16 is an excerpt from Observation 2, the woodwork lesson.

Exhibit 7.16. Excerpt from Observation 2, the woodwork lesson

There was a blackboard at the front of the room, and in this lesson was not used at all by the teacher. The teacher placed himself generally at the front of the room but moved around to attend to individual students and groups of student. Todd worked at the back of the room and the researcher sat on a stool nearby.

Todd was at the stage of painting his outdoor benches. He was getting them from the storeroom. He carried both benches in past a student and a saw bench. No words or signs or even eye contact were exchanged. The boy breathed in and Todd proceeded to put newspaper down under the benches. Todd disappeared and then came back with the teacher who had the varnish. He took the lid off and looked at the researcher. The researcher signed "What now?" He signed "painting". The class teacher did not speak to him but indicated to him with a piece of wood to stir the varnish. Todd nodded and commenced painting.

W. T.: "All the people doing the magazine rack, come here please. You need 40 ml there, 15 there and 5 there. So have that up O.K. Good. You may need to get someone to hold that and with a very sharp pencil get someone to mark that. Now that has to come out 6 ml deep O.K. Sand those faces O.K. Mark the other one of those then I'll show you how to cut one."

Meanwhile individual students were lining up to talk to the teacher. Todd continued painting carefully. His job was clearly the biggest and most ambitious and he didn't just have one bench but two. Most of the other students were doing magazine racks. None were as advanced as Todd's. Most were in the early stage of cutting out. The class teacher spoke loudly enough for the researcher to hear his words. "You are forcing the saw". Most of the time he spoke very quietly except when he called the whole group together. Students either worked alone or in pairs. There was quiet conversation. There was the constant hum of saws but they weren't particularly loud.

W.T.: "OK people doing magazine racks out here please". He then demonstrated clamping two pieces of wood together. He showed them how to measure off the piece of wood, talking as he showed them. "The biggest problem is people will make these cuts so wide they wont stay together when they put them together". He kept demonstrating and talking as he did so. He said angrily as he held up a hand saw. "Someone's run that over a piece of steel". Todd was on the other side of the room painting away not taking any notice of anyone. "Some are using ply, some are using custom wood, so if you are using ply, get me a plane. Piece of ply put that in the ---- Same then again mark the edge with a marking knife if you don't you'd get a rough cut. Make sure the chisel is sharp. Get the green chisel up there if it's not there an orange chisel over the other side."

Todd propped his stool up and started to paint under it. He didn't ask for help or need it. Another student was banging away at his plank and another one said, "Hey you're splitting your wood" "No I'm not, that's where I dragged it up the hall". "No that's not a split". Everyone was working away. There was some hilarious laughing as some boy spilt stuff from "over pumping it". A boy started filing right near Todd who didn't register his presence. Some boys came into Todd's corner looking for some thinners. They sniffed the jars not bothering to ask Todd if he knew. They debated about it and took it over to the teacher who told them to go back and change it. They did, and one asked the other "Is that thinners? It better be". Another boy was using the grinder for his job. The one with the thinners said "You can use the band saw for that". The boy looked doubtful and asked the boy to help. Todd just kept on painting.

The metalwork teacher also asked the researcher to relay particular information in the metalwork lesson, but there was a distinctly higher level of interaction between Todd and the teacher in that lesson. Observations 3 and 4 were somewhat unusual, as this teacher did not usually have an interpreter in his lessons. Direct interaction, between Todd and the metalwork teacher, impacted on the other students because the teacher signed directly to Todd, who was not assisted by an interpreter in metalwork lessons generally. The impact was reflected by the other students communicating directly with Todd, and his reciprocation. In Exhibit 7.17, it is evident that the student interaction with Todd and the metalwork teacher was markedly different to that of the previous Exhibit 7.16.

Exhibit 7.17 Excerpts from the two metalwork lesson observations

Metal Work Session 1

When the researcher came into the room she was late and work had started. Todd was happy to see her and smiled. The teacher asked her how to do the sign for "16" which she showed him. He was telling Todd how big to make the hole that he was to drill. Todd continued to drill the hole in the piece of metal.

The researcher signed, "What are you making?"

He showed her the diagram and got out all the metal pieces he had made so far. He then went and placed his job in a vice to file it down. The teacher signed and demonstrated how to file it down. Todd went over to the teacher and showed him his job. It was obvious the teacher was signing so the researcher asked him about it. He said he had been with Todd for two years and had picked up how to sign and they had developed their own technical signs. The teacher demonstrated some to her such as "outside" and "inside calipers", and a round "c" hand shape for "clamp" and a round circular thumb and forefinger with a finger placed through it for "drill a hole". The calipers were signed with crooked fingers shaped like pincers either inside or outside. Another good one was "centre punch" which was a "c" signed and then the fist punched into the hand.

Todd went over to the teacher who was cutting metal on a hand-operated machine. Todd stamped his foot to indicate it would be better to use the foot-operated machine. The teacher shook his head and signed "little" the "same" to convey that for

smaller material it did the same job. Then he signed, “finished” to Todd who nodded. Todd finished with the press drill. He went to the teacher who gestured to cut a piece of round bar. He held up a finished item to demonstrate, then drew the shape with his fingers in the air. Todd then went and got the round bar. Todd got the diagram and ruler. He wasn’t sure of the measurement after having a long examination of the diagram. He went over to the teacher who also looked at the diagram and beckoned him to come and look. They went and looked at the finished item again. The teacher signed “same” and measured with a ruler. Todd signed “Good”. He went and placed the rod in the machine-operated saw. He turned it on...

Metalwork session 2

Todd had attached his two pieces together by braising them. He turned off the oxy-acetylene. He came over with his job in a set of tongs. It was obviously hot. The researcher signed “hot” and he nodded. Another boy came over and Todd held it up to show him with a very satisfied look on his face. He dunked it in the sink to cool it off then lined up to show the teacher. The teacher checked it and said it was good, so Todd had to file the rough edges. He put it in the bench vice and began using sandpaper. A boy came over and gave him a wire brush, which he took with a facial expression, which suggested “Oh I forgot”. The same boy came over with the diagram and they looked at it together - more an act of camaraderie than information gathering. Todd had a semi-interested look on his face. He looked down at the other boy’s job and signed “good”. The boy acknowledged his comment with a facial expression.

7.6.3 Classroom performance and inclusion

In some lessons, the learning experiences that Todd was expected to access were totally inaccessible. This was the case when the input was largely verbal (written or signed). This was in spite of the fact that the language used was often made explicit and structurally simple. The concepts were frequently too abstract and complex for Todd (see Exhibit 7.14). In other cases learning experiences were accessible. These were situations where Todd was able to work on the more visually obvious parts of practical jobs, albeit frequently with little understanding of design implications (see Exhibit 7.16). While he could be successful in performing tasks that could be visually demonstrated, he could not apply good design principles that determined the usability of an object. Hence, he could not design an outdoor bench that could safely be sat upon. This feature of his performance is made clear in an excerpt of an interview with Todd’s metalwork teacher (Exhibit 7.18 below).

Exhibit 7.18 Excerpt from interview with metalwork teacher

M.T.: He’s definitely got shortcomings in language because the ability to define and describe the finer points is not there. If you put it in lay-man’s terms because “near enough is good enough” and the finer things are not coming through. They would

come. It would come through in a very prestigious technical area (learning institution) where he could learn that but in school like this we just haven't got the time and I don't have the skill to describe these things. These technical terms, and to work accurately on things. His woodwork job has design faults, as you can't sit on the seats. Yes, there are some basic design faults because there is that language barrier or a communication barrier you can't explain to him like a normal kid "if you sit this way you have to have this much". He has to be visually shown so abstract things are hard to get across.

Todd could see mathematical patterns and perform the correct steps in working out mathematical equations, but he could not see the relevance, or application, so had difficulty recalling the procedures (See Exhibit 7.15). While Todd was signed to by a signing interpreter in most lessons (most typically by untrained personnel with varying degrees of competence in Signed English), he had difficulty understanding language that had more than the most basic level of complexity. Reading posed similar degrees of difficulty (See Section 3.6.1).

Communication was ineffective when the topic was removed from Todd's immediate frame of reference. It was successful when the teacher used signs, and when there was direct reference to objects that Todd understood, and had had experience with. In such instances, Todd could read and understand a standard technical plan used in metalwork rooms so that it made sense to him, to the extent that he could "discuss" it with the teacher, and could "advise" the teacher on a tool he thought better for the teacher to use (See Exhibit 7.17). When the content of the discourse consisted of objects not present, or ideas that Todd did not have a high degree of familiarity with, he had great difficulty understanding (See Exhibit 7.14). He had difficulty gaining information from texts, because of his limited reading capacity and immature grammatical structures. He was, however, an effective user of gesture and diagrams (See Exhibit 7.12).

Todd performed well in an introductory lesson because of the visual nature, and poorly in a revision lesson because of the level of abstraction and non-immediacy of the topic. He performed well when he was working on a familiar task, but as each stage of the project he was working on brought a new challenge, it would appear that the fact that the task could be demonstrated visually was the important factor for successful execution. Todd's mother was satisfied with his inclusion and did not appear to consider that he was missing vital aspects of schooling. Exhibit 7.19 below records her opinion.

Exhibit 7.19 Excerpt from mother's interview

Res.: Are you happy with Todd's inclusion?
 M.: Oh I couldn't find fault with any school we have been in.
 Res.: People have told me it was Todd's personality that made it possible for them to accommodate him.

7.6.4 Teaching style

Todd was unable to respond to a question-answer (IRE) format, on which the most common dialogue in classrooms is based. His participation was unsuccessful when question-answer format was used. Todd had difficulty answering even simple wh-questions. This is illustrated in exhibit 20, an excerpt from Observation 1 below.

Exhibit 7.20 Excerpt from Observation 1 with researcher using Signed English

Res.: What time does this lesson finish?
 T.: Yes (nod)
 Res.: What time?
 T.: Yes
 Res.: Do you have a timetable? (Looking through papers).
 It was obvious Todd did not understand the question and another teacher in the room answered that the lesson times were on the wall. During this exchange it was clear that Todd did not understand the signed question. The researcher thought maybe he used Auslan and Signed English was not getting through. A later discussion with the fill-in itinerant teacher revealed that Todd, in fact, used Signed English and that he simply did not understand the question.

Where individualised demonstrations occurred, Todd could perform adequately because he was quick to make visual connections. He also performed well in the maths lesson conducted by explicit step-by-step instruction, where the structure of the lesson proceeded from the known, to the unknown, in small incremental steps, and where the program was aimed at the level of ability of the class. The teacher did not change the concepts to be taught, but the method of teaching them, and used visual examples.

Todd performed well in the lessons in which the teacher had an interactive teaching style and communicated directly with him using lesson-specific signs. He was apart and totally separate from the rest of the class, when he worked with an interpreter. However, on the occasions when he communicated directly with the teacher who had developed some signing skills, and special signs had been

constructed for the subject, Todd had the same level of interaction with the teacher, and indeed the other students, as the other students in the class (see Exhibit 7.17). Nevertheless, it was not possible to impart in-depth, and difficult, more abstract concepts to Todd, mainly because of his limited language capacity. The only lesson where Todd interacted effectively with other students was in that metalwork lesson, where he was approached by other students for comments on their respective jobs, and for cooperation and assistance. He was able to use gesture and some simple signs.

7.7 Issues arising from the data analysis

Following the reduction and analysis of the Classroom Observation and Semi-structured Interview Data and the analysis of the Language Performance Data, a series of issues of an emic nature were identified. The emic issues arising from Todd's case were as follows:

7.7.1 Issues arising out of Classroom Observation Data analysis

1. Language and Literacy

- a) Concept development dependent on language development was not apparent
- b) Stages of concept development (Vygotsky, 1978) indicated Todd was at a concrete stage
- c) Language levels required for successful school performance (Kretschmer, 1997) were not developed
- d) There was a lack of understanding of question and answer format (IRE) that was required in school
- e) Todd was essentially illiterate
- f) The adequacy of the sign system he used was questionable, as he did not have a functional first language

2. Pedagogy

- a) Interactive teaching methods did succeed (visual, known to unknown, explicit, and logical)
- b) Interpreted versus direct teaching situations had obvious differences
- c) High school teaching practice involved largely a transmission style of teaching

3. Inclusion

- a) This situation reflected past practices where deaf students were bodily integrated in regular schools but unable to be taught to reach their potential

7.7.2 Issues arising out of Interview Data analysis (school personnel)

1. Language

- a) Todd had inadequate language levels to enable access to complex concepts
- b) Without signing skills communication was too difficult for teachers and Todd
- c) Interpreted / direct communication – the fact that the latter was superior was not appreciated by those involved

2. Social interaction / isolation

- a) Todd was socially isolated with no friends at school
- b) External locus of control—Todd clearly demonstrated that he needed someone assisting him at all times at school
- c) Todd had to remain at home when support staff were absent

3. Pedagogy

- a) There was a teacher lack of knowledge about deafness, inclusion, the nature of itinerant teacher support, and their own roles and responsibilities—only one teacher took direct responsibility for teaching Todd
- b) Difficult areas to teach were skirted—theoretical aspects of the program omitted
- c) Responsibility for teaching the deaf student was in question

4. Students rights

- a) There were differing definitions of success —some thought he succeeded academically, others only perceived social benefits
- b) Availability of suitable placement alternative
- c) Todd had been integrated solely on the recommendation of his itinerant teacher

7.7.3 Issues arising out of Interview Data analysis (parent)

1. Definition of success

- a) Other parents have defined failure of DET in providing an adequate education very differently to Todd's mother

- b) Parent’s views differ from school staff in terms of what is important—this parent was happy with a School Certificate even though the value was questionable given Todd’s communicative ability and literacy skills
2. Placement decisions —when there are alternatives, there should be some baseline requirements if the student is to access a regular curriculum
3. There were human rights concerns—student’s or parent’s
- a) A compliant personality is capable of enduring an untenable situation without acting out

The following section contains the results of the stage 2 analysis, in which the observations made, were rated according to the differing levels of inclusion, which were provided by different teachers according to variation in teacher performance and lesson content. The emic issues, and the differences in inclusion derived from the second stage of analysis, and a description of the LPD, answer the Principal Issue Question of, “How did the regular class teachers provide inclusive educational opportunities for Todd?”

7. 8 Summary of the stage 2 analysis of Classroom Observation Data / Inclusiveness Rating

Table 7.1 lists the 5 classroom observations made for Todd with an Inclusiveness Rating shown for each. The description of the different teaching and support practices determining the degree of inclusion in each is contained in Section 6.11.2.

Table 7.1 Observations and Inclusiveness Rating

<u>Classroom Observations</u>	<u>Observations ranked in order of inclusiveness</u>	<u>Inclusiveness Rating</u>
Observation 1 Withdrawal lesson	Observation 3	1 B
Observation 2 Woodwork	Observation 4	1B
Observation 3 Metalwork Session 1	Observation 5	2
Observation 4 metalwork Session 2	Observation 2	3
Observation 5 Maths	Observation 1	5

The variables, on which the differing levels of inclusion were considered to be dependent, in Todd's case, were, Lesson type, Teaching style, Communication, and Classroom and curriculum adaptations. The variables, which reflected the different practices and conditions, which impacted on the amount of inclusion afforded Todd, are described in Figure 7.2.

Figure 7.2 Variables contributing to the highest level of inclusion in Todd's case

<u>Lesson type</u>	<u>Teaching Style</u>	<u>Communication</u>	<u>Classroom and curriculum adaptations</u>
<ul style="list-style-type: none"> Subjects which could be represented visually and hierarchically 	<ul style="list-style-type: none"> Individualised interactive teaching style 	<ul style="list-style-type: none"> Direct communication with student using created signs 	<ul style="list-style-type: none"> Practical program with no theory Visual part of program only included

<u>Indication of Inclusion</u>
<ul style="list-style-type: none"> Todd performed the same tasks as the other students concurrently working on practical tasks and communicating with teacher and other students without theoretical component

7.9 Interpretations, assertions, and generalisations

This section constitutes the researcher's interpretation of the case. Further selected references to the literature are made to assist in understanding Todd's case.

7.9.1 Theoretical views which contributed to understanding Case 1

7.9.1.1 Language and thought

Siple (1997) stated that the relationship between language and cognition is very complex with no one general theory able to account for all aspects of language acquisition (see Chapter 3). Lillo-Martin (1997) suggested that the differences that exist between languages, might reflect, rather than determine, speaker's world-views, suggesting that communicative intention determines the structure of language, not the other way around. Thus, it would seem, communicative intention is a driving force behind language structure. This would also imply that the social interactions involved in an individual's life have a more important bearing, on his or her, eventual language

capabilities than an innate process, which unfolds over time independently of experience, described in Chapter 3. Lillo-Martin also stated that claims had been made that there are significant differences between the cognitive processes of deaf / signing children or adults, and those of hearing / speaking individuals, but that natural signed languages are served by the same language module that serves spoken languages. It is suggested that no differences on cognition will result due to the acquisition of either a signed or spoken language.

In the past, according to Lillo-Martin, claims were made that deaf children were “backward” cognitively, which was attributed to the deaf child’s lack of spoken or written language, without attention paid to whether or not the deaf child had been exposed to a signed language. Marschark and Everhart (1997) stated that it could be acknowledged that individuals, who lack coherent, rule-governed language, would have cognitive processes somewhat different from those who “have” language. They acknowledged that without a symbolic language of some sort, the nature of cognition would be lacking in some of its subtle and not-so-subtle aspects, and would necessarily be different in some ways, such as lacking complexity, to that which is the case in normal language development. They also posited that language influences cognitive development, because children are apparently influenced by what they hear, and consequently what they say. They stated that there exists a connection between cognitive growth, and language growth, with experiences driving development in both domains. The consensus of opinion and thought is thus, language, visual and auditory, that is, spoken or signed, is served by the same language module, and that experience determines language and cognitive development.

Auditory deprivation leads to brain reorganisation independent of early language exposure (Lillo-Martin, 1997), such that the modality through which language is first acquired, significantly impacts on the fundamental specialisations of the two hemispheres. In Chapter 3 it was noted that Bellugi (1991) had argued that in the absence of hearing, an independent visual gestural system had developed across generations of deaf people.

Kretschmer and Kretschmer (1999) further explained how the discourse patterns used for different communicative purposes to acculturate children into their society, develop in social contexts. In communicative interactions in social contexts, children learn to become part of the community and how to use language. Mohay (1992) referred to research demonstrating that childhood deafness distorted these

normal patterns of mother / child interaction. Kretschmer and Kretschmer (1999) stated that the introduction of a hearing disability into the relationship had potential for disrupting early discourse patterns and caused disruption to typical child rearing practices leading to decreased opportunity for engaging in discourse exchanges, which normally lead to social knowledge and language patterns of English. Data in Todd's case revealed a series of deprivations, which undoubtedly contributed to his lack of language capabilities. He was not exposed to a visual language as a child, and his history described his social isolation, which deprived him of linguistic stimulation. Exhibit 7.21 describes Todd's isolation at school, the lack of social interaction he experienced at school in his earlier years, and the lack of age appropriate friends at a later date.

Exhibit 7.21 Excerpt from mother's interview

Res.: You say he was isolated there in the classroom just as he was in the special class?

M.: He wasn't as isolated there as he was in the special class.

Res.: Why was he isolated in the special class?

M.: He was too big.

Res.: Right. He was age inappropriate, was that it?

M.: The playground there was so big and one teacher and as I say the teachers were so different but here you have one teacher in the playground but Todd was always special to them and he always gravitated to an adult rather than a child.

Res.: Did they do anything about that at the deaf unit?

M.: I think they did. I think they tried everything. It is just Todd. He is just different.

Res.: He does get on well with adults and adults like him.

In Todd's case, his high degree of deafness and the fact that he was born into a hearing family placed him in the situation where opportunities for language acquisition were jeopardized. His eventual language capabilities reflect this linguistic deprivation. The discourse patterns, and the formal aspects of English he displayed, were of the most rudimentary kind. His language ability was an extreme example of the result of language input deprivation. At no point in his history were there reports of concerted attempts to overcome the hearing deficit, by provision of alternative visual language input, or increased social engagement. The fact that he was a "loner" was not questioned. There was no evidence of him having had compensatory measures taken. The extent of the impact of the language deprivation on his cognitive potential cannot be gauged.

An interesting proposition put forward by Musselman (2001) is, while it is generally assumed that knowledge of English is a prerequisite to reading, it may also be an outcome. It was reported that English language skills could be developed through experience with print. Mayer and Akamatsu (1999, reported by Musselman, 2000) concluded that English-based sign is essential for bridging the gap between interpersonal communication of deaf individuals, and literacy, with the use of a natural sign language as critical for promoting cognitive and social development. A study by Luetke-Stahlman reported by Musselman, comparing programs using oral English, ASL, or completely encoded English sign, concluded that they were preferable in developing literacy in deaf individuals to those using less complete sign representation of English. This (see Section 3.5.3) implies that the initial language learned should be a natural visual language with a completely represented signed code employed as a facilitator of literacy learning for the deaf. Neither of these conditions was evident in Todd's case. He had not acquired a natural visual language as a first language (L1), and he was not seen to receive a completely encoded English sign at the later part of his schooling; evidently because he did not understand a completely encoded signed version of English on which to base literacy.

While it is evident that cognitive capabilities of deaf / signing and hearing / speaking individuals are different, there is no suggestion that one is superior. The implication derived from the literature is that a symbolic language system of some sort is necessary for higher order cognition, (to be able to use "self talk" to mediate the thinking process (Vygotsky, (1978) and (see Section 3.2.4). Apparent also, is the important part linguistic input plays in the development of language. Auditory input in hearing individuals is extensive prior to speaking (see Section 3.3.1). Without equal amounts of visual linguistic input, deaf children are obviously at a great disadvantage when compared to their hearing counterparts. The implication is that if auditory input is not supplemented, or replaced, deaf children will not be likely to have an equal linguistic developmental schedule to hearing children. It is also evident that the first years of life are important in setting down the modality for future language learning, which has implications for children who are born deaf, and thus never have the opportunity to hear spoken English.

Environment plays a major role in the equation. Deaf children of deaf parents (DCDP) have an environment in which to acquire language, which is superior to that of those born to hearing parents (DCHP). The choice between a signed language and a

signed code for manual communication remains a moot point, but it seems there is a part for a signed code to play in the acquisition of literacy skills with certain provisions (see Section 3.5.3). While not being an appropriate first language vehicle, it is a likely appropriate vehicle for second language learning. This highlights the need for visual first language opportunities even if the family is hearing. This could be provided in a preschool with appropriately trained personnel, to support the acquisition of a signed language for a small deaf child, with support for the parent learning to communicate using a visual language.

The literature referred to in this section, as well as Chapter 3, makes it possible to understand Todd's case. It is clear from Todd's history, and data collected from the classroom observations and interviews, that he was not provided with conditions conducive to successful language acquisition, because of the paucity of communication partners and opportunities. The following Exhibit 7.22 describes how his early language needs were addressed.

Exhibit 7.22 Excerpt from interview with mother

Res.: Language levels. How did they address those issues back then?
 M.: Well, we were living in the city then and we had speech therapy and after all that time all we got was "I am". It just dragged on. In school it came back to the itinerant and she concentrated on the language side of everything. I can't remember how, so she did special language work. She had a little room and they would go off but they also worked in the classroom. I know when he was at the support unit they brought in the PATHS program and they would integrate that with the whole class. They could work on language and feelings and emotions, that was to integrate Todd and give him language at the same time. And they worked in the classroom that just gave Todd...he was part of the classroom, he was always isolated. Most of the structured work was done out of the classroom.

7.9.1.2 Language – at school in Todd's case

The preferred theoretical models of language development described in Chapter 3, and the literature cited in this chapter, suggest that language does not develop in isolation. Isolation evidently, had been a feature of Todd's history. There was no evidence to suggest that the language learning he was exposed to in the segregated educational setting was interactive in nature, (see Exhibit 7.21) and may have been, as was often the case in such settings, skills based and decontextualised (Berry, 1992; Fischgrund, 1995) and (Section 5.3.2). In most of Todd's educational

history, he was reported to have been isolated and separated from meaningful communication sources. He had developed, though, the ability to engage in conversational discourse, using turn taking, and topic negotiation (limited in scope) of a contextualised nature, using concrete objects as aids to communication.

Abstract thought and concept development, in Todd's case, were surely curtailed by the severe language deficiency. Given that he could follow well-presented visual, numerical information, and diagrammatic representation of a technical nature, (see Exhibit 7.17) in his later schooling, it appears that he was capable of abstract thought of a certain kind. The question about how much cognitive potential was not realised, or capable of development in a situation such as Todd experienced, is difficult, if not impossible, to answer. His thought was dependent on immediate visual support, and in his later schooling cognitive complexities were eliminated, because they were too difficult to address. Abstractions, involved with language learning, were not dealt with at all through interactive language use in his later schooling (see Exhibit 7.22).

Todd's ability to use audition in the reception of speech was negligible, but his early education had been based on an aural /oral approach, despite his limited auditory capacity. His mother reported early speech therapy failure (see Exhibit 7.22). Todd had not experienced any attempt to capitalise upon his visual capacities in language learning through the use of a visual language, the process explained by Marschark and Everhart (1997). Todd did not have a satisfactory communication system; therefore, it was not possible for him to develop a world-view through discussion about events close at hand, or further removed.

Todd's life had essentially been without communication partners. In the segregated deaf unit he attended, he did not have access to Auslan. At that time, it was not the policy of the DET to employ any other manual communication system than Signed English. Todd was described as a loner, even when he attended the segregated school. He was also described as having brain damage and autism, but this assessment may have been more related to his language and communication abilities. He was said to be "too large" (see Exhibit 7.21). This may have been because he did not have age appropriate peers in the segregated setting, which would have militated against effective social interaction. His demonstrated ability in comprehending technical construction plans in metal work later in his high school career could indicate that his intelligence was not impaired, just under-developed.

As Todd was from a hearing family, he did not have access to a natural visual language at home. His mother, who was not a highly skilled Signed English user, was his primary communication partner, and the speech therapy employed in his early educational experiences, was not successful. Signed English, which is based on the structure of English, and is essentially linear, is not according to Lillo Martin (1997), easily acquired by someone whose cerebral specialisation is visual—the most likely scenario for Todd.

As already stated, Signed English is not recognised as an appropriate vehicle for first language acquisition (Supalla, 1991). It is, however, increasingly being considered as a useful tool for learning English as a second language, if performed accurately, and as a vehicle through which literacy may be acquired (LaSasso, 2000; Mayer & Akamatsu, 1999). Signed English was not successful in providing a bridge to literacy in Todd's case. As noted in the classroom observations, much of the classroom use of Signed English in Todd's experience was of poor quality. Indeed, the situation noted by Leigh and Hyde (1997) was likely to apply in this case, that the majority of the Signed English, to which Todd had access in high school, was incomplete or inaccurate, relative to the spoken English component of teachers' communication, and was therefore not a good representation of English structure.

In Todd's case, the lack of teacher input of Signed English may have been a response to his not being able to understand the structure of English. It may have been a lack of skill in the performance of complete Signed English on the part of the interlocutors, the belief that a simplified version was more efficient, or a combination of all of the above

Todd had not developed a satisfactory visual first language through which to access subsequent learning, including the learning of English. Todd's language performance indicated that he relied on idiosyncratic linguistic devices devoid of sophisticated English grammatical features. The features of English that he did demonstrate were simple SVO structures—one of the most common word order arrangements in any language and considered a typological universal (Comrie, 1989). His communication relied on the conveying of meaning through the linear arrangement of signs and gestures, which was reflected in his conversation and writing.

Todd's writing revealed the use of a spatial arrangement of lexical items to convey the concept of comparison, in which he juxtaposed items he wished to

compare. Such a spatial arrangement of signs, or words, could be seen as similar in nature to the spatial nature of visual languages, which use space to convey meaning (Branson & Miller, 1993). This suggests, at least, the potential for successful acquisition of a visual language.

Todd's knowledge of the structure of written English did not extend to aiding understanding, as demonstrated by his performance on The Neale Analysis of Reading Ability, (see Appendix D). He did understand individual words from different word classes. His ability to employ grammatical conventions of English was limited, and he had developed his own devices to convey meaning, such as strings of related items, positioning items in opposition to one another to denote contrast, and initiating conversations and topic changing, by questioning. He used facial expression to indicate a question, rather than a lexical item. The use of position and facial expression are both features of a visual language (Bellugi, 1988). It would appear that simple exposure to written English had not assisted Todd in acquiring a grammatical mastery of printed English.

Todd did not demonstrate knowledge of the discourse strategies used in school. He was unable to respond to questions directed to him beginning with common question words of English, such as "where" "when" "what" (see Exhibit 7.20). In addition, he could not relate a narrative—either personal or formal—and his ability to describe was dependent on diagrams and gesture. While he could ask questions using facial expression as a question marker, these usually centered on some immediate, or present referent, or a topic with which he was very familiar. He could not retell the events of a work experience day that was constantly repeated, because the referents were not present. He had no way of communicating what the referents were—even though they were referents he had interacted with on many past occasions. He simply did not have the appropriate signs, or ability to fingerspell the words. His most advanced communication strategy was comparison, as this was his favourite communication topic (e.g., the relative merits of different types of lawn mowers and tractors).

Todd's ability to produce any other recognisable discourse strategy was virtually nil. This was to be expected, since he was unable to engage in meaningful discourse with anyone that could enhance discourse strategy development necessary for school success, of either a social, or academic nature. The rules of discourse could not be learned if he had no discourse opportunities. Clearly, his school experiences

had not offered him such opportunities. The only individuals able to communicate with Todd did so in very limited ways.

Todd had none of the prerequisite linguistic skills, or strategies to enable him to access a regular high school program, but that is what had been expected of him for at least three years prior to the data collection in his Year 9. At school he had few communication partners other than teachers, who were poor Signed English users, and who limited their communication to essential key words. He also had contact with itinerant teachers, who, in some cases, were capable Signed English users, but appeared to produce incomplete representations of spoken English. As the task at this late stage was to deliver information or lesson content, they too reduced their input. As already noted, this was possibly to facilitate some level of understanding.

Given the dearth of skills in the language domain, having instructional techniques, which could provide appropriate opportunities for, and assistance to students to develop rudimentary linguistic structure into more standard English structure, is rare in typical high schools—unless the student is withdrawn for extended periods to do alternative language work. While such practices as withdrawal, did occur in Todd's experience, they occurred throughout his school educational experience, and in high school, apparently, only as a response to failure to access the regular class programs in which he was originally placed (see Exhibit 7.14).

It has been noted that learning language skills in isolation is not the preferred method of language or literacy acquisition. The later changes to Todd's program were a result of his failure to access the curriculum, not a proactive arrangement set up to meet his specific language development needs when he enrolled in a regular high school.

Todd's lack of language and communication skills made it impossible for him to understand the communication in the classroom or to be understood by others—as would be considered necessary under the DET policy on the inclusion of students with disabilities (see Section 2.5.2).

7.9.1.3 Literacy in Todd's case

Todd's reading ability reflected his reliance on cognitive abilities not directly related to language comprehension, such as the memory for the visual appearance of letters and individual words. Todd could recognise the appearance of written words

and associate them with the appropriate signs, or he could represent each of the letters of words with fingerspelling. As Erting (1992) stated, the roots of literacy lie in dialogue, and the development of literacy is inseparable from the development of language. Literacy emerges through the development of complex symbolic processes that develop concurrently, rather than sequentially, in both face-to-face and written language domains, according to Erting. However, it has been suggested by Kretschmer (1982) that the initial efforts at establishing reading should be postponed until some basic language / communication system was developed. The emphasis would be on basic communication, so that reading and language development could then proceed in tandem after a rudimentary level of communication had been established. Such is the case with hearing children, who are not engaged in reading activities the moment they begin to communicate. Early literacy goals are later embedded in everyday activity settings (Brice Heath, 1983).

It is apparent that Todd did not engage in effective face-to-face communication of a complex nature, and his communication was devoid of complex symbolic processes. His communicative ability was closely related to concrete support. Abstraction was consciously avoided in his education program, and there was no evidence that Todd was, or had ever been, involved in a program of associating writing and reading in a meaningful interactive manner.

Studies reported by Hirsh-Pasek and Trieman (1982) have suggested that deaf people have used the structural features of sign to retain sign information in short-term memory. Alternatively, recoding into fingerspelling to facilitate reading performance may be used. Children, who are sensitive to the mapping between letters and sounds, can recode the printed text into the language they already speak and understand. Todd did not demonstrate ability to relate the phonological aspect of reading, or a kinesthetic representation of the sounds of words. He did not mouth, or attempt to articulate any of the words he was attempting to decode. Any kinesthetic awareness of the letters came through finger movements alone. He did not have the ability to recode the text through fingerspelling into a language he could already speak and understand, and he did not have a vocabulary of automatically recognised fingerspelled words (Hirsh-Pasek & Trieman, 1982). When he failed to recognise a word, he resorted to fingerspelling (see Appendix D), which was, in his case, not a basis through which he could access meaning. His strategies for reading an unknown text included looking at the text to recognise individual words that he could relate to

his own experience, and looking at the pictures for clues about the context. Use of world knowledge or literary structure was not in evidence.

Todd demonstrated the recognition of whole words, and awareness of sub-lexical elements (letters and letter combinations), but without any ability to synthesise those elements to provide recognition, or create meaning. He relied heavily on fingerspelling in reading aloud. However, comprehension questions revealed little understanding of most content that was accessed entirely by fingerspelling. As already indicated, his ability to access speech, English based sign, or Auslan, were all minimal, and meant that, regardless of any top-down or sub-lexical processing skills that he brought to the reading process, his ability to make meaningful connections to his own inner language was severely limited. Clearly, overall, these did not constitute adequate literacy skills to facilitate access to a regular high school program.

As Todd could not understand English, reading English did not assist him to access information. He could not read well enough to improve his English, so the problem was circular. In this situation, linguistic progress was at a standstill. Without communication partners and an interactive approach to teaching language / literacy, it was likely to remain at a standstill. Written English had not provided an avenue for learning English.

7.9.1.4 Pedagogy in Todd's case

Although the teaching approach generally employed in Todd's school was based on the transmission model, he could access little of what was being translated into Signed English, because of the severity of his language deprivation. Therefore, the teaching style in language-based subjects meant Todd could not access any of the lesson content adequately. In these cases, Todd understood little of what was said or signed. In many cases there was little attempt made for him to access what was spoken directly. In the one instance where the teacher used an interactive teaching approach and communicated directly with Todd, he performed the class tasks and interacted satisfactorily, so that he was included in the general class activities. This illustrated the impact of an interactive style of teaching, coupled with direct communication, on a student even with Todd's level of linguistic deprivation.

The subjects, which lent themselves to visual representation, providing the presentation was logical, hierarchical, and conducted by a teacher adept in their

subject, were comprehensible to Todd. When material was presented in a hierarchical logical manner with visual back up, as exemplified in the maths lesson, Todd could follow the reasoning and the procedure to a certain extent. He was unable, however, to relate it to any later, or more abstract context.

The content presented in most of Todd's classes was either not at a concept level he could comprehend, or was presented in language he could not understand. Although some personnel did resort to visual presentation methods, this alone was not enough to encourage further development of his linguistic skills. Vygotsky (1978) noted that concrete aids to teaching are stepping-stones to developing more abstract thinking ability, but they are not an end point. There was no opportunity to integrate language use and curricular content in school, because the classes Todd attended were typical high school classes, and beyond either the scope, willingness, or possibly, the ability of the teachers to modify their programs to cater for the linguistic needs of a student such as Todd.

Implicit in the process of Todd's integration was the assumption that being presented with academic and linguistic material in a form based on a written or signed version of English, would somehow provide him with enough input to acquire linguistic skills sufficient to the task. When Todd had failed to access the regular program, he was essentially removed from the situation, by being taught in a practical way independently, with the elimination of the theoretical components of programs. That, which became too difficult, was removed altogether.

When Todd was included in a practical lesson, however, he had some independence and success, because he had developed superior technical skills to other students. The teachers, who used practical demonstration, managed to provide Todd with opportunities to perform well in that regard in class.

The example of the metalwork class demonstrated the effectiveness of direct communication between student and teacher, rather than interpreted communication, in which no direct teacher / student interaction takes place. A rudimentary sign system, in conjunction with concrete material, was sufficient for Todd to perform practical work and to interact socially with other students in the metalwork class. There, the teacher employed an interactive style of teaching with all the students. In that class, Todd performed in much the same way as any other student. When an interpreter was included in the process, in Todd's lessons, he was effectively excluded from any of the social interaction between himself and other students, and himself and

the teacher. This was apparent in the woodwork lesson. In that lesson, the teacher did demonstrate and point to objects for Todd, but there was no actual signed communication, and the information transmitted by the teacher was of the most basic nature. Todd worked independently and in isolation. More detailed information was delivered by the itinerant teacher acting as an interpreter.

While the teachers in the various practical subjects, which Todd participated in, were ready to modify their programs for Todd, to reduce the theoretical and verbal components, they were not ready to modify teaching practices to be more suited to discovery learning to facilitate language and concept development. They were probably not aware that such a modification was desirable.

Most of Todd's teachers were keen to allocate the responsibility of the education of Todd to others—in this case the itinerant support staff—but they did not see it as their responsibility. They complained about the level of funding they received to provide interpreter support for Todd, feared it would be reduced, and seemed unaware that developing independence in an integrated student was a desirable outcome.

Significantly, no one accepted any responsibility for Todd's further language development, other than itinerant teachers, who were only able to withdraw him and work on discrete exercises for short periods of time. These exercises were related to lesson content, but did not have the benefit of more than one communication partner for Todd. This approach was more suited to tutorial assistance, as originally intended for itinerant support, rather than as a vehicle for language acquisition (see Section 4.2.5).

Todd was unable to work on an individualised program independently, but was able to perform practical tasks unassisted (e.g., comprehending technical metalwork plans and completing tasks alone). Hence, Todd's individualised instruction took the form of his participation in independent completion of modified activities with amended (limited) expectations. For real attempts at delivering peer-appropriate content of lessons to Todd, he was involved in pull-out sessions. Todd was the passive recipient of such instruction (see Section 5.4).

Todd had no control over what happened to him day by day, other than to refuse school, which he had done on a number of occasions. He had no way of expressing his frustration to most teachers, as his docile nature was not compatible

with being disruptive at school. He was unable to process any lesson alone, other than those that were entirely practical in nature.

One of his more experienced itinerant teachers stated that he felt totally compromised professionally, by being expected to perform an impossible task. "I felt compromised as a professional having to perform a task that was impossible...(however)...others prior to me had expressed positive purported outcomes." It was impossible, in his opinion, to succeed in this case, and he likened it to being cast in the role of child minder. This is consistent with reports which demonstrated deaf students being present, but not included, in regular classes (see Section 4.3.9).

7.9.1.5 Inclusion in Todd's case

This case demonstrates the difference between a direct, and mediated, educational experiences. When Todd worked with his support personnel, he was excluded from the classroom interactions. In the instance where the teacher did communicate directly to him, he was part of the classroom interaction.

Although the school did make adaptations to its program to accommodate Todd, the adaptations were in the form of omitting content, which was too difficult. In the end, this involved any subjects other than woodwork and metalwork, both of which had interactive teachers. No one interviewed, in this case, seemed concerned that the interpreters were largely untrained with poor signing skills. The belief was expressed that difficult concepts could have been dealt with if there had been more interpreter time available to deliver those concepts in subjects such as metalwork. A lack of comprehension of the nature, or severity, of Todd's language deprivation was evident, and there was belief that if Todd received one-to-one tuition, his needs were being met appropriately.

There was a broad range in level of inclusion for Todd. from 1B to 5. The lessons in which he was most highly included were practical lessons, requiring a high level of practical expertise in the execution of the tasks. There were no abstract understandings required, as that part of the subject had been eliminated in the adaptations made. Todd communicated directly with the teacher, who gave individualised demonstrations to all the students. These interactions with Todd were short and contained few grammatical devices. Because the teacher communicated

through signs directly with Todd, so too did the other students, using simple gestures and signs. This was observed by the researcher, and reaffirmed in the interview with the class teacher. These lessons were adapted, in that they were devoid of theory. The higher level of inclusion was due to the immediacy of the situation through concrete manipulation of material, the interactive style of the teacher, and the fact that Todd was working on the same task as the rest of the class.

The maths lesson, which was moderately inclusive, was already modified for students with lower ability, and was delivered through explicit step-by-step instruction, ensuring that each step was understood before proceeding. The tasks were performed successfully by Todd, but the knowledge did not transfer to other situations. This was the opinion of the maths teacher, who concluded that this was no different for Todd or the other students. The lessons categorised as highly inclusive, the manual metalwork lessons, achieved that status as opposed to the moderately inclusive maths lesson, because of the direct communication between the class teacher and Todd with no intermediary. The maths lesson, because of the clarity of the examples used by the class teacher, who did not progress beyond the capacity of the class to understand, required only minimal support teacher involvement to ensure Todd was following and understanding well enough to complete the exercise. The support teacher was not required to make further simplifications or clarifications, merely to ensure that what had been presented visually was attended to, and comprehended correctly.

The lessons, which were lowest in inclusiveness, involved support personnel, were adapted in that only the most concrete part of the subject was dealt with, (with little understanding) and the referents were not immediate or present, but were dependent on literacy skills. In others, performance relied on knowledge of English, question and answer format, reading ability, and abstract understanding.

This suggests that some high school subjects lend themselves to visually supported presentation, such as maths and manual subjects, when executed by teachers who know their subject material well, and are therefore accessible to students even with poor communication skills, as exemplified by Todd.

7.9.1.6 Definition of success in Todd's case

The classroom observation data, and the language performance data, conflicted with the interview data, in that the majority of informants believed that more support personnel involvement would have improved the situation, and that being without an interpreter was a serious impediment to the success of the situation. Interview data, also varied in the value placed on the school placement, from claiming it was a valuable social experience, to a valuable academic experience. The personality of the student was constantly referred to, with respondents emphasising Todd's compliance and affability.

The lack of language ability was universally acknowledged by the school personnel to be a major problem, but not by his mother, who did not mention this as a serious consideration. Both interview data, and observation data, supported the belief that this student did not meet his academic potential. Todd's mother was more concerned with Todd gaining a certificate at the end of the school experience. She was from time to time critical of the school and the itinerant teachers involved, but her criticism centered on a lack of interpreter time, monetary support, and the inability of some itinerant teachers to arrive at the school at starting time. She was satisfied with the experience generally—most particularly because Todd had received a School Certificate stating that he had completed year 10. Todd's self-perceived needs and preferences had apparently never been sought.

7.10 Assertions

7.10.1 Language learning opportunities

As Todd had been born into a hearing family, and his exposure to Signed English had been limited, this situation had contributed to his language deprivation. As a child he was said to have displayed autistic tendencies. Whether this was the case or not, is not possible to know. It is evident that Todd did not have a history of communication partners, even when he attended a special unit for deaf students, so it is not likely he had the essential opportunities for developing a natural language. He did not have communication partners with whom to develop discourse strategies, at either the segregated or integrated settings. It is possible he had the prerequisites to

develop grammatical understandings of English, but lacked the contexts in which to do so.

As Todd had not developed a satisfactory first language, he was unable to develop abstract thought to the extent that in discourse, he could not include referents that were not contextually realised. Todd had not had access to a natural visual language as a child, and the Signed English he was exposed to at the time of this inquiry, was stripped of all formal elements and complexity. Without a symbolic language system of one type or another, his capacity for linguistic mediation of complex cognitive tasks was likely to have been significantly limited.

This case emphasises the need for educational settings to provide for compensatory opportunities for language learning, when they are not provided by the home situation. Because of Todd's profound hearing loss, his auditory processing ability was undeveloped, while his visual perceptual capabilities were well developed. This suggests that his potential for the acquisition of a visual language, was not explored

The high school staff had little awareness of the impact of deafness and the ensuing language paucity, and was unprepared for meeting those needs in school. Responsibility for language development fell to the itinerant teachers, who were expected to perform that task, using a withdrawal model of service delivery. The regular teachers did not regard Todd's education, and especially his language learning, as their responsibility.

Todd had a history of withdrawal for language teaching. Past support modes may have contributed to his lack of linguistic ability, as such models of support were intended to deal with tutorial concerns, or speech and auditory skills training, and not to develop language. The difficulty involved in the provision of access to the curriculum without adequate literacy ability made the task of providing adequate access to the complete curriculum beyond the scope of the existing itinerant model of service delivery.

7.10.2 Literacy learning

Todd's lack of a satisfactory visual language made it difficult for him to access information about even common events, certainly not enough to bring a rich understanding of the world to the reading task.

7.10.3 Academic learning

To selectively omit all the complexities of the curriculum that were not practical in nature, cannot qualify as a satisfactory differentiated program. The purpose behind a differentiated program, as stated in DET documents (see Section 5.6.1 and Section 4.3.1) is to provide a comprehensive range of learning experiences, at an accessible level for students. This should be carried out in a way that enhances learning of the same content that would normally be expected of other students, which in fact, was essential for establishing sound concepts, and not simply omitting aspects of the curriculum. In Todd's case, his pursuit of an alternative program, although advanced in some practical aspects, was further problematic because it placed him on a different task to other students, further removing him from meaningful interaction with those students and his teacher.

The expectation that he receive a School Certificate, whatever that realistically represented, given his linguistic ability, to satisfy his mother's needs, did not necessarily satisfy his.

7.10.4 Social experiences

None of the NAD recommendations (see Section 4.3.10) were met in Todd's integrated setting. In fact his educational experiences generally could be seen as failing to fulfill his rights to an education and a communication system. This is in direct conflict with the philosophy behind inclusion, which is based on the premise of social equality. Social equality cannot be realised when an individual is unable to communicate successfully with their peers.

It is interesting to note that many of those interviewed in this case, regarded the integration of Todd in the high school situation, as successful, yet because of his lack of communicative ability, he could not develop social attachments or attain worthwhile academic goals. This case emphasises the need for communication partners with whom communicative ability, can be developed.

It is not possible to know what identity Todd had developed, because he was not associated with students of his own age that he could communicate with adequately, and with whom he could identify. Todd was socially isolated at school,

and did not have an adequate command of either a visual, or auditory language, to access either the Deaf community, or the hearing community, in the future.

The locus of control in Todd's case was external at school, yet his mother maintained that Todd was independent when interacting with the local population. He needed an adult with him at all times to function at school, it was thought, other than in the most controlled situations, such as travel to and from school, and in the playground. There were school staff, who felt that he should have someone with him in the playground as well. There were few opportunities for Todd to learn independence, or be responsible for his own destiny in those circumstances.

The part his original itinerant teacher played in convincing Todd's mother to fully integrate him, is a significant feature of his inclusion. An itinerant teacher, alone, is not in a position to make such a recommendation, without a good deal more collaboration, thought, and planning, than occurred here.

There was a lack of understanding on the part of the school personnel towards his linguistic and social needs, which meant his real needs, could not be addressed adequately.

7.11 Generalisations

The generalisations were made as a result of the analysis of the case study data.

Proactive steps need to be taken before a high school enrolment takes place for a deaf student ensuring maximum linguistic attainment is reached. Thus, appropriate intervention needs to happen well before a deaf student reaches high school, such that the student has reached a basic level of communicative ability, before being confronted with the likely inflexibility of high schools. High schools generally have the expectation that students are able to communicate sufficiently well to be able to perform reading, writing, and conversational tasks at a functional level. If a student has not attained basic levels, the task of integration is probably insurmountable.

Students whose English skills are poor, or non-existent, should not be enrolled in regular classes where they are expected to access academic content via Signed English or written English, which they cannot comprehend. English structure needs to be addressed in a more planned interactive context with other students, using reading

and writing as a route to learning, not as ends in themselves (see Sections 3.6.1 and 5.4).

An up-front clarification of roles and responsibilities on school entry of a student needs to be undertaken, and parents made aware of the limitations, where they exist, within schools. They should be given alternative options that do contain more appropriate opportunities for language learning for their child. The alternatives may require a level of creativity, with pragmatic, adhoc solutions to the problems being sought (see Section 5.6.3).

For a student with minimal linguistic skills and virtually no literacy skills, being placed in a regular high school class, assuming that it would provide access to the curriculum, is clearly not an appropriate option. Further social isolation is the likely result of such a course of action, when students are unable to communicate with peers of their own age, either deaf or hearing.

7.12 Conclusion

In answer to the Particular Issue Question asking the reason for Todd's inclusion in the regular high school, it has been determined that he had not been included for reasons pertaining to either academic or human rights considerations. He was included because it was possible, and because an itinerant teacher thought being included in a regular primary school, the precursor to high school, may offer some positive benefits; a dubious basis for such a significant move.

In answer to the Particular Issue Question about the ability of regular class teachers to provide inclusive educational opportunities for Todd, it was revealed that this occurred to a satisfactory degree, in only one specific context. This case illustrated that providing inclusive educational opportunities for a student such as Todd, was a very difficult task in the high school situation. It demonstrated that direct communication with the class teacher and an interactive teaching style, succeeded to a certain extent, in providing inclusive educational opportunities of a practical nature. Given that the theoretical component of the subject had to be omitted, this was only a limited success. Certain high school subjects, when presented visually, and hierarchically, by regular competent teachers, were accessible to Todd to a degree.

The answer to the Particular Issue Question relating to Todd's linguistic abilities indicated that they were extremely limited, and made it clear why the task of providing inclusive educational opportunities for him was so difficult.

For profoundly deaf students, who do not possess the ability to communicate effectively with peers or teachers, and who cannot access text at a basic level, successful inclusion in a regular high school is unlikely. Todd's case revealed a situation in which he was generally excluded, rather than included. Contrary to the concept behind the Least Restrictive Environment, one of the basic tenets of the inclusion movement, Todd's educational situation was highly restrictive.

CHAPTER 8

CASE 2

8.1 Introduction

Kelly had been on the researcher's caseload since she commenced her second year at school. When the data collection took place, she was in her third and fourth years, and one observation was made early in her fifth year in primary school. Primary school classes begin with kindergarten, and then proceed from Year 1, through to Year 6. The primary school Kelly attended was a medium sized school situated in a coastal town. Kelly was the only deaf student in the school, but there were two other deaf students both included in this inquiry, in a nearby primary and high school. Kelly had very little contact with those students, as that was her mother's choice.

In Kelly's school, the researcher was well known by a number of the staff, as she had not only worked there as Kelly's itinerant teacher, but previously as an executive teacher in the infants' department. She had knowledge of the different teachers and their teaching styles. Because of that, the researcher requested that Kelly's Year 2 teacher include Kelly in her class, which she did. That teacher then, sought to have Kelly remain in her composite class for Year 3. The teacher was somewhat hesitant about Kelly's inclusion in her class at first, because she had no previous experience with children with high degrees of deafness and knew nothing about cochlear implants.

In the particular school, the researcher had some input about class placement for the deaf student. This is not always the case, because schools sometimes view such advice as intrusive, and may resent anyone attempting to influence decisions they regard as their province alone. The attitude of this school was generally positive towards the inclusion of students with disabilities and special needs. The student population was friendly and supportive, without a large number of students with behavioural problems. For a number of years the school had received extra funding because of the number of economically disadvantaged students in its population. A number of students included in the school had a range of disabilities, other than deafness. None of the teachers in the school had previous experience with teaching deaf students. The following transcript of portion of the class teacher's interview, Exhibit 8.1, illustrates the attitude and opinions of one of the central protagonists in

this setting. It describes her attitude toward inclusion, her concern about communication, and how she was ready to adapt her class program to accommodate Kelly.

Exhibit 8.1 Excerpt from class teacher interview

<p>Res.: Have you had any past experience with deaf children? C.T.: No Res.: What were your feelings about having her in your class? C.T.: I was concerned because I didn't know how I would communicate with her because I had had very little prior information about her hearing loss and I was concerned to meet her needs. Res.: The communication. How did that go? C.T.: Once she was understanding she was very receptive and prepared to give each other a go and it did work [Note: this meant that initially both Kelly and the class teacher were reticent about communicating together, but they were both prepared to attempt to communicate, which in the end was successful because of their mutual willingness to try]. Res.: How much depth of understanding do you think there was? C.T.: If it was already in her field of knowledge it was all right and we did a lot of hands on activities to develop understanding. The more difficult the language, she needed her peers to demonstrate, or one-on-one to get the information. She didn't get so much out of the language alone. Res.: What are your thoughts on inclusion? C.T.: My only experience was with her and I would have hated to see her in a segregated school. Res.: What adaptations did you make for her? C.T.: Well I did make the lessons more concrete and I did change the language around so she could understand and I talked to you on that, and you showed me how to change the language around so it was more accessible to her.</p>
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The following section contains a description of the data gathering, and answers the Interview Research Questions (see Section 6.6.2) relating to Kelly's history, and the attitudes and opinions of those interviewed. It answers the Particular Issue Question of, "Why was Kelly enrolled in her current school?"

8.2. History

Kelly was born with normal hearing, but contracted meningitis when she was 11 months old, which resulted in profound deafness. She received a cochlear implant in her right ear when she was 24 months of age with the partial insertion of 15 electrodes. She was upgraded to a Spectra 22 speech processor at the age of 8 years.

The family moved to a semi-rural district from Sydney prior to Kelly starting school. She had attended preschool at an independent school for deaf children in Sydney, prior to moving to the rural area of the current study. She then attended a local preschool at which she received itinerant teacher assistance. When she enrolled in the primary school she attended when this inquiry was conducted, she was assisted by the same itinerant teacher who had supported her in preschool. At the commencement of her second year of school (Year 1), she was placed on the researcher's caseload and had remained there.

Kelly's communication was supported by Total Communication (simultaneous speech and Australasian Signed English) prior to school, when she attended preschool and in kindergarten. In Year 1, the sign supplement was discontinued and since that time Kelly had been dependent on spoken communication, except in noisy situations when Signed English was sometimes used. She was non-accepting of an FM listening device and her mother did not support its use.

Kelly had access to, and was reliant upon a Signed English interpretation provided by a teacher's aide, in her first year of school and part way through her second year. At that time, the researcher observed reluctance by Kelly to attend to the class teacher for information. As she clearly had enough listening skills to access the teacher's discourse to some degree, it was decided to place an expectation upon her to listen to the teacher directly. She typically communicated with her itinerant teacher and the teacher's aide, and rarely attempted to communicate with the class teacher, or even watch her. The class teacher expressed a feeling of inadequacy in communicating with Kelly, and in teaching concepts to her.

In Kelly's first year at school she had not developed sufficient listening skills to be able to receive direct auditory information from the class teacher. By the time the lesson observations were collected, in her fourth and fifth year at school, Kelly was relying on spoken interactions for communication. She was able to communicate to a certain extent with her class teacher, and receive direct information from her.

In kindergarten and Year 1, there was one friend whom Kelly relied on for social involvement and who mediated on Kelly's behalf whenever possible. After Kelly was placed in Year 3, with the same class teacher for a second year, and she had been moved away from her original friend in class, she associated with a wider range of children.

When the Auditory Assessment was administered, Kelly could successfully complete all the tasks except the final one, which was an advanced listening skills assessment and not carried out with any of the students (see Section 6.8.4). She completed Test Item 8, the retelling of a story presented by audition alone, with a possible 15 details. Kelly could retell the story in the correct sequence, and supply 7 details. At the commencement of this inquiry, her most recent assessment of functioning provided by the Cochlear Implant Centre reported an improvement on her previous listening skills with a score of 55% correct in a listening task, in which she had to repeat a series of sentences without contextual cues being provided.

Kelly received 6 hours of itinerant teacher support, and 10 hours of teacher's aide support a week. The majority of the data, for this inquiry, was collected when she was in Year 3, and 9 years old, in a composite Year 2 /3 class. There were other children with special needs in her class who received special assistance from a teacher's aide in her 2/3 class.

Kelly was in Year 2 when the first data collection occurred, which served as a pilot study in which the researcher collected observation notes from lessons in which she was supporting Kelly. It was the collection of these notes that helped develop the ideas upon which to focus during the lesson observations, and in determining the majority of the variables the data revealed.

In Year 3, the whole primary school was streamed by ability for mathematics (maths), and taught by different teachers. In this instance, it was a male teacher, and Kelly was in the middle grouping. Because there were two completely different teaching scenarios, one in the home classroom and one in the maths classroom, observations occurred in both situations. In Kelly's Year 3, the majority of the observations were collected, and the researcher supported Kelly in a morning language session, two maths sessions and one afternoon session. In the remaining major teaching times she was supported by a teacher's aide, who did not have signing skills. There had been six different women involved in that position over the time Kelly had been at school. Initially, she found the changes in support staff difficult, but eventually she adapted, and communicated comfortably with whomever supported her in the teacher's aide role.

8.3 Attitudes and opinions of those interviewed about Kelly's inclusion.

The success of Kelly's inclusion was principally attributed to the support she received from the support personnel and her friends and peers. The following Exhibit 8.2, is an example of this opinion expressed by the class teacher, and was an opinion shared by a number of school personnel.

Exhibit 8.2 Extract from interview with class teacher

Res.: Do you think the integration was successful?

C.T.: The support was so important, and the level of support, the itinerant teacher and teacher's aide. The children were very supportive too. It was very positive and she would go on and do things even when they were terrifying. She would still have a go and she and I had the expectation that she would.

It was felt by teachers and the school principal that the support from the itinerant teacher and teacher's aide had enabled Kelly to fit into the mainstream and achieve better academically than many hearing students in her class. Collaboration, between the support staff and teaching staff, was also attributed to her success generally. Those interviewed considered that her inclusion may not have been so successful if she had been profoundly deaf, and commented that she didn't appear deaf when she was encountered. Her mother attributed the integration success to Kelly's ability to achieve well at school academically, the fact that she had friends, and that she did not consider herself to be different. It was her mother's intention that Kelly be part of the hearing community and that she make friends from her local community and school. Her mother was happy to have Kelly in a regular school with regular role models, and "no bad habits to be imitated". Kelly did not attend any of the events, which were organised locally to enable deaf students integrated in other schools to interact socially.

Her class teacher felt that a segregated educational setting, in Kelly's case, would have been detrimental to Kelly's academic and social success. She suggested, however, that for a profoundly deaf student a segregated placement might be the best option. One teacher noted that he was in favour of inclusion as long as there was enough support, also noting that he felt it unfair to a special friend to have to be responsible for assisting a student with special needs. It was suggested that if a

teacher's aide was required, that there needed to be collaboration between all involved.

Kelly's class teacher, in particular, stressed that Kelly was willing to try everything in class even when it was difficult for her, and that was an expectation placed upon her by the class teacher. She stated because of Kelly's cooperative nature, the help of her peers, and the support she received, she did well academically. Her class teacher also noted that communication was a problem initially, but as she and Kelly worked together in learning to communicate, it became more successful. The class teacher learnt to communicate directly with her. She noted that in this regard, she needed the assistance of the itinerant teacher in developing her communication strategies with Kelly, and that when difficult concepts were attempted the involvement of the itinerant teacher was necessary.

The class teacher stated that she had made specific adaptations to her lesson presentation for Kelly's benefit, making them more concrete, using peer modeling, making language more explicit and straightforward, and referring difficult concept development issues to the itinerant teacher.

Anomalies, which were identified in the interview data, were a result of Opinions that suggested on the one hand, especially by her mother, that Kelly's integration was positive, because of the fact she mixed with students without disabilities. Her mother stated: "She doesn't think she is different. She doesn't have a concept of being deaf...She thinks she is normal. Kelly has no concept of herself as a deaf person." On the other hand, others attributed part of the integration's success to the fact that Kelly had to mix with a diverse group of students, a number of whom had disabilities of one kind or another. Her class teacher, for instance, stated in answer to a question about her social inclusion, "Nothing but positive. She had to mix with so many types of kids." Although this was a minor contradiction, this, and other contradictions in data are to be expected, as Huberman and Miles (1994) explained data could be conflicting and inconsistent. This is to be expected, because people differ, and their opinions differ. In this case, as Kelly was not expected to reflect upon these questions herself, it can only be noted that interviewees did not wholly agree on this aspect of the integration.

8.4 Data collection

In all, there were 13 classroom observations collected, seven of which were mathematics (maths), the last one being collected at the beginning of Year 4. Two reading lessons were observed, three “Human Society in its Environment” (HSIE) lessons, and one “news” session. There was one maths lesson in which the researcher was a non-participant observer, because the teacher’s aide was supporting Kelly. In all other cases the researcher was in the role of a participant observer. Two of the lessons were audio taped to make an accurate record of the dialogue. In all of the other lessons, the notes were written as soon as possible after the lesson from rough notes taken at the time of the lesson. All of the Language Performance Data were collected by the researcher, except for the language samples derived from the written description task, which was presented as a class writing task by the class teacher.

The conversational exchanges and reading were carried out with the researcher in a withdrawal room where they were videotaped. As Kelly was in Year 3 when the language data were collected, she was not asked to produce a written exposition. She was engaged in a general discussion about news events from home, and then asked to give an account of a favourite movie, compare her best friends, and describe her bedroom. Her reading strategies were assessed from her responses to the graded Neale reading material, and the Waddington Reading Test, as explained in Section 6.8.5.

The sociogram, completed by her class in Year 4, revealed that Kelly received three first preference choices. The first preference scores, for Year 4 girls, ranged from 1 to 5, indicating that Kelly’s selection was similar in nature to the other girls in her class. Kelly’s best friend only scored one first preference, which was probably from Kelly, and that the teacher’s observation that being the friend of the deaf student could lead to the friend being socially isolated, may have been accurate.

The following section contains the answers to the Language Research Questions relating to Kelly’s Language Performance Data, and contributes to describing her linguistic ability in answer to the Particular Issue Question of, “How did Kelly perform in the regular class in regard to her communicative and literacy ability”

8.4.1 Language Performance Data collection

The Language Performance Research Questions are listed in Section 6.7.1. This section provides a description of Kelly's linguistic performance, including a description of her responses to the formal language and reading assessment tests, and a graphic summary of her performance in carrying out the linguistic tasks, which together answer the Language Research Questions. The linguistic tasks were designed to portray her communicative ability, and to explain her actual classroom performance, as well as identifying teacher performance characteristics in addressing her linguistic needs.

Chapter 5 described the discourse strategies and communicative skills considered necessary for school success. Kelly's linguistic samples indicated that she had developed a number of discourse strategies, and was able to communicate orally with a number of friends at school, as well as her class teacher. It has been noted that those individuals interviewed, considered Kelly's integration successful. They had attributed her success largely to the itinerant teacher and teacher's aide support she received, but it may well have been primarily due to her communicative ability, and the skills of the class teacher in addressing the deficits. While it is evident from the examples of Kelly's communicative ability and classroom observations included below, that her linguistic ability was not highly sophisticated, it was varied, and performed a number of essential functions.

The examples of Kelly's linguistic performance create an authentic assessment (Hedberg & Westby, 1988) of her ability to perform specific tasks. She was able to retell a formal narrative at a "primitive narrative" level (Klecan-Aker, & Kelty, 1990). This level of narrative construction puts story characters together, objectives, or events that have perceptual association in some way. It was noted in Section 6.6.3 that narratives are not only a reflection of a speaker's linguistic ability, but also of their cognitive understanding of the world and how people operate in it. It was noted also, that narratives were a bridge to literacy, and a necessary step for school success, as well as a predictor of school success (Hedberg & Westby, 1988).

Exhibit 8.3 Conversational exchanges

(A) Narration:

Res.: What is your favourite movie? Which movie do you like best?

K.: Black Beauty.

Res.: Can you tell me what happened in Black Beauty?

K.: When its smaller, and it gets bigger and bigger. They have to ride. Man put in stables. Boy came and water. Walking, walking over the bridge and over the water and horse was ... horse was cold. And horse got better.

It is clear from this exhibit that Kelly could engage in a conversation as well as retell a narrative. She named the central character in the movie Black Beauty, described several events in order, which had occurred over time, and provided a conclusion to the story.

The description of her bedroom was intended to provide a verbal photograph, as described by Ehrich and Koster (1983), and constitutes the description most used in classroom discourse (Kretschmer 1997).

Exhibit 8.4 Conversational exchange

(B) Description

Res.: Can you tell me what your bedroom looks like?

K.: My bedroom. Big TV (draws a square with finger on the desk then points to the four corners) one, two, three four and spins her finger in a circle. On, no sound, no sound. Um door, five door and one bed and a horse, a big horse right over there (points in her diagram on the desk drawn with her finger) and shirts that way in my door, and all the toys. (indicates the window with gestures)

(With questioning other features are revealed like colours, and other features.)

K.: (draws a square) TV there, horse there and door there (indicates in her diagram drawn on the desk) my shelf there, my window there (indicates with her left hand)

Not only was Kelly able to produce a narrative and a description, she was able to compare. She understood that to compare, the good and bad points of two opposing elements have to be appraised.

Exhibit 8.5 Conversational exchange

(C) Comparison:

Res.: So what do you like best cats or dogs?

K.: Cats.

Res.: Which is your favourite?

K.: Cats.

Res.: Why do you like cats best?

K.: Catch me (then indicates with her hands the cat jumping on her) friendly.

Res.: When you play with him is he nice and soft?

K.: Too scratch, scratch, scratch (indicates her wrist). He plays.

Res.: He scratches does he. Does he put his claws out?

K.: He plays.
 Comparison:
 Res.: So who do you like best Tiffany or Lauren?
 K.: Tiffany.
 Res.: So why is Tiffany best?
 K.: Tiffany comes to my house.
 Res.: Does Lauren come to your house too?
 K.: Thursday and Friday Lauren. Tiffany comes Monday and Tuesday.
 Res.: Any more reasons?
 K.: Tiffany the same. My cat died when he got old. Tarzan is not old. Tarzan little, bigger, bigger.
 K.: Tiffany has cat.

Kelly's conversational skills included conversational interactive exchanges. Her narrative attempt required higher order planning, which gives meaning to cohesive, fictional, and personal discourse. As well as these discourse strategies, she was able to demonstrate expository discourse involving description, and a primitive comparison.

Chapter 5 described the need for literate behaviours in school. Brice Heath, Mangiola, Schecter and Hull (1991) stated that literate behaviours were the key to academic literacy, and were necessary additional abilities to any academic subject. Kelly's written description of her bedroom was assisted by her class teacher and performed in class, as was the case for all the students in her class. Her class teacher specifically taught the class various aspects of literate behaviours, as exemplified below in Exhibit 8.6.

Exhibit 8.6 Written language sample

(A) Description:
 (The class teacher had been asked to do this as a class activity. She had given all the children a sheet that had boxes to fill in with bedroom features and what they looked like. The children then used it as a plan to write their descriptions of their bedrooms).
 My pink bed has double bunks and my big window shutters. curtains pink and white I sleep my bedroom- (sleep lots of toy and) I sleep my bedroom lots of toy and Barbies. I watch TV puppy Dog. I have five door, Mark have one door.

Brewer (1980) noted that description and narration are two of the main types of written discourse. As written language samples are useful means of revealing a student's mastery of the grammatical elements of English (Sarachan-Daily, 1985), Kelly was asked to produce a personal narrative, and a description. As she was in a

junior grade, these written tasks were considered sufficient and grade appropriate. As with her conversational skills, Kelly was able to produce both a written narrative and a written description, which performed the desired function of each discourse type, as well as revealing Kelly's command of the formal aspects of English. It is apparent from the written samples that Kelly was able to generate simple sentence frames, but that she had incomplete mastery of the grammatical lexical items required within those sentence frames (Kretschmer & Kretschmer, 1978). It is clear that her written efforts were less mature than one would expect of her hearing peers, but it is also evident that Kelly was able to perform the same tasks as her peers, and with further practice over time, she would have the opportunity to develop her written formal skills.

Exhibit 8.7 Written language sample

(B) Personal narrative
 Weekend news
 I like to ride the horse
 My cat name Tarzan.
 My horse name chippy.
 I am to go in the watch movie leonardo the beach
 I am to play with tiffany and lauren and my beat friend.
 I saw my dad put the chicken way in the cage
 I saw Lauren come over to my house.

8.5 Description of Language Performance Data

8.5.1 Conversational exchanges

When telling a narrative, the retelling of a favourite movie, Kelly was able to put seven ideas together in correct sequence with a distinct beginning middle and conclusion, which did not rely on questioning support or visual aids. It is apparent that her linguistic ability was calling on the use of abstract constructs, and had thus advanced past the contextual and immediate. Given her ability to process information auditorily, if at a somewhat reduced level in comparison to her hearing counterparts, Kelly's language samples indicated that she was acquiring a functional auditory language. She possessed the ability to process spoken language at an abstract level, not needing concrete representations of objects she was talking or writing about, or

requiring the support of sentence by sentence questioning to elicit a response. She could generate a sequence of ideas independently. The rate of her language development was delayed in comparison to her hearing classmates. Nevertheless, her ability to hold an interactive conversation, to retell a personal and formal narrative, for instance, would indicate that the route to language acquisition she was progressing along was similar to that of hearing children, and allowed her to participate in social, as well as academic tasks at school.

When describing her bedroom, Kelly listed a number of features of her room using words and gestures. She did succeed in providing a picture-like effort as suggested by Brewer (1980). He had explained that descriptive discourse should embody in linguistic form, a stationary perceptual scene, in other words, a verbal picture. Kelly's connected information revealed the bulk of the information.

Questioning support revealed more features of her room that she had not been able to provide independently. However, her independent description performed the intended purpose, creating an idea of her room from the information she provided. When comparing which friend she liked best, she expressed a preference, but the reason she provided was a little obscure.

As Milroy (1987) stated, a person's knowledge of their language includes more than knowledge of syntax, semantics, and phonological rules. Communicative competence is of most significance. Kretschmer and Kretschmer stated (1999) that the development of competence in expressive language, reflecting the discourse strategies of the community, was of most importance, and clearly Kelly had developed a number of discourse strategies that indicated a level of competence in this regard.

8.5.2 Writing

Kelly received some class teacher assistance in performing the written description task. This was the same assistance given to all the children in the class, who were at an early stage of writing development, and all required assistance. They were all given sheets on which to list the items in their rooms, and then asked to write about them. Kelly was able to include a lot of features found in her room, and how they looked, by using adjectives and a description of what her room was used for.

When writing her personal narrative, her weekend news, she was performing a regular task in which the students had to record what happened on the weekend.

Therefore, this was a common event in Kelly's class aimed at developing the skills of writing for all the children. Kelly's piece was connected by a common theme, the activities she expected to do on the weekend, and those she had done. She did not demonstrate mastery of advanced grammatical devices, as most of her writing was without morphological inflection for tense. Tense was dealt with by an auxiliary construction, such as "to" (see Exhibit 8.7). She did use common past tense irregular forms, such as "saw". Despite these grammatical deficiencies, she could convey her ideas.

The use of writing samples reveals the areas most challenging for students with language disability. Hadley (1998) stated that it was important to engage children in discourse that was challenging enough to promote the use of the more advanced language abilities revealing linguistic vulnerability. Kretschmer and Kretschmer (1978) have described deaf writers, as employing a sentence-by-sentence strategy, rather than a discourse task, and employing esoteric word arrangements, which are unlikely to assist in aiding memory, or the discourse organisation or function of English. In Kelly's case, while her sentences were simple, they contained the essential elements of the discourse she was asked to convey.

Sarachan-Daily (1985) had used writing as a means of revealing the student's mastery of the grammatical elements of English. While Kelly did not demonstrate an advanced mastery of the grammatical elements of English, it was apparent that they were developing, and would be likely to do so further, as these elements of language were not avoided, but emphasised, both by the class teacher and itinerant teacher. An example of this emphasis is contained in the following Exhibit 8.8.

Exhibit 8.8 Excerpt from news lesson. Observation 10

C.T.: Why do you like horses? (She said this slowly and near to Kelly and in front of her)

Why do you like horses. Why? (With a questing intonation and emphasis on the "Why". Also her hands were out at her sides and a querying expression on her face) Kelly looked at the teacher and shrugged.

C.T.: Maybe because you have five?

Later in journal time Kelly wrote, "I have five horses." She generated this sentence herself after thinking a while and after the researcher asked her if she rode her horse on the weekend.

She gestured and spoke "Tree fall down. Jump". The researcher asked if she was going quickly. Tiffany, her friend said, "horses canter". The researcher said, "Yes, they walk, trot, canter, and gallop" and gave gestures with her hands for each.

The researcher asked, “did you trot?” She shook her head and said, “no slowly”. The researcher suggested she start the next sentence with “We” as she was describing what she and the horse did. “We walked around and jump over the tree. The researcher said “e d” on the end of “jump” because you did it yesterday and said not “tree” “log”. “When a tree is dead we call it a log”. She completed the sentence correctly.

8.5.3 Formal Language Test

In performing the formal language assessment *TROG*, Kelly got blocks A, B, C, D, F, and H correct, the first five of which indicate she had the prerequisite skills to cope with grammatical structure, that she could identify individual words, and simple word combinations in situations where understanding of function words, word order, or inflectional ending is not critical. It was apparent that she had difficulty with the grammatical elements of language, which were also at an emergent stage in her writing. Hedberg and Westby (1988) stated that numerous language tests had been developed for the school age population that evaluate an individual’s microstructure, which was the case here. The formal language test indicated that Kelly was developing basic elements of English, and this was confirmed by her written language samples. However, it was also demonstrated by her language samples, that her understanding of the fundamental discourse strategies of narration, description, and comparison, all discourse strategies considered necessary for school success, of a social as well as an academic nature, were developing, and could contribute to furthering her mastery of the formal elements of written English.

Kelly demonstrated that she had developed a range of discourse strategies, such that she could watch a movie and make a certain amount of sense from it, recognising its component parts, of beginning, middle, and conclusion. She could also relate a personal narrative both verbally and in writing. She could describe her room in a manner that indicated that she understood what a description entailed. She had the ability to produce spoken and written narrative tasks. According to Hedberg and Westby (1988), narratives serve as a bridge to literacy. Storytelling is an extended discourse, which transcends all cultures, and is central to the school curriculum. Stories represent an early step into the rhetorical and referential abstraction, which is necessary for school success (see Section 6.6.3). Kelly had acquired the discourse strategies in situations in which she interacted with other students and adults.

Kelly's ability to understand formal aspects of English, which were demonstrated by her response to the *TROG*, as well as in her written samples, was not high, highlighting the difficulty she experienced in class in processing spoken or written text. This also highlighted the need to have grammatical features of English focused upon consciously, whether in class situations, or in other contrived situations.

The performance of her class teacher, in providing opportunities for grammatical development and practice insitu, is in keeping with the ideal that deaf students are provided with learning situations where they not only access factual new content information, but also have opportunity for language development. The following Exhibit 8.9 illustrates this feature of the class teacher's strategies.

Exhibit 8.9. Excerpt from reading lesson. Observation 4

The teacher asked the class what a circus was. "Circus" was written in colour on the board. She asked Kelly, who smiled but just looked at her. She asked her three or four times and repeated "A circus, what is it?" and pointed to the word on the board. Kelly just smiled and shrugged. The researcher mimed a juggler, then a whip cracking ring master with a chair, which later was pointed out to be rather spurious, as ring masters don't tame lions. The teacher said, "Not what is in a circus" "What is a circus?", but Kelly had the idea, as her face lit up and she mimed horse riding. The teacher asked the class about the various things a circus had and established that it was a show in a tent where lots of people went to watch. She wrote the definition on the board – " a show in a big tent with lots of acts for people to come and watch. She asked the class to write it down. Kelly did as well.

Because Kelly's auditory input had been limited through her deafness, her acquisition of spoken English was well below that of her classmates. Spoken, and written English, which she was confronted with in class, was also challenging, as the previous exhibit demonstrates, but the level of engagement with the input, which surrounded her, had enabled her to develop sufficient functional language to perform in class.

When the class teacher spoke directly to Kelly, she expected answers, which she received. The teacher then responded to Kelly's answers. When this process failed, the itinerant teacher was called upon to help. The itinerant teacher used a variety of methods to ensure Kelly's understanding, but expected verbal responses from her, both spoken and written. Kelly was provided with information at a level she could understand, enabling her to make sense of the input, and to advance with academic learning and language acquisition. Her written responses may have had

incorrect surface forms, but functioned appropriately in different discourse situations. The formal aspects of English would be expected to continue to develop over time, as she was engaged in further writing and reading activities. The following Exhibit, 8.10, which was drawn from Observation 4 later in the lesson, exemplifies these conclusions.

Exhibit 8.10 Excerpt from reading lesson. Observation 4

The next definition was “ringmaster”. Kelly didn’t have any idea. She shrugged and shook her head. The teacher gave her a book and a picture of a ringmaster and a description that he “announces” the acts to the “audience”. Kelly pointed to the word “audience”, the researcher indicated all the people watching the circus in the picture. Kelly wrote down the definition from the book. The researcher pointed to the word “announces” and said “it means tells”. The researcher mimed talking into the microphone. It was clear that Kelly understood what he did. The last definition was “clowns”. Kelly knew the word and told the researcher with speech and gesture how the dogs jumped through the hoops. The researcher said, “Yes that’s right” what could you write down?” They constructed a sentence which was the grammatical representation of what she had signed and gestured. “Clowns have dogs that jump through hoops”. The researcher helped her with the construction and the spelling. The teacher was not satisfied with incomplete explanations of what clowns “did”. She wanted a more exact definition that applied to all clowns.

8.5.4 Reading

Kelly’s reading assessment is described here in detail. When reading from the *Neale Analysis of Reading Ability*, the strategies and miscues Kelly demonstrated in the first story, Practice “X” for 5-7 year olds, were the recognition of all the words, except one, making a substitution, which was visually similar but grammatically inappropriate. She did correct this word using sound cues. When it occurred again, she reverted to her original mistake, which was grammatically inappropriate. In answering the questions, she selected the correct section of the story to answer from, and answered in the complete sentence form from the story. She did not have the ability to infer in Q4. In the next story “Bird”, Level 1, Kelly made one phonic error, where she said “garsen”, instead of “garden”, and did not correct it. She translated her answer into her own linguistic style, “a bird hopping”, instead of “ a bird hopped”. She did not understand the questions with the “do” construction, and made up a logical explanation, which reflected her knowledge of the situation, but not the actual text. The following exhibit demonstrates her responses to the story, which was at the

level of difficulty with which she was most comfortable, and is the best example of the effective reading strategies she had mastered.

Exhibit 8.11 Section of reading assessment

<p>Bird (level 1) / / / (ing) / / / / A bird hopped up to my window. / / / / / / I gave her some bread. / / / / / / garsen She made a nest in my garden. / / / / / / / / Now I look after her little ones.</p> <p>Questions 1. Where did the bird hop to? K: <i>Bird hopping up to my window</i> 2. What did the little girl give the bird? K: <i>I gave her some bread</i> 3. What did the bird do in the garden? K: <i>Now I look after her little ones</i> 4. What does the little girl now do for the bird? K: <i>She made a nest in my garsen</i></p>
--

“Road Safety”, Level 2, was more difficult for her. She selected an appropriate place in the story to answer the question from, and repeated the whole sentence. She recognised graphic visual cues, and substituted words with similar endings, but which were semantically and grammatically incorrect, for example, "middle - bundle". If a word was too hard, she omitted it completely. She was not able to infer information from the story, and again, when confronted with the “do” construction, made up her own logical but incorrect answer, indicating that she did not understand the grammatical application of “do” in the context of the story.

In the next story, “Ali”, Level 3, she read the known words and left out most of the unknown ones. She did use sounding-out strategies on some occasions. She sounded the first two sounds of “Knocked” (“c and n”), and used visual graphic cues to attempt words.

When performing the *Waddington Diagnostic Reading Test*, Kelly could identify all the initial sounds correctly, and completed the rhyme correctly. She looked at the pictures, and chose the word for the sentence completion that most suited the picture, not the context. She did not use the grammatical cue “an”, to select the word beginning with a vowel. She picked out words that matched the pictures, rather than the contextual cues, and when there were no pictures, made logical

conclusions through word associations, rather than context, for example, “bees” and “honey”. Her Raw Score (RS) was 35 giving her a Reading Age (RA) of 8.1, as against a Chronological Age (CA) of 10.00.

It is apparent from this assessment that Kelly had developed a range of strategies for gaining meaning from text, at both a grapho-phonemic, and contextual level. She demonstrated that she understood the text by translating it into her own particular version of English (Ewoldt, 1978), and had developed a number of strategies for arriving at answers, not all of which were necessarily based on the understanding of the grammatical structure of the text, but rather on the recognition of key words. When the text was at the appropriate level of difficulty, she used more appropriate contextual strategies. When it became too difficult, she resorted to more visual clues. As Kelly was developing effective discourse strategies, it is probable that she would bring an understanding of narrative structure to reading stories, which would contribute to her comprehension and ability to predict possible outcomes.

8.5.4.1 Description of Kelly’s reading ability

In Chapter 3, it was claimed that the roots of literacy lie in dialogue (Erting, 1992), and that the development of literacy is inseparable from the development of language. Erting stated that the development of literacy proceeds in tandem with the development of face-to-face communication, with the development of complex symbolic processes concurrently, rather than sequentially, in both face-to-face and written language domains. Hirsch-Pasek and Treiman (1982) claimed that there were several processes involved for hearing people, when they read that involved overt or covert speech, and the mouthing of sounds or sound recoding. Sound recoding, they suggested, offers the reader certain advantages, such as word identification, comprehension, and memory. Hirsch-Pasek and Treiman stated that readers with various degrees of deafness used similar recoding strategies that may also include lipreading. Those authors stated that for hearing readers, the ability to capitalise on spelling-sound rules was beneficial in mastery of the written code. Hirsch-Pasek and Treiman emphasised the duality of the reading process, skills based word recognition abilities, and language ability. The strategies employed by the reader are significant, as they demonstrate the level of mastery of the different aspects of the reading process, which have been attained.

When describing Miscue Analysis of reading performance, Goodman (1973) emphasised the importance of a reader's use of meaning. Inefficient readers are concerned with word for word accuracy, rather than meaning, and when the conceptual load gets too heavy, they may begin to act as if the passage is meaningless. Conversely, if the deaf reader is reading with understanding, they may translate the text into their own idiolect or dialect Ewoldt (1978).

Kelly employed the three aspects of reading, visual recognition of whole words, phonological strategies, and contextual clues. Her visual memory for words predominated, but she was also able to phonologically decode words, as exemplified in her effort to decode "garden / garsen", even if she didn't, in this case, recognise that it was incorrect, and self correct. She looked for words from the question in the text to locate answers, which is a common device, giving the whole sentence from the text as her answer. This is a strategy for locating answers in text, but does not indicate that the text has been fully comprehended. Kelly translated the story into her own linguistic style, "a bird hopping", instead of "a bird hopped", indicating in that instance, that she was using contextual clues at her linguistic level. Her lack of grammatical understanding was a detriment to her understanding. When the material was "too hard", she would look for known sight words, but would not persist with the phonological processing when the conceptual load was too great for her. Her listening abilities had undoubtedly given her an opportunity to develop a phonological awareness, even if she had difficulty gaining meaning from connected discourse, because of poor understanding of English grammar.

Kelly's spelling ability, although not part of the assessment for this inquiry, was comparable to average students in her class. Her phonological awareness was demonstrated further by her performance on the *Waddington Diagnostic Reading Test*. That assessment had demonstrated that she was able to recognise all the initial sounds contained in that test. Similarly, she had performed well on the auditory assessment test for this inquiry, and the most recent report from Cochlear Implant Centre indicated that she had got 55% of the test material correct on the "difficult", decontextualised listening task. It is apparent she relied on, and utilised what hearing capacity she had, to the best of her ability when processing the phonological aspects of reading.

Figure 8.1 Language Performance Summary for Kelly

	Conversational communication	School Learning (Reading)
Receptive	Responded to: <ul style="list-style-type: none"> • Reversible actives • Three element combinations • Two element combinations • Nouns, verbs, adjectives, • Lipreading and audition, • Signed English signs • Gesture, mime, concrete props 	<ul style="list-style-type: none"> • Understood formal narrative structure • Used contextual clues in reading • Could blend phonemes in words • Recognised single graphemes • Recognised single words and their meaning • Used picture clues in reading
Expressive	Used: <ul style="list-style-type: none"> • Turn taking • Gesture and mime • Speaking • Turn taking, initiating, maintenance • Contextualised conversation • Decontextualised conversation • Spoken personal narrative • Spoken formal narrative • Spoken description • Spoken exposition (comparison) • Classroom interactions of a social nature • Playground interactions of social nature • Could negotiate socially to suit own ends 	(Writing IRE): <ul style="list-style-type: none"> • Wrote words with idiosyncratic word order • Wrote sentences with SOV word order • Participated in IRE discourse • Wrote personal narrative, descriptions, with rudimentary grammatical conventions

The Language Performance Data demonstrate Kelly's ability to perform linguistic tasks, which are considered prerequisites for performing adequately in a regular classroom. This is not to say that it was easy for her to do so. Given her level of hearing impairment, she had to concentrate at all times to maintain her involvement. She relied heavily on her support personnel, who had to ensure that she had the information needed to perform the class tasks. Because her class teacher used so much visual material, interacted directly with Kelly, reduced and reworded her

own use of language to ensure Kelly's comprehension, and worked in cooperation with the support teacher, Kelly performed all the tasks required of the other children, with varying, but acceptable, degrees of understanding. Kelly was developing the formal elements of English in concert with learning academic material. Because her ability to understand complex English structures was limited, it was a challenging task. In this regard her language performance and development at school exemplified Kretschmer's (1997) claim, "Because most children who have hearing loss come to school without a fully functional language system, the need to learn language and subject matter simultaneously, is a common one" (p. 376). Kelly was developing her communication and literacy skills in tandem.

8.6 Description of the events and practices in the lessons observed for Kelly.

Classroom Observation Research Questions, which the data were intended to answer, are presented in Chapter 6, Section 6.6.1. The following section responds to the Classroom Observation Research Questions. Answers to these questions provide a description of the classroom events, and in part, answer the Particular Principal Issue Question of, "How did the classroom teachers provided inclusive educational opportunities for Kelly?" This section was derived from the summarised, and condensed Classroom Observation Data sorted according to the variables evident in the observed classroom situations.

8.6.1 Adaptations

As there were three different teachers involved with Kelly's education, their classroom adaptations and program modifications differed. These ranged from seating arrangements, with Kelly and her friend sitting at the side at the back separately with the teacher's aide or itinerant teacher in maths, to seating at the front of the room near the blackboard in her home classroom in order to provide good visual access to the blackboard or visual materials. In her home classroom, there was emphasis on visual and explicit material, such as: (a) key words being written on the blackboard, (b) use of support questioning, (c) use of picture books to illustrate topics, (d) reference to pictures during speaking and information delivery, (e) reading texts accessible to check reading comprehension, (f) videotaped HSIE presentation with reduced verbal

components, (g) use of concrete materials, (h) the writing of key points in work books (i) more questions directed to Kelly, which were shorter in length and more often repeated than to any of the other children, and (j) because of her seating at the front of the room, the class teacher was able to pay particular attention to Kelly's level of involvement. Some of these features are illustrated in the following Exhibits 8.12 and 8.13, taken from a reading lesson, Observation 13, and a HSIE lesson Observation 11, respectively, and Exhibit 20 taken from a HSIE lesson, which demonstrates the additional questioning of Kelly, by the class teacher.

Exhibit 8.12 Excerpt from reading lesson Observation 13

Big book for treatment of a new story.

First there was a discussion about the picture on the front of the book and what it was about. Then the story was read by the teacher while the class watched the text as it was read. Kelly was sitting at the front of the class where she could see the book easily and where the teacher could watch her responses.

The story map was then drawn on the blackboard by the researcher as the class teacher indicated which events she wanted drawn.

As the incidents were drawn, they were discussed by the children with the teacher, who asked questions such as "When did that happen?" "Was it before or after?" (each event) The text was used to check the answers. Terms such as "character", "introduction", "complication", and "resolution" were used.

Kelly was allowed to use the book to check the sequence when the class had to put the events in order alone at their desks. The events had to be described in sentences on a sheet of paper, which was then cut into 7 sections and each one pasted onto a separate page in order, in a little blank book. The children then had to illustrate each page after reading the text. Kelly could perform this task as she could look back at the big book if she had forgotten where the sentence came in the order of the story. Her illustrations were correct and depicted the events in the story correctly.

Exhibit 8.13 Excerpt from HSIE lesson Observation 11

The class watched a video that promoted the local area.

The teacher told the class to watch the video and see if there were places where they had been, or that they recognised. She told them to remember the places so they could choose one to write about later. She played the video, which had been edited so the majority of it was without much dialogue. Kelly watched with interest. When they had finished the teacher told them they would get a piece of paper when they went back to their room on which they would write the name of the place they had seen on the video that they had been to. She then asked them to name various places as she wrote them on the white board. There were suggestions such as "Green Cathedral", "Booti Booti" and "Sugar Creek" Kelly put her hand up and said "the beach", which the class teacher wrote up on the white board.

Kelly was withdrawn individually to work on difficult concepts alone with the itinerant teacher, on occasion, but more often she worked in small groups with the itinerant teacher to establish concepts in collaboration with other children. Preliminary work on a topic was established in small group situations. In the Year 4 maths lesson, children were required to stand at the front of the room to deliver oral answers, so Kelly could see their faces and read their lips.

8.6.2 Teacher communication

Levels, and types of communication, differed with the individual teachers also. In the maths lessons, the maths teacher joked and communicated with the children and the itinerant teacher continually. None of this dialogue was accessible to Kelly, who did not attempt to listen. When the maths teacher tried to communicate with her orally, Kelly would not respond. The teacher acknowledged that he did not have a good understanding of her communicative ability. He was, however, receptive to itinerant teacher demonstration, and explanation, about how to explain concepts to Kelly, using diagrams, written examples, and concrete materials, as exemplified in Exhibits 8.14 and 8.15 below.

Excerpt 8.14 Excerpt from mathematics lesson Observation 1

The maths teacher came over and attempted to communicate with Kelly by asking if she was OK. She just looked at him with her “leave me alone and pretend I’m not here” face. He shrugged and looked at the researcher, who said “she’s finding it hard”. The researcher showed him what she had written for her. As he was walking away Kelly shuddered – an involuntary reaction to a situation she felt extremely challenged by, yet there had been no implied or intended demands placed upon her by the teacher.

Exhibit 8.15 Excerpt from maths lesson Observation 2

The next topic was “perimeters”. The teacher asked if anyone knew what it meant- he wrote it on the board. The researcher repeated the word to Kelly and she repeated it a couple of times with nearly perfect articulation. The researcher asked and signed, “What is it?” and drew a perimeter with her finger of the room. Kelly’s face indicated she understood. She pointed to each wall and indicated with her hand sign, “add”. The researcher nodded and said, “add, add, add, add” and gestured to each wall. “How long? She said, “100 metres”...a good estimate. The teacher was still trying to get a definition of perimeter from the class. Someone had said “the length and the width”. The researcher interrupted and said “Kelly gives an estimate of the perimeter of the room as 100 m”. He said, “Well that’s not bad, that might give them a clue”.

Initially, in the Year 3 maths situation, Kelly only interacted with the itinerant teacher, who used voice, gesture, facial expressions, as well as written, and concrete aids, to convey meaning. The maths teacher and itinerant teacher, consulted about best methods to approach topics. He regularly greeted the researcher with, “Well Mrs C how are we going to teach this topic?” They modeled looking up definitions to the children, all of which were overheard by the other children, but not Kelly, who had to have the text shown to her. The maths teacher used questioning to lead the children to discoveries, but Kelly was not party to this information. Similarly, oral questioning and quizzes were not accessible to her. Oral exercise marking was done for Kelly by the itinerant teacher. Kelly was, however, able to access written directions whenever these were provided for her, and in maths, they were usually short and within her ability to comprehend.

Checking of answers was undertaken with direct instruction, with children expected to keep pace. Kelly was unable to do this. The visual support used in maths assisted Kelly with concept development. Recall of experiments assisted her understanding and concept development. Overall, Kelly made very few verbal responses in maths lessons.

When the teacher’s aide worked with Kelly, the teacher’s aide gave a much abbreviated, and sometimes factually inaccurate, version of the instructions. Kelly and the aide did not work at the same pace as the teacher and the rest of the class, so the visual activity was often out of synchronization with Kelly’s stage of involvement in the lesson. The teacher’s aide expressed difficulty in explaining instructions to Kelly, who sometimes arrived at her own conclusions through the explanations and diagrams in the textbook.

The following excerpt from a maths lesson with Kelly, Exhibit 8.16, demonstrates the difficulty that was observed in regard to Kelly and the teacher’s aide keeping pace with the presentation rate of the lesson for the rest of the class.

Exhibit 8.16 Excerpt from maths lesson Observation 9

The interpreter (teacher’s aide) was using a pair of scissors to gauge “heavier” and “lighter”. Kelly was saying “cut” for scissors. The interpreter gave her the examples of “feather”, “hair”, and “tissue” for the concept of “lighter”. The class teacher continued reading out each question to the class. Kelly was doing a lot of erasing in her book. She was stuck on what was the “same” as the “flat” (a mathematical

teaching aid which represents 100 and is a flat wooden square 10cm x 10cm). The interpreter gave her a magazine and a book to test the relative weights.

The class teacher had moved on to a question about temperature. Kelly and the interpreter were still attempting to find something that was “the same weight as the flat”. Finally, Kelly suggested the “glue stick” as being the same weight. She wrote, “Clue”.

They tried to do the temperature question. The interpreter read the question word for word. She pointed to the question and said, “Is it a hot day or a cold day?” Kelly coloured in the appropriate temperature.

The next question was about black and white paper and was a bit more obscure. The interpreter got down to “little” or “big” for “hot” and “cold”. She was doing a version of signing although she is not required to sign with Kelly, her sign for “hot” was inaccurate (more like “cool”) but finally Kelly got the idea.

By this stage, the class teacher was at a different question. He was talking about clocks—a question which was one question ahead of Kelly and the interpreter. Kelly got the writing of the digital time easily as she is good at this task. Then she got to add on the 18 minutes to the displayed time. The interpreter commented “I don’t know how we do this sometimes” (Note: Kelly has a very good idea of time concepts).

At this point the class teacher was explaining a question about balls in cans. Kelly and the interpreter were still adding the time. The interpreter was getting her to add on units then 10s. By this time, the class teacher was walking around the room marking children’s work. Kelly and the interpreter were working at their own pace. They had got to the question about balls in cans. The interpreter said, “I don’t know how I am going to tell her this”. She had previously said, “Sometimes I don’t think she’ll get it and then she surprises me”. Then Kelly got the answer and the interpreter said, “She’s a genius”. “She got this one before I could show her. Or maybe it is just the great way I explain it to her”. The question was presented visually on the worksheet. Although it took a lot of verbal description, it was clearly visually obvious to Kelly and not very challenging at all. By this stage the other children were all up to correcting their work.

In her home class, the teacher directed extra questions to Kelly, which were repeated, with a space of time allowed for the answer or response. If no response was forthcoming, this triggered a change in question format, or resulted in the question being turned to the class. The classes’ subsequent answers would be written on the board. The teacher repeated good responses from the other children, and led them to new deductions. Visual aids were used to support spoken information and new vocabulary. The itinerant teacher was called on to assist with verbal instructions. Miming, and gesture were used to transmit information and to test Kelly’s understanding. When new concepts were presented, they were explained using speech, gesture, and mime, with written follow up, and Kelly was assisted to construct sentences, which were recorded. The itinerant teacher assisted Kelly with grammatical correctness and correct spelling.

The teacher corrected a wrong answer from Kelly with extended responses for the reason it was wrong. She used a lot of ‘why’ questions to Kelly, and provided her with possible answers, or responses, which Kelly retained (see Exhibit 8.8). The itinerant teacher, and class teacher, used some Signed English to reinforce Kelly’s responses. The class teacher had learned some Signed English signs. Speech correction was incorporated in exchanges between the itinerant teacher and Kelly to elicit correct articulation and consolidate new information. The class teacher enlisted the support of the itinerant teacher to work with small groups to establish difficult concepts specifically for Kelly, when it was too difficult for the class teacher to do that in the whole class context.

There were occasions, when the class teacher and the itinerant teacher worked together in establishing concepts. This, may have involved them discussing the strategies they might use, and going to the extent of miming events to portray them for Kelly. The rest of the class observed, and may have been called upon to participate. The reason the itinerant teacher was able to establish difficult concepts for Kelly was because of her familiarity with Kelly’s level of comprehension, and having been an infants and primary school teacher prior to becoming an itinerant teacher for the deaf, had developed a range of graphic strategies to assist in establishing concepts at the appropriate level. Strategies often involved illustration, written simplified examples, and modeling responses. In reading lessons, while Kelly did not volunteer information, she was able to check responses through access to the text. Whenever Kelly knew what was expected of her, she chose to proceed alone without assistance.

8.6.3 Student interaction

Children interacted with Kelly using short utterances in her classroom situation, which is illustrated in an example of a news lesson, Exhibit 8.17, presented below.

Exhibit 8.17 Excerpt from a news lesson Observation 10.

During this lesson the news giver sat at the front of the room facing the class, who listened and then asked a number of questions about the news.

News

Kelly had to give news because it was Monday morning, which was her news day. The class teacher asked her to be first.

K.: Good morning everyone.
 Class: Good morning Kelly.
 She started showing them a book of traced horse drawings.
 K.: Eating
 K.: Baby foal.
 K.: Jumping.
 She showed about 10 drawings.
 K.: Any questions?
 Child: Which one is your favourite?
 She showed them her favourite.

When Kelly gave an oral delivery in news, the children and teacher responded to her, and she used pictures to assist her dialogue. Kelly was able to deliver her news in much the same fashion as the other children, because of its familiar format for information giving and responses (see Exhibit 8.17). She had full interaction in a controlling role in this instance.

Kelly communicated less in other classes, such as her maths class, except in a particular situation in which the class was involved with a discovery lesson. In that lesson, Kelly communicated with the other students in short utterances, which were similar in nature and length, to those of the other students. The following Exhibit 8.18 demonstrates the interaction, and nature of that lesson.

Exhibit 8.18 Excerpt from maths lesson Observation 5

Constructing a triangular prism out of straws

The child who was the leader of Kelly's group said she would make a triangle, so she bent the straw to fit in the end and then tried to fit the others together but they wouldn't stay in. Another child held the corner while Kelly held the sticky tape dispenser. She gave out the tape and the others stuck the corners together. The two girls and three boys worked together each holding bits while the others stuck until the prism was constructed. It was quite sturdy and there had not been any actual discussion about who did what. The researcher gave a bit of a clue by saying, "How about starting with a triangle?" The prism from Kelly's group was the first finished – everyone assisted on fairly equal terms. Kelly was in charge of giving out the tape, which although not one of the most creative parts of the enterprise, was still essential. She worked on equal terms. They gave the researcher the prism and she hung it up. They were all displayed on completion. The group all walked out to the front to show the teacher together, all equally proud of their effort. The communication that took place, and in which Kelly participated, was largely monosyllables or short phrases such as "yes, no, here, not that way". Kelly watched and gave out the tape on cue. The actual teacher direction that took place was minimal as the children had to decide how to make the construction themselves.

In maths lessons, in Year 4, Kelly received all her information from the itinerant teacher, and did not attend to the class teacher at all for lesson content. In that class there was no talking permitted in lessons.

Interaction with other students, ranged from none in four of the lessons, to fully interactive. The lessons with no interaction were maths lessons. In these lessons, Kelly was not asked questions by the teacher. In one maths lesson, she performed at a totally different stage to the other children. In her home class in the lessons such as story time, she interacted with her friend in a conversational manner. She had an equal amount of questioning to the other children by the class teacher in the HSIE lesson. In lessons in which the itinerant teacher controlled a group discussion, Kelly was equitably engaged in interaction, if not disproportionately more engaged. Kelly contributed information in similar measure to the other children in an HSIE lesson. She collaborated with her friend about material to be used by each of them in completing their tasks. Kelly interacted in group activities where another child led the group and accepted Kelly's responses equitably. This was also the case, in child-led group activities in maths, as well and HSIE lessons. Kelly received brief, information responses from the other students in a maths lesson, but did not give them in return.

Withdrawal for work, with the itinerant teacher in Year 4, was on a totally individual basis, and provided no opportunity for interaction with other children. This was the approach used when Kelly was deemed to be unable to access the information being presented in class by the Year 4 class teacher. This occurred in the Year 4, and rarely in the previous year, when she was usually withdrawn by the itinerant teacher to work with a group of children.

8.6.4 Classroom performance and inclusion

Kelly's ability to perform the same tasks as the other students differed according to which teacher she had.

8.6.4.1 Maths teacher

Some activities, such as quizzes, which were delivered orally in maths, were totally inaccessible to Kelly. These questions had to be written by the itinerant teacher for Kelly to access. She relied on the itinerant teacher or copying from her friend.

Some of the game strategies the maths teacher used, because they were competitive, were successful, because Kelly was able to make visual connections with numbers. She was motivated to join in the games if she could. The maths teacher also used competitive games for stimulating learning and recall.

Games, which required initial verbal instructions were not accessible to Kelly on the first occasion, but after observing the other children, she could perform on subsequent occasions. The following Exhibit 8.19 is an example of a game at the end of a maths lesson illustrates this.

Exhibit 8.19 Excerpt from a maths lesson Observation 6

The class cleaned up the equipment and got ready for a game, which involved teamwork. The teacher called out an algorithm and the team had to construct it with numeral cards which they had to hold in front of them making sure they were in the right order, for example $8+4=12$. The researcher took Kelly out to the front of the room to show her how the group were putting the algorithm together then indicated to her to watch the teacher to see when and what he said. The researcher stood at the front of the room and signed the question as the teacher called it out. The class teacher got the idea to give the numbers using fingers and crossed fingers for add. He held up the appropriate number of fingers and Kelly could understand.

In visually evident activities, Kelly was able to perform successfully. If questions were depicted graphically, she was able to access that information. Assistance from the itinerant teacher, enabled her to access information concurrently with the rest of class, because of the graphic nature of the itinerant teacher's communication, which included mime, gesture, facial expressions, drawing, writing and written explanations, as well as having Kelly repeat vocabulary items verbally. Kelly did not complete homework at all for maths, which her mother attributed to Kelly's fatigue by the time she got home on the bus in the afternoon.

The maths teacher required the children to be quiet while the teacher did the talking. Typically, instructions were followed by visual demonstrations. The teacher collaborated with the itinerant teacher for appropriate strategies for dealing with concepts that would be appropriate for Kelly. Such strategies often included the use of concrete materials. He often conferred at the beginning of a lesson with the itinerant teacher, on how best to represent the concept in a visual way, and then proceeded to use the strategies recommended by the itinerant teacher with the whole class. He used very explicit, step-by-step verbal instructions, which were summarised and followed

up on the blackboard. Many different, visually explicit, demonstrations were employed. The teacher used an IRE (see Section 5.7.3 for a description) style of questioning for the whole class. Kelly was not able to access this process at all, in this class. Children were, on occasion, expected to work through exercises in their book to practise skills.

The maths teacher used group work for deductive learning and problem solving, on one observed occasion, Observation 5, (see Exhibit 8.18). In this lesson, Kelly was able to participate in group activities on equal terms to the other children, with less itinerant teacher assistance when they had to manipulate materials to arrive at solutions. Experimentation and concrete manipulation of materials, which illustrated concepts, allowed her to participate in concept development concurrently with the rest of the class.

8.6.4.2 Class teacher

In Kelly's home class, the teacher used a multi-dimensional approach—combining verbal questioning, written and graphic illustrations, and mime and gesture. In these lessons, the essential concepts were accessible to Kelly. In a reading lesson (Observation 4, see Exhibits 8.9 and 8.10), the teacher asked the children the definition of the word “circus”, and expected them to define it accurately by verbal responses, which when deemed insufficient, had to be checked in the dictionary. The teacher also expected them to write a satisfactory definition in their workbooks, as well as illustrate the definitions accurately, after referring to illustrations in a reference book. Later in the day, the teacher read the class a story about a flea circus, and used the information gained in the lesson from which Observation 4 was extracted, for the later story and a follow up lesson. This follow up lesson was Observation 8, a HSIE lesson, in which the children had to create a dramatic representation of a circus, working collaboratively in groups, and creating props to dress up in. Observation 7, another HSIE lesson, was treated similarly. In this lesson, the teacher provided the class with a series of pictures of different cultural events, as the topic they were treating was “culture”.

Kelly indicated that she understood these lessons and concepts by miming responses when she understood concepts, and her illustrations contained essential elements of the lesson content. When stories on topics followed specific teaching

events, she was able to follow much of the story content. The technique of asking the children to illustrate answers with all the relevant features, ensured understanding, and provided assessment of the level of understanding.

Class teacher modeling of required responses on the board, assisted Kelly to perform the required tasks. Story maps assisted Kelly's comprehension, as well as allowing her access to the text before illustrating the story line. The teacher used story segmenting, with comprehension assessed through illustrative activities (see Exhibit 8. 12). Using verbal language alone (i.e., written and/or spoken) was not enough to establish meaning. This point was commented upon by the class teacher in her interview Exhibit 8.1. The use of dictionary meanings for unknown words or topics also assisted Kelly's comprehension.

The class teacher employed extensive questioning of Kelly, with support by pictures or other graphic material, to establish understanding. In her home class, Kelly would put her hand up to answer questions, as the other children did. She was chosen to give answers frequently, and the teacher supported her answers by further extended questioning. The questions were short, with usually one idea per question (e.g., Exhibit 8.20).

In a HSIE lesson, Observation 7, Kelly was asked to read captioning on pictures to establish a connection between the picture and the written language, this was an example of how she was able to participate in whole class question and answering with specific visual support. This also assisted her development of literacy skills and grammatical knowledge of English, as well as acquiring new academic knowledge. When the class teacher used deductive questioning, or open-ended questions for the whole class, Kelly was able to understand, as answers were recorded, or acknowledged in some accessible way. This was demonstrated in HSIE lesson Observation 7. Some representations of the class teacher strategies are exemplified in the following Exhibit 8. 20.

Exhibit 8.20 Excerpt of transcript of HSIE lesson on culture Observation 7

<p>C.T.: What about this one? (pointing to one of the culture pictures) C.T.: Can you remember the two different things we said about the blessing? At this point Kelly had her hand up. C.T.: Amanda has her hand up. Am.: The Italians.</p>

C.T.: Yes the Italians...can you remember the other community that celebrates the blessing of the waters. We had the Italian community.
 The teacher pointed to Kelly.
 K.: Italians one, Two lots of friends. Two boats. Two boats (everyone was trying to work out what Kelly had said)
 C.T.: What are the people doing?
 K.: Naughty man.
 C.T.: Naughty man?
 K.: No (laughter)
 C.T.: What's he doing?
 K.: It is a cross and he is saying a prayer, (she got up to point to the picture)
 C.T.: He's blessing the water so that the fisherman can catch lots of fish (the teacher mimes catching fish).

The class teacher responded to children's answers, which were extended, and she allowed children's discussion. She included a large proportion of the class in questioning and discussions. Follow up, and key information, was written on the board.

Confusions between similar sounding words were clarified by requiring Kelly to say them, and write them down. This occurred with itinerant teacher support concurrently in the classroom context. Words for new concepts were written on the board by the teacher in the context of a sentence. Sentence constructions, containing new concepts, were created by Kelly with itinerant teacher support in their construction and grammaticality. Pictorial, and written explanations by the itinerant teacher assisted Kelly's comprehension as well as other children nearby.

Children working cooperatively in groups enabled Kelly to observe the other children's efforts and model her own on them. Group work, on dramatic portrayal of concepts, in subjects such as HSIE, was effective for Kelly, as she was able to participate fully. The class teacher used group work for children to formulate ideas and record and present ideas, as well as creating performances to illustrate topic understanding. The teacher involvement, in these activities, was minimal, merely encouraging. Kelly easily, and willingly participated in activities that required dramatic performances, and her ideas contributed to group performances. These interactions were often assisted by the itinerant teacher.

In her home class, Kelly was able to write written responses, as the other children did, to verify her understanding of a concept with itinerant teacher assistance. Her answers were read to the class, as were the other children's. Sometimes, because

of the itinerant teacher's help, her ideas actually contained extra information that the rest of the class didn't achieve by their own efforts.

The class teacher used video assistance to deliver information, which was followed up by questioning and student responses and ideas (see Exhibit 8.14). Such video input of information enhanced Kelly's understanding. In another lesson, previously observed by the researcher, the class teacher used a self-devised computer activity in which the children were asked to correct incorrect text, such as punctuation, tense, paragraphing, of written work, produced by the class themselves. This was a useful technique for assisting Kelly's understanding of grammatical conventions.

Home class activities, which followed a regular format, such as news, provided Kelly with opportunities to participate orally with success. She was able to deliver a personal narrative, and answer questions to a certain degree (see Exhibit 8.8 and 8.17 from a news lesson).

8.6.4.3 Teacher's aide

When lessons were supported by visual material, and assistance by the itinerant teacher, Kelly was able to comprehend and keep pace. This was not necessarily true when supported by the teacher's aide. When working with the teacher's aide, Kelly was observed performing at a different rate to the rest of the class, so that the activity she was performing at any one time could be different to that of the rest of the class. The information received by Kelly, provided by the teacher's aide, was not only reduced, but also different in nature to the rest of the class, in that it may have been ambiguous or inaccurate. When working with the teacher's aide, Kelly's performance was more separate and individualised, so she was unable to be party to the answers other children provided or concrete materials provided by the teacher. Diagrammatic representation in textbooks greatly assisted her understanding and conceptualisation, in these instances. Sound mathematical concept development allowed her to use her own reasoning, on occasions, to work out answers (Exhibit 8.16 illustrates these characteristics of teacher's aide assistance).

8.6.4.4 Year 4 class teacher

The Year 4 teacher followed familiar formats every day, with very little direct teaching for both maths and language. Children worked from textbooks, which were then marked with a minimum of explanation. Kelly was dependent on the itinerant teacher to assist with all basic activities in these instances. Kelly was assisted to devise clarification strategies for maths, and memorisation of facts, using known information, by the itinerant teacher. Kelly reverted to simplistic strategies when allowed to rely on her own devices.

The visual representations, provided by the itinerant teacher, included diagrammatic representation of the number events, such as the drawing groups of items to represent multiplication, or using bundles of paddle pop sticks to represent multiplication, division, or place value. The itinerant teacher's techniques were aimed at the building of concrete understanding, before abstract understanding was expected. The devices were many and varied, but not unusual. They were only unusual in this particular class, where such methods were rarely employed by the class teacher. A number of other children required concrete concept development just as Kelly did, and they were keen to sit with the itinerant teacher and Kelly, so that they could see the diagrams drawn by the itinerant teacher or manipulate the concrete materials as well. The Year 4 teacher, on the other hand, told the children which exercise to work from, and at the conclusion of the activity asked children for answers, which she wrote on the blackboard for marking.

In Kelly's Year 4 class, the other children performed in a specific way to give oral answers that Kelly could access through audition and lipreading, and because the answers were usually one word in length, Kelly could comprehend them. She was always the recipient, never the one delivering the answers. She did develop the ability to respond verbally by calling out "finished", as the other children did, when she completed her set of mental arithmetic exercises that were timed.

8.7 Teaching style

The maths teacher had a traditional transmission approach on most occasions in which he delivered the lesson content, and students were expected to listen and perform quietly. He employed IRE questioning, and did not require Kelly to

contribute to these exchanges, leaving her lesson input to the itinerant teacher. On one observed occasion, Observation 5, he conducted group work for discovery learning, and in that instance, Kelly arrived at problem solutions in a similar manner to the other students.

In contrast with the maths teacher, the class teacher had an interactive experiential approach, as evidenced by the exhibits that represent the situation generally. These were employed at all times. She communicated directly with Kelly, and assumed the prime responsibility for delivering lesson content to her. She worked cooperatively with the itinerant teacher on difficult concepts and language clarification. The maths teacher also worked cooperatively with the itinerant teacher, but his approach was to seek advice from her in the best way to approach the teaching of maths concepts to the class as a whole, which would facilitate understanding for Kelly. This advice did not impact on his actual teaching style, but rather the visual materials and directions taken in concept development, for the whole class.

The Year 4 teacher relied wholly on the itinerant teacher for delivering lesson content to Kelly. Her approach was one in which she delivered instructions for the students to follow, and they were expected to work independently with very little interaction. No direct responsibility was assumed for Kelly's comprehension.

Following the reduction, and summarising of the Classroom Observation Data, and Semi-structured Interview Data, and the analysis of the Language Performance Data, a series of issues of an emic nature were identified. The emic issues arising from Kelly's case were as follows.

8.8 Issues arising out of Classroom Observation Data analysis.

Language

Language usage was oral /aural

- a) There was an emphasis on audition to enhance effectiveness of CI
- b) There were language learning opportunities incorporated in the class program
- c) Kelly's language level was sufficient for her to perform the same learning activities as the other students in class

Literacy

- a) Kelly's literacy levels were sufficient for her to perform in class and she had the ability to use both bottom up and top down skills for decoding text

b) Kelly was developing literacy skills in tandem with language skills

Pedagogy

- a) Teaching style had a direct impact on the ability of Kelly to access the curriculum inclusively
 - i) Itinerant teacher support in a collaborative role with the class teacher contributed to a higher level of access and participation, even when class teacher teaching style did not promote it alone
 - ii) Cooperative learning strategies contributed to full participation when a transmission style teacher changed style to an interactive one
- b) Visual support was essential for concept development in combination with text
- c) Ability to communicate through an aural-oral modality contributed to success of participation
- d) Teacher ability to accommodate learning and communication needs was necessary for effective participation and inclusion
- e) Difficult concepts were tackled rather than omitted
- f) The class teacher assumed responsibility for Kelly's education using the itinerant teacher in an assistive and collaborative role and from whom the class teacher learned appropriate strategies
- g) Lessons such as maths, which follow a logical hierarchical order of concepts, could be represented visually or numerically and were easier for the regular teacher to deliver successfully when using a transmission style of teaching

Teacher's aide support

- a) Teacher's aide support was not adequate to ensure full participation and inclusion
- b) Teacher's aide assistance was problematic when delivering inaccurate modified lesson information

Social interactions

- a) Social interactions occurred at school and after

8.9 Issues arising out of Interview Data analysis

- a) There was a lack of deaf identity. Kelly regarded herself as a hearing person
- b) The hearing family was supportive of Kelly's language development

The following section contains the results of the stage 2 analysis in which observations made were rated according to the differing levels of inclusion, which were provided by different teachers according to variation in teacher performance and lesson content. The description of the classroom events, the results of the stage 2 analysis, and a description of the LPD, answer the Particular Principal Issue Question of, “How did the regular class teachers provide inclusive educational opportunities for Kelly?”

8.10 Summary of stage 2 analysis of Classroom Observation Data / Inclusiveness Rating

Chapter 6, Section 6.11.2, contains the description of the teaching and support modes for each of the inclusiveness ratings. There were 13 lesson observations for Kelly which were:

Table 8.1 Observations and Inclusiveness Rating

<u>Classroom Observations</u>	<u>Observations ranked in order of inclusiveness</u>	<u>Inclusiveness Rating</u>
Observation 1 maths,	Observation 4	1A
Observation 2 maths,	Observation 5	1A
Observation 3 maths,	Observation 7	1A
Observation 4 reading/HSIE,	Observation 8	1A
Observation 5 maths,	Observation 10	1A
Observation 6 maths,	Observation 11	1A
Observation 7 HSIE,	Observation 13	1A
Observation 8 Remediation and HSIE,	Observation 2	2
Observation 9 maths,	Observation 3	2
Observation 10 news,	Observation 6	2
Observation 11 HSIE,	Observation 1	3
Observation 12 maths,	Observation 9	3
Observation 13 reading	Observation 12	4

There were a large number of observations made for Kelly, because in her Year 3 class, when most of the observations were made, there were two teachers involved in the teaching of the primary subjects, a class teacher and a maths teacher as

well as two support personnel, an itinerant teacher and a teacher's aide. Classroom events differed according to the particular participants.

All the lessons taught by the class teacher, received an inclusiveness rating of 1A, and were supported by the itinerant teacher, while the maths lessons were rated 2 or 3. Observation 12 was a maths lesson taught in the early part of the following year by a different class teacher, who was responsible for the whole of the Year 4 program, and received a rating of 4. Observation 1 was the first maths lesson of the year with the new teacher and the new arrangements for maths grouping. Kelly had not been taught by a male teacher previously and had not been exposed to changing classes and rooms for a different subject delivery. Observation 9 was a maths lesson in which Kelly was supported by the teacher's aide and received an inclusiveness rating of 3.

The second stage of analysis classified each lesson according to an Inclusiveness Rating, which was derived from variable academic performance (see Section 6.11.2). Categorical analysis involved an appraisal of the summary of events created in the first stage of analysis. The information, which had been represented in summary form, was examined and classified in a categorical hierarchy of inclusion. The variables, which contained the information relating to the highest levels of inclusion, in this case were, Teaching style, Classroom and curriculum adaptations, Communication, and Accessibility of content.

The following diagram is a representation of the summarised information in the four variables considered to contribute to the highest level of inclusion in Kelly's case.

Figure 8.2 Variables contributing to the highest level of inclusion in Kelly's case

<u>Teaching style</u>	<u>Communication</u>	<u>Classroom and curriculum adaptations</u>	<u>Accessibility of content</u>
<ul style="list-style-type: none"> • Small groups • Cooperative working for modeling and interaction • Child centered discovery teaching approach 	<ul style="list-style-type: none"> • Combination of questions, written and oral and gestural portrayal • Extra modified questions • Sentence construction and grammatical extension as a response to verbal interactions 	<ul style="list-style-type: none"> • Emphasis on visual material • New concepts written on board • Extra questions • Special seating at front 	<ul style="list-style-type: none"> • Collaboration with itinerant teacher • Comprehension checks • On-going clarification of academic content–integrated remediation • Visually represented subjects

<u>Indication of Inclusion</u>
<ul style="list-style-type: none"> • Student worked on the same material concurrently with the rest of the class • Student was able to answer IRE questions relating to on-going lesson content • Student completed the same written or performance tasks as the class • Student answered questions effectively indicating the essential lesson concepts were understood with the same theoretical components as the rest of the class • Class teacher took primary responsibility for program delivery

8.11 Interpretations, assertions, and generalisations

This section contains the interpretations, assertions, and generalisations for Kelly's case. These were based on the emic issues and the Inclusiveness Ratings for her lessons, which constitute the results of the data analysis, and the combined interpretation of the answers to the three Particular Issue Questions. This section constitutes the researcher's interpretation of the case. Further selected references to the literature are made to assist in creating an understanding of this case.

8.11.1 Interpretations that contribute to understanding Case 2

Kelly was deafened as a result of meningitis and had heard normally until that point. In light of the discussion of Jusczyk's (1997) views included in Chapter 3, this may have been significant. Her family was supportive in assisting language

development to the best of their ability, especially in Kelly's earlier years, as her mother had been involved with reinforcing preschool and early school programs at home. Kelly had received a cochlear implant, and her mother had been closely involved in following the intensive program of habilitation when Kelly was first implanted.

Kelly was from a hearing family and had heard speech at an early age as the communication of the home. Akamatsu, Musselman, and Zweibel (2001) described a study, which suggested that hearing families maximize the child's potential for spoken languages, while deaf families maximize the child's potential for signed natural languages. It can be appreciated that maximizing the potential of the CI, and concentrating on audition, in Kelly's case, was likely to be beneficial. The concentration on audition had been successful enough for Kelly to be included in regular classroom activities, and to learn in that environment in the company of normally hearing students, and learn directly from a spoken classroom delivery by her class teacher. Coupled with her auditory home life, and history of having heard normally at one time, the fact that her class teacher had been willing to learn how to engage Kelly in spoken classroom interactions, had apparently contributed to Kelly's ability to develop her auditory skills in an academic environment.

Kelly had in her early school career communicated through the use of Signed English, which had ceased in her second year of schooling because of her inability, or unwillingness, to attend to the class teacher through audition, and her reliance on her manually communicating support personnel. At that stage, she was not dependent on auditory input from the class teacher at all, yet she had received a CI and had the ability to hear speech to a degree. After manual communication support ceased, occasionally some Signed English was used with Kelly in her primary classes if the situation was noisy, or if an exact representation of English was necessary. When the manual communication supplement ceased, she had a compulsion to rely on spoken and written English. This had undoubtedly impacted on Kelly's ability to use and understand spoken, and subsequently, written English. Since Kelly had been expected to use her audition and communicate orally and not via Signed English through an intermediary, her speech and listening skills had developed.

Even though Kelly did not have highly developed auditory skills, and had difficulty with connected on-going discourse, she had learnt to depend on audition. She was developing an auditory language (Section 3.3, Jusczyk, 1997). Audition,

together with the visual input, which surrounded her at school, enabled Kelly to make sense of her class program within her limited linguistic capabilities.

It is not unrealistic to suppose that if she had not been expected to communicate directly, and in this case through speech and listening, that these skills would have developed. Both the social interactionist view of language learning, and the views put forward by Kretschmer (1997), suggest that the way communication skills develop, occurs through the act of communicating directly: not through an intermediary.

This proposition was exemplified by Kelly's initial inability to respond to her class teacher when relying on visual manual communication, through a mediator, as opposed to her later spoken response to her class teacher's direct, spoken communication. When she did not have a handy manual communicator close by ready to intercede, she needed to listen and take responsibility for her own communication. Eventually, Kelly was able to communicate orally, both with her peers and with a variety of teachers. The teachers, who expected her to listen and comprehend what was said to her, were rewarded by a level of understanding on Kelly's part. Those who did not display an expectation, and did not try to communicate directly with her, were not responded to. Kelly was developing English auditorily to a level where she could communicate adequately. While concrete material was used to support her learning, she was progressing beyond the contextual, to be able to discuss referents not present, and plan ahead chunks of discourse of more than a couple of sentences in length (see Exhibits 8.3 and 8.7).

Kelly had the opportunity to acquire functional spoken and written communication in school. In a case such as Kelly's, because of the hearing environment that she had been born into, and the fact that she had at some stage heard spoken English, she undoubtedly benefited by being exposed primarily to auditory input. Kelly was acquiring discourse strategies, and the formal aspects of English, through audition and the use of text at school. The communicative involvement this entailed undoubtedly advanced her linguistic performance, which in turn, was supported by her auditory background and family life.

Providing a systematic, arbitrary symbol system for communication, and mental representation of a spoken language, as described by Everhart and Marschark, (1997) allowed Kelly to go beyond the immediate and concrete. This was exemplified by her ability to discuss referents, which were not present, and to perform academic

tasks at school involving abstract concepts. She used her linguistic capabilities to advance her knowledge of academic concepts. She did answer questions in class, and record written information in her books after initial establishment of the concepts. If she had not had a systematic arbitrary symbol system for communication, she would not have been able to perform the class tasks as she did, and to participate comparatively with her classmates, which she clearly did.

An example of this was demonstrated in Exhibit 8.8, a news lesson, in which the teacher communicated with Kelly providing the necessary linguistic information, which Kelly remembered to complete her written news narrative at a later point in time. It was demonstrated again, in Exhibit 8.20, in which Kelly's dialogue with her teacher showed she came to understanding through the use of pictures, memory, and discussion; primarily abstract constructs. She was developing the ability to use her capacity to speak and write English to allow her to represent referents, which were not present, to progress linguistically and cognitively, allowing her to perform in school in a manner that demonstrated that she was making both linguistic as well as academic gains.

In her Year 3 maths lessons, Kelly did not attempt to attend to what the class teacher said, but in her own class she remained attentive to her teacher, who not only questioned her directly but directed more questions to Kelly than other children. That teacher expected and received answers. The auditory input Kelly received may have been fragmented, but when it was associated with the visual input that accompanied the tasks, it was apparently sufficient for Kelly to perform class tasks adequately, and develop an auditory language.

Kelly had well developed visual capabilities. These were in evidence in her mathematical concept development, which was apparently aided by the use of visual teaching methods. She relied on visual support material initially, but was able to align her auditory input with the visual to perform in a satisfactory manner in class. The ability to coordinate the auditory, and visual, was illustrated in Exhibit 8.20, where she listened to what the teacher said, made her own verbal responses, and referred to the pictorial lesson material on human customs to arrive at a suitable answer in a complex subject.

The concepts Kelly was exposed to in class were often complex and beyond her immediate experience, but she was able to make satisfactory connections about all the topics the class teacher dealt with, in that she could perform the class tasks that

were associated with the concepts at the lesson conclusion. Although her knowledge of the world was clearly less than that of her classmates, she was being exposed to a variety of new information at school, by virtue of her engagement with the programs.

This was evident when Kelly was asked to generate information herself and provide definitions of new referents, such as the circus items (see Exhibits 8.9 and 8.10). It was also evident in her spoken narrative, which was of an order one could expect from a younger child, and did not demonstrate an advanced mastery of the structure of a narrative, or descriptive elements of the referents in the story. While her classmates did not always come up with exemplary answers themselves in their first attempt at definitions, they were able to establish the concepts through verbal communication alone. Kelly was more reliant on the dictionary and textbook illustrations to establish concepts, as well as itinerant teacher assistance.

In Kelly's case, because she had some access to spoken English through audition and lipreading, she was able to develop knowledge of English through exposure to text, which was associated with other visual input. This was exemplified repeatedly in the observations, and demonstrated in the many exhibits, which reflected how new concepts were introduced through concrete methods, and then associated with written and spoken representations. These were examples of how reading and writing can be combined to enhance learning generally when associated with meaningful situations. Difficult concepts were not avoided by her class teacher, nor by her maths teacher, instead, different ways were discovered to establish them for Kelly.

Kelly sometimes made mathematical understanding connections before her classmates, and developed her own strategies for working things out based on concrete examples that had previously been demonstrated to her. The concrete was increasingly being translated into more abstract processes, as thinking and memory took over from visual representation. This was exemplified in her maths lesson, which was supported by her teacher's aide (see Exhibit 8.16), in which Kelly showed she could remember an earlier experiment performed in class, when the information from her teacher's aide was somewhat behind the class demonstrations.

8.11.2 Literacy learning in Kelly's case

Kelly was able to use phonological decoding strategies to decode words in reading. Sometimes her pronunciation was incorrect, and she didn't understand the meaning of all the words, nevertheless, she read with some understanding. The fact that she had heard normally, prior to contacting meningitis, may have given her the memory and concept of the sound of English, and an awareness of the rhythms and patterns of English, which may have assisted in her later acquisition of spoken English. Juszczk (1997), whose research was mentioned in Chapter 3, described how much of a child's knowledge of the sounds of their language is established even in the first year of life.

As well as being able to phonemically decode words, Kelly's orthographic ability was sound, as she had a good memory for the spelling of words, as well the phonemic elements of English. Her awareness of the phonological aspects of the words was clearly of assistance to her. Hirsch, Pasek and Trieman (1982), (see Chapter 3), claimed deaf children sensitive to the mapping between letters and sounds, can recode the printed text into language they already speak and understand. Thus, mastery of spelling rules is significant. Those authors suggested that to provide reading skills, it is necessary to capitalise on the abilities deaf students already bring to the task.

While Kelly had the ability to convey meaning successfully, her writing lacked grammatical complexity. Grammatical elements were introduced and included in contextual situations when the recording of events took place in class, which is illustrated in Exhibits 8.9 and 8.10. When Kelly was asked to write her own ideas, her written efforts were sometimes unmodified, with the itinerant teacher not insisting on perfect grammar on every occasion. The teacher used discretion in how much grammatical correction took place, and ensured that the information contained in the sentences was what Kelly had intended (see Exhibit 8.8).

The use of grammatical Signed English in connection to text, whether read or written, was used to support grammatical structure. On some occasions, Signed English was only employed by the itinerant teacher in connection with activities requiring grammatical correctness, such as the signing of complete sentences, and in noisy situations. Kelly was developing literacy skills from speech to printed English. Signed English was used to clarify the speech, occasionally.

Instructional methods reflected the skills being targeted. If the phonemic elements of words were being targeted, Kelly was expected to watch the itinerant teacher speak the word, say it herself, and write it. This may have been accompanied by the Signed English version, involving fingerspelling or grammatical signing as well. As her ability to understand grammatical elements of English was not high, the construction of meaning from written English alone, was difficult for her. This was demonstrated by her responses to the TROG assessment, in which she did not demonstrate an advanced understanding for the formal elements of English, and which could account for her inability to gain meaning from written English alone (see Exhibit 8.1).

Kelly used contextual clues to some extent in her reading, but had developed the strategy of finding the place in a text where the question words occurred, and reproduced whole sentences from the text to answer questions. As Hirsch, Pasek and Trieman (1982) suggested in relation to deaf readers, Kelly did possess a bank of sight vocabulary she could draw on when reading material at her level of understanding, without having to decode words, but this sight vocabulary was not extensive. When reading texts were treated in such a way that visual representation of the story accompanied the text, Kelly was able to reproduce story lines with comprehension. Without visual support, directly accessing the content of stories was difficult for her.

Her class teacher was able to present literary strategies in class that Kelly comprehended, because they were highlighted by activities that not only explained the text, but checked comprehension (see Exhibit 8.12). She was able to recognise characters, introduction, complication, and resolution in the stories dealt with in her class. Writing activities made the purpose of writing explicit by their nature. If something is written, it implies that a reader is required to read it. Therefore, writing tasks often involved producing a text for someone else to read, and could have involved a number of different purposes of reading. Through visual support, the literary devices of text were explained to her.

The dialectic, between teacher and student, was often mediated by the itinerant teacher, who elaborated on what the class teacher had presented directly to Kelly. In this manner, direct questioning and responses, between Kelly and the class teacher, were committed to further discussion or a written representation. The dialectic about the meaning of the text, between the class teacher and Kelly, or the itinerant teacher and Kelly, was important in Kelly's case. There was recurring recasting of the text,

until she understood it. Text was presented in a variety of modes, from gesture, mime, dramatisation, illustration, and returning to the text for clarification.

Her ability to produce different discourse strategies orally, and in writing, reflected her experience with discourse partners at school, both informally and in class. She had a group of friends with whom she could communicate at school and after school, and who were attentive to her communication needs. She was able to deliver answers to class questions, and often volunteered answers, as well as being able to participate in structured news activities on relatively equal terms to her classmates. She not only understood the discourse of social situations, but of the classroom as well, and participated in IRE exchanges. She could relate personal narratives from home, was an avid movie watcher, and could retell the basic story line of movies that interested her. Kelly was developing face-to-face communication skills, in tandem with literacy skills.

8.11.3 Pedagogy in Kelly's case

Cummins (1989), when referring to the learning difficulties of minority students, suggested that difficulties were often pedagogically induced. The designated "at risk" student, frequently received intensive instruction that confined them to a passive role, inducing "learned helplessness". Instruction, which empowered students on the other hand, aimed to liberate them from dependence on instruction, by encouraging them to become active generators of their own knowledge. The two instructional models, which exert a control over the orientation of the two alternatives, are referred to as the transmission model, and the interactive or experiential model (see Section 5.4).

It was suggested by Cummins, that the transmission model contravenes the central principles of language and literacy acquisition, and that a model that allows for reciprocal interactions between students and teachers, represents a more appropriate alternative. The interactive model allows for talking and writing as a means of learning. An interactive model allows for genuine dialogue between student and teacher in both written and oral modalities. It focuses on developing higher level cognitive skills, rather than factual recall, and task presentation that generates intrinsic, rather than extrinsic motivation. Learning is viewed as an active process that is enhanced through interaction.

Such methods foster and encourage expression of students' experiences and interests. They foster a sense of success and pride, and give children a sense of control over their own learning. They include peer collaboration and peer approval. They are holistic in nature, and do not involve learning and drilling of isolated decontextualised segments of information. On the other hand, decontextualised information in drill format, were those producing the lowest rates of task engagement and low success rates, according to Cummins (1989).

Kretschmer (1997) (see Section 5.7.3) described the common discourse strategies used in schools, as the "initiation-response-evaluation cycle" (IRE), which does not naturally occur outside the classroom. It is based on several premises; that partners in the interaction are not equal; conversational cycles do not naturally build; and classroom communication is dominated by the teacher. Exclusive use of this model is not conducive to creating competence in natural conversational skills. More appropriate strategies include instructional conversations, whole language focus, writer's workshops, cooperative learning, and situated learning. The alternative perspective focuses on socially motivated communication experiences, as the critical element in the mastery of interpersonal, classroom, and print discourse, including English. It focuses on the idea that children learn language best when they are attempting to communicate in that language.

Vygotsky (1978), (see Section 3.2.4) described how symbolism develops, through play, gesture, and writing, and that teaching reading and writing should be organised in such a way as to be necessary for something. Reading and writing should be something that the child needs. Children should be taught written language, not just the writing of letters.

The class teacher, in Kelly's case, was able to apply the concepts described above. For example, she combined the aspects of communication, of speaking, reading, and writing into meaningful entities, where each aspect contributed to the other. She did not teach discrete unrelated skills, which emphasise the memorisation of facts or unrelated skills. Instead, when new vocabulary was introduced and clarified, the students recorded it in writing, often having to write it in sentence form, and in Kelly's case, through speech. In this manner, English grammatical skills, as well as speaking skills, were practiced and learned in meaningful contexts.

Reading was treated in a similar manner. After reading new material the students were often required to create their own written and illustrated version of the

story for each other to read. In this way it becomes patently obvious that reading and writing are closely related, but more importantly, they serve particular purposes, and are not just performed for the sake of the performance alone. At the same time, such tasks generate the intrinsic motivation mentioned above. The completion of the meaningful task is itself rewarding, rather than depending on extrinsic rewards dispensed by the teacher. This enhances self-motivation and the responsibility for individual learning. Such methods are also effective methods for ensuring comprehension. It is impossible to write a potted version of a story if it is not understood.

In HSIE topics, the students were regularly expected to create dramatic portrayals of the concepts they had learned about, and present their cooperative efforts to the class in a dramatic performance. Such activities required the students to communicate together in natural exchanges to negotiate their activities. In this way, academic content was encapsulated in natural discourse, and did not rely on IRE exchanges alone, consequently providing for the development of face-to-face communication skills. In these activities, the students had the opportunity to develop independent learning skills, and were not simply passive recipients of teacher dominated learning. Learning was an active process, in which the students played an active role.

The teacher had the ability to put the theoretical dictates described above, into practical application in all aspects of her teaching of Kelly's class. She was directly responsible for the success of Kelly's inclusion, as Kelly was not only able to further her linguistic capabilities, but access the regular curriculum as well. The teacher's ability to implement the teaching style described by Cummins is exemplified repeatedly in the Exhibits, which have been included and which demonstrate the class teacher's use of concrete support material, engagement of the children in activities, which established and checked comprehension, and her capacity to question them and discuss topics in such a way that the children came to conclusions themselves.

Examples of these abilities are included in the Exhibit 8.12, which involved a story map and the illustration of elements of the story, and in Exhibits 8.13, 8.9, and 8.10, HSIE and reading lessons, in which the students were led towards creating their own meanings by the various techniques the teacher employed. She was at no time observed simply providing the children with material to learn, without involving them in the sort of interactions demonstrated in the exhibits, and described above.

Neither did the teacher require children to record events, or take notes that they had not previously been directly involved in, in some way. On no occasion did she treat discrete skills, which were separate from the actual lesson, for which they were required. Surface forms were dealt with by the itinerant teacher for Kelly, supplying correct grammatical elements within the context to which they applied. Kelly was not expected to “learn” grammatical formal elements of language out of context.

The most pronounced issue to emerge from the analysis of Kelly’s observation data was the positive impact of the class teacher’s teaching style, which was interactive, and child centered. She appeared to have an instinctive ability and need to communicate with Kelly.

The class teacher worked collaboratively with the itinerant teacher to develop or modify strategies suitable to meet Kelly’s needs, and as such, was the primary deliverer of lesson content and language development opportunities. The itinerant teacher worked to support her, so that Kelly was able to access the same material as the rest of the class at the same time, and to participate in all the learning activities. In this way, the class teacher was the primary deliverer of curriculum content to Kelly, and not the itinerant teacher as mandated in the DET support documents (see Section 4.2.6). This exemplifies the recommended roles of class teacher and support teacher. When the maths teacher, who possessed a more transmission style of teaching, adopted a cooperative approach in one lesson, he too, allowed for a high level of inclusion for Kelly.

The class teacher embodied the principles of the Quality Teaching (2003) document produced by the DET. These principles included the need to focus on creating deep understanding of important concepts with active construction of knowledge, and an ability to talk about language and language use.

Also of interest is the nature of the subjects, which were compatible with a higher level of accessibility. Mathematics, which is based on the hierarchical arrangement of concepts, could easily be presented graphically and hierarchically, and does not rely so heavily on verbal descriptions alone, in some aspects of the subject at least. It was constantly apparent that if Kelly was able to observe a practical demonstration of a mathematical concept, whether it was through the handling of concrete materials or the diagrammatic representation of number concepts, she could perform successfully in maths. Kelly rarely communicated verbally in maths with

anyone other than the itinerant teacher, but was able to perform the academic tasks successfully.

The fact that deaf students generally perform at a higher level in mathematics, than reading, has been demonstrated empirically elsewhere (see Section 4.3.7). Subjects such as reading, which are entirely dependent on verbal and textual input, are more difficult to present graphically to a student such as Kelly. However, when approached with creativity, as the class teacher did in this case, (see Exhibit 8.12 for an example) reading could also be visually supported.

Although the maths teacher did not communicate directly with Kelly, he did collaborate with the itinerant teacher to include more graphically explicit teaching strategies into his lessons, emphasising the positive impact of collaboration between class teacher and itinerant teacher. This maths teacher could be contrasted with the maths teacher from the following year, who had the students working directly from the textbooks, with no collaboration for whole class activities, and did not proceed in a step-by-step approach working directly with the children. In that situation, the itinerant teacher was compelled to be responsible for all concept development for Kelly.

To contrast these three teachers in order of effectiveness, the class teacher was most effective, and she was responsible for the delivery of lessons to Kelly through an interactive approach, followed by the year 3 maths teacher, who collaborated with the itinerant teacher and followed a hierarchical step-by-step approach to lessons, using question and answers to ensure the children were understanding and generally keeping pace. They were followed by the least effective teacher, who did not collaborate, and did not work in a step-by-step manner with the children, but rather let them work independently from their text books. This judgment of the teachers was reflected in the inclusiveness rating of the lessons they taught. Table 8.8, which was based on the criteria described in Section 6.11.2, records the different ratings. The Inclusiveness Rating was based on the actual events that took place in the classes involving the deaf students.

This case highlighted the problems associated with a teacher's aide. When the class teacher had not assumed the responsibility for content delivery, the teacher's aide had to assume the role of content deliverer to Kelly. The role of the teacher's aide in integrated settings with young children, who do not have effective language skills, either spoken or signed, has to be biased towards the intermediary teaching role,

rather than that of an interpreter. It is obvious that the lower the level of language attainment, the more unrealistic it is to expect the child to understand a verbatim version of what the teacher actually says. This creates a certain set of problems. The teacher's aide does not realistically have the capacity to replace a class teacher, nor an itinerant teacher. The problems involved with teacher's aides, as described previously (see Section 3.5.5), were clearly in evidence in this case.

There was very little pull-out instruction carried out with Kelly alone. She was usually accompanied by a group of children, and was able to observe their responses, which is in keeping with Vygotsky's (1978) teachings of the zone of proximal development. Whenever Kelly knew what was expected of her, she chose to proceed alone, and took responsibility for her own efforts. She sought assistance when she did not understand, suggesting that she was in fact developing an intrinsic motivation (see Section 8.6.2). The class teacher was never observed employing a transmission model of teaching.

Allowing for the assistance of the itinerant teacher in group work, where Kelly was placed, provided adult assistance and the modeling of problem solving. This allowed cooperative learning, involving students, support teacher, and class teacher. There was also adult involvement to model and guide group learning, which exemplifies the concept of the zone of proximal development and adult intervention, as described by Vygotsky (1978).

8.11.4 Social interaction in Kelly's case

According to her mother, Kelly had no concept of herself as a deaf person (See Section 8.3) and certainly didn't gravitate to any other student with a disability. Neither did she attend any of the social activities, which were organised for the deaf students in the district. She had a small close group of friends, who were supportive, and socialised with her out of school, as well as at school. This may be because of her personal characteristics, or the fact that she had a functional level of linguistic competence. She had social opportunities of an interactive nature to develop her linguistic competence further.

The ability to use spoken language had meant that Kelly had been able to communicate with other children, who became communication partners. She then became less dependent on one other child for interactions. Because Kelly had a group

of supportive peers with whom she could communicate at school and at home, her social development was positive. She had a good deal of home support, particularly when she was small, with language items reinforced at home. Because of the effort expended at school, Kelly became unwilling to do further work at home as she became older, and often homework was not completed. She did not regard herself as deaf, and in fact did not seem to believe she was disabled in any way.

8.11.5 Inclusive practices in Kelly's case

The Inclusiveness Ratings for Kelly ranged between 1A and 4. The data analysis revealed how important visual support for learning was. The Inclusiveness Ratings of the lessons reflect this. All of the class teacher's lessons were rated as 1A. They all contained visual elements to support learning. When the lesson was allied with appropriate language forms, it allowed for growth in subject content understanding as well as language development. In this case, no difficult concepts were avoided. Kelly was expected to access the theoretical component of the lessons, as well as the practical.

The class teacher assumed responsibility for delivering information to Kelly. The high level of inclusiveness in her lessons was due to a combination of Classroom and curriculum adaptations, Accessibility of content, Communication, and Teaching style. The visual elements of lessons were exploited, but were at the same time, associated with verbal representations and comprehension checks. The itinerant teacher was used to address difficulties in comprehension as they occurred, and language learning was incorporated in the context of the lessons. Communication was modified, in that it was focused and highlighted. The maths lesson, which employed cooperative learning, was rated as a 1A, which indicated that a different teaching style could increase the level of inclusiveness for Kelly.

The moderately inclusive lessons were taught by the maths teacher, and shared some of the features of the highly inclusive lessons, in that Kelly kept pace with the class, concrete representations were used, and to a lesser extent, were allied to written representations. Difficult concepts were left to the itinerant teacher for establishment through multimodal input. The questioning, on the other hand, was less likely to be concerned with checking understanding than those employed by the class teacher, and more likely to be checking correctness. There was collaboration with the itinerant

teacher for effective demonstration techniques for the maths concepts. The lessons were teacher centred, in that students were expected to perform on teacher direction, and practice skills, and listen to instructions.

The maths lesson, with the lowest inclusiveness rating, was supported by the teacher's aide, whose information input was often inaccurate, delayed, and sometimes misleading, or in the lesson taught by the Year 4 class teacher, in which the itinerant teacher was responsible for all the maths lesson input directly from the text book, and which relied on the itinerant teacher's methods of establishing concepts, not involving the class teacher at all.

Interview and Observation Data suggested that Kelly's support was essential for her success, and the collaboration between teaching and support staff was a necessary contribution to her success. Her communication was successful, because she was receptive and ready to try. She needed input from many sources to supplement and expand her limited language. Kelly's academic performance was better than many of her peers, which attests to her success. There was no avoidance of difficult concepts, as all were treated by the class teacher who expected Kelly to get the essential concepts of all lessons in a similar manner to the rest of the students.

Kelly's position, which was determined by school assessment, and supported by her LPD, placed her in the middle of her class, and suggests a satisfactory level of concept and cognitive development. This claim was supported by the OD, which reflected how Kelly performed in class.

Kelly's case demonstrates the effectiveness of an interactive teaching style, as well as the necessity for communication partners to develop discourse strategies. It also highlights, how the class teacher performance can impact on the performance of the itinerant teacher, who in this case, was able to provide effective assistance, in not only class content delivery, but also language development.

8.12 Assertions

8.12.1 Language learning opportunities

Kelly had been born into a hearing family, and as she had been provided with a CI, support for the family's linguistic environment, and the potential of the CI, was necessary. Kelly was able to access spoken communication to the extent that she was

able to develop functional spoken English through audition and social interaction, and to receive information sufficient for learning from the classroom teacher, who used grammatical, complete, spoken English forms. It would appear that because she was in primary school, it was possible for her class teacher to modify her communication and program sufficiently for Kelly, not only to acquire academic knowledge, but to improve her language capabilities as well. The class teacher and itinerant teacher worked collaboratively on difficult concept and language learning needs, which could as a consequence, be addressed in the classroom situation, and which exemplifies the appropriate execution of the teaching roles.

8.12.2 Literacy learning

The interactive teaching style, Kelly's class teacher employed, enabled Kelly to learn from, and with her peers. As she was developing spoken English through audition, Kelly was able to access the discourse strategies necessary for successful school academic learning and the literary tradition, through direct teaching in class. Reading and writing were used to enhance the learning of academic content, and at the same time Kelly was able to access the conventions of written English in context. She was developing a range of reading strategies. She was developing communication skills and literacy skills concurrently.

8.12.3 Academic learning

Kelly had developed a number of discourse strategies necessary for school learning. The interactive teaching style, which was employed, made it possible for Kelly to experience problem solving, enhancing cognitive development in the company of an adult and competent peers to model further development. At the same time, there was an expectation that Kelly would participate in all class activities to the maximum extent. No theoretical element of lessons was omitted to facilitate ease of operation for the teaching staff.

The cooperation between the itinerant teacher and the class teacher's interactive teaching style, made it possible to gain maximum benefit from the itinerant teacher support. Because it is too difficult for teacher's aides to act in the role of a teacher, their input can be ineffectual and misleading.

The educational experiences for Kelly were at the time of the data collection, satisfactory. She was able to access the curriculum in all areas, without having it rendered meaningless, because of purposeful reduction of the theoretical content. She performed at an average level, or better, for subjects such as mathematics, and less well in comparison to other students, in literacy based subjects, but she still accessed the same concepts in those subjects.

8.12.4 Social experiences

Kelly had friends at school and after, and enjoyed the same level of popularity as the majority of students in her class. The teaching style she experienced had an impact on the level of inclusion that Kelly enjoyed. Although she could have been taught by the itinerant teacher in varying levels of exclusion, being able to learn in class alongside her classmates and to access a full range of curricula, exemplified the philosophy behind the inclusion movement.

Kelly's mother was satisfied with Kelly's schooling, but seemed not to consider developing an awareness of a Deaf identity, as important.

8.13 Generalisations

The generalisations were made as result of the data analysis of the case study data.

Where possible, the use of audition enhances a deaf student's ability to directly access the class program, but whatever the input mode, the development of a symbolic language system of some sort, should be a prime objective. Provisions should be made to facilitate the acquisition of a symbolic language system, especially in junior grades enabling knowledge of English to be developed through reading.

A variety of strategies should be employed in the instruction of reading based on a functional linguistic system, which must be developed to support knowledge of the world. Dialectic between teacher and deaf student is necessary for the development of literacy skills. Literacy competence is developed through exposure to the historical literary tradition through specific teaching.

A variety of discourse strategies should be developed through meaningful communicative interactions with other students and adults. A pull-out instruction

model is inferior to an interactive one, in which writing and communicating, are a means to learning. Using an interactive teaching model, and direct communication between class teacher and deaf student, allows for integration between language use, and curricular content. Higher cognitive skills are developed through interactive problem solving and modeling by an adult or more competent peers. Involvement of adults in problem solving situations, allow for the development of an abstract internal mental functioning.

Direct class teacher instruction is preferable to an entirely mediated one, and to this end, the itinerant teacher should be used in collaboration with the class teacher. Theoretical aspects of class curriculum should not be omitted to facilitate ease of operation for the teaching personnel. For this reason, a teacher's aide is not an effective replacement for an itinerant teacher.

A functional communication system is necessary for effective social involvement.

Being educated apart from other deaf students, does not allow a deaf student to develop a Deaf identity.

Primary school is a likely venue for setting up language learning situations, as well as content delivery, because of the structural flexibility in such settings.

8.14 Conclusion

The importance of language learning in the early years of a child's life must be stressed (see Section 3.3). Children require opportunity for social interaction, and they need to be given opportunity to make sense of the input they receive (see Section 3.2.5). It is in social contexts that children learn to become part of the community, and learn how to use language (see Section 3.3.1). Literacy emerges through the development of complex symbolic processes that develop concurrently, rather than sequentially, in both face-to-face and written language domains (see Section 3.6.1). Kelly had been fortunate in receiving the sort of experiences in her early school life, because of her ability to engage in aural/oral communication, and the nature of the learning experiences she was provided with to develop her communication skills, which contributed to social as well as academic learning.

In Kelly's case, her ability to use audition enabled her class teacher to communicate directly with her, allowing the teacher to take direct responsibility for

delivering the class program to Kelly. The class program was delivered in such a manner that it allowed Kelly to develop understanding of the academic concepts through interaction, and the active construction of knowledge.

The teaching style employed by the class teacher was crucial to the success of Kelly's inclusion. It enabled the itinerant teacher to work cooperatively with the class teacher, and to ensure that Kelly had access to all the class activities and learning opportunities. The class teacher sought to develop deep understanding and thinking strategies in the children, and did not rely on discrete skill learning and reliance on memory alone for learning. Because reading and writing, and spoken communication, were used for learning and not as ends in themselves, the itinerant teacher was able to capitalise on the opportunities for establishing meaning for Kelly, and assisting her to arrive at her own understanding of language use in the context of the on-going academic program. Therefore, Kelly was able to develop academic understanding concurrently with developing her linguistic skills: both aspects of education contributing to the other.

To summarise, it is necessary to provide the answers to the three Particular Issue Questions. First, Kelly was included in the particular school because her parents had a desire for her to be educated with hearing children. They desired her to have the opportunity to learn the behaviours of the hearing community of which she was, and would be, a part. She had experienced both segregated and inclusive educational settings, but because of the inclusive policies of the DET, the family had had the opportunity to move away from the metropolitan area with access to a segregated education. They had been able to realise their desire to have Kelly educated with normally hearing students in an inclusive setting in a rural district.

Second, in this case, Kelly had been fortunate to have a class teacher who taught interactively, communicated directly with her, adapted her class program to be more visually accessible, allowed communication between students to problem solve, and worked cooperatively and collaboratively, with the itinerant teacher. The class teacher did, however, retain the primary education delivery role with the support personnel performing a supporting role.

Third, because Kelly had some access to auditory input, a memory for the sound of spoken English, and multiple communication partners, she had developed discourse strategies, which allowed her to access information, of a social, as well as an academic nature, at home and at school through spoken English. The progress of

academic, and linguistic understanding was facilitated by the teaching and support strategies, and Kelly's own ability to process spoken and written English. Her educational experience was considered successful and inclusive, and reflected the philosophical intentions of the inclusion movement.

CHAPTER 9

CASE 3

9.1 Introduction

The researcher had supported Wayne at his preschool, and at his home, for two years prior to his enrolment in primary school. As the researcher had not supported a student in the school that he was to attend, she had no knowledge of the particular primary school. It was evident that the staff had some misgivings about Wayne's enrolment, as none had previous experience with deaf children. The principal had been a special education advisor, and claimed knowledge of students with special needs.

Although the school staff was reassured that Wayne had well developed language skills and communicated easily, their apprehension persisted. Teacher's aide support was requested to assist in his transition to school, and he was granted 10 hours a week initially. The researcher supported Wayne for most of the first term in kindergarten until he was placed briefly on another itinerant teacher's caseload. He returned to the researcher's caseload at the commencement of his Year 1, and remained on it during the data collection period for this inquiry.

The school Wayne attended was a medium sized country school drawing students from the town and surrounding rural district. The students were friendly and supportive. When the data were collected, all those interviewed were of the opinion that Wayne's inclusion had been a great success. This was attributed to his communicative ability, likeable personality, and the fact that he was not perceived as being different to the other students. The fact that he received extra attention from support personnel had apparently not had a negative effect on his social status (see Section 6.4). He enjoyed a high level of social, as well as academic success; he had no behavioural problems, had positive role models, and received positive feedback from teachers and students. The following excerpt from the interview with the Principal, Exhibit 9.1, reflects this perception.

Exhibit 9.1 Excerpt from interview with Principal

Principal

Res.: What is your opinion about Wayne's inclusion?

P.: I think it is most successful. The other day I saw him in a regular reading group he was performing just like all the other children. He has no problems with communicating with anyone.

Res.: What is your attitude towards inclusion in general?

P.: In the case of deaf children my response is positive. Yet there are some skills that need to be picked up in the special location such as lipreading, in a one-to-one situation. It is harder to include a child with a behaviour problem or an intellectual disability. Inclusion has been a special interest of mine as I did a Masters Degree and integration was my topic. In Wayne's case he is likable and outgoing. It is his make-up. He gets the positive feedback from other people and he is an initiator of communication.

Res.: Do you think there had to be adaptations made by the teachers to cater for Wayne?

P.: No. It was a surprise to everyone. It has happened with ease. Initially there were problems expected, but this has been a wonderful program for him. He might need some special input at some time. He has had the special help also.

The following section, which records Wayne's historical information, and answers questions relating to the etiology of his deafness, previous educational placements, and further attitudes and opinions about his integration, was collected from school records and Interview Data. In Wayne's case, all of those interviewed, agreed that his inclusion had been successful, socially and academically.

The following section answers the Particular Issue Question, "Why was Wayne enrolled in his current school?" It also contains a description of the data gathering and a description of Wayne's auditory skills. The Interview Research Questions are listed in Section 6.6.2.

9.2 History

Wayne was born with a congenital profound bilateral hearing loss, detected at the age of 7 months. The cause of deafness was unknown. His parents are hearing. He was fitted with high-powered behind the ear hearing (BTE) aids shortly after detection, and received a cochlear implant in his right ear when he was 2 years old. In listening assessments carried out by Children's Cochlear Implant Centre (CCIC) four years later, it was reported that his listening scores were almost perfect.

Wayne was 6 and 7 years old when the data were collected for this inquiry. In the Auditory Skills Listening test carried out by the researcher, he was able to detect all items up to test item 8, the second last item (see Section 6.8.4), through audition alone. In item 8, where features in a story are repeated in sequence, he scored 7 out of a possible 15. Wayne had been assisted by itinerant teacher support from the time he was fitted with BTE hearing aids. Since that time, he and his mother had moved from

their original coastal town to another further inland to live with grandparents. Wayne was the only child. He had attended a number of preschool situations both for hearing and deaf children. Prior to enrolling at his local primary school, his mother transported him a long distance weekly to attend a special preschool class for deaf children run by an independent school, in a large city to the south of the region in which he lived.

His mother expressed a preference for an integrated placement, as long as it was successful, but would have been happy for Wayne to receive a segregated education if integration had not succeeded. She regarded his integration as successful, but was not sure as to the reasons, other than the success of his cochlear implant. An excerpt from her interview Exhibit 9.2 follows, and expresses her view.

Exhibit 9.2 Excerpt from interview with Wayne's mother

M.: I am very happy about the way he is going.

Res: So, do you think he is successful?

M.: After doing tutoring with children who are hearing, I can see how well he is going. Cochlear say he is an exception. They are amazed because he wants to learn. He is always observing, doing and saying.

Res.: Why do you think he is successful?

M.: His own personality. He was standoffish when he was younger but I think the mainstream has helped because of the good role models. At first he wouldn't communicate because he was too scared to speak. All the places I have taken him to. He got very standoffish and didn't mix at all. The teachers wouldn't tell me he was standoffish and on grandparents' day my mother saw he was standing alone. The social part was the hardest. Now the social part is wonderful with kids he knows, but he is shy with new kids. He started in the latest preschool not knowing many, but he was all right. There was no modification needed. He was just treated like a normal kid.

Res.: Why do you think he has fitted in well at this school?

M.: No idea. They were worried because they didn't know what to expect. He enrolled and fitted in.

Res.: What about his communication? Are there any problems there?

M.: It is satisfactory, not excellent in terms of hearing kids, but in terms of the deaf.

The staff regarded an inclusive education as most appropriate for children with disabilities, as long as the student's communicative abilities were good, and there were no behavioural problems.

Wayne was visited twice weekly by an itinerant teacher. Initially, one visit was at home, one at preschool, and then both visits were at the preschool. The researcher had managed his transition to school. Most of the Classroom Observation

Data were collected when Wayne was in Year 1, but the Language Performance Data were collected early in his Year 2.

Much of the Interview Data mentioned Wayne's popularity. In his class 50% of the boys identified Wayne as someone they would like to play with. The majority of the data collection carried out by the researcher, as a participant observer, occurred in language lessons in the morning. In the afternoon craft lesson in which he was unsupported, the researcher was a non-participant observer, as that was not her normal time for supporting Wayne. A reading lesson was observed in the mid part of Year 2 in which Wayne was observed in a lesson supported by his teacher's aide. Wayne received, one, two-hour support session weekly, with the itinerant teacher in Year 1, and had morning support until recess provided by the teacher's aide on the other days.

The high level of support for Wayne was a point of debate between the researcher (as itinerant teacher) and the school, because the researcher felt that Wayne needed to develop independence, while the school wanted to maintain the teacher's aide support, because the class teachers enjoyed it, and used it to assist other children. In the period in which the data were collected when Wayne was supported by the itinerant teacher, the role played by the itinerant teacher in assisting Wayne access the class information, was minimal. The class teacher was able to do this virtually unassisted. For that reason, in Year 2 Wayne received one hour of itinerant teacher support per week, which was carried out in the afternoon as a withdrawal lesson. In this session, listening, speech, and language activities, were undertaken. Wayne was withdrawn for this session, because his Year 2 teacher was not prepared to have the support conducted in class.

9.3 Attitudes and opinions of those interviewed about Wayne's inclusion

The positive attitudes, of all those interviewed about Wayne, attributed his success primarily to his communicative ability. He was able to communicate orally with all those involved with his school activities. He was able to indicate if he heard, or not, and needed to have information clarified or repeated. He enjoyed giving news and the children enjoyed listening to it. He needed to be watching to have access to all the necessary communication. He also needed to have his FM attended to. The teacher claimed that the only adjustments she made were in providing clear speech, and she needed to ensure Wayne was watching, and had his FM operating. Those interviewed

regarded the support provided, as very effective and to the correct degree, if not a little bit more than necessary. Exhibit 9.3 is an excerpt from the interview with his teacher's aide, which explains this aspect of his integration support.

Exhibit 9.3 Excerpt from interview with the teacher's aide

Res.: Explain how you worked with Wayne, what your role was.

T.A.: I make sure he is comfortable and happy and hearing, and put on the FM. Then I don't pick him out. I keep an eye on him to make sure he's understanding or hearing. I go and I say, "Did you hear that?" and see how he is going, then help the teacher with anything else. Sometimes I help the other children so she can help Wayne.

When he was coping well, he was not assisted. The teacher's aide support was considered to be reassuring to the teacher. Exhibit 9.4 illustrates Wayne's ability to work unaided.

Exhibit 9.4 Excerpt from Observation 1, a craft lesson

The children were chosen table by table to go to their table and cut out the inkblot shape. Wayne had the teacher's example. He put his hand up and asked "Have you got any glue?" the teacher answered "No. I haven't got one. Have a look under your desk and make sure you haven't got one". He pasted his shape when he found his glue. He was ahead of the others. The teacher told the class to write the sentence from the board on the back of the coloured paper. Wayne hadn't done this so the researcher told him to. He went out to the board and pointed to the sentence to check that that was what she meant.

He put his hand up. The teacher came and asked him if he was happy with the colour he had (he had the demonstration one). He asked her what he had to write and pointed to the board – obviously not trusting the researcher as she was definitely out of context. The children were talking quietly amongst themselves and the teacher went around giving out coloured paper and asking what colour they wanted. Wayne had shown the researcher his work and she said it was lovely. He wrote the sentence on the back of his paper very carefully.

Wayne's mother maintained that his early segregated preschool attendance had been beneficial, as teachers who knew about deafness, and knew what deaf children needed, had taught him. However, she maintained that the inclusive setting had given him good role models, as he hadn't developed speech that was characteristic of deaf children. His mother compared him to one of his deaf friends who attended a segregated setting, and who did not enjoy friendships with hearing children as Wayne did. Her opinions, in this regard, are contained in the following Exhibit 9.5.

Exhibit 9.5 Excerpt from interview with Wayne's mother

Res.: What are your thoughts about segregated schooling?

M.: I have no prejudice against segregated schooling but having the cochlear implant when he did has given him the opportunity to go to a regular school. We did a lot of travel and Mum would come with us and talk to him the whole way and tell him the a,b,c. If it had just been him and I. It wouldn't have been so successful. He never had one on one lessons at home. He wouldn't sit, he had to be followed around, but in the car he was captive.

M.: It does upset other cochlear implant parents when they see him. I have seen other children with cochlear implants and I can't understand them. I think I am lucky. He is an only child and lots of only children are talked to like adults, but we have always got down to his level. His friend has been integrated too and it has done him the world of good and he has met and mixed with lots of kids. This friend's parents would get upset because their child couldn't communicate like Wayne can. If the children have trouble the parents try and compare with the older brothers and sisters. The segregated preschool helped him, the extra input from actual deaf teachers. They knew what he should be learning. They weren't happy to mainstream him -Wayne and his two deaf friends. One had hearing aids and could cope with hearing aids. The parents have decided to leave him there and he is talking like a deaf child as that is all they hear. He doesn't have an outside friend now. Wayne would be a depressed little boy if he were the only signing child in this town, and this school. I am glad I did take him out of there. He was the brightest child in the segregated preschool and he was bored there. I am pleased he is mainstreamed. The signers there in the segregated school - there are kids going home and signing that the parents had put in a lot of time and they didn't want their kids signing. They were not signing at home. I am not against signing as such, but angry when it was used for Wayne by the teachers at the segregated school.

His mother felt Wayne still had some language deficiencies, which she was concerned about, as he could not always express himself precisely. She gave as an example of this, his response to a hearing child who had asked him what it was on his head (i.e., referring to the CI coil). Wayne said, "God gave you ears and eyes. God gave me eyes but not hearing". In Wayne's own words, it is also evident that he was aware of his deafness and was adjusted to it. He had experienced a segregated educational placement and retained his deaf friends. His regular educational placement provided him with hearing friends. He appeared comfortable with himself as the only child in the school who was deaf.

It was in regard to his mother's interview data that certain anomalies were revealed. She attributed Wayne's communicative success to his attendance at the segregated preschool where he had been the brightest child, but claimed he was bored there. She claimed also that the Signed English users there went against the wishes of the parents who intended for their children to be oral. She felt that the teachers at the

segregated preschool were more competent in dealing with deafness than itinerant teachers, whom she thought were less capable.

9.4 Data collection

There were five lessons observed for Wayne. These included morning language, craft, and reading. As this was an infant's class, lessons were not discrete and ran into each other, so what may have begun as a news lesson may have ended as writing, reading, or a spelling lesson. No maths lessons were observed, because of difficulty for the researcher in attending the mid morning session when maths occurred. To ensure that Wayne's maths performance was of a similar order to his other performance in the observed subjects, Year 2 maths concepts were used as listening test material to assess his acquisition of the maths facts expected of a student at his level. His maths textbook was used to provide material to test his mathematics concepts. Wayne had no difficulty in answering any of the questions indicating not only that he was listening well, but also he understood the maths concepts. This indicated that his performance in maths was of a similar order to the other observed program subjects in the inquiry.

Because of Wayne's ability to perform consistently well in school, there was a good deal of similarity between the lessons, and Wayne did not exhibit differences in his level of participation, or in the perceived success of each lesson. As in the previous cases of Todd and Kelly, lessons were both audiotaped as well as recorded in writing. It was easier for the researcher to record Wayne's lessons as they progressed, as the support role was less central in information delivery, than for example, in Kelly's case.

9.4.1 Description of Language Performance Data

The following section contains the answers to the Language Research Questions relating to Wayne's linguistic performance, and contributes to a description of his linguistic ability. It answers the Particular Issue Question of, "How did Wayne perform in the regular class in regard to his communicative and literacy ability?" Language Performance Research Questions are listed in Section 6.7.1.

The Language Performance Data were collected by the researcher in withdrawal situations, and videotaped. In collecting the conversational data, Wayne was asked to describe his favourite movie, describe his room, and compare motorbikes, a topic he was particularly interested in. He was also asked to negotiate through persuasion, a game he and the researcher would play at the conclusion of the lesson. As Wayne was in Year 2 at the time of data collection, he was only asked to write a description of himself, as that was the sort of written exercise that was expected in school for students in his class.

The following section contains examples of Wayne's LPD, the conversational exchanges, followed by the written task, the formal language assessment, and the reading assessment. Following the examples of Wayne's LPD is a description of his linguistic performance, including a description of his responses to the formal language and reading assessment tests, and a graphic summary of his performance in carrying out the linguistic tasks. The linguistic tasks were designed to portray his communicative ability, and to help understand his actual classroom performance. His performance in this area indicates that Wayne had the linguistic ability to participate in class activities comparably to the other students, and would explain why his class teacher did not have to modify her teaching style, nor make specific adaptations to the class program for Wayne's benefit. The considerations made for Wayne were in the order of appropriate seating, gaining his attention, and attending to his FM listening device.

Exhibit 9.6 Conversational skills collected from videotaped oral exchange between Wayne and the researcher

Narrative:

Res.: What is your favourite movie?

W.: Godzilla

Res.: What happens in the movie?

W.: Oh he goes swimming through the water and he tips the boat. He goes to the bridge but its different but I've forgotten. He goes through the water and Godzilla comes and a man was fishing and he left his rod in the water and he went swimming into the thing and it got wrecked and the people and Godzilla went and he got outside. He tried to eat them. They got some television fish boat but then he was big so Godzilla could eat them. So he could be our friend.

Res.: Oh is that how it ended? Was he a friend in the end?

W.: No still bad. They were just dead there, at the end, and you could pat him but his eye was a little bit open but he was a friend.

Comparison:

Res.: What sort of motorbike is best?
 W.: Yamaha.
 Res.: Why?
 W.: And Honda because they got the fastest engines.
 Res.: Fastest. Well what are the bad ones?
 W.: Sookies. Don't like sookies. They're too dumb because I rode on one and nearly stacked it. They go ping, pong.

It is apparent that Wayne could perform a spoken narrative to the level of a “primitive narrative” (Klecan-Aker & Kelty, 1990), which puts story characters together, objectives, or events that have perceptual association in some way. The elements of the story follow logically. His version of Godzilla contained a number of related events in sequential order with an obvious beginning, middle, and conclusion.

As Wayne was 7 years old when this data was collected, it is evident that he had command of different discourse strategies considered necessary for school success. His ability to relate a narrative would contribute to successful social interaction, as he would be able to contribute to the retelling of mutually experienced events with his friends. As he could retell a story adequately, his understanding of basic story structure would contribute to later literacy learning in all likelihood. According to Hedberg and Westby (1988), narratives are a bridge to literacy. Storytelling is an extended discourse, which transcends all cultures and is central to the school curriculum. It is through stories that children vicariously extend the range of their experiences beyond their immediate surroundings. Stories represent an early step into rhetorical and referential abstraction, which is necessary for school success. Wayne's popularity was attributed, in part, to his ability to communicate with anyone, child or adult, and to initiate conversations (See Exhibit 9.1)

Exhibit 9.7 Written language sample

Description of himself.
 My name is Wayne and my pets are my rabbit and my cat and my parents are mum and nana and PoP (Gives street and town name)
 I like to play football and sosser
 My friend are Nick D. Alex G. James G. Jackson W.

9.4.1.1 Conversational exchange

In Chapter 6 reference was made to Paul, Hernandez, Taylor, and Johnson's (1996) description of the abilities involved in story telling, which contain a number of higher-level language and cognitive skills. Clearly Wayne had developed a number of these skills to some extent, which could explain his ability to perform in a satisfactory manner in school, being able to perform the same learning tasks as the majority of the other students.

In telling a narrative, Wayne was able to maintain a sustained sequential version of the movie he was retelling, which had an obvious beginning, middle, and ending, without extensive assistance from questioning and answers. In describing the contents of his room (see Appendix D), Wayne gave a sustained version of the contents, with directions to follow as well as features. He provided a spatial component with features placed in the described space. When comparing, he relied on questions and answers to provide the information, but gave reasons for his preference, which were reasonable and valid. His ability to negotiate and persuade required interactive questioning to elicit the necessary information. He was asked to negotiate the playing of different games, and Wayne's choices were played first as a result of his persuasion. He did succeed in arranging the situation to suit himself with a concession given that the researcher could have all the games she suggested played after Wayne's. It is easy to appreciate that Wayne would have been able to hold his own in playground, or classroom, discourse and negotiations.

9.4.1.2 Writing

Wayne's written attempt at describing himself was sound. He included a selection of points about himself that he considered important. Considering that he was in the early stages of Year 2, his effort would not be remarkable in that context, as it was comparable to the efforts of his classmates.

9.4.1.3 Formal Language Test

Wayne completed 11 items, to item M, on the *TROG* assessment test, which included, noun, verb, adjectives, two element combination, negative, three element

combination, pronoun, reversible active, masculine / feminine personal pronouns, comparative absolute, reversible passive, and, in, and on. This indicated he had acquired grammatical elements of English sufficient to sustain understanding of spoken language, in a typical Year 2 classroom, and born out by his performance recorded in the Classroom Observation Data.

9.4.1.4 Reading

The strategies and miscues used by Wayne in the *Neale Analysis of Reading Ability* material involved one phonic error (“bust” for “best”) in the first story, which was “Practice X” for 5 to 7 year olds. He later corrected this through contextual cues. In the next story “Bird”, Level 1, he made four phonic errors that he did not correct. All the attempts were nearly correct having similar orthographic components and sounds. He used both visual and auditory cues to attempt the unknown words. The questions were answered wrongly, but sensibly, suggesting Wayne was using a lot of prior knowledge on the subject, but he hadn’t understood what he had actually read well. The last story, “Road Safety” Level 2, was obviously too hard for Wayne, and he used the picture cues and word association to substitute words that looked similar but were neither grammatically nor semantically correct. His answers were all completely fanciful but related well to the picture.

In the *Waddington Diagnostic Reading Test*, Wayne knew all the single sounds, single words with pictures, the sentence completion with pictures, and he made one error where he looked at the picture, rather than attending to the context. His raw score was 38, giving him a Reading Age of 8.4. and a chronological age of 8.1.

It was apparent from his conversational ability that Wayne was able to perform a range of discourse strategies, which no doubt accounted for a good deal of his success in school, in class, and with his peers. He had mastered the concept of IRE school discourse, which was evident in the Classroom Observation Data (see Exhibit 9.8), indicating he had no difficulty in answering the class teacher’s questions in lessons in a comparable manner to the other students. He could persuade, and negotiate situations to suit himself, as was evidenced in his ability to persuade the researcher to play his chosen games first. His reading performance indicated that he had a well-developed ability to use the phonological elements of words to decode them, as well as the ability to use contextual clues.

Wayne had knowledge of narrative structure and a wide knowledge of the world. While that aspect of Wayne's ability was not directly evident in the data collected, it was known by the researcher, as she had worked with Wayne for a period of years, and knew of his ability to discuss many topics of interest. For instance, he could debate the habitats of salt water and fresh water crocodiles when at preschool. In his preschool period the researcher assisted in recording sentences he had constructed, after drawing a picture of his news, by writing the words after sounding them out, and using a personal dictionary of high frequency words. In this way the early stages of writing and reading were dealt with prior to school entry. Wayne was also engaged in news delivery in which the researcher involved a group of children, who interacted by retelling their news and asking each other questions. She also instituted interactive games with other children.

Wayne's knowledge of the world was considered to have been due to extensive talking and looking at books with his grandmother. It was due, as well, to the language enrichment activities participated in during his support lessons in preschool, and his experiences at preschool. This knowledge of the world, and the ability to use contextual clues, would suggest that in the future considering that Wayne was in Year 2, reading would be likely to pose fewer problems for him than for students who did not possess the same abilities. Figure 9.1 summarises Wayne's Language Performance.

The description of Wayne's LPD highlights his abilities, which contribute to an explanation of his ability to perform well in a regular class. Having the ability to use a wide range of discourse strategies had undoubtedly impacted positively on Wayne's classroom performance. He demonstrated that he had acquired many formal language skills that are dependent on school learning in the realms of reading and writing. He also had a wide range of informal communication skills, which would account for his social success, as well as classroom participation.

The Classroom Observation Research Questions, relating to classroom performance, are included in Section 6.6.1. The answers to those questions, which describe Wayne's educational situation, follow in the next section. The following section, in part answers the Particular Principal Issue Question of, "How did the regular teachers provide inclusive educational opportunities for Wayne?" The section was derived from the summarised and condensed Classroom Observation Data sorted into bundles referring to variables evident in the observed classroom situations. It represents a concentrated account of what took place in Wayne's case.

Figure 9.1 Language Performance Summary for Wayne

	Conversational Communication	School Learning (Reading)
Receptive	Responded to: <ul style="list-style-type: none"> • In, on, • Reversible passive, • Comparative absolute • Reversible active • masculine, feminine personal pronouns • Singular / plural personal pronouns • Three element combination • Negative, • Two element combinations, • Noun, verbs, adjective • Lipreading and audition 	<ul style="list-style-type: none"> • Used formal narrative structure • Used contextual clues in reading • Used experiential clues in reading • Could blend phonemes in words • Recognised single graphemes • Recognised single words and their meanings • Used picture clues in reading
Expressive	Used: <ul style="list-style-type: none"> • Turn taking, initiating, maintenance • Contextualised conversation • Decontextualised conversation • Said a personal narrative • Said a formal narrative • Said a description • Playground interactions of social nature • Classroom interactions of a social nature • Could negotiate socially to suit own ends using persuasion, and comparison 	(Writing IRE): <ul style="list-style-type: none"> • Wrote sentences • Participated in IRE discourse • Wrote a personal narrative with English grammar

The following Exhibit 9.8 is an excerpt from Observation 2, and demonstrates how Wayne performed in class, and how the class teacher catered for his needs.

Exhibit 9.8 An example of an unanalysed Classroom Observation record from Observation 2

Morning Language

Wayne was sitting right at the front of the group on the floor paying attention to what the teacher was saying. The children and teacher talked about the snake

situation. Wayne turned around to watch Harley talk about the snake, which someone had seen recently.

The teacher wrote the spelling words “cool” on the board, and “yes” under it. She touched Wayne on the shoulder and asked him what the word was. He said “yes”. The one she pointed to. Then she wrote “th” up on the board and asked the children to guess which word she might be going to write. Wayne put his hand up to guess. After she had drawn out the answer she wanted from the class, she then asked them to come up with a rhyming word for “cup”. Wayne got chosen and said, “tup”. The teacher said, “Oh I don’t think that’s a word. He turned around and looked at the boy who gave a sentence just behind him and watched the next girl as she gave her sentence. Wayne was asked to give a sentence starting with “I help”. He finished the sentence by using the word “machine” and the teacher said “What machine?” He answered “clothes”.

Brett came and sat near him at the front of the room. Wayne watched all the proceedings of the children adding endings to the spelling word “help”. He didn’t put his hand up for the discussion about the spelling word “some”. Brett and Wayne had a little discussion at the front of the room together. The teacher touched Brett on the shoulder to stop him talking. Brett and Wayne exchanged glances then Wayne bounced his hand down on Brett’s. They smiled in collusion at each other. The children spelled all the words together and Wayne joined in in a half-hearted sort of way. He didn’t contribute to the discussion about the walk the previous week.

Wayne watched what the teacher wrote intently. She wrote a sentence without punctuation about last week’s walk. Wayne didn’t bother to put his hand up to give information about why it was wrong. Emma got the answer right about the capital for “Mr Brown”. Wayne was watching the whole thing but not offering to contribute. The teacher chose him but he “couldn’t think”. She said he could have some thinking time. He watched the teacher’s face and looked around to watch other people answering. Then he put his hand up, but his “answer” was that his fingers were hurt by Jackson’s feet. The teacher was having a bit of trouble dragging sentences out of the class. Wayne put his hand up. He got chipped about wriggling. He persisted holding up his hand. The last hand was Wayne’s. His sentence was “Last week we went to Mr Brown’s garden and saw Moppy and some tulips”.

9.5 Description of the events and practices in the lessons observed for Wayne.

9.5.1 Adaptations

The adaptations made in Wayne’s case were minimal. He had to be reminded to wear his FM at the appropriate times. He required extra observation, and reassurance from the teacher, and extra questioning to ensure he had sufficient information necessary to complete his tasks. He always sat in the front of the group on the carpet near the teacher, when she was delivering information at the blackboard. Occasionally the teacher would need to get his attention as he turned around to follow

what the other children were saying. He needed to be in a situation where he got maximum visual access to examples and demonstrations.

9.5.2 Teacher communication

Wayne was able to access all the class information that the teacher delivered. The teacher ensured that he was paying attention and observed examples and demonstrations. He made sure he understood himself, by requesting clarification from those around, whether his teacher's aide, itinerant teacher, the teacher, or another class member. He contributed to oral questioning by volunteering answers by putting his hand up. His offers were accepted as frequently as the other children, and when he didn't want to contribute answers, he was encouraged to do so by the teacher until he complied. He listened to instructions that other children received around him and followed suit.

Wayne was able to communicate with other students, teachers, and support personnel. He was able to deliver news that the other children enjoyed, and to contribute effectively to class discussions and questioning sessions in which the teacher employed the same sort of IRE strategies as she employed with the other children. He used his FM assistive listening device effectively. He could follow directions delivered orally, without any more assistance than repetition of instructions, or clarifications. He could construct grammatical sentences at a grade appropriate level. He could listen to phonemic elements in words, and apply that knowledge orally, and in writing. He used contextual clues to assist with his reading.

9.5.3 Student interaction

The lessons observed included morning language, which involved talking, spelling, grammar, writing, handwriting, and reading. Afternoon lessons involved craft activities. Wayne had equal success in participation in all the lessons observed. Wayne interacted informally with other students sitting nearby in social interactions, as well as interactions involved with the planned lesson activities.

9.5.4 Teaching style

The class teacher employed a traditional teacher-centred approach, whereby she delivered information orally in lengthy discourse sessions in which the children had to listen and respond on cue. She also used explicit and clear directions, in small achievable steps for the children to follow. The chief method of information delivery in this class was oral, and used as the method of imparting instructions in literacy, which was modeled by the teacher, and practised by the children. Phonemic awareness, and phonic representations, were practised orally and in blackboard practice by the children. The teacher used visual demonstrations to clarify her instructions. She used questioning to elicit answers from the children. The children practised skills on the board with the teacher supporting their efforts with further questions and contributions from the other children. The methodology was very directed, and supported with questions, follow up, further practice, and demonstration.

9.5.5 Classroom performance and inclusion

When the class was receiving explicit directions, Wayne was allowed extra access to demonstration material, but with the seating arrangements, his diligent observation, the use of his FM, and his spoken communication skill, he was able to participate fully in all the classroom activities. These were dependent on oral interactions. Practical follow up of activities, by the children throughout the lessons, demonstrated Wayne's ability to perform as well as the other children.

Wayne was well liked by the other children, and included in social, as well as academic, interactions in the classroom. He contributed by volunteering answers as frequently as the other children, and received as much attention as needed, by the teacher to ensure he followed. Not only could he participate in connected dialogue, he was able to offer examples of segments of words, which he accessed through audition. He was able to interact with his classmates, as well as older students, who came to the room to assist. His performance in all the observed lessons was comparable to the other students.

In Wayne's case, emic issues arose out of Classroom Observation and Interview Data. In the data analysis after the Classroom Observation Data and Semi-structured Interview Data had been reduced to summaries, and Language Performance Data had been described, a series of emic issues emerged from those data. Following, is a list of the emic issues for Wayne's case.

9.6 Issues arising out of Classroom Observation and Interview Data analysis

- 1) Proficient communication based on speaking and listening enabled participation and successful performance in an auditorily based traditional type of school program, with no modification and minimal adjustments on the part of the school personnel
- 2) Wayne's literacy level was sufficient to assist learning
- 3) Traditional teaching style with attention to including the deaf student by gaining and maintaining attention and use of technological aids was successful
- 4) Direct instruction between teacher and student occurred
- 5) The class teacher was responsible for program delivery
- 6) There was reduction of the role of teacher's aide
- 7) There was no content reduction
- 8) The adaptations were physical rather than to the program
- 9) Successful social interactions dependent on communication proficiency and appropriate behaviour contributed to positive attitudes on the part of the school personnel.

The following section contains the results of the stage 2 analysis in which the observations made were rated according to the level of inclusion for Wayne that the teacher provided. The description of the classroom events, the description of the LPD, and the results of stage 2 analysis, answer the Particular Principal Issue Question, "How did the regular class teacher provide inclusive educational opportunities for Wayne?"

9.7 Summary of results of stage 2 analysis of Classroom Observation Data – Inlusiveness Rating

Table 9.1 Observations and Inlusiveness Rating.

<u>Classroom Observations</u>	<u>Observations ranked in order of inclusiveness</u>	<u>Inlusiveness Rating</u>
Observation 1 Craft	Observation 1	1A
Observation 2 Morning Language	Observation 2	1A
Observation 3 Morning Language	Observation 3	1A
Observation 4 Craft	Observation 4	1A
Observation 5 Reading	Observation 5	1A

The following diagram is a representation of the summarised information in the two variables considered to contribute to the high level of inclusion in Wayne's case (See Section 6.11.2).

Figure 9.2 Variables contributing to the highest level of inclusion in Wayne's case

<p><u>Classroom and curriculum adaptations</u></p> <ul style="list-style-type: none"> • Visual access to materials and demonstrations • Seating at front, attention to FM • Extra demonstrations or clarifications • No reduction in content or abstractions 	<p><u>Communication</u></p> <ul style="list-style-type: none"> • High level of auditory ability on the part of the student enabling access to spoken teacher discourse • Student could participate in IRE questioning • Teacher encouraged the deaf student to give answers • Traditional teacher centred approach using IRE, but explicit step-by-step instruction • Literacy taught using oral / auditory input • Explicit skill teaching for phonics accessible to deaf student through audition • Directed activities supported with visual back-up • Class teacher responsible for teaching the deaf student through direct communication
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<p><u>Indication of Inclusion</u></p> <ul style="list-style-type: none"> • Deaf student worked on the same material concurrently with the rest of the class • He was able to answer questions relating to on-going lesson content • He was able to complete the same written or performance tasks as the rest of the class • He was able to answer questions and perform in such a way that it was apparent that the essential lesson concepts were understood with the same theoretical component as the rest of the class

9.8 Interpretations, assertions, and generalisations

The interpretations, assertions, and generalisations in Wayne's case, based on the emic issues, which evolved and the Inclusiveness Rating for his lessons, constitute the results of the data analysis. The combined answers to the three Particular Issue Questions are contained in this section. This section constitutes the researcher's interpretation of Case 3.

9.8.1 Language in Wayne's case

Wayne had mastered the essential elements of the discourse strategies of personal narrative, formal narrative, description, comparison, and persuasion, at least. He had acquired sufficient spoken English conventions to be able to access the information delivered in class. He understood the directions given by the teacher, and could answer questions asked by the teacher, and directed to the whole class. He understood the IRE format of school discourse. Wayne's own expressive language was understood by both his teacher, and the other children with whom he had no difficulty communicating. His level of language ability allowed him to function in both social interactions, and in the reception of academic information.

Wayne would turn around and watch the children speaking, and if he didn't hear, he would ask the teacher to repeat information, thus taking responsibility for his own information input to a large degree. Making sure he sat in an optimum position in the group allowed him to access what was said auditorily. Wayne's listening ability allowed him to process auditorily. He processed written text using phonic decoding skills, and could apply these in combination with his linguistic, or contextual, knowledge in reading. In this way, he accessed information in much the same way as a normally hearing child. The changes and adaptations necessary for him were minimal, and were well within the capabilities of an attentive teacher because of his communicative ability.

The teacher's aide had no need to play a teaching role. There was no need to modify curricula, expectations, or communication strategies, other than ensuring Wayne was watching the speaker. Wayne's repertoire of discourse strategies was such that he could hold his own verbally with his classmates, and consequently, understand the sorts of discourse used in school.

This case emphasised that with listening capabilities sufficient to access the sounds and features of speech to acquire spoken language, and thus learn discourse strategies, very little needed to change on the part of even a traditional teacher. It highlights the importance of the skills brought to the regular school situation by the student. If prior to entering regular school, the deaf child has a well-developed linguistic capacity, the difficulties experienced in a regular school are greatly minimised.

9.8.2 Inclusive practices in Wayne's case

All of Wayne's lessons rated highly, with 1A ratings. The adaptations to the lessons were minimal, in that the content wasn't modified, and the adaptations were largely physical. Seating was important, with gaining his attention and attention to the technology, the important factors.

The teaching was a transmission style, but employed explicit step-by-step instruction with deductive questioning and visual back up. Wayne understood the question and answer format. He was able to participate on his own, developing understanding, as he asked questions and asked for clarifications. All communication was oral /aural, and Wayne could access the essential input to a sufficient degree to participate fully. His reading tuition was largely based on phonological processing. He was highly phonologically aware, and attended to the sound structure of words successfully, and applied his understanding to written representations of those words. Because his access to spoken English was adequate, he also understood the context of the stories he read. He was able to communicate effectively, socially and academically, through speech. His class teacher delivered Wayne's information input.

Interview data reaffirmed Wayne's communicative ability, explaining that he not only responded to interactions, but also initiated them in a variety of school contexts. His high level of social success, as well as his academic success, was due to his communicative ability and his personality. His teacher's aide played a minor role in information delivery, and acted as an assistant to the teacher if needed.

Wayne's inclusion was successful. There was no mention of major concerns, or difficulties, made by any of those interviewed, and the observations bore this out. The success was because of a number of features, from supportive linguistically enriched home background, good listening skills leading to effective language development, the personality of the student, and possession of good communication skills on school entry.

Of most significance, in this case, was the absence of need for significant changes or modifications to be made by the class teacher, or the school in general. If Wayne was placed in the class of a teacher who did not pay attention to his technology, seating, and to gaining and maintaining his attention to what was being said, the consequence may produce a different result.

An effective spoken language system allows for cognitive growth and the development of abstract thought beyond the immediate. Wayne was able to communicate about any topic without the use of concrete materials to support communication, and he could refer to decontextualised topics with preplanning. He was able to hold his own in his class group in such a way that he was able to be party to any of the class conversations about past, and present, activities. In having to attend to the spoken dialogue of the class teacher, Wayne was able to develop satisfactory auditory skills, and attend to the class teacher IRE discourse.

While visual support of the class activities was necessary to enhance his understanding, he was able to combine that with what he heard to perform well in class. Accessing the auditory input was necessary for him to develop his linguistic capabilities. For that reason, it was expedient for Wayne to be seated appropriately, and for attention to be given to his FM to ensure maximum audition.

9.8.3 Literacy learning in Wayne's case

Wayne used the whole sentence from the text to answer questions, or else he made up fanciful versions of what the story was about, based on his own experience, indicating that Wayne brought his own experiences to the reading task.

It was evident that while Wayne was at the early stages of reading, a particular emphasis was being placed on the understanding, and processing of phonological aspects of literacy, but as he progressed through school, it would be important to ensure that he did not rely entirely on this strategy.

Wayne was able to produce a written sample of a personal narrative, which contained grammatical elements in a way that was not unusual for a child at his age and stage of development. He had developed a number of spoken discourse strategies, which were effective and performed their designated function. He experienced concentrated amounts of adult discourse with his grandmother in his early years, which would have had a positive impact on his development of spoken language, through social interaction. His linguistic ability, was no doubt, because of his well-developed understanding of English, through his oral / aural ability. His ability to understand spoken English, should in the future, enable him to understand the complexities of literature as he became old enough to be more fully exposed to them. He had a suitable linguistic competence on which to base successful literacy learning.

9.8.4 Pedagogy in Wayne's case

The class teacher could employ the same teaching strategies with Wayne as she employed with hearing children. She accepted the responsibility for teaching Wayne directly, which was well within her capabilities, as they were not in any significant way, extraordinary. She merely had to ensure his proper seating, FM functioning, occasional repetitions and clarifications, and adequate access to visual material. In this way the teaching was direct. While his teacher was competent and thorough, she was in no way remarkable.

Wayne's teacher was traditional in many ways, but because it was an infant's class, she provided a great many opportunities for the students to practise skills in combination with contextually appropriate activities. Wayne was confident enough to ask for clarifications when he needed them, and to volunteer answers in class in much the same way as the hearing children in his class. Because he was auditorily capable of accessing what the teacher said, she did not need to, nor did she, modify her class program, or practices, in significant ways for Wayne. Her changes centred on the physical aspects of his need to be able to see visual material and sit in the optimum position in class. While it was not always encouraged, Wayne was able to engage in a number of communicative exchanges between him and other students. He was interested in their verbal response and turned around to make sure he heard the responses of other children. He was expected to give answers and when reluctant, he was encouraged in a similar manner as that engaged in with the other children.

While the activities observed for Wayne were teacher centred, it is possible that as he became more mature, it would enhance his learning opportunities to be engaged in more interactive communication strategies. At the stage of his development when he was observed, he was able to access the class program delivered by a teacher centred approach, because of the level of his aural / oral ability, his motivation, the amount of concrete support material provided in the infants class, and by the step by step approach of the teacher. Because of the level of his involvement in the class activities, it would appear that Wayne was developing cognitive and linguistic abilities, in much the same way as the hearing children in his class, as he was able to perform the class tasks with understanding.

Because of Wayne's competence linguistically, there was no need in this case for the teacher to modify her program to cater for his needs. He was able to adjust to the requirements of the teacher, because of his own skills, and in the process, develop further. The teacher was only required to facilitate his auditory needs, and make visual material accessible to him, or to ensure he was attending. The role of the teacher's aide was irrelevant in this case.

9.8.5 Social success in Wayne's case

Socially Wayne was successful, and had a variety of communication partners. Despite his social success in this situation in which he had no deaf peers, he was aware of himself as a deaf person, who was different because of his deafness (See Section 9.3). He had associated with other deaf children at the segregated preschool, and was aware of himself as the only deaf student in his current school. He had received a CI, and consequently been encouraged by his extended family in the development of his spoken language skills and his ability to use audition.

9.9 Assertions

9.9.1 Language learning opportunities

Wayne had well-developed auditory ability, consequently it was possible for him to access class discourse with a minimum of difficulty through attention to auditory aids. His auditory ability allowed Wayne to develop spoken language through audition to the extent that he was able to perform successfully academically, and socially. This surely occurred because of adequate interaction in his early years provided by his extended family, and enhanced by his preschool experiences, so that he entered school with well developed language skills. Because of his understanding of school discourse strategies, Wayne was able to participate fully in the class-learning situation.

9.9.2 Literacy learning

Wayne's well-developed spoken language enabled him to develop bottom-up, and top-down literacy skills for reading. His facility with the discourse strategies

required for school learning, coupled with his personality, made Wayne popular with students and teachers, and capable of accessing the regular school curriculum.

9.9.3 Academic learning

Because Wayne had satisfactory linguistic ability and developing literary skills, he was able to make satisfactory academic progress in school, in much the same manner as the other students in his class.

9.9.4 Social experiences

Wayne's facility, with the discourse strategies required for social interaction, contributed to his was popularity at school.

9.10 Generalisations

The generalisations were made as a result of the analysis of the case study data.

The development of spoken language capacity enhances cognitive growth through a symbolic system of communication, which allows for advancement beyond the immediate and concrete. Therefore, deaf students with good auditory skills are advantaged in comparison to those without them, and may develop a satisfactory auditory language through audition and social interaction. Auditory access to the teacher discourse is an advantage for doing well in a regular classroom. If the auditory-oral skills are advanced enough, there may be no need for teaching adaptations and modifications. Developing communicative abilities, allow for the development of an abstract system of thought, which needs to be well underway before school entry. This needs to occur through social interaction and a supportive family.

A supportive family background enhances development of linguistic skills, which supports the further development of all the aspects of literacy. Thus, a functional linguistic system is necessary for supporting higher order literacy skills. It is possible to be exposed to the historical literary tradition, if the linguistic system is sufficiently developed.

Providing appropriate discourse opportunities enhances the development of essential discourse strategies, and having a functional linguistic system is a necessary precursor for developing discourse strategies. Therefore, a well-developed communication system supports positive peer interactions.

Students should be motivated by their classroom instruction, to be active generators of their own knowledge, and to ask for clarifications if needed. If a child has well-developed auditory/oral skills, the instruction model is not so crucial. Nevertheless, meaningful interactions with others is the most essential language learning condition for all children, as well as being the most appropriate instruction model for all students. An independent learner is less dependent on teacher's aide support.

9.11 Conclusion

According to Kretschmer and Kretschmer (1999), communicative interactions in which adults engage in turn-taking experiences with infants, and in which there is a strong effort on the part of the adults to sustain exchanges as long as possible are critical to helping young children learn how to communicate. The importance of meaningful turn-taking in which each turn builds upon the preceding turn, of utilizing shared or common topics and modeling the idea of conversing on topics, capture the underlying organisation of English conversation (see Section 3.3.1). It is in social contexts that children become part of the community and learn how to use language (see Section 3.3.1). It is evident that the deficit of auditory input, if not compensated for appropriately, will result in imperfect language learning. Linguistic input, early on in an infant's life is crucial for the acquisition of language when it appears to be effortless, rather than at a later stage when it becomes a memorisation task of learning specific skill subsets that leads to an incomplete set of linguistic skills and behaviours.

In Wayne's case, because of the effectiveness of his cochlear implant in enabling him to develop auditory skills, and the involvement of adults in communicative situations in his preschool life, he had developed effective communication skills. He was able to communicate in an informal way with peers and adults, and he had developed enough discourse strategies in these interactive contexts to enable him to be included in a regular class with very little adaptation required on the part of the class teacher to facilitate Wayne's inclusive learning opportunities.

The success of Wayne's cochlear implant allowed him to develop effective aural / oral skills, and had a major impact on his successful inclusion in a regular

school. His audition, coupled with a pre-school history in which he was regularly engaged in meaningful communication with adults, both at home and at pre-school, enabled him to develop enough discourse strategies of a social, as well as an academic nature to allow him to function in a regular school in a manner comparable to his hearing counterparts. He was able to develop his linguistic skills in concert with his academic learning. Essentially, he had developed many of his linguistic skills and discourse strategies prior to enrolling at school, so that his class teachers had very few modifications or adaptations to programs to ensure Wayne's successful inclusion. The preschool experiences were principally interactive in nature, involving the regular activities and exchanges that children and adults generally engage in.

To summarise the answers to the Particular Issue Questions, the following conclusions are drawn. First, it would appear that Wayne was integrated in the regular school primarily because he was able to perform successfully linguistically. It is evident, if his mother had not considered his integration successful, or inclusive, she would have moved to a location to facilitate enrolment in a segregated educational setting.

Second, Wayne's class teacher, who was a competent traditional teacher using a transmission style of teaching, progressed in steps that were explicit and achievable, by the students. She backed up her spoken delivery with visual examples that were necessary for all the infant children in her class, but especially for Wayne. She did not omit abstractions from her program for Wayne, because she perceived no reason for doing so. The teacher attended to Wayne's technological and physical (auditory) access needs, allowing him to be included in all class activities.

Third, because of Wayne's well-developed auditory skills, he had been able to access auditory linguistic input to the extent that he had developed spoken English through audition successfully. Because of his ability with spoken English, he had been able to develop the usual discourse strategies of his community of a social and school based nature. This enabled his class teacher to deliver class content to him directly, and enabled Wayne to engage in communicative interactions with multiple communication partners at school and at home. His integration was inclusive, and embodied the precepts of the inclusion movement.

Wayne had been able to progress educationally in a way that paralleled that of normally hearing students. His linguistic development had paralleled spoken language acquisition for hearing children. His educational experience was successful and inclusive.

CHAPTER 10

CASE 4

10.1 Introduction

The school Maisie attended at the time of data collection was a large coastal primary school. There were a number of other Aboriginal students enrolled, and Maisie was able to interact with a number of children from her community. For a period of time, Michael, Case 5, was enrolled in the same school while he was in primary school. Even though he was a good deal older than Maisie, they, and another hearing impaired child with an intellectual delay, interacted in the playground regularly. Because of their experiences with Michael, a number of teachers in the primary school were aware of the problems associated with the inclusion of a student with significant communication difficulties, and high degrees of deafness. None had previous specific training in deaf education.

Maisie had never been on the researcher's itinerant teacher caseload, but they were well acquainted. In her role as executive teacher, the researcher supervised the itinerant teacher, who was responsible for Maisie's support. In that capacity, the researcher had participated in Maisie's review meetings when she was in kindergarten. According to audiological reports at that stage, Maisie was reportedly able to hear a limited amount of speech, such as recognising her name, and some isolated words, when wearing hearing aids, but she rarely wore them. The language input she was receiving then was via Signed English, but this did not occur at home, as her mother could not use Signed English. It was on the researcher's insistence that hearing aid usage was established, and that spoken English was attempted. Maisie had difficulty communicating with teachers, or other children when she began school.

While the researcher was known at the school, she had not supported a hearing impaired student there, and did not know the teaching style of individual teachers. When Maisie entered Year 1, the researcher asked that she be included in the class of a teacher who had a less traditional teaching style than the one who had taught Maisie in kindergarten. The kindergarten teacher had demanded quietness in the classroom, discouraged student interaction, and expected that students sit, listen, and follow directions. The researcher deemed this to be a less than ideal classroom for Maisie.

Her suggestions were not followed, and Maisie was once again included in the class of a teacher who had similar demands to those of the kindergarten teacher.

Subsequently, Maisie entered Year 1 in a school in a different nearby town. The researcher observed Maisie in that class, as part of her supervisory role, prior to the present inquiry. The teacher, in that situation, had a more relaxed approach to student behaviour than Maisie's kindergarten teacher. The researcher observed Maisie participating with the other children in classroom activities, which involved sound recognition activities, and a Child Protection lesson in which Maisie participated in the physical activities, but with no apparent understanding of the dialogue. That Year 1 teacher also placed a lot of emphasis on the learning of sound letter relationships, and the development of phonemic awareness. Maisie was observed articulating a number of initial sounds and recognising their letters.

Those interviewed, when Maisie was in Year 2, agreed that since recently having had her cochlear implant, Maisie could hear what the other children said and could hear the bell, so there was no further need to sign to her. She was interacting with the other children, both Aboriginal and white. Her inclusion was considered successful, and to be due to the systematic traditional teaching style of her Year 1 class teacher, which was predictable, and said to suit Maisie. Her perceived success was also attributed to the fact that teachers had been given the option of having Maisie in their class. As her behaviour had improved since enjoying a more stable home life, she was said to be "liking" the teachers and trying to please them. This had not been the case initially, when she was reported to have acted out, and people had not liked her. The Exhibit 10.1, which is an excerpt from the interview with her class teacher, is an example of the opinion the teacher held concerning Maisie's listening capacity, her ability, and her behaviour.

Exhibit 10.1 Excerpt from interview with class teacher

C.T: Maisie usually complies with what is expected. When she has a go and is really focused we usually get through. She was away last week so when she is away we need to go through it again. There are a couple of capable children who will help her and put her on the right track. We think she can hear now so we try and talk to her at news. The other day we could actually tell what she said and the children commented that they could understand. There previously was a behaviour problem but we don't have that now. She has had a very steady year. She is here and all the time she is accepting the boundaries and she is accepting of the limits. We sorted out her behaviour almost in first term. It has been an even year. It has been due to the family background.

The following section, which records Maisie's historical information, and answers the questions relating to the etiology of her deafness, previous placements, and further attitudes and opinions about her integration, was collected from school records and Interview Data. In Maisie's case, all of those interviewed regarded her inclusion as successful, including her aunt who was her guardian, and who attributed the success to the support of the teachers, the fact that Maisie was happy, had stability without any violence, and that her behaviour problems had largely disappeared.

Answers to the Interview Research Questions relating to Maisie's history, further attitudes and opinions of those interviewed, which subsequently answer the Particular Issue Question of, "Why was Maisie enrolled in her current school?" follow.

Interview Research Questions are listed in Section 6.6.2.

10.2 History

Maisie was an Aboriginal girl, who was not thought to have a congenital hearing loss, but her mother reported a severe illness with fever and running ears at 11 months of age. Prior to that, Maisie was reported to have said words such as "no", "Mum", and "Dad". Her hearing loss was not diagnosed definitely, until she was over 2 years old when profound deafness was diagnosed, and she was fitted with bilateral behind the ear (BTE) hearing aids. She commenced a Total Communication program at Farrar School for the Deaf in Sydney. Her family moved to the northern area of NSW, and Maisie was enrolled in a local preschool where she received 6 hours of assistance from an itinerant teacher, who also assisted her when she was partially enrolled in a local primary school in kindergarten. She also received 10 hours teacher's aide support a week. Since that time, she had moved schools when her mother moved to a nearby town. She continued to have the same itinerant teacher support she had received in the original school. There was a period of time in which Maisie did not attend school. When she was enrolled in the new school she repeated kindergarten. Subsequently, she had undergone a custody change, and been relocated to her aunt with whom she lived in the original town. Maisie then reenrolled in the school she had first attended. She visited her father and brothers in the holidays in a different location. Because of family dislocation and the resulting custody change,

being integrated in the local school was a matter of expediency and convenience for her family. It had little to do with educational, or inclusion, philosophies.

In a meeting attended when Maisie was 6 years old, the researcher recommended that Maisie's use of hearing aids be encouraged, and the development of listening skills be undertaken, in an attempt to assist her access spoken English. It had been reported by the audiologist that Maisie had significant auditory potential. Hearing aid usage then commenced at school, where the hearing aids were kept and monitored. After a good deal of deliberation, Maisie was fitted with a cochlear implant when she was 7 years old. While it was reported by the Children's Cochlear Implant Centre that she was detecting sounds with her implant, she was not making comprehensive use of spoken information delivered via audition when the initial observations were made. It was reported in one of Maisie's review meetings that she was choosing to use more oral communication and was rejecting the constant use of signs. She was 7 and 8 years old when the observations for this inquiry were made.

In the sociogram carried out with Maisie's class, she was chosen by one other child as a first choice to play with, and another child chose her as a third choice.

In the Listening Skills Assessment (see Section 6.8.4), Maisie could reproduce single sounds through audition alone, such as "ar, ba, be" and did reproduce single words of different syllable length with the pictures in front of her, indicating ability to discriminate in a closed set listening situation. She also selected the correct nursery rhyme picture from three. In two element items, such as, "find the cup and the bed"; she could identify one of the elements, but not two, without lip-reading. This result demonstrated Maisie's need to have visual (lip-reading) cues to support audition, if the utterance contained more than one element, and contextual clues such as pictures, assisted understanding. The testing did not continue past test Item 6.

10.3. Attitudes and opinions of those interviewed about Maisie's inclusion.

All those interviewed regarded Maisie's lack of communicative ability to be her chief problem. Her speech was fairly unintelligible, although some children were beginning to understand her. She could hear more with her CI, and was able to choose correctly from a closed set of spelling words. She could participate in a news lesson, but did not have a good understanding of the meaning of words. Prior to her use of speech, she used a lot of gesturing, pointing and using single item signs, she did not

use grammatical structures. The following Exhibit 10.2, which is an excerpt from the itinerant teacher's interview, describes this feature of her linguistic capabilities.

Exhibit 10.2 Excerpt from interview with itinerant teacher

Res: What would you say about her communication now?
 I.T: With the CI she appears to be understanding more of a closed set of spelling words and is making good conclusions when you give a description of a word. She likes to take the teacher's role and has a go at it. Back when she signed there was a lot of gesturing, taking you, showing, pointing, never any structure, single item not standardised, home signs in kindergarten, still signed along with reading. With the CI she doesn't want to sign. There is the odd time if there is just the itinerant teacher and Maisie, she may do a sign. Other kids can understand if they have a copy of the story she is reading. Some kids seem to know what she is saying.

Teachers stood in front of Maisie's desk expecting her to lipread them when they spoke emphatically and distinctly to her. She did have a teacher's aide to assist in her support, who had been taught some signs by the itinerant teacher for use with Maisie. In Exhibit 10.3, which is an excerpt from the itinerant teacher's interview at the conclusion of Observation 1, Maisie's communication is described in relation to how she performed in class during that observation.

Exhibit 10.3 Excerpt from interview with itinerant teacher

Res: Would you say that was a typical lesson?
 I.T.: Yes, and the child who came up is fairly typical of what happens "Show me your story and I will show you mine". Maisie is still not initiating a lot of conversation but just the fact that she sat there. She doesn't sign when she reads. You can ask her to sign. When I was doing the benchmarking with her yesterday I couldn't work out what she was saying. When we are on our own she will sign but not a lot. When she is saying similar sounds she will indicate to me so I have to indicate which one. Now if she doesn't know which word she will ask. She likes to play a game with the different sounds. She likes the phonemic awareness work. She got that from me, and the auditory training. I think it has been part of everything but once she got the hearing aids on her she started to realise that there were noises out there that she wanted to hear. The classroom teachers also make her look and listen and when the teachers know she really has to listen they come and stand near the desk and she knows to look and watch their lips. The spelling on the board is introduced through sounding and if there is a sign it will be used. The sounding was introduced last year in kindergarten. The sounds were introduced and said over and over again. They used the program called "Adam Ant" where they sing the sounds over and over again. They did every sound that way and they did c-v-c patterns as well.

Her itinerant teacher claimed that Maisie was working at a level equivalent to the top of the middle group of children in her class, and attributed her success to the systematic style of teaching her traditional teacher employed. The program had not been changed for Maisie, so extra concrete material was supplied for her by her support personnel. Exhibit 10.4, which is also taken from the interview with the itinerant teacher, describes the teaching style the itinerant teacher considered effective for Maisie, as well as program adaptations.

Exhibit 10.4 Excerpt from interview with itinerant teacher

Res: Can you describe Maisie's program?

I.T.: There has been some consideration in the selection of teacher and peer group. The teacher selected was a very systematic traditional teacher and Maisie loves to know what is going to happen. If she doesn't she gets lost. She had quite a successful year and had the CI in Year 1 that took up time. She didn't seem to miss a beat in the change from hearing aids to CI.

Res: What changes have been made in the school program?

I.T.: In Year 1 the existing program fitted her fine. She had access as the teacher would model things and demonstrate, and say it for the class then say it again for Maisie. She could lipread and the teacher added sign and gesture. Maisie sat in the appropriate spot that I selected which offered her the best advantage. She began to tell news even though a lot of it was unintelligible and the class encouraged her to have a turn. Anything totally inappropriate was left to the itinerant teacher who was asked to do it with Maisie or read a story, and assessment as well. Stories the itinerant teacher knew ahead so Maisie knew what they were talking about. Her recall of words is very easy for her as she recognises the word. She doesn't know what they mean. She talks to everyone and anyone and gets the message across to everyone, as she is so persistent. She has a good sense of humour and understands when things are funny. She joins in and when it is explained to her she laughs all the more and will tell someone else about it. She has real friends who initiate play. She will initiate play too, both Aboriginal and white.

Res.: What teachers have succeeded and why?

I.T.: Those that have been systematic, direct instruction, predictable daily routines, and lots of repetitious tasks. Well planned versus not well planned.

Her itinerant teacher perceived numerous benefits for Maisie from her placement, especially since her CI. Her vocalisations, which had been unusual prior to the implant, had set her apart from the other children. As Maisie was part of the Aboriginal community, and able to socialise with both Aboriginal and white children, her social needs were met in the inclusive situation. While a segregated setting may have met her academic needs, it was unavailable to her realistically.

Unlike the itinerant teacher, others interviewed had no experience of segregated educational settings, so didn't wish to compare the benefits of the two. It was noted that in the integrated setting, Maisie could grow up with her Aboriginal peers, which could not happen in a segregated setting. Her communication difficulties when she first came to school, and her behavioural difficulties had been problems, making people less positive towards her. The idea was expressed that inclusion should only occur when it is appropriate, and not just for the sake of it, and parents should have a choice. It was felt that for signing children, it was problematic, as it was unlikely that teachers would take on the extra burden of learning to sign. It was thought that if teachers had children with special needs in their schools, they would be ready to understand their special needs, as long as the requirements were not too great. This view was expressed by the Principal, in an excerpt from his interview in Exhibit 10. 5, and in the same exhibit the itinerant teacher expressed her positive attitude towards Maisie's integration.

Exhibit 10.5 Excerpts from interviews with the Principal and itinerant teacher

Principal

Res: How would you describe Maisie's integration?

P.: Very successful. You just have to look at her face to know that she is happy.

Res: Can you give any reasons for this?

P.: Well the change in circumstances, especially the home environment. The changes are massive; her level of communication and awareness of other people and how she needs to communicate with them is incredible. This is due to maturity also. She is better than Michael as she has a more outgoing personality.

Res: What is your attitude towards integration of children with disabilities in general?

P.: I strongly support it if it is the appropriate environment. Some children need a specialised setting. I don't steer parents either one way or the other. I let them make up their own minds after they have been shown the advantages of each setting.

Res: You have an IO class [special class for students with severe intellectual delays] starting in your school.

P.: Yes, they have the choice. I believe it is appropriate integration, not just integration for the sake of it. The teachers are pretty well serviced by the itinerant service and its basically an on the job in-service, learning how to cope with the children with special needs.

Res: Do you think the teachers have had to make many adaptations to cater for Maisie's needs?

P.: I think so in terms of how they operate the class. There are adjustments because the children are different. They may have different physical needs. It is not just the teachers who have the child in the class it is all the staff as they do a lot of in-servicing the whole staff. The issue is shared. There is little available in terms of training.

Res: Do you think the teachers should have special training, sign for instance for the sign dependent children?

P.: No, as I don't think the teachers would take it on.

Itinerant Teacher

Res: What do you think are the benefits of inclusion for her?

I.T.: Probably totally appropriate because it meets her needs as an Aboriginal child and meets her own needs as a social person, part of the area and the community. The peers see her at school and she's part of it. A special deaf class may have some academic benefits but not social.

Because Maisie had significant literacy problems, which were difficult to address, some felt there should be whole staff in-servicing to train them to deal with such problems, while others felt on-the-job training was preferable, as expressed in Exhibit 10.5.

There was disagreement about Maisie's performance between some of those interviewed. The itinerant teacher, on the one hand, considered Maisie's performance comparable to children in the middle of the class. Exhibit 10.6 exemplifies her opinion in an excerpt from her interview.

Exhibit 10.6 Excerpt from interview with itinerant teacher

I.T.: The academic placement is about top middle. She may be sliding as they have begun writing skills, which she needs to develop. In assessment for oral language the task was to follow directions and Maisie gave descriptive ideas but not the names of things she was trying to describe. She had to write a report, which was difficult.

I.T.: Currently, in Year 2 the teacher is easy going and really wants Maisie to respond to her but there is not enough planning. There needs to be explicit directions. There have been a lot of teacher changes this year. Maisie has times out alone with the itinerant teacher for listening skills and speech and some academic work. The itinerant teacher takes a small group sometimes for reading with Maisie in it. There is no signing. The itinerant teacher uses some signing but Maisie never does in the classroom. For the vocabulary of maths and reading and writing some signing is useful, for example +, -, x, how many, number, 4, 40. She has good academic concepts. The only area where she is really lagging is creative writing and grammar which is not there, + and - to grade level and 10's and 1's and order of numbers, which is more, which is less. She knows money comparisons, longer, shorter. She loves music and loves to sing but there is no voice. She just moves her lips.

Maisie's communication was considered quite satisfactory by other interviewees. Conversely, two teachers interviewed regarded her performance as falling somewhere towards the bottom of the class, as described in Exhibit 10.7.

Exhibit 10.7. Excerpt from interview with class teacher for the year following the Classroom Observations

Res: Can you describe your communication with Maisie?

C.T.: I could talk to her and after she had the cochlear implant it made sense and she could listen. I got her attention and looked at her. If need be I could communicate more complex things through the teacher's aide or itinerant teacher. She understood. She would play sometimes that she didn't understand but she really could understand. I tried to simplify things and sentences. When it was a discipline matter body language always helped. In class I used many things such as prompts from around the room in the classroom in the way of concrete material. I would point, and point in the book and wrote things down for her and I would write it and say it at the same time. I used a lot of concrete materials. In story writing she would write the letters as I said them. This was the same in maths.

Res: Did you modify the program?

C.T.: Yes with the help of the itinerant teacher who took her for the areas that were difficult or the teacher's aide took her separately. She fitted in the bottom group quite well.

Res: How did she compare to the other children?

C.T.: Fairly poorly. She was low in language, and maths was stronger than literacy. She had better concept development in maths.

Res: What effect did the cochlear implant have on her performance?

C.T.: Well it was better because there was no need to sign. The more difficult concepts the itinerant teacher did with her, the more run-of-the mill things in the room, which the class teacher could do, and the rest to the itinerant teacher.

C.T.: Now I think it is a lot more successful since the CI as there are not as many behaviour problems. There is no signing and she can interact with the other children. They get the general idea about what she is saying. With signing it is very difficult for the teacher unless they are able to sign themselves. It is only successful if there is enough support from someone who can sign. It is too hard to explain. If the aide is there it is possible to explain but even then it is delayed, as the message takes longer to get through. It is really an individual lesson, everything is delayed and a long way behind. Since the CI we don't get the mothering from the other children that used to happen when the other kids try and treat her as a pet. Assessment is very difficult. It is hard to get a total picture of what the child can do. You can't get a true picture. You get a sketchy idea. If the class teacher is to assess it is very difficult. It is always modified.

In the itinerant teacher's view, Maisie "gave" news. The observed lesson revealed that "giving news," meant holding up pictures, pointing and nodding, saying single words, and mouthing and saying unanalyzed phrases, such as, "good afternoon", which is demonstrated in Exhibit 10.8 below.

Exhibit 10.8 Excerpt from Observation 3 News

C.T.: "Yes let's have news. Sit in a big circle. Get ready. Righto, Kaylen. Looks like you are the first cab off the rank."

C.T.: "Now Kaylen is ready, Samantha Wellborn is the one holding us up."

Three or four children gave their news with the class asking them questions about it at the end.

Maisie stood up.

She mouthed "Good afternoon"

Children: “Good afternoon Maisie.”

M.: She mouthed, “baby” as she held up her photographs

C.T.: “Say again”. (The teacher went over and whispered to Maisie mouthing emphatically “This is me when I was a baby”).

M: “Baby, dad”.

I.T.: “She heard. She has the “dad” one”.

Maisie continued walking around and showing the photo.

C.T.: “Thank you Maisie.”

Maisie’s mathematics skills were more advanced than her communication and literacy skills, and suggested that she was developing concepts and skills in the absence of standard language, through visual means. Maisie’s assessment tasks in school were carried out by the itinerant teacher, who possibly, was not experienced with what an average performance was. The testing the itinerant teacher carried out was reported to be skills based, and did not require contextual understanding (See Exhibit 10.4 and 10.6), as it was claimed Maisie had no knowledge of grammar, making it difficult to understand the contextual aspects of language, and while she recognised words readily, she did not often know what they meant. In Exhibit 10.6, her testing was discussed, which explained that Maisie described items rather than giving the lexical form itself. She was said to be able to spell words, as long as they remained in the correct order presented. This was significantly below expectation for Year 2 children.

While Maisie had never been signed to at home, she was developing some communication skills, since her CI. She was using single words, and was aware of the sounds that words consisted of. She was using writing to help indicate her feelings about people at home. This usually involved writing a list of names and putting ticks, or crosses beside the names of those she did, or didn’t like. An excerpt from the interview with her aunt, who was her guardian, explains this.

Exhibit 10.9 Excerpt from interview with Maisie’s guardian

Aunt: She comes home and says people tease her. The only problem is she could have been teasing them first. They tease her about the sounds she comes out with and she’s so loud and she groans. At home she sounds out what she wants to say. We stop when she says something and she is very careful to sound it out. If she’s angry she lets you know. She also communicates by writing. She writes, “I love....” Or if she is angry she will put a cross through your name.

10.3.1 Anomalies

Anomalies in this case, involved the difference of opinion about Maisie's communication and academic performance, which were considered satisfactory by some of those interviewed, who claimed her performance lay in the middle of the class. This latter assessment was neither consistent with the researcher's assessment of her communication, nor with the observations of her classroom performance. It was not the view of her teacher from the subsequent year to Classroom Observation Data collection. The opinion of that teacher was recorded in the excerpt from her interview, Exhibit 10.7. That teacher, who was the Assistant Principal for the Infants Department, had extensive experience in teaching and assessing infant grade children.

10.4 Data collection

All of the Classroom Observations for Maisie were collected by the researcher as a non-participant observer. There were four quite long observation sessions, and, because it was an infant's classroom, lessons were not discrete but ran into each other. A morning session may have begun with writing activities, and finished before a recess break, with mathematics. There were two teachers involved with the teaching of the class; the regular teacher taught for the first four days of the week, and the other teacher taught the class on Fridays.

The itinerant teacher, who worked with Maisie, had done so since Maisie first received itinerant teacher support as a preschooler. Maisie had a number of different teacher's aides work with her, since she had been at school. Not all of them had attended Signed English classes. Maisie received most of her support in the morning sessions, either with the itinerant teacher, or the teacher's aide, and her Friday afternoon session was unsupported.

When the observations were made, Maisie had not long received a cochlear implant. Her communication methods ranged between Signed English and spoken English, with gestures and other informal devices used to support communication. The lessons observed included writing, reading, news, mathematics, and free activities. All the lesson observations were audio recorded and transcribed. The class teacher and the itinerant teacher, who was supporting Maisie in the morning lessons, were interviewed at the end of each session, and questioned about the typicality of the

lessons observed. They confirmed that what had been observed in the lessons was in fact typical of how things usually occurred. It was somewhat difficult gaining access to Maisie's lessons, as she was often away from school involved with the implant program, as well as other absences.

There were no observations of the interpreter working with Maisie, as it was apparent that when Maisie worked with the itinerant teacher, she was unable to access the same material as the other children concurrently, so it was thought unlikely that she would be able to do so when supported by the untrained teacher's aide. Her description of her support of Maisie is contained in Exhibit 10.10. Exhibit 10.11, which follows, illustrates how Maisie was expected to perform the pasting and matching activities of her reading lesson, without actually reading the material for understanding.

Exhibit 10.10 Excerpt from Observation 1

Reading (Excerpt from transcription of lesson, aligned with observation notes)
 The itinerant teacher read the next bit of the sentence on the strip of paper and matched it to the text in the book. The itinerant teacher signed "SAME"
 I.T.: She found the piece of the sentence for Maisie. "What about end?" (She signed the word "ALL" but spoke the rest of the sentence).
 "Is it going to fit? Will it fit on the page?"
 Let's see.
 Little bit long but it will be OK.
 Put it in your book."
 Maisie very carefully pasted the two ends together in her book She had not read either the beginning or the end herself and probably had no idea what the sentence meant.

Exhibit 10.11 Excerpt from interview with teacher's aide

Res: Can you describe the communication between you and Maisie?
 T.A.: We speak, there is some signing. I have not done the signing course. The itinerant teacher taught me the basic letters and numbers. Maisie's speaking is not too clear and I need to sign to help work out what she says.
 Res: Are you aware of any modifications the teachers have made for her?
 T.A.: No, she is following the same program as everyone else. She is very bright. The thing I couldn't get through to her was contractions. It is difficult to explain. I had to write it out fully and she got the idea. She is pretty bright at maths but likes to copy and not work too hard. Measuring and weighing she seems to have the idea. She probably needs to have both concrete examples as well as practice and written to get the idea.
 Res: What do you think is the benefit of the integration for her?
 T.A.: Since the CI, which is a great benefit for her hearing, socially, the kids they talk to her. She says the names of the kids. Before the CI she sounded like a bird. Her

sounds and noises and shouted. Now she is speaking and making an effort and has a go at saying the sounds and words.

As the class teacher and the itinerant teacher established that the lessons observed were typical of the usual events, there was no reason to believe that further observations would have revealed further atypical data, and saturation was considered to have been reached. This was assumed, because of the repetitive nature of the type of support that was observed in all the observations, and confirmed by the interview data that followed the lesson. The itinerant teacher, and class teacher, had been given the opportunity to note any unusual occurrences. An example of a post-observation discussion is contained in Exhibit 10.12.

Exhibit 10.12 Excerpt from interview with itinerant teacher

Res.: What do you think she gained from the reading class I observed today?
 I.T.: I think she understood concepts such as “same”, “under” “beginning” “end” “capital letter”, “full stop”. The tracking along the text as the pattern was pointed to was useful in my opinion. “Hurry up” was another concept stressed.

To expand the available data, Maisie’s subsequent teacher (i.e., from the following year after the collection of Observation Data) was also interviewed.

The Language Performance Data, other than the writing task, were collected by the researcher in a withdrawal situation and video-recorded. Maisie was happy to accompany her, and keen to communicate. The reading data was collected in the company of the itinerant teacher.

When collecting the conversational skills data, the researcher asked Maisie to talk about her holiday, and to retell a movie she had seen to elicit a personal and formal narrative. She was asked to describe her bedroom to elicit a description. The writing task was collected by the itinerant teacher, which was a news item, a common writing task in infant grades. No further writing tasks were requested. It was apparent when attempting to elicit a personal narrative that Maisie had trouble understanding what was expected of her. The requests were both signed, using simple Signed English sentences, as well as spoken. Maisie’s responses were a mixture of vocalisations, which were mostly indistinct, and a combination of gesture and signs. The responses were very difficult to understand at the time of collection, as well as in transcribing the videotape. Much of what was signed by Maisie did not correspond to

what she was verbalising. There were individual words, which were distinct, but they were incorporated in an amalgam of indecipherable utterances. These utterances were characterised by rhythmic spoken English-like intonation.

Maisie gestured in a descriptive and elaborate manner, but it was not until she spotted a catalogue of climbing equipment on the table that she was able to use the pictures in it, to point to, and use as a prop to conversation. She was able to indicate that she had played on equipment like that in the picture, in the holidays. It was not possible to elicit a personal or formal narrative that had a structure independent of a question and answer conversational format, or independent of the support of illustrations. She was asked to retell a movie she had seen, but she was unable to do so. She gave a simple description of her bedroom. This was her most sophisticated expressive use of English. It was apparent that Maisie did not possess even the most basic concept of narrative structure.

10.5 Language performance

The following section answers the Research Questions relating to Maisie's Language Performance, and contributes to a description of Maisie's linguistic ability. It answers the Particular Issue Question, "How did Maisie perform in the regular class in regard to her communicative and literacy ability?" Language Performance Research Questions are listed in Section 6.7.1.

Following the examples of Maisie's LPD is a description of her linguistic performance, including a description of her responses to the formal language and reading assessment tests, and a graphic summary of her performance in carrying out the linguistic tasks. The linguistic tasks were designed to portray her communicative ability and to explain and understand her actual classroom performance.

10.5.1 Language Performance Data

Exhibit 10.13 Conversational exchanges between Maisie and the researcher

Personal narrative:

Res.: "Did you have a nice holiday? Where did you go?"

M.: (a vocalisation that sounded like "brothers")

Res.: "Your brothers. You were with your brothers. Where do they live?"

M.: "Um"

Res.: “Did you play? Did you climb trees? Did you play with the boys?”

M.: (vocalisation that is recognisable) “Dane, Kevin”

Res.: “Dane, Kevin, yes, who else?”

M.: (indicates three with her fingers and vocalises)

Res.: “Three brothers. You’ve got three brothers. Dane, Kevin So who is the biggest?”

M.: Points to herself.

Res.: “What’s your teacher’s name?” [an attempt to change topic]

M.: Shakes her head and shrugs.

Res.: “You don’t know? You do. What’s her name?”

M.: “Tiffany, Tiffany, Tiffany”.

M.: Mumbles and vocalises “Comes off”, “brother, mum, Tiffany” (gesturing and using her fingers, the reference was not understood by the researcher who continued by referring to the sunglasses Maisie was playing with)

Res.: “Your brother Michael gave you the sunglasses” (She was wearing them and playing with them)

M.: “Yes”.

Res.: “Where did he get them from? From the shop, or from Mum?”

M.: Nods.

Res.: “Right. Have you been to a movie?”

M.: “No, no” (verbalising quietly).

Res.: “Have you been to the movies?”

M.: Nods.

Res.: “What was the name of the movie?”

M.: Shakes her head.

Res.: “Don’t know?”

M.: “No”

Description:

Res.: “What’s in your bedroom?”

M.: “Big one, sleep, there, sister”

“SLEEP” (gestures climbing)

Res.: “A double bunk. Do you go up the ladder? What’s in your room?”

M.: “Big”

Res.: “What colour is it?”

M.: (signed) “BLUE, YELLOW, BROWN, AND WHITE.”

Res.: “All those colours, very pretty”.

M.: “RED AND PINK”.

Res.: “Do you have a doll?”

M.: “No”.

Res.: “Do you like dolls?”

M.: Nods.

Res.: “Do you have a Barbie?”

M.: (spoken) “Baby”.

(signed) “BABY”

M.: “Horsey.”

“HORSEY”

Res.: “And a horsey.”

M.: Nods

Res.: “That’s nice.”

M.: “Big horsey, baby and mummy”.

Exhibit 10.14 Written language sample

1 Carol, Maisie, DaD My in (ma) moon Belinda. Maisie Moon.
 2 I went with (and swimming)
 a swimming (Shana Paulson)We went to the beach. Mum Belinda Maisie.

10.5.1.1 Description of Language Performance Data

10.5.1.2 Conversational exchanges

Clearly, Maisie was unable to employ text level discourse. She required contextualised concrete support for her communication.

In the initial conversational exchange between Maisie and the researcher, which was at a one utterance, contextualised level, not requiring thought-out planning prior to execution, Maisie needed the support of question and answer turn taking. She was unable to provide much more information than the names of her brothers, and how many of them there were. She was very difficult to understand, as she was trying to respond orally. Her description was more sustained, as she was able to list items in her bedroom, and once again responded to turn taking. The visual stimulus of a catalogue of playground equipment, which happened to be on the table, provided her with a foundation on which to base her utterance level conversation about her holiday. She hadn't been able to initiate conversational exchanges prior to seeing the catalogue. When she combined the visual items, which triggered her memory, and her signing and gestures, she seemed to be attempting to relate information, or at least appeared to want to. Her gestures and miming were almost dance-like. Her memory for the signs was inaccurate as she made many word sign mismatches. Exhibit 10.10 demonstrates this feature of her communication.

Exhibit 10.15 Excerpt from signed conversation

Res.: “You do? Do you have a Barbie?”
 M.: (signs) “BABY”
 (spoken) “baby”
 Res.: “and a horsey?”
 M.: Nods

Res.: “That’s nice.”
 M.: “Big horsey, baby and mummy”
 Res.: “You’re lucky. Did you get them for Christmas? From Santa?”
 M.: Unintelligible mumbling then she points to a catalogue on the table.
 M.: “MY MUM, CAR”
 “My mum, car”,
 “playing my brother my mum car very good lovely” (signs were not the same as speech in this utterance)

When Maisie vocalized, there were recognisable words and phrases intermingled with unintelligible babble in regular patterns of intonation. Receptively, she used audition and lipreading when questioned, and did not attend to the signed sentences that were used initially. In response, she typically constructed SVO strings.

10.5.1.3 Writing

It was difficult to get examples of Maisie’s writing that didn’t appear to have adult input and assistance. In giving assistance to students with hearing impairments, adults often have to model the required sentences. The phrases, “I went with”, and, “we went to the beach”, were clearly not generated by Maisie. Her writing had many of the same characteristics as her conversation. It was talk, or sign written down, and had little grammatical structure of regular written language. It was a string of ideas linked together without grammatical devices, unless it was an unanalysed whole, such as, “comes off”, which was part of a spoken utterance. She had expressive ability when she mimed and used gestures. The following Exhibit 10.16 taken from Observation 1 demonstrates the assistance Maisie required to complete a written task.

Exhibit 10.16 Excerpt from Observation 1

When the researcher came in, the itinerant teacher and Maisie were signing and talking about Maisie as a baby and her relatives. Maisie wrote “Rebecca”, her mother’s name and the itinerant teacher fingerspelled it. Maisie signed “DAD”. The itinerant teacher repeated it and then Maisie wrote “Maisie baby”.

They talked about the previous news story in her book about Tim and her brother Tommy with signs and fingerspelling for the names. Maisie tried to write “Dane” but had trouble with it so the itinerant teacher wrote it for her and she copied it. The itinerant teacher signed “WHAT?” and said, “What’s he doing?” Maisie wrote, “Dane” again.

Meanwhile the other children were selected and were reading their stories at the front of the room. The itinerant teacher tried to indicate to Maisie what was being read. The conversation between the itinerant teacher and Maisie began to include

information that the children were reading about and then it reverted back to their own conversation. “Dane” had been changed to, “Tommy”, another brother. They talked about the other brother “Kevin” but Maisie shook her head. She started to gesture and draw on the desk. The itinerant teacher said, “No use your book”. Maisie drew some red punching gloves that were Kevin’s. A friend came over and showed Maisie her story and read it to her. She was called to sit down with the group who were finished and waiting at the front of the room.

10.5.1.4 Formal Language Test

In performing the formal language assessment, *TROG*, Maisie performed items A, B, C, and D, the nominals, verbals, adjectivals, and two element combinations, correctly. This indicated that she was able to identify individual words and simple word combinations in situations where understanding of function words, word order, or inflectional endings, was not critical. Maisie did not perform the three element combination, item F, the final element needed to be able to gauge if she has the prerequisite skills to cope with grammatical structure.

10.5.1.5 Reading

When reading the *Neale Analysis of Reading Ability* practice material for 5 to 7 year olds, and the Level one story “Bird”, it was clear that it was really too difficult for Maisie, who had to be told a number of words, as she had few strategies for working them out. She did make one attempt at working out a word using phonemic cues, “net for nest”. She recognised a number of words, but it was clear she used the pictures to assist in answering. All of the answers were wrong, but related to her own experience.

In the *Waddington Reading Test*, Maisie got all the initial sounds correct, and she got 12 of the 15 words with pictures correct. She appeared to have a good visual memory for words. The incorrect words had the same first and last letter, suggesting she was using orthographic cues as well. She relied on the pictures and related words she knew to the pictures. She did not use syntactic, or semantic cues at all. Her RS was 23, giving her a RA of 6.11., and a CA of 7.11.

The description of Maisie’s linguistic capabilities clearly indicates why she had difficulty in accessing the regular class program. She did not possess the essential linguistic prerequisites to access a regular class program, and explains why her performance in class was distinctly different from the other students. She had some lipreading ability, which the teachers thought would facilitate communication; hence

they mouthed individual words and enunciated them in an exaggerated manner. Maisie's listening capabilities were not well developed, having only recently received a cochlear implant. She lacked the formal aspects of spoken English as well as discourse strategies, other than at an utterance level conversational level, which involved responding to questions, and she required contextual concrete support.

The Language Performance Data highlights the difficulties Maisie experienced in a regular classroom, and which were born out in the Classroom Observations. While Maisie was a social and gregarious child, it was evident when observing her, that she was in the class, but not academically part of it. Curriculum content delivered to the rest of the children was not delivered to Maisie. The other children were expected to listen to, and understand the teacher; Maisie was not, neither was she provided with a complete grammatical Signed English version of what was spoken. The teacher dialogue was not accessible to Maisie, and the information related to her by the itinerant teacher, was of a different nature to that of the other children. Much of what the itinerant teacher said was not responded to by Maisie, probably because she didn't hear or understand it. While the other children may have had to listen to, read, and comprehend text, Maisie was expected to match words visually, and count them, while other children used grammatical contextual clues from the text. The itinerant teacher did not attempt to engage Maisie in checking her understanding of the text, or establishing thorough understanding of it.

Figure 10.1 summarises Maisie's Language Performance.

Figure 10.1 Language Performance summary for Maisie

	Conversational Communication	School Learning (Reading)
Receptive	Responded to: <ul style="list-style-type: none"> • Two element combinations Nouns, verbs, adjectives • Lipreading and fragmentary audition, • Some Signed English signs • Gesture, mime • Concrete props • Physical touching 	<ul style="list-style-type: none"> • Used picture clues in reading • Recognised single graphemes /spelling words • Recognised single words (not their meanings)
Expressive	Used: <ul style="list-style-type: none"> • Contact communication, • Touching, physical interaction • Turn taking • Gesture and mime • Verbalisations, • Spoken, single English words with concrete props (contextualised communication) 	(Writing IRE): <ul style="list-style-type: none"> • Wrote unstructured strings of words

The following section, which contains the answers to the Classroom Observation Research Questions listed in Section 6.6.1, describes Maisie's classroom performance and the performance of her class teacher and itinerant teacher in meeting her educational needs. It is a description of the classroom events, and in part answers the Particular Principal Issue Question, "How did the regular teachers provide inclusive educational opportunities for Maisie?" The following section was derived from the summarised and condensed Observation Data, which had been sorted into bundles of variables, which were evident in the observed classroom situations. It represents a condensed description of what occurred in Maisie's case.

10.6 Description of the events and practices in the lessons observed for Maisie

The lessons observed in this case, included story writing, reading, maths, news, and afternoon activities, were all on-going lessons. No observed lessons were initial treatments of a topic. The lesson activities ran into each other, as children

finished one activity, they would automatically go onto the next one. The same teacher taught the class for the whole day. In this case there was a different teacher on Friday, who taught the Friday afternoon lesson that was observed (i.e., free activities).

10.6.1 Adaptations

The following exhibit, Exhibit 10.17 an excerpt from Observation 1, demonstrates how Maisie was expected to perform the same activity as the rest of the class, but that the outcomes expected from her were different from those expected from the rest of the class. It demonstrates the techniques used by the class teacher and itinerant teacher in assisting Maisie to access the class curriculum.

Exhibit 10.17 Excerpt from Observation 1

The teacher and itinerant teacher debated whether Maisie had seen the reading book before. They decided she had. Maisie watched as the teacher read it. The teacher enunciated her words very clearly for Maisie's benefit and showed her the part she was reading in the pictures by pointing and gesturing. The itinerant teacher signed "WHERE BROTHER?" "DO WORK".

The class teacher read the story and then emphasised some words, then pointed to the pictures. The itinerant teacher signed "WHERE BROTHER?" [referring to a story book character]. Maisie pointed to the elephant. The itinerant teacher signed "ELEPHANT". Maisie was sitting near the front so she could point to elements in the pictures. The itinerant teacher said, "brother". The class joined in the refrain of the story. Maisie said "no".

After reading the story about pirates the children had to read beginnings and endings of sentences and match them and paste them into their books. To perform this task successfully they needed to read the sentence parts for meaning to recognise the beginnings and ends of the sentence.

When it was time to perform the activity back at the desk the itinerant teacher signed, "CUT", "PASTE". She gestured and indicated by pointing to the cutouts of sentences from the story and that they needed to match. She did this through gesture.

Maisie and the itinerant teacher sat to the front of the room when activities were at the blackboard. The teacher pointed to the pictures in the story as she read it. The itinerant teacher interjected comments and simple questions. The teacher enunciated words carefully as she pointed to them, and gestured toward the part in the book that she was reading. The teacher emphasised individual words and used facial expressions and gestures to gain Maisie's attention.

The itinerant teacher supported Maisie independently of the rest of the class, although they were superficially doing the same activity. In the writing lesson, the answers were elicited to writing activities using photographs as visual stimuli, and answers were drawn out and written down, using assistance with spelling and sentence structure. The sentences were written grammatically by the itinerant teacher for Maisie, but no effort was made to engage Maisie in responding to the grammatical inclusions, which she merely copied. They were automatically inserted by the itinerant teacher, who made no actual reference to them to Maisie.

The class teacher worked on a different approach with the rest of the class in reading. She asked the class to read sentence beginnings and endings, and to think if they made sense. The itinerant teacher, meanwhile, used the visual model in the text to assist Maisie find the correct sentence in the text. No attempt was made to look for meaning clues in the sentence parts. Maisie was interested in the pictures of the story, but not in reference to the actual activity the class were performing. She was willing to be involved in a personal interpretation of the pictures that did not relate to the text.

The actual concepts that she was having reinforced were those attached to the cutting and pasting, and words such as “same”, indicating the words on the paper matched the words in the text. The itinerant teacher gave a verbal commentary of the story as they looked through it, but there was no attempt to check if Maisie understood any of it, and comprehension responses were not sought. It was virtually surrounding Maisie in spoken language, in an ostensibly “environmental” (see Section 3.2.2) approach to language learning, but with no communicative engagement. Maisie could repeat the words, which she recognised in the story, but there was no attempt to assist in, or test her understanding of the words.

The emphasis with the rest of the class was checking to see that the two parts of the sentence made sense. Maisie did visual matching of words to text.

In news time, because of the familiar routine and structure of the communicative event, Maisie could participate with visual props to show and support her news delivery. Both her class teachers made rudimentary attempts to communicate directly with Maisie through very precise mouthing of words and emphasising words. When this failed, they resorted to using another child to demonstrate to her, or called on the itinerant teacher.

The itinerant teacher believed Maisie was getting information from the lessons, but it was according to Maisie’s own agenda, such as learning idiosyncratic meanings for words, and interpretations for the pictures in the stories. She had a good

ability to recognise sounds in words, and could sound out words, but did not understand their meanings. For Maisie to perform adequately, she needed to be focused and attentive.

Exhibit 10.18 Excerpt from interview with itinerant teacher

Res.: What changes have been made in the school program?

I.T.: In year 1 the existing program fitted her fine. She could lipread and the teacher used sign and gesture. Maisie sat in the appropriate spot that I selected which offered the best advantage. She began to tell news even though a lot of it was unintelligible and the class encouraged her to have a turn. During the process of the implant the class teacher explained to the class what was happening. Anything totally inappropriate was left to the itinerant teacher who was asked to do it with Maisie or read a story, and perform assessment. Stories, the itinerant teacher knew ahead, so Maisie knew what they were talking about. The recall of words is very easy for her but she recognises the word, and doesn't know what they mean. She talks to anyone and everyone and gets the message across, as she is so persistent.

10.6.2 Communication

The communication between Maisie and the itinerant teacher involved some Signed English, gestures, drawing, writing, and pantomime. This was often supported by some visual aid, such as a photo, or matching the text, or other concrete material. Communication with other teachers, often involved emphasised mouthing of individual words. Frequently, demonstrations were used, whether accompanied by speech or not. Maisie made herself understood through actions and single words. Pointing to what was happening, and what the teacher was doing, was a method used extensively. Many of Maisie's interactions with other children were physical, either touching, elbowing, or showing. When the itinerant teacher tried to sign for Maisie, about what the other children were doing, it concluded quickly. Maisie used verbalisations to get the attention of the other children with varied success. She tried to initiate communication with them regularly in undirected times. Many of her attempts to communicate went unacknowledged. Much of the teacher interaction involved getting her attention, using physical gestures such as finger snapping or pointing.

Exhibit 10.19 Excerpt from interview with itinerant teacher

I.T.: With the CI she appears to be understanding more in a closed set of spelling words and is making good conclusions when you give her a description of a word.

She likes the spelling to remain in the same order. She likes the teacher's role and has a go at it. Back when she signed there was a lot of gesturing, taking you, showing, pointing, never any structure, single item not standardised, home signs in kindergarten still signing along and reading.

Maisie used signs for words when she was reading, but preferred not to use signs in class, only when withdrawn. She had learned to be aware of speech sounds. According to the itinerant teacher, that ability had developed through auditory training. However, it may also have come from the very intensive phonemic awareness program called Adam Ant that she underwent in Kindergarten. The researcher had observed her responding well to this program, in the year prior to the data collection. Maisie was aware that words have different sounds, and how they are produced. She looked for assistance in recognising sounds in words. She was expected to hear in class, and the teachers stood near her desk and made her watch their faces for lipreading assistance.

10.6.3 Teaching style

The main class teacher used IRE questioning when conducting a reading lesson, and drew answers from the children through her questioning. It was a teacher-centred approach. She used directions supported with demonstrations of what she wanted to have completed, which accompanied the speech. The afternoon teacher was also teacher-centred in his approach (see Section 5.4 and Appendix D for observation record of the activity lesson). The children were expected to be quiet, and respond to the teacher when asked, even free time was supposed to be quiet, while children were able to play together, communication was not a requirement, nor encouraged. There was no effort, on the part of either teacher, to directly involve Maisie with the immediate content of what was being said. The teacher expected the itinerant teacher to deal with that, or in the free activity lesson, another child was used to see that Maisie knew the general instructions.

10.6.4 Accessibility of content and student participation

The itinerant teacher and Maisie worked in the room on the same activity as the rest of the class in the observed lessons. In the story writing lesson, Maisie was isolated from what was being said or done by the rest of the class, who were helped by the class teacher, who then read their stories to the class. Maisie did not finish in

time, and her story was not generated without a good deal of interpretative extension, or read to the class. The support she received was intensive, and provided the sentence structure. She was not required to read, say, or sign, the grammatical extended version of the individual words she provided. No extension of her own linguistic construction, or focus on the inclusion of grammatical elements in it, occurred. This is exemplified in Exhibit 10.20 below.

Exhibit 10.20 Excerpt from transcription of Observation 1

The class was writing their stories and the class teacher was walking around helping individuals. The itinerant teacher was helping Maisie.

I.T.: “What are you going to write about?
Write about?
Look at the baby (she had a photo of her as a baby).
The baby is you.
A beautiful baby. And dad and Karen. Can you write about that for me? See how you go”.

M: “Mum”

I.T.: “OK write “Mum”. What’s her name? OK yes”.

I.T.: “Brother what’s that? Dane your brother is that a photo of Dane as a baby? Dane. D A N E (fingerspelt)”.

I.T.: “That’s your brother’s name. You are going to remember that? Are you? What’s he doing? Doing?”

As the itinerant teacher was trying to elicit a written response from Maisie, the class teacher was listening to a group of children read their stories offering individual encouragement.

While the other children could join in the story refrain from the class book in reading, and complete sentence endings orally, Maisie looked at the pictures and pointed and gestured to different elements in the pictures. This is illustrated in exhibit 10.21, which is an excerpt from Observation 1.

Exhibit 10.21 Excerpt from Observation 1

Reading.

They read the next bit of the sentence on the strip of paper and matched it in the text. The itinerant teacher signed “SAME”.

I.T.: “What about end?” She found the end bit for Maisie who read it. The itinerant teacher signed some words such as “ALL” but said the rest.

I.T.: “Is it going to fit?
Will it fit on the page?
Let’s see? Little bit long but it will be OK.
Put it in your book.”

Maisie very carefully pasted it in her book.

Meanwhile the class teacher advised children and helped the other children work out the sentences. Maisie got the reading book off the desk and talked about a (signed) “MAN” and “WOLF”. She looked in the book to find them but they weren’t there. The class teacher helped the class by asking, “Does it make sense?” (in reference to the sentence parts)

The itinerant teacher read the sentence parts and she pointed in the book to where they occurred and Maisie looked at the pictures. The itinerant teacher commented “A beautiful woman on the front”. She directed her back to the text. “And tells me what to do (the refrain in the story)”.

Then signed “SAME”. “See if it fits. Does it fit? Yes do you want to chop it off? Has to go underneath and fit on the page”.

The children were matching the sentence beginnings and endings from the story, deciding if they made sense. Maisie had someone helping her so she wasn’t tiring as much as many of the other children.

I.T.: 1,2,3,? [counting the sentences they had completed]

M: “4”

I.T.: “Ok number 4”. They looked at the pictures in the book and Maisie was very interested in the picture of the pirates taking the man to be cooked and the dogs eating the underpants.

She went and got more tissue to wipe off the paste.

I.T.: “Come on find number 4. You need to hurry. Which one. What now? Well let’s go pick it up”. They read the sentence.

The itinerant teacher said “Can we see this on the page?” Where is it? Maisie looked for the ending and found it.

I.T.: “He says that the pirate captains can cook you up in a stew”.

Maisie checked and got the two parts of the sentence and was asked to put them in the book.

By this time she was really interested in playing with the tissue. She complied with the direction and stuck the two pieces of the sentence in the book. She was getting sick of the activity and was waving the bits of paper around and trying to stick them on the itinerant teacher’s face. She continued pasting and wiping.

I.T.: “Ok what’s next?”

Number 5 yes. Cleaning up lovely and tidy. Come on number 5, I’ll find it for you”.

By this time Maisie was lying back with her legs stretched out.

The itinerant teacher’s discourse, which was signed and spoken, usually had little relationship to what the rest of the class were up to. Maisie was well able to finish the physical activity of cutting and pasting the sentence parts. She could visually match the parts of the sentence to the text in the book. There was no attempt to help her actually understand one of the sentences, or see how they related grammatically from beginning to end. Maisie and the itinerant teacher engaged in counting and checking on where they were up to. The itinerant teacher read the sentence many times, but on no occasion did she check if Maisie understood any of it. Maisie could repeat the words, and was reported to be good at remembering words.

She did not know what they meant, just what they looked like. The reading activity was tiring for Maisie, and ultimately she looked for diversionary activities.

The news lesson was accessible to Maisie and she participated in it. She followed the format, delivered information through showing photographs, and answered by showing the appropriate material. She knew the routine well. In free time, she was mostly apart, although she made frequent attempts to involve other children in her activities, which ranged from touches, to bodily aggression of a mild nature. She did manage to get minimal responses from individual children. Exhibit 10.22 illustrates this.

Exhibit 10.22 Excerpt from Observation 4 Afternoon activities

After all the artwork had been given out which took a considerable amount of time, it was free time. Maisie went and got a tub of Leggo. She had seen the other children moving off to select activities. She sat by herself and started to look at the toys. All the groups of children worked away quietly. Maisie made a little truck and showed it to a boy as she stepped into the middle of his group. One boy sort of put his hand up to keep her from stepping on him. She indicated her truck but no one attempted to sign or verbalise to her.

Maisie then went to a different group and started building with their construction toy. She elbowed a boy out of the way and commandeered some wheeled toys to go in the compound she had made. Another boy came and sat beside her and talked to the two other boys, but Maisie was oblivious to their game, and they to hers. Then she touched a boy on the arm and pointed to her building. He didn't take her up on her effort to communicate but continued with his own activity with rocket launchers. Maisie persisted in trying to interact with the boys and involve them in her construction. Finally one boy did add bits to hers. She made a series of verbalisations and laughed out loud and wrecked a few pieces. The boy with her didn't try and speak to her. The others were surrounded by continuous babble of talk. Maisie was with the group of boys but there were no girls.

She came back to the Leggo by herself and tried to verbally get the attention of one boy as he went by, but he didn't stop. Other boys came near her Leggo, more or less accidentally. She frowned and said "Na". They moved away. She collected bits from the previous area and then poked two boys in the bottoms with bits of toys. They didn't respond. She moved over to a girl's group with a jigsaw. One moved away but the other stayed and they worked on the jigsaw silently.

Most children were tolerant and ignored Maisie, or pretended she wasn't there. When the time to pack up came, the teacher resorted to having another child help Maisie. The class was quiet and not really encouraged to interact, although they were allowed to talk quietly. That meant that many children worked independently and others interacted in small groups. Maisie was keen to play with other children, who

were responsive at the back of the group at the conclusion of the lesson, wrestling and generally not attending.

10.6.5 Student interaction

Social interaction, typically, involved Maisie interacting informally at the back of the group, not paying attention to the teacher. When she completed her writing activity, another child came over and showed her, her work. In free time Maisie made frequent initiations to the other children trying to get them to interact with her. She tried verbalisations, showing, pointing, poking, and standing in the middle of the group, and taking toys. She mostly received no response, but on occasion a child would share a toy, or show theirs. Other children were asked to help her, and they did it willingly. They paid attention to her news, and responded appropriately, and showed interest in her news items. They were keen to listen to her spoken efforts and tried to understand her; in fact they were reported to be excited when they could understand her.

In the data analysis after the Classroom Observation Data, Semi-structured Interview Data, had been reduced into summaries, and Language Performance Data had been described, a series of issues of an emic nature emerged from those data. The following section contains a list of the emic issues, which emerged from Maisie's case.

10.7 Issues arising out of Classroom Observation Data analysis

Language

- a) Difficult linguistic issues were not tackled
- b) There was reliance on visual props, not generating real communication from decontextualised situations, extending into abstract aspects of language
- c) Language learning opportunities appeared to be of an environmental on-going communication but without engagement of Maisie in the dialogue
- d) There appeared to be a lack of awareness of real language learning opportunities

Assessment

- a) There was disagreement about Maisie's performance level

b) It is problematic for the itinerant teacher to be solely responsible for academic assessment

c) Assessment tools used may only deal with isolated skills or memorised items

Support personnel performance

a) There was no concurrent learning with the class; Maisie was present, but not party to the real lesson content

b) There was no direct class teacher information input; reliant instead, on support personnel and other class members in the role of minders

c) There appeared to be no checking of Maisie's understanding throughout a lesson

d) An untrained teacher's aide to work with a child with such high level of linguistic support needs is problematic

Class teachers

a) No program adaptations were made, only physical considerations given

b) There was satisfaction of those involved with the situation

c) The class teachers were not directly responsible for Maisie's education

d) The paucity of input was significant

Social implications

a) Maisie had no best friend, and social involvement appeared superficial

b) Maisie had no deaf identity

c) There was a low level of home support

The following section contains the results of the stage 2 analysis, in which the observations made, were rated according to the different levels of inclusion, the Inclusiveness Ratings, which were provided according to variation in teacher performance and lesson content. The description of the classroom events, the results of the stage 2 analysis, and the description of the LPD, answer the Particular Principal Issue Question, "How did the regular teachers provide inclusive educational opportunities for Maisie?" A description of the Inclusiveness Rating categories is in Section 6.11.2.

10.8 Summary of stage 2 analysis of Classroom Observation Data / Inclusiveness Ratings

Table 10.1 Observations and Inclusiveness Rating

<u>Classroom Observations</u>	<u>Observations rated in order of inclusiveness</u>	<u>Inclusiveness Rating</u>
Observation 1 Story Writing	Observation 1	3
Observation 2 Reading		
Observation 3 News	Observation 3	3
Observation 4 Afternoon Activities	Observation 2	4
	Observation 4	4

Figure 10.2 provides a representation of the summarised information in two variables considered to contribute to providing a moderate level of inclusion in Maisie's case.

Figure 10.2 Variables contributing the moderate levels of inclusion in Maisie's case

<u>Lesson type</u>	<u>Classroom and curriculum adaptations</u>
Class teacher: <ul style="list-style-type: none"> • Traditional, teacher centered style • Familiar routine, use of props to "show" • Predictable lesson format Itinerant teacher: <ul style="list-style-type: none"> • Worked directly with the deaf student using concrete material, modeling responses, with on-going comment about proceedings but no comprehension checking • Multi-modal input, pointing, physical interaction and gaining attention, • Parallel working, pointing, pictures, concrete material • On-going elimination of contextual theoretical elements 	<ul style="list-style-type: none"> • Front seating • Extra pointing to pictures

Indication of Inclusion

- The deaf student worked on the same material as the rest of the class with support personnel but at a different rate to the rest of the class so that it was not possible to access the same demonstration material and examples at the appropriate stage in the lessons as the other students, but was able to complete some simple tasks to the satisfaction of the teacher for example, news and story writing.

10.9 Interpretations, assertions, and generalisations

In Maisie's case, the interpretations, assertions, and generalisations were based on the emic issues, which evolved, and the Inclusiveness Rating for her lessons. The following section contains the results of the data analysis and combined answers to the three Particular Issue Questions. It is the researcher's interpretation of the case. Further pertinent references are made to literature sources to assist in understanding Maisie's case.

10.9.1 Theoretical views which contribute to understanding Case 4

10.9.1.1 Language and thought

Jusczyk (1997) presented findings, which demonstrated that linguistic input affects infants' productions, just as it affects their perceptual capacities. He described how, soon after birth, infants who can hear, embark on a route to discovering the organisation of their native language. They learn about the sound patterns in their native language long before they produce their first words, leading to the belief that what is laid down in the first year of life, forms the foundation for subsequent language acquisition (see Section 3.3.1). Jusczyk also referred to the "use it or lose it" principle, which is the belief that capacities that do not receive sufficient environmental stimulation, deteriorate. This decline, he concluded, was more likely to do with attentional factors than with the atrophy of a sensory substrate. A stronger position is put by those involved with cochlear implants, and devoted to the development of auditory skills. Therres and McClatchie (2000) stated that when initial peripheral stimulation to the auditory pathways is poor and weak, neural pathways are not challenged to develop the dendritic arborizations necessary for the development of a robust auditory system, required to develop an auditory language. The auditory brain in deafness is thus claimed to be undeveloped, with the visual brain developed to acquire linguistic connections. Studies carried out to contrast the speech intelligibility of CI users using an Auditory / Oral (A/O) approach, as opposed to a group using Total Communication, indicated better performance for those children using an A/O approach (Osberger, McConkey Robbins, Todd & Riley, 1994), which may support the stronger position, or it may indicate that the A/O teachers were

superior to those using TC. If an A/O approach were preferable in developing auditory skills, this would have implications in Maisie's case.

Maisie was reported to have had normal hearing until she was 11 months old, and to have acquired some spoken words through audition prior to becoming deaf. This early audition could have made the acquisition of an auditory language possible, if she had been provided with auditory amplification. It was reported that hearing aid usage had been poor in her early history, even though audiological reports had suggested she possessed usable hearing. It was not until she was in her second year at primary school that hearing aid usage was established, at school at least. This early auditory deprivation through lack of consistent amplification, probably accounts for her subsequent lack of auditory language acquisition. Her auditory potential could not have been fully exploited, if she did not have consistent amplification until she was at school, and even then not at home. The use of Signed English, as an alternative to spoken language, was also unlikely to have been effective in assisting her acquire a spoken language, because it was not used in the home situation (See Exhibit 10.9), it was not executed comprehensively at school, and it is not an appropriate first language vehicle.

According to Osberger, McConkey Robbins, Todd and Riley (1994), few continue to advocate an exclusively A / O approach to communication instruction. The documented differences between the cognitive functioning of deaf and hearing individuals (see Section 3.2.6), appear to correspond to their respective reliance on a visual or an auditory language, thus forcing an individual into the "wrong" modality, would appear to be contra-indicated. In Maisie's case, because audition was not well established through hearing aid use early on, imperfectly executed Signed English as an adjunct, had been insufficient to establish any sort of adequate language acquisition process. She had not been "forced" into either an auditory or a visual linguistic mode, because she had been essentially without effective input of either sort.

The range of language samples, in Maisie's case, clearly demonstrated her lack of linguistic attainment. She did not possess a range of discourse types, even after having been at school for a number of years, and her literacy skills were negligible. School-age children are expected to comprehend and produce a range of discourse types (see Section 5.7.1). Once school begins, children may be expected to listen to, and retell stories, relate personal experiences to parents and teachers, follow directions, and provide factual descriptions or explanations of events. Maisie could

not perform any of these tasks. The different types of discourse strategies present children with different types of challenges, posing problems in school for those not in possession of them, as was the case in Maisie's situation. Conversational management skills, needed for successful conversational discourse, include the ability to negotiate turn exchanges, jointly manipulate discourse topics, and the repair of inevitable breakdowns between participants. Discourse, of both narration and exposition, requires speakers to engage in more higher order planning, so as to give meaning to specific referents, and to weave individual utterances into coherent and cohesive texts. Maisie could only engage in contextualised, single utterance conversational exchanges.

Maisie's written skills were rudimentary, and clearly reflected her lack of the formal aspects of English, yet she was reported to have developed sound mathematical concepts based on visual input. Discourse types have specific structures, which have to be learned for effective communication to take place. To learn them, students require an effective communication system of some sort. School activities involve children in being able to listen to, and retell stories, as noted above, as well as the series of other important discourse strategies, which can be difficult for a deaf child to acquire if they are unable to engage in interactive, meaningful, communicative activities.

Literature imposes a set of conventions on the reader, which entails a good deal of gap filling, and interpretation of the intentions of the author. If deaf children are not aware of these devices themselves, comprehending text can be a major problem, even if the child can decode the words. Even isolated sentence comprehension is a misleading indicator of language ability, as exposure to language is usually in a variety of discourse settings. To develop a literary competence, individuals need to be exposed to the historical literary tradition. To achieve this, they need some language competencies, which involve interpretation and gap filling, not just recognition of sounds and individual words, which was the extent of Maisie's ability.

Vygotsky (1978) stated, for children with an intellectual disability, teaching systems that were based solely on concreteness and eliminated everything that was associated with abstract thinking, failed to help children overcome their disabilities. Rather, such approaches reinforced their disabilities by accustoming them to concrete thinking, and thus suppressing the rudiments of any abstract thought that they may

have. Because children with intellectual disability, when left to their own devices, will never achieve well-elaborated forms of abstract thought, they need to be actively encouraged through skilful teaching, to develop such patterns of thinking.

Concreteness should be seen as a necessary and unavoidable stepping stone for developing abstract thinking, not as an end in itself. Concreteness was a major component of Maisie's linguistic and academic support. Although she was not intellectually impaired, the effects of such practices were likely to have been limiting her development of abstract thinking processes.

Kretchmer (1997), (see Section 5.7.5) stated that English instruction for children with hearing losses have traditionally been focused on teaching about language conventions, and much less attention has been on language learning through language use. Instead language intervention, it was suggested, should promote communication interactions that emphasise English discourse that facilitates interpersonal and school language learning. In contrast, Maisie's educational support had involved a significant component of individualised isolated drill and practice, which focused on skill acquisition and vocabulary development, sound perception, and phonemic awareness. This was apparently based on the assumption that drilling of parts would lead to generalisations into spontaneous communication. The fact remains, that specific language forms and mastery of academic facts, are important for students who are deaf, but Kretchmer (1997) suggested that these needs are better met in engagement in meaningful communication with others, and not in isolated drill and practice.

In light of this literature, it is clear that Maisie did not have a background history conducive to effective language acquisition for a severely deaf child. She not only had auditory deprivation, it was not compensated for in any real way by consistent amplification from a young age, and she did not receive effective and appropriate visual or auditory linguistic input to facilitate the development of her language and discourse strategies. Her preschool experiences had apparently not compensated for the deprivation. On school entry, Maisie did not have enough of the prerequisite linguistic abilities necessary to facilitate successful school performance. She was well behind her peers linguistically. She did not have a sufficient linguistic base on which to build literacy skills, or other school learning of a textual nature.

When Maisie entered school, her previous linguistic deprivation, was further exacerbated by the concerted removal of abstractions, and reliance on concrete

representation for all aspects of learning. This was without the necessary associated linguistic counterparts. She reportedly did well visually and made successful visual connections in areas that are easily visually and concretely represented.

10.9.1.2 Language and thought in Maisie's case

Maisie was reluctant to use Signed English in the situations in which she was observed in class, but would resort to signs when in isolation. Many of the signs she used were incorrect Signed English, but they were "Signed English like" (see Exhibit 10.15). The most successful communication strategies she employed involved her use of pictures, or objects, to support her interaction. She had difficulty in relating past events. Her ability to lipread was rudimentary, although it was used as a regular method, by teachers, and others working with her. She resorted to drawing to assist her communication and used her elementary knowledge of writing to get messages across at home.

Maisie's conversation with the researcher led her to conclude that there was a lot Maisie wanted to say, but didn't have the capacity to do so. She gestured and mimed in a way that pointed to a desire to communicate, but the formal components of communication were not present. She had not progressed much beyond being able to put related lexical items together in a sequence.

Written responses to class tasks were essentially provided complete for Maisie, whose contribution in her own jargon was translated into simple English written sentences. Attempts to focus on the differences between what Maisie had signed, or uttered, and what was written, were not evident, so Maisie was not engaged in the translation of her jargon into English. It was reported that Maisie had a good memory for phonemes and single words, and could articulate elements of words, and synthesise them into whole words without knowledge of their meaning. The fact that she didn't know the meaning of lexical items was acknowledged, but there was no observed, or cited, effort to concentrate on developing an understanding of the meanings. No obvious attempts were made to use written English as a practical way of establishing meaning through print. Maisie didn't have to resort to written efforts in class to get her ideas across, but chose to at home.

In the contexts in which she was observed, where she was expected to respond to written text, there was no focus on meaning. The teacher, and others, concentrated

on the physical activities that she was performing, such as counting words, and finding strings of words that matched the text. She did not have to synthesise parts of sentences into meaningful wholes. The purpose and function of language was not stressed, nor capitalised upon to stimulate her understanding of textual discourse. Text was not a vehicle used to relay essential messages to others at school. Keeping up with the rest of the class in getting surface structure correct, without understanding the actual content of the written material she was being exposed to, appeared to be the essence of the exercise.

Maisie's was ostensibly deprived of input in the school situation. This was not only because of her lack of hearing, but also because of the paucity of language input, and the model of support she received. Her language input was so reduced and simplified, as to be almost meaningless.

Responsibility for providing an enriched language learning situation for Maisie had not been assumed by either her class teacher or itinerant teacher. Clearly, Maisie was unable to access more than the superficial elements of the physical activities, which took place. Her attempts at communication were contextualised, and did not involve preplanned discourse. Her good nature, because she was "happy", enabled the school to be satisfied with what it provided. An apparent lack of knowledge about deafness and language learning, and the absence of a meaningful approach to the teaching of reading for Maisie, were all notable features of Maisie's school situation.

The provision of an untrained person as a teacher's aide for Maisie, almost certainly added to the problematic support environment. An attitude that everything would work out in the end if Maisie were occupied in class, in some way, appeared to prevail. This case demonstrated that the opportunity to develop a satisfactory communication system, and basic literacy skills, did not exist without a proactive plan being implemented in a regular school setting.

Maisie's auditory capabilities were not sufficient for her to access more than fragmented portions of spoken language. She was expected to respond to verbal input that did not include comprehension checks. The Signed English input she received was not complete, grammatical, or a proper reflection of the speech that occurred. Because of her poor linguistic abilities, Maisie could not communicate with peers, other than in a fragmented spoken mode supported by gesture. She was not given the opportunity to express events, which were not immediately apparent, or abstract.

The most successful discourse strategy that Maisie produced in the Language Performance Data was her description of her room. Probably, as a description is based on a visual representation, Maisie was able to perform this task. She was proud of her own room, which she had only recently acquired; consequently it was highly salient for her.

Maisie's efforts at writing were assisted, and probably produced an inflated reflection of her writing ability. Exhibit 10.20 illustrated her need for writing task assistance. At home, Maisie used written lists and words to convey her intentions. Maisie was not able to produce any other successful discourse strategies. The likely reason was that she had not had the opportunity to develop them with communication partners that were able to understand her. Maisie had learned the format of the news lesson, and could present her items she had brought to show. She could "answer" questions by showing requested items.

It is evident Maisie's background was deficient in stimulation and language support. This should have indicated the need for additional special provisions to help compensate for that deficit. For Maisie, the expectation of global linguistic and academic development, as a consequence of inclusion in a regular school environment, was clearly not a reasonable one. Her communicative abilities were not likely to assist in the development of abstract thought, or the development of higher order cognitive abilities, while ever she remained reliant on concrete props with no abstract representations.

10.9.1.3 Literacy learning in Maisie's case

Maisie's high level of phonemic awareness, and her memory for the visual appearance of words, did not translate into adequate reading skills for her age. Maisie's memory for the appearance of words, and their components, without understanding of the context in which they were used, did not lead to the understanding of how those discrete elements of language contributed to the whole, or contributed to meaning. Maisie was reported to be intelligent, and clearly demonstrated a good memory, but she was not receiving meaningful opportunities in which to use, and develop satisfactory language skills, as a basis for her overall development of literacy (particularly reading comprehension).

Systematic attempts to strengthen Maisie's language skills were not apparent. The support she received appeared to rely on form, not function, and contributed to Maisie's difficulty in constructing meaning. She, like Todd, was an example of a student, whose linguistic performance was such that it simply proved too complex for those working with her to effectively address her learning needs. While, in Todd's case, it was possibly too late to address his language learning needs at the conclusion of high school, that was not so in Maisie's case, who was in a Year 2 class. At a Year 2 level, there would appear to be ample potential flexibility to arrange for planned language learning in meaningful contexts.

The Signed English that was observed being used with Maisie was fragmented, and did not correspond to what was spoken or written, so it would be difficult for Maisie to benefit from its use for learning the structure of English. There was no direct dialectic between the classroom teacher and Maisie, and the dialectic between the itinerant teacher and Maisie, was apparently concerned with task completion, not with intermediary steps for text clarification and translation.

The apparent route for Maisie's acquisition of literacy was a combination of speech and Signed English, to printed English, with neither first step being well developed. The strategies used for Maisie's literacy instruction, appeared to be phonic decoding of text, and memory for the visual appearance of unrelated words. This was insufficient, as Maisie had little capacity to process what she was decoding as meaningful language.

10.9.2 Pedagogy in Maisie's case

10.9.2.1 Class teachers

The two class teachers, who were observed, used transmission styles of teaching, where student interaction or cooperative learning opportunities were not evident or reported. The teaching styles impacted negatively on Maisie, who could not attend to what the class teachers said, or did. Consequently, the support personnel assumed the role of information delivery and direct teaching. While it had been recommended that Maisie be included in a class where the teacher allowed for student discussion and cooperative learning, this had not occurred.

The transmission teaching model in evidence did not provide opportunities for Maisie to interact with the other children, to learn from their responses, or have her own responses extended. Instead, most interaction of a social nature was discouraged, as it was disruptive. The situation compounded the deprivation of opportunity for language development that Maisie's deprived background had created. In the transmission model of teaching, the class teacher is the source of all knowledge. If the deaf student cannot access that which is said by the teacher, and understand it, being present has little value.

Dialogue between teacher and Maisie was limited to over-articulated and simplified instructions. There were no interactions between student and student in any learning context that was observed. Language use, and curricular content, were not integrated. Surface correctness was emphasised, with the relationship to the actual language produced being clearly less important. Factual recall, memorisation, and skill acquisition, were a feature of this situation. There were no opportunities for interactive meaningful communication between adults and peers to allow for the inclusion of Maisie's own experiences, or to solve communication problems. The teaching of reading was not connected to a necessity, or reality, although Maisie had developed her own use for writing.

10.9.2.2 Itinerant teacher

Because of the class teacher's transmission style of teaching, the itinerant teacher was compelled to assist Maisie to complete a series of tasks. These tasks were clearly set by the class teacher for a class of children with normal language abilities, without any attempt to plan for appropriate differentiated tasks, or expectations of particular students. The itinerant teacher's input was aimed at getting the physical aspects of the class task completed. This appeared more important than having Maisie understand the task. In the lessons observed, complexities were avoided by the itinerant teacher, rather than approached at an appropriate level, and in a meaningful way that Maisie could understand.

Maisie had a history of pull-out instruction in which she received intensive auditory training and follow-up to class activities. Global understanding is not a component of this model of instruction. It is clear that without intensive assistance Maisie would be unlikely to be able to work independently. The particular itinerant

teacher thought it important that Maisie be in a class with very good discipline and predictability, as it was claimed that Maisie performed best in such situations. Predictability was understandably important to Maisie, because of her inability to fully understand spoken or written instructions, or the content of the communication around her. However, in this context, reading and writing were ends in themselves, not related to specific meaningful contexts. They were dependent on memory for sounds and words and were not seen by Maisie, as a means to gaining information.

The itinerant teacher was responsible for Maisie's program, and she attempted to follow the class teacher's program, but in such a way that it was minimalised, altered, and of little relevance to Maisie. Difficult issues were avoided, and the easy "here and now" elements of activities were concentrated on.

Maisie was in the class, but she was not part of its academic opportunities. Other children were tolerant of her, and facilitated her efforts to communicate on some occasions, while on other occasions they could not be bothered with her. The teacher's aide, in this very difficult situation, was untrained, and expected to perform the same role as the itinerant teacher when that teacher wasn't present.

10.9.3 Adaptations in Maisie's case

Stated simply, the class program was not adapted for Maisie, other than to make sure she was able to see visual material and sit at the front of the group.

10.9.4 Inclusion in Maisie's case

One of the observed lessons, which was moderately inclusive for Maisie, was a news lesson. Such lessons followed a regular and familiar format that was well understood by Maisie. Even in this situation, Maisie's communication was dependent on concrete props. In this instance, it can be understood why the itinerant teacher thought predictability suited Maisie. Clearly, in such situations, she did not require clarifications, or negotiations, in order to know what was expected of her.

The other lesson, which received a moderate Inclusiveness Rating, was dependent on concrete material and physical activity, including pointing, facial expression, and taking and showing. There was little apparent expectation that any abstract understanding would take place, or be achieved, and few attempts at

linguistic expansion were observed. Maisie's responses were elicited, and were dependent on the support personnel providing her with acceptable responses (i.e., grammatical structures) to copy. The lesson outcomes for Maisie were related to the here-and-now photographs she was writing about. Later in the lesson, textual understanding of the story the other children were expected to master, was not expected of her. Word appearance, and small components of words, were focused upon. Hence, memory for recall of visual representation of words was employed, rather than emphasis on the meaning of words. Few, if any, abstract demands were placed on Maisie. Difficult concepts were dealt with by the itinerant teacher, who concentrated on the concrete visual aspects of them. There was no apparent class teacher direct instruction, which involved more than superficial directions, or to seating arrangements.

The lessons delivered by the class teacher were typical infants IRE question and answer-based lessons in which Maisie was not involved. It was not clear if Maisie had the ability to answer the sorts of questions asked by the teacher. She could answer questions, such as "how many", and "where" and "what" in relation to concrete material. The children were expected to listen to instructions, and watch demonstrated explanations. They were expected to find answers from the textual context; Maisie was not. Her input was provided by the itinerant teacher and involved a series of comments about the on-going activities. No checking of Maisie's understanding of anything, other than the actual physical activity taking place, involving counting, or matching, was observed. She worked alongside the other children, but was not part of the actual lesson expectations.

In one of the two lessons with the lowest level of inclusiveness, Maisie was essentially alone, with few responses given to her initiations by the other children. There was no observed direct class teacher involvement with information delivery to Maisie, who used physical touching to gain attention from children. The children were expected to demonstrate what to do, to her. The preamble at the beginning of the lesson was completely inaccessible to Maisie.

Interview data confirmed that the lessons were typical. Some of those interviewed attributed her academic "success" to many repetitions to enhance memory. There had been no adaptations of the class program for her, although it was suggested by one interviewee that one teacher had simplified the content for her.

Memorisation, and the copying down of information, to assist recall, were identified as major strategies employed for Maisie.

Assessment was carried out by the itinerant teacher, and Maisie was reported to be performing at an average standard academically. This view varied according to whom it was that was interviewed. The observations would suggest that Maisie was not able to perform even adequately, and certainly not at an average level. The assessment by the itinerant teacher, classified her as performing somewhere in the middle of the class, which was very different from the conclusions drawn by the researcher and one of her previous teachers. If assessment tools were based on the recall of memorised facts and performing visual tasks, which could be the case in mathematics and spelling, Maisie's ability could appear adequate, as it would be based on her repertoire of memorised responses.

All those interviewed noted Maisie's success in the integrated placement, emphasising her social success and happiness at school. There was no evidence that the itinerant teacher, who appeared largely responsible for her program, was concerned with addressing Maisie's linguistic needs through proactive intervention. She appeared concerned with the consolidation of what had already been attained, and the expectation that if Maisie were exposed to on-going verbal comment, she would acquire language incidentally. Literacy skills were taught through a phonic approach. Seemingly, Maisie had received a "bottom up" approach to reading, and an "environmental" approach to language learning (see Chapter 3).

It was apparent that Maisie did not have a best friend whom she interacted with closely. She was viewed with affection by most, and tolerated by others, while never being totally "in favour". In this case, most of the personnel interviewed were satisfied with Maisie's inclusion.

10.10 Assertions

10.10.1 Language learning opportunities

Maisie's early access to spoken language may have provided her with the ability to develop spoken language through audition, if her use of hearing aids had been consistent at an early age. It would have later been enhanced by CI assistance. The lack of contrived communication opportunities meant Maisie had not had the

opportunity to develop language in a socially constructed way, and develop discourse strategies needed for school success.

The data suggested that major changes would need to be made to provide appropriate language learning opportunities. The observed situation wasn't providing those opportunities. As Maisie was a lower primary school student, there was a possibility that changes could be made, given that school personnel had expressed a positive attitude towards her. For changes to be made, the itinerant teacher would have to be aware of alternative language learning approaches, and be able, and willing, to implement them. Maisie's deprived linguistic background was clearly evident, but the school was patently not providing sufficient and appropriate language learning opportunities.

10.10.2 Literacy learning

Maisie did not have a language system that was adequate to express abstract ideas. Being exposed to fragmented Signed English was not enough linguistic input to assist in the development of grammatical structures of English, to enhance reading comprehension. Having facility with bottom up skills, without an understanding of the meaning of words, or the purposes of language, was insufficient for successful reading development.

10.10.3 Academic learning

The strategies used in support of Maisie's learning relied on visual concrete props, and the use of memory without understanding. Her ability to develop abstract thought was in question. As the complexity of language and concepts was stripped away from her program, it was not apparent that Maisie was able to construct a meaningful schema for language on which to develop future learning. Providing interactive language learning conditions conducive to language development and academic learning is difficult, and possibly beyond the capacity of the itinerant teacher support model provided. It was made more difficult by the absence of an interactive class teaching style. As these conditions did not exist in the early years of Maisie's schooling, language learning, and academic learning, in this case, was problematic.

As there was a transmission class teaching style used, Maisie was unable to access the class program directly from the teacher, and the itinerant teacher support, was therefore, not of an interactive nature. The reduced linguistic input further denied Maisie access to sufficient meaningful input. The itinerant teacher also changed the purpose of the lesson activity, to minimalise it, and render it different to that of the rest of the class. Conditions, which are necessary to lead to the development of abstract thought as a basis for effective communication and future learning, were not apparent.

10.10.4 Social experiences

Because Maisie's behavior had improved, and she was happy in her home life, her situation was considered satisfactory. She had no particular friend at school, although the other children tolerated her and encouraged her.

10.11 Generalisations

The generalisations were made as a result of the analysis of case study data.

Opportunities should be proactively provided for linguistic development of deaf students, so that students with extreme linguistic difficulties have specifically created opportunities provided for linguistic development.

Opportunities need to be provided for the deaf children's development of discourse strategies. An interactive teaching model should be employed, so that content and language development, can support each other. An opportunity for the development of cognitive skills through problem solving should be provided. Opportunities should be available so that language, and thought, are united in a program supported by adult modeling of problem solving strategies.

Reading instruction should rely on a variety of strategies, which enable bottom up, and top down strategies to be employed (founded on language competence). The teaching of English, when instituted through Signed English, needs to be produced competently, so that Signed English is executed as stipulated, and follows spoken language accurately. An Aural /Oral approach for communication, alone, may not be

sufficient, unless the student has enough auditory skills to access the class teacher discourse.

Working in isolation in class, on different outcomes to the rest of the students, is not being included in the class program. Class programs should be adapted in such a way as to include content and activities, which are accessible to a range of student abilities. Differentiated programs should not involve the practise of isolated skills, the memorisation of facts and surface structure, which are simplistic and easy to test.

An untrained teacher's aide is not usually capable of assisting a student with extreme linguistic needs.

10.12 Conclusion

Children require opportunities for social interaction, and need to be given opportunities to make sense of the input they receive (see Section 3.2.5). The importance of being exposed to an accessible language, so that it in fact can be acquired, must be stressed (see Section 3.2.6). Deafness itself cannot be blamed for lack of language acquisition, but rather, the lack of appropriate input (see Section 3.3.1) and opportunities for meaningful interaction. The importance of language learning in the early years of life cannot be overstressed. Providing linguistic input, at this stage of a child's development, is crucial. There is a need to capitalise on the period of time when language acquisition appears effortless, and not to leave it until it becomes a memorisation task (see Section 3.3.1). When the home life does not provide language learning opportunities, the educational provision must compensate for this.

When deaf children are included in classes where teaching methods are designed for the ways hearing children perform, which may not take into account the different thinking processes occurring in the deaf, difficulties are the likely outcome (see Section 3. 2.6).

Simultaneous communication, as practised by some teachers, is ungrammatical and virtually unintelligible, neither corresponding to the grammar of a visual language, nor English (see Section 3.5.2). Signed English is not used by deaf adults, and probably has no community of users for whom it is a first language (see Section 3.3.1).

Literacy emerges through the development of complex symbolic processes that develop concurrently, rather than sequentially, in both face-to-face and written language domains (see Section 3.6.1)

In Maisie's case, all of the negative alternatives of the above statements were elements of her early history and school experiences. It is little wonder that she had been unable to acquire effective communication skills, or the concomitant literacy skills. Maisie was an example of serious linguistic deprivation over an extended period. Her early history offered opportunity for auditory input through hearing aid usage, but the need for consistent use, and the development of listening skills was neither recognised nor appreciated by her mother, or by her support teacher in her pre-school years. The use of Signed English, in the pre-school setting, was not sufficient to ameliorate the auditory deficit she experienced. The introduction of a cochlear implant may in time provide her with effective auditory input, but this had not been achieved at the time of the observations for this inquiry. Undoubtedly, the late date of the implant will render the language learning process more problematic than if it had been performed in very early childhood.

The class program and support model demonstrated in this case, further exacerbated the linguistic deprivation by further reducing input, in a response to Maisie's lack of linguistic ability. The class teaching style precluded interaction between students and students, and between teacher and students, resulting in the support model focussing on content reduction and reduced learning outcomes. The school's solution, to Maisie's educational requirements, was to reduce the demands and avoid the complexities of the class program, making the development of abstract linguistic ability and sound academic concepts, problematic. Concreteness, and the visual elements of the class program, without association with the formal elements of language or the academic program, did not provide a situation in which Maisie could develop language and academic concepts concurrently. The Family Advocacy (2001) maintained that schools were not able to display expertise, or confidence, in curriculum inclusion for students with special needs. There was, instead, a tendency to engage in a range of practices, which were not of direct developmental benefit to the student (see Section 5.2.1), as was the case here.

To conclude, it is appropriate to address the Particular Issue Questions. First, Maisie was integrated in the particular school because it was expedient. Her home life was such that consideration of her educational needs was not a priority. In this case,

because Maisie was an Aboriginal child, being educated with relatives and friends from her community was a priority and an advantage socially and emotionally.

Second, as Maisie's class teacher made no significant adaptations to her class program to facilitate Maisie's inclusion, and because of her transmission style of teaching, the role of program delivery was left to the itinerant teacher, who did not provide opportunities for language development in interactive contexts. She attempted to assist Maisie to perform the superficial aspects of the class program, without Maisie's understanding or engagement in them. Memorisation of isolated skills, and perfunctory versions of class tasks, were attempted.

Third, because of Maisie's paucity of linguistic skills, she was unable to perform class tasks, which were meaningful and conducive to cognitive and linguistic development, and the concomitant development of satisfactory literacy skills.

Maisie's integration could not be regarded as inclusive, as she did not have access to a meaningful portion of the class program. She was essentially present in the class, but not academically part of it, which has been a feature of past practices involving deaf students (see Section 4.1). Maisie did not possess the prerequisite linguistic skills for satisfactory school success, and was not provided with an effective way to develop them in the regular school she was attending.

CHAPTER 11

CASE 5

11.1 Introduction

Michael had attended schools in the district where this inquiry took place on two occasions. On the first occasion, when he was in kindergarten, the researcher was called on as an itinerant teacher to make an assessment of his needs. It was noted how well Michael communicated through Signed English and his high level of expressiveness. Because of family disruption, Michael was to live with his grandparents and attend the local school. It was the same school that Maisie (Case 4) later attended. Although the researcher had never supported Michael, she knew him quite well through the past associations.

Not all of those interviewed agreed that Michael's inclusion in the regular high school was successful. Some thought he had received good academic opportunities, if not social ones. Those, who felt that his inclusion had been successful, felt it was due to the support he received, which had allowed him to have, "the best of both worlds". This view is expressed in Exhibit 11.1, which is an excerpt from the interview with his English teacher.

Exhibit 11.1 Excerpt from interview with English teacher

Res.: What is your opinion of having a child with a profound hearing loss included in a regular classroom?

E.T.: I have no hesitation in saying that I think he has benefited from that inclusion but at the same time he has had special aides. Without the aides I would have reservations, in fact I would probably say no, but with the aides he had the best of both worlds. He had individual attention catering to his individual needs and he's had the interaction of the classroom catering for his social needs helping his self-esteem.

Michael had developed a peer group that was said to accept him well and to ignore his communication difficulties, which consisted of a version of Signed English principally. Because there was a special education unit in the high school, Michael had access to a respite area that was more tolerant of a student with special needs than the main part of the school. The attitude of his itinerant teacher was that Michael should develop social skills in his first year at high school, and that meeting his academic needs would follow. It was thought that he received benefits from having

normal models of teenage behaviour to follow, and that he would learn tolerance and appropriate responsible behaviours. Her view is reflected in an excerpt from her interview Exhibit 11.2.

Exhibit 11.2 Excerpt from interview with the itinerant teacher

Res.: His social integration. Can you explain that?

I.T.: In the primary school the peer group would have consisted of girls, the group of girls who mothered and looked after him. They didn't carry over into high school with him. Initially a couple of them did, they would hang around with him and one of them could sign a bit because of her family background. She used to associate with him but by the end of Year 7 that had worn off and he had more friends who were boys mainly from the special class and the respite area that he stays in at school. They have tended to extend into Year 8. He does have friends in the mainstream. He has boys that will initiate and will say, "Come and join us Michael" or he just naturally takes off in that direction.

Res.: So what happens at recess and lunch time?

I.T.: He just hangs around the area and they might play handball.

Res.: Can he communicate with them?

I.T.: Yes, they must be communicating with him. I don't observe it, but every so often they come back to me to interpret because they have a message that they want to get across and they want to make sure they get it right.

Michael was reported to have a tendency to play on his deafness and pretend he didn't understand. According to his grandmother, Michael liked school and the friends he had there. She felt the school was doing its best, but that they didn't know how to deal with a deaf student such as Michael. She felt that there was no future for Michael, as he wasn't robust enough to follow his father into a labouring job, and his academic levels were not high enough for him to have prospects of any other job.

Most of Michael's regular teachers had not had previous training or experience in teaching deaf students, except the teacher who taught his Design and Technology (D&T) class, who had done a practice teaching period in an independent school for the deaf. His interpreter had completed a child-care course in the past. It was suggested that she do a Signed English course prior to starting her work with Michael. She had completed six months of that course when she assumed the role of interpreter.

The following section records Michael's historical information, and answers questions relating to the etiology of his deafness, previous placements, and further attitudes and opinions about his inclusion. The next section answers the Particular Issue question of, "Why was Michael enrolled in his current school?" Interview Research Questions are listed in Section 6.6.2.

11.2. History

Michael's parents were both deaf and attended special segregated deaf schools. Michael had a congenital, profound hearing loss. He had been part of the Deaf (Auslan using) Community, with Auslan being the language used in the home. His parents separated and Michael lived with his grandparents in a coastal town when this inquiry was conducted. Neither of his grandparents were sign users, nor they communicated with him with written notes and spoken communication, which he lipread. Michael began school in Sydney in a School for the Deaf, which used Signed English as its principal mode of communication. He had also previously attended an independent special school, which used Auslan as its primary language, with English learned as a second language in a bilingual curriculum.

Michael's first enrolment in the rural regular school occurred when he was in kindergarten and his family was experiencing upheavals. He returned to Sydney to live with his profoundly deaf father, but later returned to his grandparents. He progressed to the large, local high school after attending the primary school. Since his return to the coastal town, he had been supported by the same itinerant teacher who had supported him on the first occasion. He had also been supported by a number of signing interpreters. All the interpreters had learned Signed English at the local Technical and Further Education (TAFE) College to varying degrees. He had been provided with the maximum amount of itinerant teacher and interpreter time available— 9 and 10 hours per week respectively (see Section 4.3.1). There were very few circumstances in school where he was able to attend alone and participate successfully.

When Michael attended the primary school, Maisie (Case 4) was also enrolled in the infants department and supported by the same itinerant teacher and interpreter. Therefore, Michael was not the only profoundly deaf student in that school. There was yet another moderately deaf child, who had additional disabilities also enrolled in the school. The three children spent time together in the playground, even though they were of different ages, and formed a mutually supportive group, who appeared to enjoy each other's company and relate well together.

On entry to high school, Michael was enrolled in regular classes. Later in his first year, he spent his mathematics (maths) lessons in the Special Education Unit,

because participation in the regular class was deemed to be untenable. It was generally agreed that because of his ability to use visual systems, he had fitted in well with the remedial maths program. Exhibit 11.3 is an excerpt from the interview with the special education teacher, which explains the alternative maths arrangements.

Exhibit 11.3 Excerpt from interview with special education teacher

Res.: How do you think Michael fits into your class?

S.E.T.: He fits in well because he uses a lot of visual systems, he's non-verbal. We use a Korean counting system. The remedial program individualises the remedial core topics. There are always two staff and a small group. It is a tutorial network. The itinerant teacher or myself take it and sometimes there are two teachers. Sometimes he is just there doing the unit work but usually with individual support.

Res.: Is the program modified in any way just for Michael?

S.E.T.: It is modified in terms of the size of the class, strategies and small group size.

Res.: Is it successful?

S.E.T.: It is successful in that he can effectively follow the modified curriculum.

Following the core curriculum he can't meet the requirements for general maths as set out by the board of studies. The modified program uses environmental stuff, which is modified rather than the curriculum. Later we will make a decision about whether Michael can do a modified life skills program or not. That is up to Michael to see what concept level he attains. Concepts are hierarchical.

Data collection for this inquiry was carried out when Michael was nearly 12 years old. At the time of the data collection, teachers, and those involved with Michael, were positive about his integration progress, and satisfied that he was doing well. Over the course of the data collection, he was involved in a more individualised, or differentiated, "Life Skills" type program, (see exhibit 11.3, which explained that at the time of that interview this plan was mooted), which was intended to continue to be accessed by Michael until he left school. That, possibly, would be at the end of his Year 12.

The teacher in charge of the Special Education Unit was involved with organising and providing individualised programs for other students at the school with special needs, or low academic ability. That teacher eventually had a role to play with Michael's inclusion plan. There was one other boy who attended the school with a mild hearing loss. He was not of Michael's age, and not in need of the high level of support that Michael was. They did not interact socially.

Michael had a history of a high level of withdrawal and individual assistance in program delivery, which had been conducted by the itinerant teacher both at

primary school and at high school. Exhibit 11.4, which is an excerpt from the itinerant teacher's interview, explains the individualised assistance.

Exhibit 11.4 Excerpt from itinerant teacher's interview

I.T.: This is the longest time that he has been back in this location with his grandparents. It is three and a half years. He is with his grandparents and they don't sign and he has been with his grandparents and mainstreamed. He is not in special placement because we don't have it. He has to cope the best he can with the mainstream placement. In Years 5 and Year 6 he did individual programs for numeracy and literacy and tried to access the other curriculum areas as best we could. There was a lot of emotional turmoil. If you pushed too hard he would get so angry and upset about not being able to do things. It took him a long time to get over it and if he had any confrontational issues he would just shut down. Eyes would close, he would scream and throw the book away. So in Year 7 a change of routine, high school. My idea was that Year 7 he would go with his peer group and make some friendships, a social year, get some friends, find out how high school works and become independent and cope with every day things as they happen. So the academic needs were sort of shelved slightly. We still did individual literacy and individual numeracy within the group of IM students [Special class of lower ability students] but even then some of what we did was not the same as the small group and we just made the best we could of subjects such as geography and history. This year has a change of program, as it wasn't meeting his needs. It was really obvious that geography and history have no relevance to him, to his daily functioning. He has no knowledge of the local area so we do separate programs for that. We are still in for science. Maths and English are the same individual programs but in English we are not even in the classroom any more because the classroom is feral and the behaviour problems so extreme that we couldn't get anything done.

Michael had a capacity to lipread. However, his capacity for direct auditory processing of speech was limited. In the Auditory Skills assessment, he could differentiate between three nursery rhymes through audition alone, suggesting he was able to use intonation patterns to assist understanding of spoken language. From a closed set of single items, he could recognise some words with audition alone. He was fitted with BTE hearing aids. His interpreter and the itinerant teacher used Signed English to communicate with him in a Total Communication context. It was evident that he could access information from the combination of signs and lipread patterns. There were several hearing children in the school who had learned some Signed English, and who could communicate effectively with Michael. He had a number of hearing communication partners. Those students learnt Signed English at primary school, when lessons were conducted by the itinerant teacher. Exhibit 11.5 is an excerpt from Observation 4, an English lesson, which includes examples of his

informal communicative interactions with other students in the class. In that lesson, Michael was assisted by the researcher, with no support personnel in the room.

Exhibit 11.5 Excerpt from Observation 4

C.T.: A food that changes people's behaviour. Write that paragraph. The class teacher came and talked directly to Michael telling him to get his book out. Then the researcher attempted to do an interpretation of the story beginning on page 22, which was noted on the board. The teacher said the class was going to read the story. Michael did not understand. The researcher had started to read the story to see how she could present it to him. She offered to read it and then sign it to him but after reading a couple of pages, it became evident that he could not understand. The vocabulary related to fictitious foods that were capable of changing behaviour. Just reading the story required a large amount of fingerspelling and some effort to establish the significance of the made up language. The researcher had no idea what had come before in the story or how the previous sections contributed to the current part of the lesson. As Michael had such poor literacy skills fingerspelling new names would have little meaning.

At this juncture the researcher said, "How about a picture at this point" to the teacher and she agreed. The researcher signed to Michael, "Draw a big box because it was megacrunchies, that means a big box of crunchies". He knew he had to draw it. The researcher indicated the big print in the book, which said "megacrunchies". He drew a big box and wrote "megacrunchies" but the letters went over the edge of the box. The researcher signed, "You need a rubber" (i.e., an eraser). He spoke to the student behind using his voice and said "rubber". He couldn't erase properly so the student showed him how to do it gently. He rubbed out then gave back the rubber. The teacher came over and borrowed it again and gave it to him saying, "You might need it". He threw it back and then proceeded to turn around and borrow it three or four more times. He finished his picture then held it up to show everyone. The teacher stopped reading the story to the class and came and looked at his work and signed "good". He then proceeded to turn around and sign to some students behind him. The teacher continued telling the class about the story. Michael had quite a complex and lengthy signed conversation with a very proficient signer behind him. At the end of the lesson the researcher discussed Michael's efforts with the teacher. The teacher said her expectations were low for Michael and his performance in the lesson was typical of his usual performance.

11.3. Attitudes and opinions of those interviewed about Michael's inclusion

Generally, the attitude towards inclusion was that if there was enough support it was desirable, but that in Michael's case, most of the time he was not taking part in the school program. It was suggested that because of the low number of deaf students in the population, it was not possible to have enough segregated schools for the deaf.

It was acknowledged, however, that deaf students needed to learn how to cope in a hearing world.

Without support personnel involvement in Michael's case, he completed very little work, and even with his teacher's aide assisting him, he was unable to complete tasks without a great deal of coaxing, unless the task was merely copying from the blackboard requiring little intellectual involvement. At home, he was not allowed to do any responsible tasks, even washing up. Michael had a pronounced external locus of control (see Section 6.10.3). The following Exhibit 11.6 explains the itinerant teacher's views on why Michael was well accepted.

Exhibit 11.6 Excerpt from interview with the itinerant teacher

Res.: Do you think Michael's behaviour and personality have contributed to him being accepted?

I.T.: He is not a wild boy, his general niceness. He tends to do what is asked of him. That is certainly why he is accepted. If he was difficult and wouldn't do as he was told, I would be told to get him out and solve the problem. Only PE (Physical Education) are absolutely lost about what to do with him because he wanders off and they have asked me to come and talk about it. I have asked them what is the normal in-school discipline but they haven't used it with him. They haven't sent him to discipline. I don't know if it's other kids or just him, but I have said to play touch football with 15 other big boys would be next to impossible. He would be so fearful. He doesn't have the skills and he doesn't have the ability, nor can he understand the commands and be able to carry them out. So this squash is a great solution in providing an excellent out, in providing physical skills as well as some social benefits and I know the PE teachers are very grateful, as they don't have to worry about the problem any more.

All those interviewed thought that without the support, his integration would have been impossible. It was felt that Michael's individual learning needs were met by the support personnel, and that the social interaction had helped Michael's self-esteem. Others felt his endearing personality had contributed to his success. At the same time, others felt he was annoying. An excerpt, from his male science teacher, Exhibit 11.7, explains Michael's situation from that teacher's perspective.

Exhibit 11.7 Excerpt from interview with the male science teacher

Res.: What do you think about inclusion for students with a profound hearing loss?

S.T.: If it is supported it is O.K. It is fine. With Michael, if he has got his aides with him sometimes it is O.K., but most of the time he can't really take part. If they are there it is usually fine.

Res.: Are there times when they are not there?

S.T.: A few. If they are sick. Most of the time they are there.

Res.: I suppose if you are writing information of the board he could do that?

S.T.: Well, he is not very good at writing. I am not sure of what the problem there is. I don't think it is because he is deaf. I think there is some other problem there, maybe because he had a bad start at school. I am not sure.

Res.: Lots of children with that sort of hearing loss don't have very good language.

S.T.: Yes, he gets tired very quickly because he finds the work extra hard and especially in the afternoons. He just can't do it in the afternoons or if it is hot. I don't think that is due to him being deaf, directly, I think there is something else there as well.

Res.: If there is an experiment or something, is he capable of sitting there and watching what the other kids do?

S.T.: Oh, he can join in with the experiments with the support but I think the negotiations are very difficult with the other kids. I think it might make it difficult for him if they can't understand him.

The reputed success of Michael's inclusion was attributed to the assistance of his support personnel who modified unsuitable program material to make it understandable for him. Much of the actual lesson content was not understood by him (see, for example, Exhibit 11.5). As Michael had some friends who were good signers, he had good communication partners for social interactions. In visual class activities, he was able to join in successfully. In communicative negotiations with other students in science procedures, it was reported to be difficult for him. Because of his difficulties in answering questions in assessment tasks, his support personnel modified them for his benefit (See Exhibit 11. 8).

Michael's English teacher stated that she ensured that he sat in a position where he could read her lips, and she gained his attention by tapping him on the shoulder. She used gesturing to portray ideas and to provide him with the general ideas of stories. She said he was able to convey ideas using a few simple signs, gestures, or single words. He was happy to allow his support personnel to sign for him, but he used very little himself in academic events in class. The English teacher felt he did not receive enough information from the signing he received. With limited information, he possibly learnt one new thing every lesson. As he could only read 35 words himself, his information input was very limited. With the assistance of an interpreter or itinerant teacher, it was possible he received some information. When they were not available, concrete material helped, also drawing diagrams and demonstrations. It was felt there was no depth of information. This view is expressed in Exhibit 11.8 below.

Exhibit 11.8 Excerpt from interview with English teacher

Res.: And so in terms of modification of the program for him, who does that, you or the aides?

E.T.: Michael's support, his aides modify his program. Obviously if it is clear to me that some things are unsuitable for Michael I might suggest that, but that will be a concurrent suggestion. I don't really make any special provisions for Michael. I try to motivate all children by being fairly animated in my presentation, which I think is particularly suited to Michael. So I think he is getting something of the spirit of the literature even if he isn't getting all the sounds and the magic of the words. He is getting something of the feel of it and the excitement of it.

Res.: How much of the content, whether it be his special work or the essence of what you are teaching, do you think the interpreter is getting to him?

E.T.: It is very limited. Michael can only read about 35 sight words so we are speaking about learning at a very basic level.

Res.: Do you think the signing he is receiving is enough to convey the message he is needing to have?

E.T.: I don't think it is totally. No, I think Michael is picking up maybe one thing per lesson. He certainly misses most of what is going on in the class but he is learning, which he obviously is, well he is learning and that is where we are at, and that is where we have to have a realistic goal for Michael.

Res.: Right, and you think he is learning and making a gain lesson by lesson?

E.T.: Michael is not culturally impoverished; he has a lot of stimulation. He is well adjusted. He has a lot of interaction with the Deaf community in holidays and things. He has a vivid imagination. He is able to convey his imagination in a few words he writes or signs. I think perhaps he should be signing more. He is tending to just sort of sit and write down what he can and let someone else sign to him.

Res.: He had a very in-depth signing communication with a couple of girls, a very effective communicator.

E.T.: Yes, that has come from primary school. There are two very adept signers.

Demonstrations in class were typically witnessed by Michael, but the theory was usually reduced. His writing skills were so minimal; he couldn't keep up with the rest of the class in writing tasks. His literacy and numeracy had been largely taught to him by the itinerant teacher in primary school, and that continued in high school. His academic learning varied in different subjects. In science, his teacher regarded him as a "b" or "c" student, which represented about 50% of the class, but in English, he learnt at a very basic level, sitting and letting someone else do the writing for him.

At the time of this inquiry, Michael had not acquired basic literacy or numeracy skills, and although he was attending a regular English class, he was enrolled in the modified maths class for students from the Special Education Unit. His literacy learning had been based on memory for sight words. He did not have the ability to decode words phonologically. Michael had himself suggested the use of

photographed material in manual arts lessons, to assist his recall of events to complete an assignment.

Some of the regular staff did not discipline Michael; they waited for the support staff to do that. His behaviour was deteriorating as he got older, and he became frustrated, and acted out against other people. Some students resented the amount of attention Michael received, which may have impacted on his popularity (see Allport's Contact Theory Section 6.4.). While he had friends at school, he did not have any close friendships, which extended into after school activities. In primary school, there had been a group of girls who tended to "mother" him, but he was developing more friendships with boys in the high school.

Perceived solutions to some of his educational problems ranged from suggesting that he needed to develop oral skills, needed an improvement in his home life, and needed more interpreter time available to him. It was put by some interviewees that the DET should arrange for the regular staff to learn some signing skills. It was also thought that there needed to be extra concrete examples for a student such as Michael, and that the programs needed to be modified and individually designed to suit individual needs, with the omission of inappropriate subjects.

Michael's grandmother could see no solutions to his problems. She felt he had no future, because he was behind his age equivalents, and he couldn't read. She worried about drugs and depression in the future. It was only his friends that made him enjoy school, but he had no friends after school. He stayed home and watched TV and videos. If there had been a segregated alternative, she indicated that he would have been enrolled in such a program. His grandmother's views are expressed in Exhibit 11.9.

Exhibit 11.9 Excerpt from interview with grandmother

Res.: What is your attitude to the present school?

G.: Michael likes school and his friends. He doesn't read. Some of the work he has no idea. He has to write or copy. They are doing the best they can but they don't know how to deal with a deaf student like Michael. If there were an alternative he would be there. There is no alternative. His father lives a good distance away and drives a truck. He doesn't look after Michael.

Res.: How successful do you think his integration has been?

G.: Where is he going? What is he doing? What is his life to be? A sheltered workshop? He only likes TV.

Res.: Does he like any particular subject?

G.: Metalwork, but he can't read.

Res: What about computers?

G.: He just likes deleting everything.

Res.: Are there any positive things about his present school situation?

G.: He is successful socially but not academically. They are doing their best but he is far behind his age equivalents. There is no future where he is. We worry about the prospects of drugs and suicide etc when he leaves school. He does have some boy friends that make him like going to school. At home he lies about and watches T.V. on the weekend.

Res.: What about his personal characteristics?

G.: He is a good boy, although he needs to be kept in line. If he were troublesome he wouldn't be living with us. Michael brings homework home, which is meaningless to him. When he is asked what he is writing about he says he doesn't know so I have to explain it to him but he has no idea.

11.4 Data collection

Michael had been supported for most of his time in the study district, by the same itinerant teacher who had also been responsible for his transition to high school. She also supported Maisie. The majority of the study observations that were made occurred at the end of Michael's Year 7, and the early part of his Year 8, when he was 12 years old. As he was supported by an itinerant teacher, and a teacher's aide who acted as a Signed English interpreter, lessons were observed in which he was supported by both of them. These included English and science lessons to enable comparisons. As Michael was enrolled in regular classes at the time of the observations, it was necessary to obtain observations from a number of different subjects. It was decided to concentrate on English, science, D&T, and maths. There were 12 observations made in all. It was necessary to obtain a larger number of observations in this case, to ensure saturation had been reached (Morse, 1994).

Circumstances in each lesson varied according to the lesson, and the personnel involved. All the courses in which Michael was participating were regular stream courses, except for maths in which he attended a class with students from the moderately intellectually impaired class (IM), and which had a modified program. It bore little resemblance to the regular program. The modified maths program had been designed by the teacher in charge of the special education section of the school, and was practical in nature, and designed to assist basic concept development. The

itinerant teacher supported Michael in those lessons and assisted other students as well. It was a team teaching situation when the itinerant teacher was present.

It was the researcher's intention to be a non-participant observer in all observations, but in the case of one English lesson, Michael had no other support, and it was deemed unreasonable not to do so when requested. According to his class teacher, his performance in that lesson was comparable to his usual performance, which was surprising as the researcher had no prior knowledge of the content of the lesson before its execution, or any accurate knowledge of Michael's signing and language ability, at that time. The fact that he performed at the level he did, in that lesson, was of concern, as was his inability to comprehend many of the essential elements of the lesson. In review meetings about Michael's progress that the researcher had attended as an executive teacher prior to the study commencement, those concerns had not been reported by the personnel involved with Michael's inclusion. Changes were made to Michael's program subsequent to the data collection.

It should be recognised that there were many other teachers and lessons that could have been observed. Nevertheless, the researcher was satisfied that what was observed was representative of the situation. Interview Data confirmed this conclusion. The majority of the observations were audiotaped as well as recorded in writing in real time.

There were seven interviews carried out, which were audiotaped or conducted by telephone, with notes taken. The individuals interviewed were the English teacher, both science teachers, the D&T teacher, the special education teacher, the itinerant teacher, the interpreter, and Michael's grandmother.

The Language Performance Data were collected in a withdrawal situation on a number of occasions with the itinerant teacher. The writing samples were collected by the itinerant teacher, and were tasks performed in class. The Exhibit 11.10 demonstrates Michael's reluctance to perform written tasks.

Exhibit 11.10 Excerpt from Observation 8 an English lesson

<p>Interpreter (spoken and key words signed using Signed English): Open book. Show book. Have you done your title page? Good. Michael turned around to show Tanya his picture of a surfer in his book. He leant back and nearly fell over. C.T.: Tanya leave Michael alone.</p>

Int.: (signed) Do you have sheet?
 M.: Shook his head.
 Int.: You can write about (She indicated the surfing magazine he had).
 Int.: Look at the sheet please. That another one?
 Int.: What about? (She pointed to the picture) She signed, "Can you do one line for each picture?" They looked at the pictures in the book.
 After? What happened?
 Do all the stitches come out?
 So what do want to write?"
 Michael had put the book over his face
 Int.: Put book down
 Int.: He don't go to beach any more.
 Int.: Do you want to write one or me?
 The interpreter wrote his sentences for him. Michael had his face in his book and head down. The interpreter made the sign for "beach" wrongly so Michael showed her how to do it properly.
 C.T.: (Standing in front of Michael and leaning over so he can see her face), Michael you are writing a surfing story. I want the place first, the situation.
 Int.: Where are you going on the big sea? Why?
 Michael still had his face in the book.
 Int.: What will happen to him?
 Michael signed and spoke behind his book "Stop, blood, brain, stitched.
 The interpreter signed and read from his work book, "Falls and board hit head"
 Michael turned around to talk to Tanya.
 The interpreter tried to get him to do something (signed) "Shark come". Michael shook his head.
 Michael signed, "Shark bite off leg then sew back on".
 The interpreter wrote it down. Michael turned around to talk to, or annoy Tanya again.

Michael was essentially illiterate, and his writing samples reflect teacher assistance. It was not possible to obtain samples of a more prescriptive nature, such that they were examples of narratives, either personal, or formal. His itinerant teacher interacted with him when he was videotaped in a conversational exchange, but the reading assessment and formal language assessment were carried out by the researcher.

In the conversational exchanges Michael was asked to relate a recent event, a school excursion he and the itinerant teacher attended, he was asked to retell a movie he liked, and to describe his room. He was also asked to persuade the itinerant teacher that one of the rides at Wonderland was safe, when the itinerant teacher maintained it wasn't, to examine his ability to argue.

Michael demonstrated ability to communicate with hearing individuals. He used a variety of methods to establish meaning, with lipreading, knowledge of English, attention to facial cues, gesture, and speech, part of his repertoire of

communication skills. While Auslan was reported to be his first language as he was born into a Deaf family with both parents Deaf, his ability to communicate in Auslan was not assessed, as it was not part of the communication protocol used in the DET school, or with any of his communication partners. On occasions, he performed Auslan-like communication, when he was describing the events of his excursion to his itinerant teacher in the conversational exchange, for instance. As she was not an Auslan user, these behaviours were not responded to in kind.

It was reported in the interviews that Michael was involved with successful playground communication with hearing students, and this was observed in the classroom observations as well. Michael was clearly a successful communicator, which was probably due to his having been born into a deaf family, which catered for his early visual language learning needs, and he appeared to have learned very effective informal communication skills. When he was assessed by the researcher on the first occasion that he came to the area, his communicative ability left a marked impression on her. He was animated, expressive, and engaged in communication about many and varied topics. The essential impression had been of an expressive, highly communicative, kindergarten child. This perceived ability made his lack of formal language skills even more a concern when this inquiry was carried out years later.

11.5 Language performance

The following section answers the Research Questions relating to Michael's Language Performance (i.e., "How did Michael perform in regard to his communicative ability?"). It contains examples of Michael's conversational exchanges and his written language sample. Following the examples of his Language Performance Data is a description of his linguistic performance, including a description of his responses to the formal language assessment test, TROG, and a graphic summary of his performance in carrying out the tasks elicited in this inquiry. Language Performance Research Questions are listed in Section 6.7.1

Exhibit 11.11 Conversational exchanges (Spoken and signed by both parties with sign not consistently coinciding with the speech and itinerant teacher signing key words)

Narrative:

I.T.: What video do you like best? Is there a video you want for Christmas?

M.: No.

I.T.: Did you watch TV on the weekend?

M.: Yes.

I.T.: What did you watch?

M.: I don't remember (spoken)

I.T.: I read in the newspapers that the dinosaur movie was going to be on. I can't remember its name. Do you know its name?

M.: Nods. Jurassic Park

I.T.: Yes. Yes I've not seen it before have you?

M.: I've seen number 1 and number 2 of them.

I.T.: What was it about?

M.: This was before. I can't remember.

I.T.: What did you watch on the weekend?

M.: Can't remember.

I.T.: What about last night?

M.: Scary on.

I.T.: What did you watch before 9.30?

M.: I was scared. Monster video.

Personal Narrative

I.T.: Tell me about went to Wonderland.

M.: There are rides go up, up, up (this gestured and indicating something like a ghost train)

M.: Stop! being hot, making cold, water stop.

I.T.: How did you feel?

M.: Felt sick.

I.T.: How many times?

M.: Two times.

I.T.: Why did you do it again?

M.: Don't know (gestures up then points to the book with the photos in it which he wanted to use). Moves hand up and down like a see saw.

I.T.: Tell me about how that was.

M.: (uses his hands twisting like an octopus)

I.T.: How did you get on it?

M.: Around up top, around. Won't fall off

I.T.: What stops you falling out?

M.: Won't fall out (mimes in cage) Won't fall. Go around, stop.

Argument / Persuasion

I.T.: When you went to Wonderland did you like going on the boat?

M.: Yes.

I.T.: I think its dangerous. I think they should take it away.
 M.: No around and around.
 I.T.: What if belt comes undone?
 M.: No, no (gestures belt done up)
 I.T.: Take it away.
 M.: No, no (points to pictures of the excursion)
 I.T.: Best?
 M.: No best.
 I.T.: No, those dangerous, get hurt.
 M.: No, really scary (he looks at photos)
 I.T.: Awful. Look at face, very frightened. Make sick. What if breaks?
 M.: Rubbish, rubbish.
 I.T.:I don't think I will go.
 M.: I think you can go.
 I.T.: I will get hurt. Which one best?
 M.: No, not best, baby people get sick.

Exhibit 11.12 Written language sample

1. I am on a big wave.
2. I am riding my board.
3. I fell off and hit the bottom.
4. The Dr put 4 stitches in my head.
5. I am not allowed to go to the beach any more.

It was obvious that the writing was directed, following a discussion using pictures and worksheet, and related to the class English topic. It is probable, because it was the case in all observed instances, that sentences were constructed for him, and that the spelling was provided.

11.5.1 Description of Michael's Language Performance Data

11.5.1.1 Conversational exchanges

Michael used a combination of signs, gestures, and speech to convey his meaning. It was clear that in the taped conversation, he could talk about his own experiences to a hearing person about a decontextualised event, but in this instance, he did not provide the information in chunks of preplanned discourse. The exchange was typical of a conversation in school. He expected to answer questions and not provide an account of events, which was preplanned and generated by him. He wished to refer

to the photograph album to support his information delivery, and was not able, or willing, to provide a preplanned structured retelling of the videos he had seen.

The question and answer structure did not demonstrate if he was able to maintain a number of connected ideas independently in a decontextualised situation. It is not known how he would communicate with another Auslan using deaf person. He was unable to relate any narrative story line with a definite structure. No doubt, if he had been able to draw on the photographs, which were taken on his excursion that he was asked to relate, and which would have been arranged in order, he may have succeeded. He was unable to do this alone on this occasion.

Michael's description of his room was lacking in any pictorial elements (see Appendix D). There was no structure to the elements. Had he been talking to another Auslan using deaf person this could have been different. His ability to persuade or argue was his greatest strength, as he had definite ideas about why the ride he and the itinerant teacher were debating was not dangerous.

11.5.1.2 Writing

As Michael's writing example was structured, and clearly adult assisted, it is likely that without a high level of assistance, he was unable, or unwilling, to perform at all, (see exhibit 11. 10)

11.5.1.3 Formal Language Test

Michael's formal language ability assessed by the *TROG* test demonstrated that he had progressed past the levels of prerequisite skills to cope with grammatical structure, and had developed, negative, reversible active, and comparative absolute, understanding, at least, indicating that he was able to understand a number of critical grammatical devices in English.

11.5.1.4 Reading

When attempting the reading material from the *Neale Analysis of Reading Ability*, it was not possible to gauge Michael's reading in the same way as other students, as he had to have so many words provided for him. He did not have any

readily apparent strategies for decoding. He only knew memorised sight words. He did not recognise orthographic-phonological relationships. His responses were visual, accounting for substitutions, such as “horse” for “house”. He did not know enough sight words to be able to make sense of the text, and to thus use context cues, as he attended to the individual words to select from, not the sentence. He was assisted with many words, and he used the picture cues to give reasonable answers, which related to the information contained in the pictures, or the few words he could recognise.

When attempting to read the material contained in the *Waddington Reading Test*, Michael recognised 3 of the 9 initial sounds. He recognised 6 of the 15 single words with pictures correctly, and 2 sentence completions correctly out of 11. He did not use any contextual cues, or make attempts to phonologically decode words. He had a RS of 15, which gave him a RA of 6.2., and a CA of 11.11. Exhibit 11.13 provides the itinerant teacher’s views on his reading ability, and describes how she had assisted him with reading.

Exhibit 11.13 Excerpt from interview with the itinerant teacher

Res.: Now you say he is making gains, how do you account for that?

I.T.: I don’t know. I am doing exactly as I was doing before. I am using sight words that I want him to read and we make a bank of sight words. I want him to pull the words out independently. He puts lines under them, he takes them home and does “cover, check, write” with them every night and does sentences. Then I will check them in the morning. I say them to him and sometimes he can remember the whole sentence now and can write the whole sentence without me having to say it. So it is a memory thing, not based on phonics or listening at all. It is all visual. He was reversing “ed” and “pt” but I haven’t seen a reversal for a long time. It usually happens after the holidays but I haven’t seen a reversal for a long time. I use the “Chin, Chin” program with him. I modified it a bit for him, so if it said “strolled” I would change it to “walked” seeing he didn’t even know how to read the word “walk” so I would throw another one in when he knows the more common one.

Res.: So where would you say he was reading now?

I.T.: He would be reading like a 7 year old now I think. I did the Neale Reading Test with him and he could read the first story about the bird’s nest. He could read almost all of it and he could read with comprehension, which surprised me. It was better than his reading analysis, his word-by-word recognition. His comprehension has picked up. That is what stuck in my mind. If he can read things and in science I said, “what colour flame do you use?” and he said “blue” it is there in the notes and he pointed to where it was written. He is learning things now and he wants to read and that is great. Everyone else can do it. He thought he was stupid and couldn’t read but I have worked on his belief that he will read and he can read. “You will be able to read when you grow up like your father, you will be able to read, it is just taking longer and there are other kids who can’t read”. When we work alone he will work solidly for that whole time but he won’t baulk. He would have last year. “Why do I have to do that?”

Now we are working alone he can read out aloud he can sign. I don't think he liked people seeing him sign or hearing him read because he was doing something different.
 Res.: He didn't like to sign last year? Was that because he didn't want people to see he was doing something different?
 I.T.: I don't know I have never asked him that.

11.5.2 Description of Michael's linguistic ability

The language tasks suggest that Michael had comparatively good communication abilities in the area of informal communication (see Figure 11.1 which shows a marked disparity between his formal and informal language skills), but that the events in school did not appear to capitalise on them effectively. Michael had remained essentially illiterate, after a number of years of inclusion into a regular school receiving individualised assistance from his itinerant teacher. In some instances, such as in science in high school, Michael was reported to have the capacity to understand the concepts involved, and to do well, demonstrating his intellectual capacity. His knowledge of the formal aspects of English were such that if he had received correctly executed complete Signed English input, his skills in this area may have developed further.

Michael had developed communication skills, which combined lipreading, speech, signs, and gesture, to make himself understood by hearing students and teachers. He engaged, on these occasions, in code shifting and mixing (Fasold, 1984) through contact signing (Musselman, 2000). The two languages involved were Auslan and spoken English using Signed English signs. He had numerous social interactions at school in which he initiated and maintained exchanges. His real linguistic ability was not gauged, as his Auslan ability was not assessed. Auslan was not part of the communication system engaged in at school. Michael's dependence on question and answer exchanges to relate information was probably related to the style of communication being engaged in by his support personnel at school.

Michael's poor literacy ability was related to his lack of primary decoding skills. This impacted on his ability to read unfamiliar words and also on his ability to process fingerspelling. His lack of literacy skills had a detrimental effect on his ability to receive information in high school. As he had a good knowledge of every day events— derived, no doubt, from his Auslan-using background—an ability to decode unfamiliar words could have enabled him to develop satisfactory reading strategies

supported by a “top down” processing approach. This case highlights the need for both components of the reading process to be made available to a deaf student (Mussleman, 2000).

Figure 11.1 Language Performance summary for Michael

	Conversational Communication	School Learning (Reading)
Receptive	<p>Responded to:</p> <ul style="list-style-type: none"> • Auslan, Signed English • Comparative absolute, reversible passive • Singular / plural noun inflection • Reversible active, masculine, feminine personal pronoun • Singular /plural personal pronoun • Three element combinations • Negatives • Two element combinations\ • Nouns, verbs, adjectives • Lipreading and fragmentary audition • Gesture, mime • Concrete props 	<ul style="list-style-type: none"> • Recognised single graphemes • Recognised single words and their meanings • Used picture clues in reading
Expressive	<p>Used:</p> <ul style="list-style-type: none"> • Turn taking • Initiates, maintains contextualised conversations • Speech, gesture, mime, signed elements • Playground and classroom interactions of social nature • Signed a personal narrative with question and answer support and contextualised props • Signed description with rudimentary conventions • Argument (spoken and signed and gestured) • Negotiated to suit own ends 	<p>(Writing IRE):</p> <ul style="list-style-type: none"> • Wrote unstructured strings of words (with help, structure provided for him)

The answers to the Classroom Observation Research Questions (see Section 6.6.1) are presented below.

11.6 Description of the events and practices in the lessons observed for Michael

The following section is a description of the classroom events, and in part answers the Particular Principal Issue Question, “How did the regular teachers provide inclusive educational opportunities for Michael?” The data presented here was derived from the summarised and condensed Classroom Observation Data, which had been sorted into bundles of variables evident in the classroom situations. It represents a condensed description of what occurred in Michael’s case, and answers Classroom Observation Research Questions, which appear in Section 6.6.1.

Exhibit 11.14 is an example of how Michael performed in English when supported by his itinerant teacher. It demonstrates his reluctance to engage in written activities.

Exhibit 11.14 An example of an unanalysed Classroom Observation 7. The itinerant teacher spoke and signed key words.

The class teacher gave out the sheets for the lesson. The task was to defend a novel that a school principal thinks is unsuitable in the classroom. The students were to think about this in terms of the novel they had studied called *Lockie Leonard*. First they had to write what they would say to defend the novel, and then they had to put the information into letter form. Michael was supported by his itinerant teacher who sat on the other side of his desk facing him. They were seated at the front of the room.

The class teacher wrote the topic on the board. “Defense of *Lockie Leonard*”

C.T.: What do you like about it?

I.T.: Signs and says the same question to Michael (What do you like?).

M.: Don’t like it (spoken).

I.T.: Do you like the story? Why not?

M.: Boring.

The itinerant teacher drew Michael’s attention to the boy answering the C.T.’s question.

Student: It’s funny.

I.T.: Signed this to Michael who shook his head.

The itinerant teacher signed that Michael was to write down his ideas but she was not having any luck in getting him to do more than say he didn’t like the book quite emphatically. She signed, “Hard for you to do the homework”.

The class teacher wrote on the blackboard, “Funny, has humorous incidents.” “Its suitable for teenagers because its about teenagers”.

I.T.: (to Michael) What do you like doing in surfing?

M.: Nothing.

I.T.: What do you like?

M.: Bowling.

I.T.: Do you like girls?

M.: I love girls.

At this point the itinerant teacher tried to paraphrase what the C.T. was saying. Michael pointed to the note about an excursion.

M.: What time we going here?

I.T.: Finish this then we will talk to Jenny about it.

I.T.: You need your pencil.

She tried to negotiate his effort in completing some work.

I.T.: Do it fast. Do half.

He finally got his pencil.

I.T.: Why do you think some people's dad's won't like this story?

M.: That's very rude. (She wrote what he said).

I.T.: The story is very rude. What in the story is very rude?

M.: People say how to make sex.

The itinerant teacher went through some of the words the story used for breasts such as "boobs".

Michael insisted that these words were rude. The itinerant teacher tried to get him to accept that some of these words are in common usage and not really rude. He said "rude": "Fart" is rude. The itinerant teacher said, "OK if you think so that is OK. She dictated. "Nanny and Poppy will think". He wanted to copy from her book not signing and fingerspelling

"The story is rude because the story is very rude. The story is about sex. Some of the words are rude."

On the blackboard the class teacher had written "Tim Winton's style appeals to teenagers. It deals with interesting subjects eg. surfing, relationships, moving to a new town".

The itinerant teacher then got him to look at what the C.T. was writing on the board about contractions. "can't - cannot"

The itinerant teacher signed and said what the C.T. has said, "Some people's fathers phone up to say not to read the story because it is very rude"

M.: That book Lockie Leonard?

I.T.: What is the name of the book?

M.: Pointed to the author's name.

I.T.: What is the name of the man who wrote the book?

M.: Pointed to the name.

I.T.: What would you say about the book?

M.: Throw it in the fire. It is very rude.

I.T.: Write a letter. "Dear Principal" then what do you write at the bottom?

M.: Love the girls.

I.T.: From Nanna and Poppy.

I.T.: Will you say from Nanna and Poppy to the principal?

What are their names? I don't call them Nanna and Poppy. What is the real name for Nanna and Poppy?

What is Nanna's real name? She is not Mr Fowler's Nanna. She is your Nanna. She would say Mr and Mrs Edwards.

The itinerant teacher indicated that Candice was reading her work aloud and Michael should turn and watch her.

11.6.1 Adaptations

The class programs were not modified to meet Michael's needs by the regular staff, that task was performed by his support personnel. His level of ability to understand was difficult to assess, and assessment was also left to the itinerant teacher. Michael had concepts taught to him in separate sessions with his itinerant teacher. Sometimes he received pre, or post-lesson, information. This feature of his support is explained by the teacher's aide in Exhibit 11.15 below.

Exhibit 11.15 Excerpt from interview with teacher's aide

Res.: Well let's talk about getting the content into him.
 T.A.: Having written down what happens in that lesson for the next person, then we will get the props. I can be looking things up in the library to make sure I have got the message across to him and it may not be the lesson necessarily that it happened in. It may be down the line. It is very difficult to sign when notes are being taken, then you don't get the notes taken and we get behind. We need longer lessons. For that reason a school for the deaf would be more appropriate for him. Then you could take account that the teacher doesn't keep turning their back and writing on the board.

All of the English lessons observed were part of topics that had been treated for some time and were therefore familiar. The two science lessons were introductions to new topics. One required making notes based on the teacher's verbal description of events, the other was an experiment, which required less pre-discussion, but was supported throughout the events with questions and answers. The D&T (cooking) lesson was a demonstration followed by the practical manifestation of the demonstration. The maths lesson was one of an on-going series involving concepts that had been introduced previously.

The content of the theoretical side of the practical lesson had been reduced and modified for Michael. He was presented with prior knowledge of certain subjects, and some specific signs had been developed for the equipment in at least one practical subject. He was also shown equipment directly, to enable him to familiarise himself with it, and to learn the names of the equipment. In some instances, he was enrolled in classes that had been designed for students who could not manage the regular program, and the material had been modified to contain more practical topics, and supported by concrete material as well as small group tuition. In some instances the interpreter, or the itinerant teacher, worked with Michael on the same material as the

rest of the class using signs, speech, drawing diagrams, written text, and gesture to impart the information. On some occasions the material had been modified, to be similar, but not the same, as the rest of the class, as was the case in English.

When Michael had an alternative English program based on the same topic as the rest of the class, but more closely related to his experiences, it was apparent that he could function more satisfactorily. However, it was still apparent that when his interpreter (teacher's aide) assisted him, his personal efforts were minimal. His output with the itinerant teacher was more productive, but still at a minimum requirement. He presented an opinion, but had a written response modeled for him based on what he had said and signed. When the researcher assisted him in an English lesson, she tried to have him sign his written efforts for her to translate, but he was neither used to this, nor keen to try.

In the structured, practical and modified maths lesson, he could perform adequately. He was supported step-by-step with questions, answers, demonstrations, and support scaffolding, which was intensive. No activities were independent. He needed reassurance at every stage, but he came up with the right answers. The Exhibit 11.16, which is an excerpt from the maths lesson, demonstrates these features.

Exhibit 11.16 Excerpt from observation 7: Maths lesson. The itinerant teacher spoke and signed key words

There was a group of four boys working at the table with the itinerant teacher who was helping them all, but particularly Michael who was sitting opposite her. The work consisted of a sheet with amounts of money printed on it in a circular pattern. The first task was to add the amounts. There was a large pile of plastic money in the middle of the table for the boys to use to help with the answers. The boy next to Michael was quite good and could work on alone quite confidently. The other boys on the other side had more trouble.

I.T.: (signed and spoken) How much?

Add up how many dollars? Now how many cents?

20 and 20 and 20 and 10

M.: 7

I.T.: Not 7, 70. Write down.

Michael matched the plastic money on the sheet.

I.T.: Don't write it down put the money up here. Is that all of it?

Show me the dollars. Wait. Can you make \$1 with this?

Which two when you add them together will make \$1? 50 and 50 make \$1

Good remembering.

How many? Can you make dollars?

Swapping dollars for \$2

M.: \$2

I.T.: What have you got? Michael counted each by tapping once for the \$1 and twice for the \$2 to add them up. He had some trouble adding the 5c on to the 50c then he read \$18.55 correctly.

11.6.2 Teacher communication

Some teachers attempted to communicate directly with Michael, by seating him at the front of the room, and speaking distinctly and clearly to him while indicating blackboard summaries. Another teacher gave instructions to the rest of the class, and then came and sat near Michael and spoke directly to him, giving him explicit and reduced instructions. Michael would answer in short spoken responses, and record heavily supported responses, which related to the topic. He appeared to understand the practical directions and questioning, but only minimal amounts of actual lesson content. The information he received, in some classes was so reduced that the basic point of the exercise the lesson was designed to deliver, was missed on occasions observed.

He was oblivious to the discussion between the class teacher and the rest of the class and the student's responses, although some effort was made by the itinerant teacher to include him in the discussion.

Michael did not access the text reading in English performed by the teacher or other students, and as he couldn't read the text himself it was not accessible to him at all. He was occupied by copying information into his book. Because his ability to read was so minimal, and the Signed English he received was so limited in quantity and accuracy, most of these activities would have been fairly meaningless to him. For the most part, he was exposed to new vocabulary only through copying notes.

To have Michael perform in English, all activities were either modeled, or copied by him. He did offer signed and verbal responses to questions on the topics, which were recorded by his support personnel. At no stage were any support personnel observed engaging in grammatical extension with Michael. They tended only, to translate what he had signed or said, into an acceptable grammatically correct simple form for him to copy.

The nature of one text in English was outside Michael's capacity to understand, even though it could have been totally signed to him, because much of the meaning was contained in plays on words and newly created words. The complexity

of the literary style itself rendered it further removed from Michael's capacity to understand. He had trouble reading fingerspelt words because of his low literacy level.

In practical subjects, which had a demonstration, he was able to follow the procedure but was unable to access any of the information or exchanges between students and teachers, so that new vocabulary, new techniques, and safety measures, were not readily accessed by him. The teachers either walked around the room and spoke while they demonstrated, or turned their backs while they wrote on the blackboard and spoke. Michael was not observed being questioned on the topic by the teacher directly, or through the support personnel indirectly, and did not seem to expect to contribute in this way.

When he was questioned, it was to do with procedural things, such as: "have you started yet?" When he was supported by the itinerant teacher, in the (modified) science lesson, it was possible for him to keep pace with the class and come to acceptable conclusions, which he demonstrated to the itinerant teacher. He was able to explain in a satisfactory way what had happened in the experiment.

When observed in a science lesson that was supported by the aide (interpreter), he simply copied information in his book from the board, or from her notes. He did not indicate that he understood any of that lesson. It was reported to the researcher that the information contained in that lesson would be delivered at a different time in a withdrawal context.

Information delivered by the itinerant teacher on the class topics was reduced and simplified. Speech often did not parallel signs. Responses and performance from Michael were largely a result of intensive questioning, to which he responded, further questioning followed to draw answers from him. His responses were rarely extended. The signed information, from both interpreter and itinerant teacher, was simplistic, did not follow the spoken version, contained few grammatical devices, and contained a reduced amount of information compared to the rest of the class. This demonstrated that Michael got an abbreviated version of any topic, even when the amount of redundancy in normal language is considered. Exhibit 11.17 is an excerpt from the teacher's aide's interview in which she discussed Michael's communication with her.

Exhibit 11.17 Excerpt from interview with teacher's aide

Res.: What about his communication?

T.A.: I think he understands me better than I understand him. We communicate better at a casual level. For instance, it is very difficult to communicate and sign "igneous rock' when he doesn't understand fingerspelling. We need to show the solid object and a picture and if we don't have that and unfortunately in this case we didn't, it becomes difficult and he finds it boring.

His classroom communication performance included recording from the blackboard in which Michael wrote down summaries or extensive notes. Explanations from support personnel involved speech, sign, diagram drawings, modeling, and gesture.

11.6.3 Student interaction

When Michael had to present material to the class, he used voice, which was mostly unintelligible to the class, because it was more than one or two utterances in length. He preferred not to sign and have someone interpret his signing. When the teacher questioned him, the other students often provided answers for him. His signed and spoken communication with the other students, a number of whom appeared to be competent signers, seemed to be more comprehensive than that between him and his support personnel. He indulged in many incidental exchanges with other students, especially in classes where the discipline was less enforced, or when the interpreter supported him, and his signed responses were often not recognised by the interpreter.

The English lessons were all intended to be non-interactive, but in each instance, Michael turned around and borrowed equipment from girls behind him. He was asked not to interact on a number of occasions, but liked to involve himself informally with the girls. Michael was able to interact casually, and they sought him out as much as he sought them. He ran around at the end of the one science lesson conducted by the male teacher, and misbehaved with a number of students. He did not interact in the science lesson in which the itinerant teacher supported him, except when the experiment was being performed and the students interacted cooperatively. His interaction with the students in the D&T and maths lessons were natural and mutual with other students seeking his attention as much as Michael sought theirs.

11.6.4 Teaching style

All of the lessons observed were delivered in traditional styles with the students listening to the teacher delivering the information. There was no example of a discovery lesson where students were expected to discuss or come up with solutions. The science lesson, in which Michael did participate successfully, was directive. The difference in that science lesson was that it was explicit, and the teacher did not proceed until she was sure the students understood each step. She checked understanding by questioning, and the dialogue was supported by the visual demonstration. The content had been reduced to a degree where the majority of students easily accessed it. The practical nature of the experiment, which followed, reinforced the theory well. The itinerant teacher was able to keep pace with the lesson in this instance. Keeping pace without this sort of step-by-step concern about understanding was not possible in either the other science lesson, or the D&T lesson. The maths lesson was very structured and teacher centered, with a question and answer approach. This approach was supported by concrete material, which could be manipulated by the students. There was no attempt to allow for discovery. All lessons could be described as teacher centered – transmission style. There was no independent work for Michael.

11.6.5 Accessibility of content

In some of Michael's English lessons he was able to perform a task, but it was of such a reduced nature in comparison to the rest of the class, it could not be said to achieve the same outcomes as the other students. Even when he did manage to write something down, it was a result of intensive intervention, and there was little of the finished written work that was a result of Michael's own effort. He presented very definite ideas in some English lessons, but they were not developed, or used to extend his ideas, or existing skills. English lessons seemed to focus on the need to be doing something along the same lines as the rest of the class, and to bear little relationship to Michael's own particular linguistic needs, or to extend them.

In one science lesson, Michael copied down information, which he was unlikely to have understood. In that lesson, he measured his plant, but did not access the information from the teacher about how that would affect the growth graph. This

was a significant omission, as most science programs emphasise the student's ability to relate concrete information to more abstract or graphic representations, and assessment is based on these premises. The interpreter supported this lesson. The other science lesson was successful, as he was able to keep pace with the class, and come up with the valid conclusion that different metals heated at different rates, and express that adequately. Exhibit 11.18 demonstrates Michael's grasping of the essential concept of expansion rates differing for different metals.

Exhibit 11.18. Excerpt from science lesson Observation 10

The itinerant teacher was trying to elicit a response from Michael to indicate he had understood the experiment. The class teacher was going to great lengths to get the class to describe what had happened. In the conclusion the fact that the strips expanded at different rates was explained. The class did express this conclusion satisfactorily.

Michael signed: "One fast, one slow". The conclusion was copied from the board and Michael copied his modified version, which had been written by the itinerant teacher.

The D&T lesson was successful to the extent that Michael saw how biscuits were made. He received none of the theoretical side of the lesson. He could not capitalise on what he had observed by follow up performance. He had to miss the practical part of the lesson and write out of the textbook, because he had forgotten his apron. While this may have been standard discipline practice, it demonstrated that such considerations took priority over Michael's access to the curriculum in that lesson. The maths lesson was successful also, because of the structured nature of it, and the reliance on visual concrete material, questioning, and step-by-step support. There was use of material that was within Michael's cognitive reach, and that ensured understanding of each step before proceeding. Michael was often difficult to engage in meaningful tasks, and was reported to tire easily, especially towards the end of the day. Exhibit 11.19 is an excerpt from the science lesson, which was accessible to Michael

Exhibit 11.19 Excerpt from Observation 10, a science lesson

The science teacher used very clear directions for the class. "We are going to heat up a bi-metallic strip. What do you think bi-metallic means?" The students were given the chance to answer but did not understand that the strip was made of two metals. The teacher drew a diagram on the board to explain how they went together.

The itinerant teacher used a combination of diagrams, gestures and signing and speech to explain what was said by the teacher. Difficult words like “conduction” were written on the paper and explained [through gesture and mime]. She signed “About, hot in”, then signed “box”, (but said, and probably wrote “solid”) she fingerspelled “metal” “copper” “different metals” Write down “which ones show” she fingerspelled “experiments”. She did not check if Michael understood her fingerspelling or what it meant.

The teacher wrote “aim” on the board and the class copied it. The itinerant teacher wrote her version of the aim down on a sheet of paper for Michael, which he copied. This was an attempt to simplify the language, which would be used later for his literacy practice. They proceeded with the “method’ in the same way.

The itinerant teacher signed” “Bi same as 2” she gestured what a strip was. She tried to explain what had been said to Emily by the teacher and directed Michael’s attention to the student. He asked the itinerant teacher what the teacher was doing at the front of the room. The itinerant explained with signs gestures and voice that she was getting the key to open the control box.

Michael copied down his work and didn’t interact with any other students. The class teacher came and said Michael’s work was good and neat. After the experiment was finished which Michael had watched he had his turn with the metal strip in the Bunsen burner. At the conclusion of the experiment having watched the metal bend Michael was able to sign, “1 fast 1 slow” meaning he had understood that the metals had expanded at different rates. This was the essential purpose of the lesson.

A series of emic issues emerged from the various sources of data. The following is a list of those issues, which emerged from Michael’s case.

11.7 Issues arising from the Classroom Observation and Interview Data analysis

Pedagogy

- a) Michael was a bright student according to a science teacher and the English teacher, but he couldn’t be taught the basic subjects
- b) Michael could access regular class information under certain circumstances when teachers used logical progression of ideas with visual support in certain subjects
- c) The school staff generally did not appear to understand what the problem with his communication was, thinking his communicative ability was lower than it actually was
- d) The school had a program, which allowed for students not to have to change teachers regularly, to enable them to relate to one teacher, for a number of subjects. This may have been appropriate for Michael, but he was not included in that program

- e) There was no interactive teaching observed
- f) Explicit, well-organised teaching in some subjects, such as science and maths, was successful, and he was included in the academic outcomes expected of the other students

Support staff

- a) The information relating to the topic provided by the support staff in class was reduced in comparison to the other students, and did not employ an accurate Signed English representation of what was spoken
- b) There was a lack of concern on the part of the staff about his school performance, and an inflated and variable assessment of his performance by the itinerant teacher. The assessment performed by the itinerant teacher appeared to be unrealistic—he did not appear to be assessed in relation to what the rest of the class were doing and were expected to achieve
- c) There was a contrast between the nature and quality of the support provided by the itinerant teacher and the aide/interpreter
- d) Withdrawal from classes, during the years that he had been included in a regular school, had not improved his numeracy and literacy skills to an acceptable level
- e) There was a contrast between the interpreter's ability to communicate with him, and the ability of other students who communicated well with him socially, suggesting he was not given the opportunity to extend his formal language capabilities
- f) The third person, involved in classroom information giving, removed him from direct class teacher / student interaction, except in the modified maths class
- g) Michael was allowed to maintain his own idiosyncratic ideas about issues, with no attempting, or unsuccessful attempts, to modify his ideas or to have him reconsider his opinion
- h) The input was not only reduced, it was often simplified to the point of being inadequate to convey the required ideas, in some instances
- i) His program at school relied heavily on concrete material. He was not given a chance to develop communication skills involving non-present referents, as he was not challenged to express himself without visual support
- j) The extra time it took to deliver information made the process logistically difficult, and an extra drain on effort and fatigue

- k) The communication involved constant question and answers, yet Michael was not expected to comprehend the essential elements of lessons, such as in English, even though he had a relatively good understanding of English. He was not expected to respond to, or produce grammatically correct signed or written English, instead, he had spoken or signed answers drawn from him, and then presented in written form for him to copy. He did not appear to have to work things out independently, unless it was copying out information. He was not expected to work independently at school, so homework prospects were unlikely to be productive
- l) In some lessons he worked at a different time frame to the other students, so that while they were working on the same subject, and possibly the same topic, it was not concurrent to the rest of the class, which was at a different stage in the lesson, and possibly accessing totally different material
- m) Because he couldn't access the regular approved courses, his had to be individualised, and therefore he was unable to access a regular approved program, which he may have been capable of achieving if his information input had been more proficient
- n) The external locus of control meant Michael had learned not to take responsibility for his own learning

Literacy

- a) Michael's level of functioning in literacy was too low for him to access a regular high school program in subjects such as English, geography, and history, which were all dependent on the ability to read text. Geography and history were dropped

Social interaction

- a) Social interactions at school were successful, in that the social aspect of school was the only part of school that he enjoyed, but there was no social interaction with peers outside of school

Family support

- a) Michael lacked effective home support
- b) Michael did appear to have a Deaf identity, as he participated readily in all events with a deaf orientation, which involved adult signing individuals

11.8 Summary of stage 2 analysis of Classroom Observations / Inclusiveness Rating

The following section contains the results of the stage 2 analysis in which the observations made were rated according to the differing levels of inclusion, which were provided by different teachers, according to variation in teacher performance, and lesson type, and content. The different teaching and support modes, which related to the level of inclusion for Michael, are listed in Section 6.11.2. The description of the classroom events, the results of the stage 2 analysis, and the description of the LPD, answer the Particular Principal Issue Question, “How did the regular teachers provide inclusive educational opportunities for Michael?”

Table 11.1 Observations and Inclusiveness Ratings

<u>Classroom Observations</u>	<u>Observations rated in order of inclusiveness</u>	<u>Inclusiveness Rating</u>
Observation 1 English (no support)	Observation 10	2
Observation 2 English (NS)	Observation 7	2
Observation 3 English (NS)	Observation 6	3
Observation 4 D&T (NS)	Observation 1	4
Observation 5 English (NS)	Observation 2	4
Observation 6 English (IT)	Observation 3	4
Observation 7 Maths (IT)	Observation 4	4
Observation 8 English (TA)	Observation 5	4
Observation 9 (TA)	Observation 8	4
Observation 10 (IT)	Observation 9	4

The following section contains a summary of the practices and conditions revealed in the observed lessons, which provided different levels of inclusion. Figure 11.2 is a representation of the summarised information in three variables considered to contribute to providing the highest levels of academic inclusion in Michael’s case.

Figure 11.2 Variables contributing to the highest level of inclusion for Michael

<u>Lesson type</u>	<u>Teaching style</u>	<u>Classroom and curriculum adaptations</u>
<ul style="list-style-type: none"> Lessons which could be visually demonstrated when presented in hierarchical explicit logical steps were accessible for the deaf student when supported by the itinerant teacher (e.g., science, maths) 	<p>Class teacher:</p> <ul style="list-style-type: none"> The science teacher taught in a logical step-by-step progression, waiting for student understanding before proceeding. She used practical demonstrations to support each stage, which the students had to replicate. The deaf student was supported by the itinerant teacher who maintained the pace with the class. <p>Itinerant teacher:</p> <ul style="list-style-type: none"> Small group taught by using step-by-step questioning and answering 	<ul style="list-style-type: none"> Modified classes for students with learning-disabilities. More concrete and practical components Small group Highly structured and practical proceeding from the known to unknown
<p style="text-align: center;"><u>Indication of Inclusion</u></p> <ul style="list-style-type: none"> The deaf student worked on the same material concurrently with the rest of the class and was able to answer questions related to on-going lesson content. The student was able to complete the same performance tasks as the rest of the class and able at the end of the lesson to answer questions and perform in such a way that it was apparent that the essential lesson content had been understood—with support personnel assistance 		

11.9 Interpretations, assertions, and generalisations

In Michael's case, the interpretations, assertions, and generalisations were based on the emic issues, which evolved, and the Inclusiveness Rating for his lessons. The following section was the result of the data analysis and the combined answers to the three Particular Issue Questions. It is the researcher's interpretation of the case. Further pertinent references are made to literature sources, to assist in understanding Michael's case.

11.9.1 Theoretical views which contribute to understanding Case 5

11.9.1.1 Literacy

Musselman (2000) reviewed the literature on deaf readers. She suggested that deaf readers use multiple encoding strategies. Phonological encoding provides the

main representation of print, but deaf readers selectively supplement their limited abilities with both orthographic and sign codes, which requires the integration of information from auditory and visual memory. This interaction may be important because it provides an efficient way of holding text in short term memory, while it is operated on by higher level processors. It was suggested that strengthening the higher order understanding, might enhance literacy. One suggested method for achieving this is to use a sign language as part of the literacy program—bypassing a deaf child's poor auditory skills and providing them with a functional linguistic system.

Authors such as Paul (1999), and Mayer and Wells (1996) support the use of an English based sign system as a means of supporting literacy development among students who already have a strong, or developing, capacity to use a native sign language, because of the isomorphism with printed English. Others would suggest that because Auslan is more visually accessible, it allows for the development of a stronger semantic and syntactic base in that system, even though the specific features of Auslan do not transfer to English. Because it is easier to use, it can provide an increased knowledge of the world and better-developed metalinguistic skills.

The results of studies reported by Musselman (2000) suggest that skilled deaf readers use strategies selectively recoding print into speech, and sign, in order to derive meaning. Most studies reported by Musselman, found that orally educated students have superior reading skills to those of students in total communication programs, demonstrating that spoken language provides an advantage, because of its ease of encoding into print. There are also robust findings that the deaf children of deaf parents have better language and reading skills than those of hearing parents.

While these findings are somewhat contradictory, there are several paths to literacy that the literature reported suggests (Musselman, 2000). The first is the one hearing children follow, in which a spoken language is learned first, and a printed language is decoded to the speech from which it is derived. The second possible pathway is from English-based sign, to printed English, with feedback from print to interpersonal communication. The third possible pathway is from Auslan to print, with English based sign as a possible intermediary linguistic form. The fourth way is from Auslan to print, with some readers learning to associate certain features of Auslan with English print. It may be that all of these possible routes operate to some extent depending on the capabilities of the student. The essential point that was emphasised was that the best method is not categorically clear, so adopting a single

strategy solution is likely to be detrimental. Instructional methods should in some way reflect the particular skills being targeted.

Learning to read needs to be seen in an interactional context. One strategy, described in the literature reported by Musselman (2000), was the association of print with sign in chaining processes, using fingerspelling as an intermediary between the two language systems, or using written glosses for a signed language. More important, possibly, is a dialectic between the child and the teacher, where there is a recursive recasting of the text. This involves the presentation of an initial text by either teacher or child in any language modality, which then passes through a series of successive elaborations and translations until it was understood.

When discussing written language ability, Brewer (1980) made the point that understanding literary discourse requires “literary competence” that must be developed by the exposure to the historical literary tradition. The force, or intention, extracted from a piece of literature is a complex interaction between the author’s intentions and the assumptions of the reader. An author uses various literary devices in order to convey his intended meaning. This may, or may not, be matched by the perception of the reader. The stylistic aspects of discourse play an important role in the comprehension and artistic success. Of importance, is the part the reader plays, and the knowledge they bring to the task of reading and comprehending the text.

Literature for young children, according to Brewer (1980), may involve the use of simple plots; the surface order of events may be consistent with underlying order of events; when order of events are varied, the shift is marked with obvious rhetorical devices; for the older child, less explicit devices are used and inference can be assumed; and for younger children viewpoint needs to be consistent. The more sophisticated the rhetorical devices used by the author, the more difficult the comprehension task becomes for deaf children who may have a limited world view and command of linguistic and literary devices.

It has been suggested that certain instructional strategies actually cause learning difficulties in “at risk” students (see Section 5.4). Intensive pull-out strategies may induce a learned helplessness or passive role in learning for those students. There are two alternate instructional models, the transmission model and the interactive model. The interactive model, allows for talking and writing to be means of learning. The transmission model sees the teacher as the central figure imparting knowledge, whereas the interactive model sees the teacher as a facilitator of learning.

Teaching systems based solely on concreteness, eliminating everything associated with abstract thinking, reinforce a need for concreteness and should be seen only, as a stepping-stone to developing abstract thought (see Section 10.9.1.1).

Traditional instruction for deaf children has been focused on teaching about language rather than the use of language. This has traditionally involved pull-out intervention, and focus on the drilling of parts of language. A more appropriate approach focuses on communicative interaction, which supports the development of interpersonal and school language learning (see Section 5.4). The exclusive use of the IRE model of discourse, commonly used in schools, is also not conducive to the development of competence in natural conversations skills. Socially motivated communication experiences are, instead, critical for the mastery of interpersonal, classroom, and print discourse, including English. Children who witness adult self-talk in the solution of problems have a distinct advantage. The teaching of reading and writing should be organised in such a way that the child sees that they are necessary for something. The zone of proximal development, explicated by Vygotsky (1978, see Section 5.3.2), emphasised the role of competent others in the learning process that children pass through. Human learning presupposes a specific social nature and a process by which children grow into the intellectual life of those around them.

Michael's poor performance in literacy is probably due to a number of factors described above, which may have involved his family, and the methods of literacy instruction he experienced. It was stated, by Michael's grandmother, his father was a non-reader but his mother was. It was also reported that his family background had been disrupted. He may not have had a parent able to prepare him for literacy by reading to him, or telling him stories at a young age, and giving him a sound preparation for literacy learning.

Since he had been enrolled in regular schools, the itinerant teacher had withdrawn Michael for literacy tuition on a one-to-one basis. She had used memory for sight word recognition, as a major method of teaching him to read. This was a technique, which concentrated on isolated and discrete skills and the reliance on memory, not knowledge of language, or a world-view. It is also evident that Michael had ability to understand the structure of spoken English and well developed lip reading skills; he also used speech successfully when using short utterances. This seems a good basis for providing an awareness of the phonological aspect of words, even without a complete auditory access to this aspect of reading. Learning to read by

concentrating on only one aspect of the reading process— a visual memory strategy without a phonological component—had not been a success. It may have been more successful if the teaching of reading had been approached with small groups of students involved in meaningful experiential activities, similar to Michael’s later maths tuition in high school (see Exhibit 11.16). In this way, all the components of the reading and writing process could have been combined, as advocated in the literature cited above, and (see Section 3.6.1) to have capitalised upon Michael’s communicative competence.

Michael’s lack of reading skills could reasonably be attributed to the combined effects of family disruption in his earlier life, and to the fact that he had not been placed in optimum literacy learning situations when he was included in a regular school. There was no doubt in the minds of those interviewed, the disruption Michael experienced in his early years, had a negative impact on his learning.

While Michael would appear to have possessed good potential for the acquisition of literacy skills, given his language facility, it was not realised. In Michael’s case, lack of communication ability could not be used as a reason for his poor performance. The instructional methods must be questioned, and the problem of being exposed to the same method of reading instruction for many years, emphasised.

In the high school setting observed, there were other obvious contributors to his failure to develop satisfactory literacy skills. He was placed in regular classes for English where the literacy expectation, and need to access information through spoken English, was beyond Michael’s capabilities and he did not receive a comprehensive Signed English version of what transpired. The support staff did not promote comprehension development. Michael did not have the opportunity to comprehend the text through reading it, or through having a text at his level of competence, or an interactive recasting of his version of events from the text, with either of his support personnel. His support program dealt with superficial end products of class literacy tasks, not the understanding of them.

Because of Michael’s inability to use “bottom up” reading strategies to decode unknown words, even though he used speech to communicate with hearing students and teachers, access to new vocabulary presented via fingerspelling, had little success, because he could not read the fingerspelling. He could not be expected to commit all new vocabulary to memory.

The path to literacy that Michael may have had the capacity to progress through, was Auslan, Signed English to printed English. This did not eventuate because of the significant omissions in the process. These were most particularly, the lack of specific teaching about the literary tradition through the utilisation of his knowledge of Auslan, his lack of opportunity to effectively utilise his language ability to enhance comprehension, and the poor quality Signed English he received in school.

11.9.2 Communication in Michael's case

Michael was in some ways more fortunate than other students observed in this inquiry, as he had been born into a Deaf family and had been part of the Deaf community. There is no doubt that Michael had a well developed Deaf identity, enjoying communicating and interacting with other deaf individuals, both children and adults, and when he visited his father in holidays, was able to return to a communicative community with which he could identify. He was not so fortunate in the realm of communication at school. Because Auslan was not an approved manual method of communication in DET schools, he did not have the opportunity to access curriculum information through a medium in which he was competent. His support personnel were inefficient exponents of Signed English, and certainly were not able to use Auslan. Therefore, Michael was not in a position where his knowledge of Auslan could be used to facilitate an understanding of English as a second language.

Michael's situation was complex because of his particularly uneven performance. He had a relatively high level of ability to communicate on a social level with his friends, even though they weren't Signed English users of long standing. He was able to code switch between spoken English and Auslan using contact signing (Musselman, 2001) to communicate effectively with them. The interesting thing to note was that his friends appeared to be able to communicate with him better than his support personnel. Communicating with friends had a great deal of salience for Michael, and may have been the reason he communicated well with them. His social interactions were the basis of his liking school, which is clearly illustrated by Figure 11.1.

The fact that Michael communicated less well with his interpreter was partly an indication of the low skill level on the part of the interpreter (teacher aide) who found it difficult to read Michael's signs. These difficulties highlight the

inappropriateness of employing individuals who are not highly skilled exponents of manual means of communication with deaf students. In Michael's case, as he was from a Deaf family with Auslan as a first language, there can be no real argument to support the absence of an Auslan interpreter to provide access to lesson content in high school. This was significant, especially at a high school level where information delivery is critical. It would have been an advantage to have used Michael's reported knowledge of Auslan, as a step in the teaching of reading through a developed linguistic competence, and a meta-cognitive understanding of language (Musselman, (2000), as well as for information input. His facility with Auslan could have supported the "top down" aspect of the reading process in the ways identified above.

11.9.3 Support staff in Michael's case

Michael's support at school was notable for a number of reasons. Firstly, it was characterised by the avoidance of complex issues and concepts in many contexts, especially subjects requiring a mastery of text. Michael was initially expected to access the same material as the other students, but was unable to read the prescribed texts. His written responses were so managed for him that he did not have to write his own answers in class. He was able to copy translated versions of what he signed, but without engagement in the final version. A more appropriate strategy may have been for him to attempt only portion of what the other students achieved, but to have completed it comprehensively.

Employing strategies on which Bloom's taxonomy (see Section 5.6.1) are based, could have facilitated Michael's ability to access the regular curriculum. Not requiring Michael to engage in attempting to construct meaning from text could not be considered an effective support strategy in accessing the curriculum. If cooperative learning activities had been a feature of the class lessons, Michael may have been able to see how other students solved problems, and to have learnt from his peers, who were clearly very happy to interact with him.

When theory was omitted from practical subjects, it made concept development difficult, and at best, idiosyncratic. It was mentioned on a number of occasions that Michael made up his own version of explanations of events, which were simplistic and often wrong. Exhibit 11.20, an excerpt from the interview with the teacher's aide, demonstrates this characteristic.

Exhibit 11.20 Excerpt from interview with teacher's aide

T.A.: Generally I think he is happy. He has some very funny ideas. Like one day he was telling me that your hair grows in the shower because you are watering it. That is an explanation that he thought up and because he thought it, it had to be right. I couldn't change his mind. He is moody. He will hold on to something from home for a long time.

Opportunities for further development or modification of his ideas, through interactive communication with capable peers and adults, could have advanced his concept development. A fuller understanding was not striven for. With reduced expectations, his performance also, was effectively reduced.

As many of the communicative exchanges observed involved Michael being questioned and his answers translated into acceptable English responses, it is unsurprising that he expected to communicate that way. His conversational skills did not extend to lengthy planned discourse. This may have been different, if he had the opportunity to communicate more fully in a language and communication form that was freely available to all of the interlocutors involved (e.g., Auslan).

Given that Michael could not access text adequately, he could not develop the sort of discourse strategies employed by writers, or appreciate them. While his support staff relied on concrete material, such as photographs to clarify events, concrete materials alone were not enough to develop literacy skills. It was reported by his grandmother that Michael spent most of his spare time watching his TV at home, but it would appear that much of what he watched was inaccessible, as he was unable to retell any of the movies he had watched, yet his interpreter reported that he had knowledge of current affairs, which she found surprising. He obviously enjoyed watching movies on TV. If he had knowledge of how stories went together, he may have made sense out of the movies to the point that he could at least retell the events. The reason he didn't retell the movies was not because he didn't enjoy communicating.

Developing an understanding of narrative structure, both formal, and informal, would have been useful to facilitate an interest, and an understanding of stories. Without such knowledge, or a decoding strategy, reading success had eluded Michael. The ability to read the subtitles on his TV was unlikely. Michael was reported to have knowledge of some world events, which he presumably gained from watching TV.

It is difficult for an illiterate student to perform well in a high school situation, but when the verbal input—both spoken and written—is unavailable through lack of audition or an intact signed version of what was spoken, learning becomes problematic. It is clear from the observations in this case that the signed version of the teacher discourse supplied by the itinerant teacher, or the teacher's aide, were truncated versions of what was spoken by the class teacher.

When the itinerant teacher was involved in a direct teaching role, the situation for Michael was much improved—typically ensuring that the lesson content was at a conceptual level that he could comprehend. The two most successful, and inclusive, lessons observed were dependent on the appropriate arrangement of lesson content and delivery, in particular subjects. On the other hand, having the teacher's aide in that role as a primary source of information was less successful. It was clearly too great an expectation of someone not trained as a teacher, nor a proficient exponent of manual communication.

The role of the itinerant teacher was probably too all-encompassing in this situation, as it appeared the itinerant teacher did not have the necessary expertise in all the subject areas that she had assumed responsibility for. Her maths instruction when Michael was in primary school was not successful. Her literacy instruction had not been successful either.

The support personnel had almost total responsibility for Michael's education—the delivery of content, modification of content, and assessment. The school had effectively abdicated its role in these areas. This was not true, however, of the special education teacher, who stated that he was able to teach Michael himself adequately, when the support personnel were not there. This was not observed. However, to the extent that this was the case, it was likely due to the fact that the special education teacher's program was accessible to Michael, because of its explicit nature, using concrete materials, and proceeding in a step-by-step manner, at the level of understanding of the students.

11.9.4 Locus of control in Michael's case

Michael was relatively successful socially at school, because of his ability to communicate with a range of students, and their ability and willingness to communicate with him. This did not extend to after school situations. This was

reported to be due to unwillingness on the part of his grandparent, to allow him to develop independence skills. He was not allowed to go anywhere unaccompanied, and they appeared reluctant to have friends over to visit, because his grandparents felt that they exploited Michael. At school, Michael was not observed performing any task unaided effectively, and was not allowed to perform simple tasks at home. While he enjoyed social interactions at school, he spent his after school hours completely devoid of peer interactions.

Michael had, or had developed, a dependent nature to his relationships and a clearly external locus of control at school. Without his support personnel, he was unable to do any more in lessons than observe and copy from the board. In some subjects, he would become reluctant to participate, either because the material was too difficult, or because he was used to being closely assisted.

Nevertheless, Michael had a concept of himself as a Deaf person and expected to enter the Deaf community on leaving school. He did not have opportunity to engage in any social interaction at high school with other deaf individuals, although he did so to some extent in holiday time.

11.9.5 Pedagogy in Michael's case

None of the lessons observed in this case were interactive in nature, but relied on a transmission model of teaching. The transmission model delivered successful learning outcomes when the material was presented hierarchically and systematically, at a level within Michael's ability to comprehend, and when supported by the itinerant teacher, in visual subjects. There were no instances where the program was designed to use writing, reading, and communicating as a means to learning, instead surface structure, and completing the task for its own sake, were apparent. The fact that Michael could comprehend the lesson content was due to his intellectual capacity and language ability.

This school had claimed to be trialing a Middle School program in which one teacher taught a group of students in Year 7 and 8, for a majority of their subjects, so that the students only needed to have specialist teachers for the most specialised subjects. Michael was not part of this plan, which was unfortunate, as it may have offered some opportunity for him to develop a rapport with one teacher. It may then

have been possible for that teacher to work with the itinerant teacher in a collaborative way, seeking to devise a program that was more suited to Michael's literacy needs.

In some unsupported subjects, such as cooking (D&T), there were language learning opportunities that were not exploited. All class communication was based on an IRE method of questioning. There were no natural conversational opportunities offered -- in fact, they were actively discouraged. This is often the case in high schools, though perhaps not imperative in a practical subject such as cooking.

There was a long history of pull-out instruction for Michael. This was the primary strategy for addressing literacy and numeracy instruction, especially in primary school. If the class teacher's pedagogy had been interactive, this may not have been necessary. It can only be observed that this strategy had had little positive effect. His skills in both areas were negligible. When Michael was included in a special mathematics class organised by the special education teacher, with the itinerant teacher following the designated program, Michael had relative success. He was able to manipulate the concrete material and arrive at correct answers, at least.

When visual subjects, such as science and maths, were presented at Michael's developmental level, and without omitting the theoretical content, the concepts logically progressing, and supported by visual reinforcement, with itinerant teacher support, he could perform successfully. In such situations he received enough information to make sense of the lesson.

The appraisal of his school performance appears to have been inflated in some instances, as school personnel felt that Michael was doing well. There was an unrealistic expectation about his ability to perform linguistically. On the one hand, an inflated opinion about his ability to understand existed, and on the other, an inability to come to terms with what was needed for him to understand. He had to finally fail in regular classes, such as English, maths, geography, and history, and to have his failure recognised, before major alternations and adaptations to his program, were made.

11.9.6 Inclusion in Michael's case

The inconsistency in Michael's situation, evident in the variable reports about his ability, added to its complexity, but highlighted successful practices. He was able to achieve satisfactory concept development in science when topics were presented logically and in an appropriate sequence. In that class, his science teacher regarded

him as having the ability to score a “B” rating. His understanding of maths concepts was not high, but when he was included in a small group of students involved with a step-by-step approach to the teaching of the concepts, which were supported by concrete material, he could perform adequately. It would appear that if the material was presented to Michael in an appropriate way, and at his concept level, he could achieve satisfactory outcomes.

The most inclusive lessons observed for Michael had been previously modified for the children with lower ability and delivered in a step-by-step explicit approach. One of the lessons was in the regular stream; the other was for students with special needs. There was a constant use of concrete material to support learning, with the content of the lesson more practical in maths than in the regular maths program. The science lesson used the same concepts as the regular program, but it had been simplified for less advanced students. In these lessons, Michael received an increased amount of information, when compared to the less inclusive lessons; information that he understood. The concrete content, and the structured delivery, as well as the reduction in content complexity, and the concurrent information input delivered by the itinerant teacher, accounted for this. There was constant questioning to elicit short answers through repeated question and answer sequences. Michael understood the content of the lessons, and the question and answer format, although he was not called upon to answer to the class. Questioning and answering occurred between Michael and the itinerant teacher.

The input from the itinerant teacher was multimodal. There was no direct class teacher contact in the science lesson, but the itinerant teacher maintained the pace of the class teacher, so that Michael was party to the same demonstrations and question and answer sequence as the other students. The itinerant teacher delivered the maths lesson to a small group including Michael, in the Special Education Support Unit. Comprehension and understanding were checked consistently. Michael was not witnessed working independently, effectively, on any observed occasion.

The lessons, which were of a moderate level of inclusiveness, were modified in that expectations were different for Michael. They were reduced and simplified. All his responses were modeled for him to record. Independent work, or checking of comprehension in these lessons, did not occur. Evidence of advancing him from his already held immature opinions, and attempts to extend his linguistic ability, were not apparent. The amount of input he received in these lessons was reduced in comparison

to the rest of the class. It was reduced in quantity and quality with Michael's contribution to question answering minimal.

The lessons with the lowest level of inclusion were either unsupported, or supported by the teacher's aide. When there was direct class teacher direction, it was oral, modified, and about content out of Michael's perceptual or conceptual reach, or not immediately contextually obvious. Theoretical elements, to support the practical lessons, did not occur, so that it was not possible for him to develop a proper understanding of the topic through association of the practical with the theoretical. He was expected to perform large amounts of copying of written material. In these situations expectations were low, and Michael's effort was minimised, with Michael tending to respond only to concrete activities, and missing the basic purpose of the lessons.

11.9.7 Adaptations in Michael's case

It was only after the failure of Michael's enrolment in the regular classes that he was given alternative programs. When lessons were structured and supported in ways that the material was accessible to Michael, he was able to perform satisfactorily. A major feature of the regular class programs that were delivered to Michael was the omission of complexities, thus reducing the information available to him. Many teachers tried to speak directly to Michael, but none had sufficient signing skills to relay enough information to him through manual communication.

Concern was not expressed about the avoidance of broaching the hard concepts, yet it was stated that Michael appeared to have the ability to understand when enough information was forthcoming. This was born out in the lessons that were rated highest in the Inclusiveness Rating. Michael was rarely expected to perform more than a minimum amount of work in a lesson that required the generation of written answers. In the lessons with the lowest inclusiveness, his reliance on concrete materials seemed to impact on his ability to express himself about anything other than that was directly in front of him.

11.10 Assertions

11.10.1 Language learning opportunities

Michael's early family life had been disrupted, and he experienced a variety of school placements in his early schooling, both in segregated special schools, and in regular schools. English was taught as a second language in the segregated special school he had attended, and as a consequence, he had developed the prerequisite skills to be able to communicate successfully with hearing peers who had some Signed English ability.

He used lipreading to access spoken English, and through code switching, contact signing, and speech, had developed successful communication strategies. Some hearing students had progressed further in their manual communication skills, and were more efficient manual communicators than his teacher's aide. Michael was an effective communicator in informal situations. He had developed good conversational and social discourse strategies, but his ability to communicate in Auslan was not exploited.

While Michael had many willing communication partners at his high school, their ability to communicate with him and develop discourse strategies was not exploited in any of the situations observed. His informal exchanges with other students were usually discouraged in the interest of discipline. The discourse strategy he had apparently developed, most adequately, was argument. He was emphatic and inflexible in the positions he took. The fact that he couldn't relate, a personal, or formal narrative, was possibly because he hadn't been expected to. This case demonstrates that good informal communication skills are not a guarantee of success in a regular high school situation if the support staff is not up to a comparable level of signed communication themselves.

Because Michael's language ability was not exploited by his support personnel, he was not extended to the point where he could increase his skills. He was reduced to single utterance conversational communication. He was not taught about literacy or literate behaviours, through a language he had facility with, such as, Auslan.

Because certain subjects could be made visually explicit, Michael could make some sense of the academic content. This suggests that if he had had consistent intact

Signed English or Auslan input, he might have been able to receive sufficient information to develop concepts more fully. Because he was not expected to venture past the concrete, he wasn't able, or prepared to do so.

Dependence on concrete support does not lend itself to the development of an ability to relate events that are not immediately obvious, or present. Total reliance on visual materials for communicative support avoids the need to develop the ability to refer to non-present, abstract, referents. Michael's primary method of communicative interaction at school with his support personnel was based on visual materials and short exchanges. It is the probable reason he relied on contextual, single utterance, turn taking, communication.

11.10.2 Literacy learning

A particular area where Michael could not function adequately was in the formal aspects of school learning that relied on literacy skills. Michael's literacy learning was based on a sight approach to word recognition with little reference to either the phonological element of words, or contextual clues. His knowledge of the world was not called upon to assist in the "top down" aspect of reading, unless it was through relating to the pictures.

As Michael had an ability to understand and respond to spoken English through lip reading, and some limited auditory ability, it may also have been possible to develop a phonologically based strategy to assist the decoding of printed text, which then may have been associated with fingerspelling.

This case highlights the need for a minimal literacy standard to be present, before a student can be expected to access a regular curriculum in high school. Facility with text in a regular high school class is essential for effective inclusion in text-based subjects.

Michael's literacy and numeracy skills had been dependent on his long-term itinerant teacher, who appeared not to have had the skills in those subjects, to be an adequate sole source of instruction for a period of years. As Michael did not have adequate literacy skills, or writing ability, high school learning became very difficult. It was unlikely that Michael would develop literacy skills sufficiently in high school to be able to access the curriculum at a later date.

11.10.3 Academic learning

The school staff had little knowledge of deafness, and were satisfied with low performances from Michael. Michael's ability to understand grammatical elements of English was better than that of other students in this inquiry, and could have been a basis for further development. Michael's satisfactory linguistic system had not been exploited to develop literacy skills. The Signed English that was observed was a combination of signs without morphological embellishments. It was associated with speech and some written English.

Michael was not observed producing any unassisted response to tasks that were initiated by himself, through writing. His signed and uttered responses were translated into simple English versions for him to copy. Engaging with the text was avoided, thus he was not observed being asked to transcribe an intact Signed English version of what he had been assisted to produce in writing. When delivering "speeches" in class, he spoke his prepared text, which was incomprehensible to anyone, because it contained extended discourse rather than short utterances. It was signed by his support personnel, who had the benefit of the written text. This was not communication in any sense of the word. His knowledge of Auslan was not exploited to enable him to translate his knowledge of that linguistic visual system, into a printed version of an auditory language.

Writing for learning was not evident as part of the program. His itinerant teacher reported that she believed computer-based learning was effective methodology for the teaching of literacy and numeracy, which may explain why Michael's ability was so low in both areas.

This case highlights the difficulties inherent in expecting an itinerant teacher to be proficient in all areas of education, and to be the primary curriculum deliverer. The purpose of inclusion is not being realised when programs become further and further reduced as a response to student failure to perform adequately, even when they have good cognitive and communicative skills. This reactive approach does not address the problem of providing inclusive learning opportunities, and access to the curriculum, when complexities are stripped away because they prove too difficult to address productively. This student demonstrated that he could, under certain circumstances, perform adequately.

Expecting students to make connections, when they have gaps in their understanding, is unrealistic, and too much to expect of a student to endeavour to understand lesson content, which is fragmented and incomplete all day. Most individuals would find that challenging and demoralising. A student, with a compliant personality, is likely to endure the situation longer than one whose frustration manifestations are nearer the surface.

Michael was able to comprehend curricular content, when it was presented systematically, and at a level he was developmentally capable of processing. It was apparent in some subjects at school, his understanding was within the range of the other students, as he was able to comprehend and absorb information.

The reduced input Michael received, poor literacy and numeracy ability, and reliance on concrete material, all contributed to reduced learning in his regular high school classes. His ability to develop higher order thinking using abstract constructs would not be facilitated in this situation, because of the reliance on concrete referents. Michael appeared to have a better learning potential than realised in the regular school.

11.10.4 Social experiences

Michael had positive social experiences at school, because of his ability to communicate with his peers, and which provided him with the only positive aspect of school from his perspective. This did not extend to after school hours.

11.11 Generalisations

The generalisations were made as a result of the analysis of case study data.

A student, who is a natural visual language user, should have a proficient Auslan interpreter in high school. The personnel designated to act as interpreter, should act as an interpreter without the added responsibility of modifying or facilitating access to curriculum content. The student should be expected to perform with independence in those subjects, which are linguistically accessible. Subjects, which are more difficult for the student, should be supported by an itinerant teacher, not a teacher's aide/interpreter.

A cooperative learning environment in which the itinerant teacher has a role with a group of children, and the possible guidance from a class teacher, is preferable to one in which the student and itinerant teacher work in isolation. If Signed English is to be used to develop an understanding of printed English, it should be executed as prescribed, and not stripped of the grammatical features of English. If the student has an idiosyncratic linguistic system, there needs to be a dialectic between student and teacher to arrive at a suitable translation into more English-like forms and understanding in an on-going way.

Literacy should be approached from a functional point of view, and all aspects of reading and writing included, even if the student does not have good auditory skills. If potential exists for the phonological aspects to be included, for example, learning to articulate sounds and associate them with their written or fingerspelt counterpart, it should be undertaken, so that a variety of strategies are made available. School personnel need to be made aware of the linguistic and communicative abilities of the student, so that they are able to understand the complexities of the communication problem.

A thorough examination of a student's abilities, should occur prior to entering a high school, and adaptations made to cater for his or her communication needs, rather than having the student attempt to fit into existing programs, which are clearly inaccessible to them, because of poor linguistic, or literacy skills, and have them fail. Proactive arrangements should be put in place, where interaction between students is possible. Such interactions may improve communicative, or literacy ability. Curricular content should be associated with linguistic advancement. The object should be to move from a more adapted program, towards a regular less adapted program, not the reverse.

11.12 Conclusion

It is in social contexts that children learn to become part of the community and learn how to use language (see Section 3.3.1). In Michael's case, he had been brought up in the Auslan using community and had developed a visual language through which he could communicate effectively. In the school situation, he was communicated with using simultaneous communication via Signed English. That mode of communication, as practiced by some teachers and teacher's aides, in this

case, was ungrammatical and virtually unintelligible, neither corresponding to the grammar of a visual language, nor English (see Section 3.5.3). It is to be expected, when the exponents of a manual code of English are not proficient, that the furthering of formal English skills for the deaf student is unlikely.

Literacy learning emerges through the development of complex symbolic processes that develop concurrently both in the face-to-face and written language domains (see Section 3.6.1 and 11.9.1.1). For this to occur, reading and writing need to be used in meaningful contexts. Written text is much more abstract than spoken communication, and requires a much greater degree of conscious awareness of the process through which meaning is realised (see Section 3.6.1), which could have occurred in Michael's case if his facility with Auslan had been capitalised upon. When written skills are not adequately taught, the student is unduly engaged in trying to construct meaning through writing, making it less likely that writing skills will further develop, as was the situation in this case.

Michael exemplified the difficulties that even a good visual language user may experience in a regular high school if they are not provided with appropriate signed input through a proficient interpreter, and not fully able to be engaged in reading and writing tasks. Michael had sufficient linguistic skills to have been successfully included in a regular school, if he had been taught to read prior to entering high school. That this had not occurred was due, in all likelihood, to the fact that his itinerant teacher, of long standing, did not have the expertise to teach him (see Section 11.10.2). She had a history of withdrawing him from the regular classroom to deliver individualised reading instruction in isolation. This did not involve interaction with other students and the opportunity to develop reading skills using a variety of reading strategies in meaningful situations.

Without effective literacy skills, Michael experienced severe difficulties accessing the complete regular high school program, and for this reason the regular program was progressively reduced and simplified in comparison to the other students. He was not in a position in which his academic skills, and literacy skills, could develop concurrently.

To conclude, it is appropriate to summarise the answers to the three Particular Issue Questions. First, Michael was included in the particular school because of the unavailability of a segregated deaf school placement close to where he lived. His disrupted family life had precipitated this situation.

Second, in the lessons in which Michael enjoyed the highest levels of inclusion, he was supported by the itinerant teacher who delivered the lesson content to him. Those lessons were modified in content, and were at the concept level of the students in the classes. They advanced in explicit logical steps with attention to understanding, before proceeding. Those lessons had visual material to support understanding. The class teachers did not work directly with Michael; the lessons were mediated by the itinerant teacher. In other successful lessons, Michael was included in small classes of students who required remedial teaching, and the content was delivered directly by the itinerant teacher, also in explicit logical steps supported by visual material.

Third, because Michael had well-developed informal communicative skills, he was included in some of the social aspects of school, but because of his poor literacy skills, he had extreme difficulty accessing high school subjects dependent on an ability to read. In subjects that were easily visually represented, Michael was able to access the curricular content. Because of the failure of the school to set up interactive literacy learning situations for Michael when he entered high school (or before), his literacy ability was not satisfactory. He was, over time, removed further from the regular classes in which he had originally been enrolled. As a response to his failure to access the regular literacy-laden classes, Michael's program was modified to become less theoretical, more practical, more individualised, and more reliant on concrete aids. This surely, had a negative effect on his ability to develop abstract abilities. This was a reactive response to the situation, not a proactive one.

Michael's inclusion cannot be regarded as having provided, sufficient, successful, and inclusive, academic opportunities to allow him to access a sufficient proportion of the regular school curriculum to promote learning, and satisfactory progress in all areas.

CHAPTER 12

DISCUSSION

12.1 Introduction

The five deaf students, whose educational situations were described in this inquiry, clearly had very different educational experiences—varying in the level of their inclusion into regular educational environments. In no case were the students entirely excluded, but neither were any students unequivocally included in all aspects of the curriculum, and the general milieu of their school.

At this point, it is appropriate to restate that the conclusions outlined below were drawn by one individual as a result of the data analysis. The researcher was one of the itinerant teachers involved with the education of the students in this inquiry, whose personal opinion had as much weight as any other teacher interviewed. While every effort was made to ensure objectivity through the safeguards described in Chapter 6, such as triangulation using multiple data sources; prior knowledge and personal opinion, are difficult factors to eliminate entirely. Personal opinion of all those involved, including the researcher, are modified by the data reduction to become a general opinion about the situation, with individual distinctions accounted for. While member checks were carried out in the early stages of data analysis, they were done to satisfy the researcher that she saw things similarly to her fellow itinerant teachers. Once that was established, the analysis ensured consistency across the whole data set. Every effort has been made to include as many examples of raw data as possible throughout the case chapters, to illustrate the conclusions drawn, and to serve as exemplars of the situations generally.

The analysis of data determined that factors found to account for the level of inclusion, included the language and communication abilities of the students, and the teaching style of their teachers. Major determining factors, also, were the ability of teachers to communicate directly with students, and the capacity for teachers to present curriculum content logically, hierarchically, explicitly, and with clarification by visual representation.

Teaching style had an impact on how the support personnel interacted with the deaf students, which in turn impacted on the level of inclusion they experienced.

A common factor, in the cases in which students did not experience high levels of inclusion, was the amount of reduction in the theoretical component of the program, and the extent of reduction in linguistic content and abstraction, which occurred. In non-inclusive settings, proactive steps were not taken to determine the linguistic competence of the students at the time of their enrolment, as a basis for ensuring that concurrent language and literacy learning took place. If language learning and literacy learning did occur coincidentally with enrolment in the regular school, it was apparently because of supports and/or interventions, or student or teacher ability, which predated the inclusion, rather than being a consequence of actions instigated in the regular school environment. Curriculum modifications or specialist curriculum additions, where they were made at all, tended to be made as a response to the student's perceived failure to access the curriculum, rather than as planned and proactive measures. Typically, such changes involved a reduction in theoretical complexities, and reduction in academic content provided to the students.

Difficulty in communicating effectively was not a problem associated exclusively with the students in this inquiry. Rather, it was discovered to be frequently a problem for the support personnel, who in some instances were not proficient exponents of the required mode of signed communication. The ability to communicate orally was a major benefit for those students with those capabilities.

Ability to communicate orally had a marked effect on the level of academic inclusion the students received. Nevertheless, academic inclusion was also possible for a competent manually communicating student, when engaged in a visually represented subject taught hierarchically and logically, and supported effectively by an itinerant teacher (see Case 5). Communication skills, either manual, or oral, were particularly significant in the student's ability to engage in successful social interactions at school.

The communicative abilities of the five students differed markedly, but effective communication was not the only factor associated with successful inclusion in every situation, and in all cases. The two most effective communicators (Case 3 and Case 5) were users of oral and manual communication respectively. One was successfully academically included, while the other was not. Because of his auditory capabilities, the student with good oral communication skills was able to access spoken communication to the extent that he was able to learn language and literacy skills effectively. This occurred, even when the teaching

was of a transmission style, suggesting that strong auditory-oral communication skills meant teaching style was a less critical factor. Case 5, on the other hand, was an effective manual communicator, who did not receive equally effective communication input from his support personnel at all times, and in all subjects, and whose poor literacy skills prevented accessing textual material. Two high school students (Cases 1 and 5) had not learned to read and write effectively, possibly because of poor teaching and support practices, with the result that both were unable to access that portion of the high school curriculum, which relied on literacy abilities. Nevertheless, Case 5 was able to access science lessons at a grade level of complexity, when supported by his itinerant teacher, and consistent visual lesson support. Case 5 did not possess high levels of skill dependent on school learning, but had highly developed informal skills, as depicted in Figure 11.1, the Language Performance Summary.

In the case of the high school students, lack of effective literacy skills made it impossible for them to access the regular high school curriculum. In these cases, the response by the schools to the students' inability to access text was to progressively, and significantly reduce academic content to the point where it was virtually meaningless. Eventually, accessing written text did not even remain an expectation for those students.

Teaching style had an impact on the effectiveness of the inclusion of the students who had low linguistic or literacy capabilities, and also impacted on the model of service delivery provided by support staff. Traditional transmission teaching style was not able to facilitate direct instruction between class teacher and deaf student, in literacy based subjects, if the student had low linguistic or literacy capabilities. This resulted in the students being withdrawn to work independently with support personnel, or them remaining in the classroom and working, on reduced, or different, outcomes to the rest of the class (Cases 1, 4, and 5). This impacted on the level of inclusion possible for the student. The extent and quality of direct interaction between the deaf students and their regular class teachers was seen to be important, and consequently impacted on interactions between the deaf student and other students, as exemplified by Cases 1, 2 and 3.

The nature of the subjects being taught had a bearing on the amount of academic inclusion possible, with visually supportable subjects more easily delivered effectively, even by traditional / transmission style teachers. Subjects requiring facility with text required an interactive teaching style for students with low linguistic skills. This allowed for cooperative teaching between the class teacher and the itinerant teacher, who was then able to ensure language learning and academic learning occurred concurrently (Case 2). Cooperative

teaching, between the class teacher and the itinerant teacher, occurred only when the class teacher employed an interactive teaching style, or the subject could be effectively visually represented. Thus, interactive teaching contributed to language development, as well as facilitating academic learning, which has been suggested by authors such as Kretschmer and Kretschmer (1999) and described in detail in Chapter 3.

Descriptions of the five case situations led to assertions and the generalisations, which are the basis for suggestions to improve similar educational situations. The concluding portion of this chapter, following the discussion, outlines the suggestions for modifications to current policy and practice, not considered conducive to successful inclusion. Successful educational inclusion was described as that which fulfilled the DET objectives outlined in the curriculum documents (see Sections 2.5.2 and 6.11.1), which deemed that inclusion implied access by students with disabilities, to all the educational experiences of the students without disabilities in the same situations.

12.2 Discussion

12.2.1 Issue 1. The Inclusion Movement and why deaf students with high degrees of deafness are educated in regular schools

The reasons for the students in this inquiry being educated in regular schools differed. Not every student was enrolled in his or her particular school, because of unavailability of an alternative placement. One successfully educated student would have moved to a metropolitan centre where there were independent, or DET segregated education facilities, if it had been deemed necessary (Case 3). Another successfully included student was enrolled in the regular school for reasons that were consistent with the philosophy behind the inclusion movement; that is, to be educated together with hearing counterparts in the local school (Case 2). This was not so for two other students, who were enrolled in their local schools because it was the only available option. Their situations were not regarded as inclusive (Case 4 and Case 5). In another case (Case 1), the student was enrolled in his local high school because it was a possibility, and because an itinerant teacher thought it might be beneficial, even though that student could have accessed a segregated placement. That particular situation was unlike the others, as the student lived on the boundary of the region reasonably close to a major metropolitan center, where a segregated option was available.

The fact that deaf students, such as the five in this inquiry, found themselves in regular schools had in some cases, little to do with empiricism or educational philosophy. They were enrolled in regular schools principally because of the philosophical beliefs, which inspired the inclusion movement, making it a possibility, and/or because there were no available alternatives.

It was apparent, in some cases; pedagogy had not kept pace with the changes demanded of it, in an era of inclusion of students with a range of disabilities— students who required a range of alternative teaching practices. Students, such as those in this inquiry, are understandably, less able to withstand the effects of ineffective or unresponsive teaching practices than may be the case for their non-disabled peers. This was found primarily to be related to their need to develop language and access the curriculum concurrently. While the principles of the language curriculum in regular educational environments do support interactive teaching and learning philosophies, the reality in many cases, is quite different.

The fact that the DET has effectively forced inclusion on some students, through lack of viable alternative placements, makes it imperative that a truly inclusive education is in fact provided. It is also imperative that the real situation for many students is recognised as inadequate by the DET, and that personnel are discouraged from making unsupported statements about how well a deaf student is performing, when in reality, their progress and outcomes are below standard expectation for their age and grade.

12.2.2 Issue 2. The linguistic and educational needs of deaf students

Historically it was thought that deaf people had reduced intellectual capabilities (Lillo Martin, 1997). When Case 1, Case 4 and Case 5 are considered, a common element, which was evident in their education, was the reduction of input they received, either intentionally, or inadvertently, making it impossible for them to receive as much information as their classmates. It would be unrealistic to expect them to arrive at the same understandings as their hearing peers, after not receiving an equivalent amount of information on which to build sound concepts.

It has been emphasised that deaf children learn language under similar conditions to hearing children, with deafness acting as a major complicator of the process. Proactive, preplanned conditions need to exist to mirror the language learning circumstances for hearing children, and to overcome the complications of diminished access to auditory input

(Bohannon & Warren – Leubecker, 1989; Molfese, Molfese, & Carrell, 1982). To reiterate, all students learn language in essentially the same manner. The conditions for successful language learning are particular and specific, and complicated by deafness. However, the special circumstances of childhood deafness are not acknowledged, or addressed in departmental documents on inclusion, general education documents, or the practices involved with inclusion. Instead, many of the traditional special education basic principles are rejected; such as not endorsing “special and different “ treatment, yet maintaining other basic assumptions, such as the categorising and testing of students to identify and assess disabilities (Power & Hyde, 2002; Special Education Handbook, 1998). Confusion in the minds of those supporting deaf students in regular schools, as to which line of thought to follow, must be expected.

Support personnel remain encouraged to employ models of service delivery such as the “pull-out” model, for students who are deaf, which is part of the traditional special education method of operation, which focuses on skill remediation (see Section 4.2.5 and 4.2.6). Such methodology is based on the student’s “special” needs, working on remediation of perceived deficits, and the practice of skills in isolation. The practice of skills in isolation is not a recommended, or typically preferred teaching practice (see Section 5.4). At the same time, evidence contained in this inquiry, demonstrated that students with very impaired language (Case 1 and Case 4) were expected to access a regular class program, where teaching methodology has largely remained unchanged from that which was aimed at providing an education for children with no disabilities, since the early stages of education in Australia (Ashman & Elkins, 1998).

Poor communication abilities, alone, cannot be blamed entirely for this practice, as Case 5 had sound communicative ability. The reason for the failure to access the curriculum adequately, and the reduction of input, appears to relate to the nature of the educational provisions in the school settings. The actions (or lack of action) of support personnel and school personnel, who lack the capacity to recognise the needs of the deaf students and overcome them appropriately, may account for the poor academic performances of some students (see Sections 7.9.1.4, 10.9.2.2, and 11.9.3).

The reasons for inadequate performance on the part of support personnel, may be accounted for by the possibility that the ability to recognise the needs of severely and profoundly deaf students in regular educational settings, and to overcome them, is too great a task to expect support personnel to address within the existing models of service delivery for

deaf students. Unless the educational provision can provide, at least, adequate information and linguistic input, the cognitive, linguistic, and academic abilities of deaf students will remain inferior to those of hearing students, and may not be sufficient to ensure successful and productive post school experiences.

12.2.3 Issue 3. Regular schools' and teacher's ability to cater for the needs of deaf students

This inquiry has suggested that unless class teachers employ an interactive teaching style, the itinerant teacher's support of the deaf student is frequently relegated to the withdrawal model of service delivery, which has been criticised by those behind the various reforms in special education (Stainback, & Stainback, 1984). Further criticism of this method of support is contained in the empirical and theoretical evidence put forward by those promoting a social interactionist approach to language and learning generally (viz., Kretschmer, & Kretschmer, 1999) and is in essence, the philosophy behind the language curricula of the DET (Focus on Literacy: Writing, 2000; NSW English Syllabus, 1998). The results of this inquiry contribute to the theoretical argument that language is learnt in certain ways in certain circumstances; that is, communicative social interaction (Fischgrund, 1995; Kretschmer & Kretschmer, 1999; Vygotsky, 1978). This inquiry has shown that when those conditions are not present, language acquisition does not spontaneously occur, and academic learning is more problematic (Case 1 and Case 4). It has shown how teachers can provide inclusive educational opportunities, under certain circumstances, and different aspects of this claim were demonstrated in all cases. Identifying the circumstances has made it possible to suggest alternative practices to those that do not contribute to successful inclusion.

In considering changes to existing practices in educational provisions for deaf students, three pertinent complicating factors have emerged in the course of this inquiry, and bear attention. First, although the DET puts forth policies and statements, which are intended to form the basis for practice in schools, they can sometimes be disregarded by regular class teachers, unless the policies are very strongly mandated—as is the case with the policy of inclusion itself.

It would appear that current policies and past dictates, referring to teaching practice, have had little relevance in many classrooms, where traditional practices still predominate (OECD, 1989). In schools observed in this inquiry, it was apparent that the type of teaching practices deemed to be most appropriate by many teachers, involved quiet classrooms where

students worked silently and independently, and were removed from those recommended by the socially interactive philosophy behind the language policies that are currently, ostensibly, in operation in primary schools in NSW. Quiet classrooms, while allowing for effective independent work, were not conducive to negotiating meaning and developing communicative abilities for deaf students (see Section 5.3.2).

The second consideration, closely associated with the first, is that at least some teachers operating in inclusive environments are, as has been repeatedly claimed by several commentators (Goninan, 1995; Shay, Schumm & Vaughan, 1991, Vinson Report, 2002), firmly entrenched in the traditional methods of teaching. The state mandated BST program strengthens this entrenched devotion to past practices with its emphasis on the teaching of discrete skills, rather than skills in context (see Section 5.2.1).

The third observation, associated with the earlier observations, is that teachers, who are able to cater for the needs of students with a range of disabilities or individual needs, are apparently in a minority. With these constraints in mind, it is a challenge to make suggestions for improvements to the education of deaf students in rural regions that can in fact work, and do not end up as further documentation relegated to non-implemented policy.

The issues addressed by this inquiry, in the realms of teacher performance, can be highlighted by a return to the debate, which led to earlier reforms in special education, and can also account for the less adequate educational provisions observed in some cases in this inquiry. The Regular Education Initiative (REI) debate (see Section 2.3.5), which called for reform to general education, must be reconsidered. Initially, regular education was not designed to cater for children who were not themselves “regular”, and who as a consequence, had to be educated elsewhere (Ashman, & Elkins, 1998; Crickmore, 1990; Johnston, 1989; Schiefelsbusch, 1987). With all children with disabilities currently entitled to education in regular schools, the criticisms leveled at regular schools, becomes pertinent (Dempsey, 1996; Skirtic, 1991). Claims that schools should be modified to cater for the needs of all students, whatever their needs can be appreciated (Burbules & Rice, 1991; Skirtic, 1991; Skirtic, & Sailor, 1996; Skirtic, Sailor, & Gee, 1996). The arguments for reform have special relevance in regard to this inquiry, because it illustrates that success for deaf students enrolled in regular schools can be a result of the practices of isolated and gifted individual teachers (Hall, Gow, & Konza, 1987), or the particular abilities of a particular student. In either case, success is not a foregone conclusion. Although the enrolment of severely and profoundly deaf

students in regular schools has occurred as a result of the inclusion movement, real inclusion has not been specifically considered and provided for.

Regular students, who do not display special needs and possess normal language capabilities, have historically been susceptible to traditional didactic teaching. These teaching methods, which have been referred to as a transmission model of teaching (Cummins, 1989), are less likely to affect regular students negatively. Students, who do not possess learning or communication difficulties, are likely to learn in spite of these methods, whereas many deaf students may not.

Currently, there is a DET initiative titled, *Quality Teaching in NSW Public Schools* (2003) designed to transform the traditional methods of classroom teaching into those deemed appropriate to facilitate inclusion of students, with a range of abilities, in regular classes. This document has been promulgated in the context of an overall educational environment, where there continues to be a number of options available to children with disabilities (by special setting and inclusive environments)—at least for children and families in metropolitan areas. There is apparent room for some confusion here, as the alternatives are apparently not equally valued or supported in practice, particularly when the success of some options is so clearly linked to teacher skills and performance. There is a clear need for more substantial assistance to assist and develop schools at the level of teacher performance, if they genuinely espouse a regular education orientation. A more complete response to *The Vinson Report* (2002) may see this addressed. *The Vinson Report* (2002) has acknowledged that pedagogy is a major concern in NSW, but it remains to be seen if the recommendations made by that report, and the *Quality Teaching in NSW Public Schools* initiative, will impact on practice in ways that have been recommended.

However, evidence of previous short term expedience, reflected in the current influx of students with disabilities, especially of high school age, who have “failed” inclusion, seeking to return to more segregated settings, make this possibility uncertain (personal communication at the meeting for Sensory Disability Executives at Broadway, Sydney on 02.05.02, by B. Smyth-King). This movement back to segregated placements indicates, in many cases, while the DET policies mandated inclusive education for students with disabilities, it hasn’t always been able to deliver the desired objectives.

The DET has addressed past criticisms of its lack of support for inclusion because of insufficient resources and funding, by allowing the integration budget to burgeon (DET, 2000). The recent increases in support for the inclusion of students with disabilities in regular

schools has occurred through the increased employment of teacher's aides and assorted support personnel. In this inquiry, teacher's aide support was considered, in some instances, to have actually exacerbated the educational problem for certain deaf students (Innes, 1994; Stinson & Lang, 1994; Winston, 1994), rather than having been unequivocally positive. The question it would appear is not so much one of resource allocation, as the quality of the resource deployment, and the model and principles, which underpin that deployment.

The findings of McRae's report (1996), which attributed the shortcomings in the integration of students with disabilities to a deficit in resources and funding, as other studies have, (*viz.* Gow, 1988), are not supported by this inquiry. Instead, teacher competence and the methods used in classrooms were shown to be of greater significance. As already noted, the support personnel that were provided through additional funding, to assist in the integration of a range of students with disabilities, were responsible for the implementation of some of the unproductive and unhelpful practices, in relation to the support of some of the deaf students in this inquiry.

The belief that increased funding is a solution to the problems associated with the inclusion of deaf students is a likely impediment to future improvements (McRae, 1996), if increased funding alone, remains the proposed solution. It is possible that there is a schism between what is believed to be the cause of deficits in the service provision for students with disabilities by those who may not have observed the reality, or are not immediately involved in it, and that which was observed in this inquiry. Addressing such differences is important in an era of litigation. Unrealistic demands may be pursued by parents, whose expectations could be raised by impossible promises implied by the inclusion policy itself, or overtly promised by ill-informed school personnel, in relation to the inclusion of severely and profoundly deaf students (Case 1). It is necessary, in the interests of the students currently involved in the system, and those of the future, to address this issue. This can only occur, if the reality of inclusion for severely and profoundly deaf students is accurately described and acknowledged, by individuals who have responsibility for its implementation.

Clearly, the DET can be seen to be providing equitable services and funding to individual students with disabilities, regardless of location. Country regions are not at a disadvantage in this regard. Alternatively, however, the DET may be seen to be unaware or unresponsive, in regard to the steps that are necessary for successful inclusion in the case of deaf students. The DET is perhaps too ready to encourage the inclusion of deaf students with high support needs, into regular schools in country regions, by the wholehearted

disbandment of alternate segregated deaf educational settings, which in the past, have provided residential facilities. At the same time, there has been no apparent attempt to work cooperatively with the independent schools that do provide segregated and residential educational settings for deaf students.

There is no clearly defined “best practice” policy currently motivating support models for deaf students enrolled in regular schools, which is central to the problems that exist. While it is unlikely that the DET is ready to rectify this deficiency generally, it would be possible to make improvements at the local level. Such improvements could enhance the opportunities of local school districts to provide improved provisions for deaf students, even if the DET itself is not able to evolve and articulate a guiding policy on inclusion philosophy that takes into account “all” children (see Section 4.3.3).

These observations concur with earlier studies and discussion about special education in other parts of the world, such as the USA, where regular education providers were frequently charged with being non-responsive to change, and unwilling to take on students more difficult to teach than the norm (Dorn, Fuchs, & Fuchs, 1996; Zigmond, & Baker, 1996). In studies of special education in Australia, integration has been shown to succeed in individual cases, because of individual, capable and dedicated teachers (Hall, Gow, & Konza, 1987; Slee, 1995). Similarly, in this inquiry it was individual talented teachers who were able to offer inclusive educational opportunities for the deaf students, while other less capable teachers left the task to support personnel, who in some instances were not able to meet the students’ needs either (see Sections 7.9.1.4, 10.9.2.2, and 11.9.3).

To overcome some of these problems, there are ameliorative changes that may be easily implemented (Goodman, 1995). Such changes could contribute to an improvement in individual outcomes, and may inspire a discussion about more fundamental changes to the education of deaf students generally, and specifically, their application in rural areas. Changes need to focus on avoidance of the most intransigent aspect of public education, and focus on the most receptive and adaptive. Clearly, a concentration on early education (see Section 3.3.1), where many of the problems in language acquisition could be addressed prior to school, (and certainly prior to high school) when educational facilities are flexible, is an obvious area for attention, so that opportunities for the development of language and communication skills are maximized before the student enrolls in regular school.

Pre-school has been a focal point for assisting deaf children in the past, and modification to existing practices in rural regions, could expand this. Concomitant changes to

service delivery into primary school, might then capitalise on changes implemented in pre-school education.

Prior to the commencement of this inquiry, it was expected that the most significant outcomes would relate to the ability of the deaf students to communicate, with the expectation that the least able students would have the least positive experiences, and the most capable the most positive experiences. However, while communicative ability was recognised as highly significant, it was not considered to be as important as teaching style, which was considered the most crucial component of the integrated situation for all of the students with poor linguistic or literacy skills. An example of this is exemplified in the observation of a signing deaf student, who had low levels of communicative ability, but was able to be included in the activities of one classroom, because of certain inclusive practices by one teacher (see Case 1). In contrast, another more competent user of signed communication was unable to be included, in some instances, in his classes, because of the application of traditional transmission teaching practices, which required levels of literacy ability not possessed by that student (Case 5).

The importance of teaching style needs to be stressed, because it has a bearing on how the other interactants in the situations perform. If class teachers employ a transmission style of teaching, the support staff, notably the itinerant teacher, is virtually committed to providing individualised support for the deaf student with varying degrees of exclusion. Individualised support may have been necessary in certain situations in this inquiry, despite in other instances, not being required. This was because the students in certain situations were able to be included in class activities provided by interactive teaching strategies alongside their hearing peers.

Individualised support may have involved total withdrawal with alternative programs undertaken. The withdrawal of the deaf students for lengthy periods to work on isolated and individualised programs, did not have positive outcomes leading to comparative performance to hearing peers, for the students in this inquiry. Instead, the students who had experienced the largest amounts of withdrawal, remained illiterate, and in one case innumerate, and in two cases, without an effective first language (Cases 5, 1, and 4). Indeed, it was in these isolated contexts that the lowest performing deaf students were expected to develop language, literacy, numeracy, and to access other aspects of the curriculum. In those instances, the performances of the students were not comparable to their hearing peers, a situation that has previously been reported by other authors (Allen, 1986; Flexer, Wray, Millin, & Leavit,

1990; Gentile, 1972; Osberger, 1986; Schildroth & Hotto, 1994). The differences in student performance are explicable in reference to the earlier discussion regarding applicable theories of language development, which stress the notion of meaningful interaction—interaction which has historically not been a feature of segregated or integrated placements for deaf students (Fischgrund, 1995), and was certainly not evident in the cases of the students who experienced the greatest difficulty with language development and academic achievement in this inquiry.

Language learning remains an essential element in the ultimate academic success of deaf students. Clearly, it is in the earliest years that there is the most flexibility in regard to the ways that children's language acquisition can be supported (see Section 3.3.1). It is in the preschool years that most language learning takes place, and where an interactive, socially motivated, approach to language learning can be implemented most easily. A model of service provision that is dependent on a socially interactive experiential approach to language learning in the pre-school years would appear to be the most logical approach (see Section 5.3.2). This approach was not clearly in evidence in the cases examined in this inquiry. A natural adjunct to such a focus would be an extension of this pre-school focus into the early, and later primary school years. Under such an approach, less significant changes should therefore, be required to facilitate successful inclusion.

Given the need to effect policy changes at a local level in country regions such as the focus of this inquiry, it is appropriate to note the views of Skirtic (1987), who recommended an adhocratic approach to solving individual local problems. An adhocratic approach ensures that prescriptive practices do not persist to prevent the addressing of actual, specific, local problems as they arise. Instead, creative approaches to solving existing problems, which often depend on the location of students, are needed.

12.3 Generalisations about factors leading to inclusive educational opportunities for severely and profoundly deaf students.

12.3.1 Audition

Conclusion 1: Deaf students, who use audition, experience higher levels of inclusion and associated academic achievement than signing deaf students in regular rural educational settings.

It was unsurprising that the students with the greatest access to spoken English through audition fared better in the regular settings than those whose capabilities in this regard were limited, or in situations where spoken English was not comprehensively reproduced as Signed English for their reception. In the former cases, students were able to directly access teacher discourse. Difficulty in accessing spoken, or written English, in the case of the students relying on manual means of communication, was a major factor in the difficulties those students experienced. The difficulties for those students revolved around their own lack of linguistic ability, or the lack of ability of those supporting, or teaching them. The lack of ability centred on the inability of the support personnel to provide, or on the part of the student to understand, comprehensive manual representation of spoken classroom discourse (see Section 11.9.3).

These observations merely highlight the difficulties involved in assisting students, who do not have well-developed auditory skills, in accessing a regular classroom curriculum. Clearly, it cannot be assumed that deaf students relying on manual means of communication, or even those with poorly developed auditory skills, will come to acquire knowledge of what is happening in class by virtue of being there. For those students, it was demonstrated how strategies based on sound practices in the realms of language learning and pedagogy, are necessary (see Section 3.4.1). It is essential for deaf students to have access to as much information and communication as their hearing counterparts. If deaf students are not to experience school under-achievement, which they have historically been subject to, they require a complete and comprehensible version of what is spoken in class, and active engagement in the communication.

The students with well developed auditory skills, and even those with less effective but basically functional auditory communication skills, were more easily accommodated by regular teachers, because the modifications and adaptations necessary to include them were less extensive than for students who didn't possess the same abilities (Case 2 and Case 3).

In the case of Wayne (Case 3), whose auditory communication needs were met by simple seating arrangements and hearing technology, no curricular modifications were required for him to access the curriculum comparably to his hearing classmates. In the case of Kelly (Case 2), who had sufficient access to spoken English for the development of functional spoken language, the demands on the teacher were greater. That teacher, however, had the capacity to make the necessary adjustments to her own spoken delivery, as well as her teaching style, to enable Kelly to access spoken and written English effectively. Prior to

having Kelly enrolled in her class, that teacher already demonstrated teaching techniques and skills that were superior to some of the other teachers observed, who were exponents of transmission styles of teaching. Limited auditory abilities—sufficient to allow access to spoken English communication—when coupled with an adaptive interactive teacher, led to successful inclusion for Kelly.

12.3.2 Interactive learning

Conclusion 2: An interactive learning environment is necessary for the development of language and literacy skills.

An important generalisation based on the comparison of students, with or without auditory capabilities, is that for successful outcomes for deaf students with limited auditory input or poor literacy ability in regular schools, an interactive learning environment is necessary (Case 2). It is not feasible to expect students who have reduced linguistic ability and impaired capacity to access speech and text, to be limited to input that is delivered through traditional teacher centered methodology that relies heavily on a student's receptive speech abilities. It is not reasonable to expect deaf students, as an alternative, to benefit from input that is a minimized atheoretical version of the regular class programs. Such minimized curriculum experiences were the norm for a number of students, who had previously failed to access the regular curriculum, and programs, delivered through traditional methods by their current and/or previous class teachers (Case 1, Case 4 and Case 5).

Conclusion 3: It is undesirable that the curriculum be delivered by itinerant teachers pursuing individualised programs in various degrees of exclusion or withdrawal, because of the student's poor language or literacy skills.

The arrival at this conclusion began with the examination of language learning theories and the associated theories of learning, in answer to Topical Information Questions in Section 1 of this thesis (see Section 3.2). The data collection techniques, which stemmed from these sources, produced data, which were examined in light of the literature on pedagogy, language and thought, and literacy learning. This examination affirmed, that for effective language learning to take place, effective communication needed to be in evidence. For effective communication to exist, there needed to be available communication partners,

both from among other students, and other adults. This is patently not a possibility if deaf students are continually withdrawn for isolated language learning tuition, or if they work alongside their classmates on minimized, atheoretical, versions of what the class does, without being involved in meaningful interaction.

Even in the case of Todd, who had exceptionally low levels of expressive and receptive language ability, when the class teacher was able to communicate directly with him and teach interactively in a meaningful practical lesson, Todd was able to perform in a similar manner in the classroom to his classmates, not only with that teacher, but also with other students, who were probably taking their lead from the teacher. To a lesser degree, Maisie was also able to perform interactively in a news lesson, where she could give and receive information with other students in a contextualised way.

The metalwork teacher, who was able to provide successful interactive learning opportunities for Todd, employed an interactive style of teaching in that practical subject, and had learnt enough rudimentary Signed English to communicate directly with Todd, given that the lesson was devoid of theoretical content. The teachers of the practical subjects demonstrated, that when their subjects were approached, either interactively, or in a logical, explicit, visually supported, hierarchical manner, at the level of student ability, the deaf students were able to perform in ways similar to the other students. When a practical subject involved direct teacher-student communication, the signing deaf student was able to interact, not only with the teacher, but other students.

In the case of Kelly's class teacher, Kelly performed all subjects, either visual or those based on textual understandings, in a comparable way to the other students, because of the class teacher's ability. This allowed for interaction between the student and teacher, and between Kelly and the other students, and provided opportunities for understanding, sound concept development, and the furthering of linguistic skills with the assistance of the itinerant teacher. This was largely because of the teacher's interactive-experiential teaching style. In this case, the student was able to develop linguistically at the same time as acquiring academic understanding. Reading, writing, and speaking were used to enhance linguistic development (see Section 3.6.1).

12.3.3 Literacy

Conclusion 4: For the development of literacy skills, there needs to be effective communication.

Conclusion 5: If deaf students cannot read, they cannot access a complete regular high school program.

The view that for the development of satisfactory literacy abilities, effective communication had to be in evidence was especially exemplified in the observation of Case 2 and Case 3. Both had differing linguistic capabilities, but had sufficient opportunities to acquire information through interaction with peers, through audition. In Kelly's situation, classroom activities were designed, which were meaningfully interactive, contextual, literacy learning events. Wayne's listening capabilities, on the other hand, were such that he was able to interact easily with peers and teachers, who did not need to modify programs, or teaching style. Both of those students had acceptable capacity to access meaning from text at acceptable developing literacy levels (Erting, 1992).

When teacher discourse was outside the limits of a student's perception, as was the case for Michael (Case 5) when the teacher read directly from text, the student was unable to access the text at all. In the case of signing students, this was often because translating the literature into verbatim Signed English was either beyond the scope of the ability of the interpreter, or the student's ability to understand.

It was not established whether the students who had poor literacy abilities were capable of having their literacy learning enhanced by involving them in meaningful situationally relevant interactive learning. This was because this inquiry did not set out to introduce such practices and consequently could not test their effectiveness. However, in the two situations (Case 2 and Case 3) in which relevant literacy learning opportunities occurred through interactive and explicit teaching, the students did develop literacy skills.

The data generated from Case 4 and Case 1, indicated that even though their expressive and receptive language capabilities were very low, this was compounded because they rarely had opportunity for meaningful relevant interactions with peers, designed specifically, for developing linguistic or literacy skills, or for social interaction (see Section 10.9.2.2 and 11.9.5). As a result, these students were disadvantaged, not only by their auditory deficits, but by the lack of interactive opportunities.

There were few data generated, which suggested that students were able to access information by listening (or receiving a signed interpretation) to teacher discourse, or textual input, without modification of that input, that is, transliteration by support personnel. This

was not so in regard to Case 3, whose technology was sufficient for him to access teacher discourse directly without involvement of a third person. When Case 5 had to copy notes from the blackboard, there was indication that he failed to understand—not because of low communicative ability, but because of his poor literacy skills. He was, on the other hand, capable of successful signed interactions with his peers, and may have been able to access adequate amounts of information if he had received an Auslan (or appropriate English-like sign) interpretation of classroom information. He was not prepared to engage in any task dependent on literacy ability unless his support personnel provided a model for him to copy.

It was apparent that without effective literacy abilities, effective learning was compromised—especially in high school. Assistance from support personnel was not guaranteed to lead to the development of literacy skills. A desirable solution to this problematic situation is that meaningful communicative opportunities need to be implemented, as they are needed to enhance language learning, and ultimately literacy learning, so that inclusion is facilitated (see Section 3.2.4). The literature clearly establishes that deafness itself is not responsible for reduced cognitive abilities or reduced learning outcomes (see Section 3.2.6), but circumstances can contribute to that eventuality.

12.3.4 Teacher style and support modes

Conclusion 6: Class teacher teaching style impacts on the support personnel modes of service delivery.

Successful inclusion, in this inquiry, refers to the ability of the students to perform in a similar way to the other students in the class. It would be expected that the less able a student was auditorily, the more likely he or she would be, to require a high level of adaptation on the part of the teachers. This was not generally evident in all cases studied here. Instead, when auditory access was not a possibility, teachers frequently assumed that the entire responsibility of the program delivery was that of the support personnel (Case 1, Case 4 and Case 5). This support was of two kinds generally. One involved the withdrawal of the student to work independently of the rest of the class on a variety of modified programs, or involved working within the classroom on the class program—often on content stripped of its theoretical component. The feature, most pronounced in providing modified programs, was the comparative paucity of information the deaf student actually received, in comparison to their hearing counterparts (see Exhibit 11.5).

Teacher skill was a major component of this inquiry, as was expected at the commencement. Five teachers stood out as being especially able to provide successful, inclusive learning opportunities for the deaf students, and two teachers were particularly competent in their dealings with the deaf students. The approaches were of two different types.

The first, and most effective approach was demonstrated by the class teacher in Case 2. In that situation, there were two teachers involved with the class, the class teacher, and the maths teacher. This permitted the two teaching approaches to be compared. The class teacher took direct responsibility for Kelly's program delivery, and interacted directly with her, using the itinerant teacher collaboratively. The maths teacher on the other hand, took no direct responsibility for program delivery for Kelly, leaving it entirely to the itinerant teacher, and the nature of the visually represented subject.

The maths teacher's approach, while successful, was less inclusive than the class teacher's. The maths teacher consulted with the itinerant teacher and included her ideas for appropriate visual teaching strategies, which were incorporated in his program delivery generally (see Section 8.6.4.1). Because of this, Kelly was able to perform successfully in maths. The maths teacher's success was also because of the nature of the subject, which when approached logically, explicitly, and hierarchically, with attention to the provision of adequate concrete support materials and activities, is more readily accessed by a child who relies heavily on visual, rather than auditory input.

The second highly successful teacher was a high school teacher, who taught a manual metalwork subject interactively, with direct communication through modified Signed English in Case 1

Two other teachers were successful in allowing both Todd (Case 1), and Michael (Case 5), to access the class activities, and imparted enough explanatory material for the students to perform in ways similar to the other students. These were both high school teachers responsible for teaching groups of students with lower ability. The two subjects they taught were maths and science, and both presented their subjects in such a way as to be visually obvious and explicit, moving from the known to the unknown, and relying on student responses (not necessarily, the deaf student's) to check understanding, and progressed in a logical, hierarchical way. They did not rely on large amounts of spoken information to deliver the concepts, but rather relied upon the visual nature of the content itself. Both of the deaf students, involved in those classes, had poor literacy skills and couldn't successfully

access information through print, but were clearly able to perform tasks in the classes of those two particular teachers.

Transference of these skills, to further learning situations, was not witnessed and was unlikely to have occurred, especially in Case 1, because there was no evidence that the information dealt with in successful lessons was drawn upon in more interactive or meaningful situations. This was unlike the Case 2 class teacher, who called upon past understandings in her teaching and in her expectation that concepts would be understood, as a foundation for future learning, as understanding of concepts was the basis of her approach

12.3.5 Direct communication

Conclusion 7: Direct communication between deaf student and class teacher leads to inclusive learning opportunities.

Todd's (Case 1) access to spoken English was problematic because of his lack of facility with English. He could not read grammatical Signed English or written English. Direct communication with him was extremely difficult for his regular high school teachers. None of his teachers actually modified their teaching style, but one teacher, who did have an interactive teaching style in a practical subject, learned the rudiments of agrammatical Signed English, which matched Todd's signing ability to the extent that he could communicate directly with Todd in class. The impact of the direct communication, and the interactive teaching style, was significant, as it allowed Todd to be included in the activities of the class, and receive direct instruction from that teacher. This interaction influenced his involvement with other students, which was bi-directional. Reciprocal student interaction involving Todd was not witnessed in any other situation in Todd's case. For instance, in another manual subject when the teacher could not communicate beyond gestures, and there was an interpreter present, Todd had no involvement with other students. Kelly's (Case 2) class teacher also communicated directly with Kelly, and took responsibility for her program delivery, which was highly inclusive in all instances observed.

12.3.6 Visual subjects

Conclusion 8: Subjects, which can be represented visually, when presented hierarchically, explicitly, going from the known to the unknown, by competent teachers, facilitate academic inclusion for deaf students.

While it has been maintained that teacher performance is a major component in the success of inclusion for any student with learning difficulties, it was demonstrated that certain subjects lend themselves to successful outcomes for the deaf students when taught in certain ways. If the subject could be represented visually, the requirement of an interactive teaching style was not as significant, but when there was a high level of reliance on textual information, the demands on the teaching expertise and style were greater, unless the student had good auditory skills. The teachers, in this inquiry, met this demand in two ways: by relegating the entire responsibility of the deaf student to the support personnel, or by interactive class teaching. The latter facilitated the inclusion of the deaf student, with the assistance of the support personnel. The former did not. An interactive teaching style allowed for a higher level of inclusion for the student, and thus facilitated conceptual growth in the subject that a transmission style of teaching could not, even when the student did not possess well-developed linguistic skills, which was particularly evident in Case 1.

12.4 Generalisations relating to practices, which do not contribute to inclusive educational experiences

12.4.1 Support personnel

In some cases, in this inquiry, the interpreter/teacher's aide had not completed a Signed English course when the job was accepted, and none were exponents of Auslan. Auslan was not a communication mode supported by the DET at that time. In other cases, the applicant for the job of interpreter/teacher's aide had few academic attainments. Few had any contact with a deaf person prior to taking the job, and many regarded it as a way to get work in a rural region where jobs for the untrained are hard to find. In this inquiry, all of the individuals working in the role of interpreters assumed an intermediary teaching / tutorial role, rather than the typical interpreter role. In the classic interpreter role they would be expected to stand at the front of the classroom relaying exactly, through signed representation, what the class teacher said. Instead, in these cases, the interpreters/teacher's aides sat with the students and attempted to establish an understanding of what was transpiring through simplification of the content. This was approached through simply

reducing the content to basic instructions, or else, in the case of an itinerant teacher, engaging the student in a series of communicative exchanges until the concept was grasped.

It would appear that the practice of allowing itinerant teachers to assume the central role in program delivery, of a wide range of educational subjects, is beyond the capacity of most itinerant teachers (Case 5). Clearly, in the cases examined here, it was not a reasonable expectation that itinerant teachers be expert in subject matter, if they have not taught the particular subjects themselves, to make them equivalent in expertise to the subject teachers they support.

Some itinerant teachers, involved in this study, had not taught in a regular classroom for a number of years and, in some cases, had limited classroom teaching experience. They were not experts in all subject areas. The current demands on itinerant teachers, which were demonstrated in this inquiry, have been described elsewhere (Luckner & Miller, 1994), and represent considerable extensions to the role performed by itinerant teachers when the role was first instituted (Schonnel Report, 1979, see Section 4.2.5).

The practice of providing untrained, inexpert, signing exponents in the role of teacher's aides/interpreters, who were expected to perform much the same role as itinerant teachers, is even more problematic (see Section 11.9.3). When a deaf student has enough spoken or signed language ability—in either Auslan or a signed form of English—and a good facility with written English, the employment of a proficient, properly trained, interpreter in either language modality is clearly a supportable option. However, the deployment of personnel to communicate (rather than teach), when the fundamental communication and academic skills of the student do not match the language and academic requirements of the class, is clearly not supportable.

The question of language modality also deserves mention. The use of signed codes for English for a student, whose first or preferred language is Auslan, can also be seen to be inappropriate. It is acknowledged, however, that this may be appropriate for a student when used as a means of teaching English as a second language (LaSasso, 2000). The crucial elements, in the provision of signed communication support, are the linguistic ability, and preference, of the student in the first place, and the competence of the interpreter, in the second.

12.4.2 Opportunity for language development

One of the most important generalisations, to be drawn from this inquiry, is the need for opportunity for language development. The background experience of a number of the

students, and many more in similar situations, was not, and is not likely to become, highly conducive to optimum language learning (Kretschmer, 1997).

When a deaf student coming from a deprived linguistic background is enrolled in school, the foremost consideration needs to be that the school itself does not further actively contribute to that deprivation. In three out of the five cases in this inquiry (i.e., Case 1, Case 4 and Case 5), the school appeared to contribute to that deprivation. This was because of two factors. First, the school personnel involved had limited concept of the linguistic needs of the student. As a consequence, instead of facilitating language development actively, they inadvertently curtailed it by the nature of the support and learning conditions provided. Second, there were no specific language learning opportunities planned for, and developed in response to the student's linguistic needs. As a result, on enrolment, the students were not provided with the communication opportunities required to correct their language deficit.

Success of a student's inclusion was thought, by those interviewed, to be due to the student's ability to communicate well with peers. In the case of Michael (Case 5), although he was able to communicate well with his peers, even in a signing modality, this was not capitalised upon, and on occasion was even discouraged. Michael did not have the same level of communicative success with his teacher's aide, and the communication with his itinerant teacher appeared to serve no clearly defined pedagogical purpose. Communication with the itinerant teacher could be described as a cursory response to the immediate context in subjects containing non-immediate referents, such as English. While it was communication, it did not extend the further development of English structure. It did not encourage the acquisition of skills such as fingerspelling, for example. Fingerspelling was not observed as a significant component of the classroom interactions, and when it was observed being used, there was no apparent checking to see if it had been understood.

Given that there is a great deal of new vocabulary introduced in high school, this was a concern. The attitude of the itinerant teacher appeared to be that because Michael had difficulty with literacy and the vocabulary of English, they should be avoided in the interest of ease of communication. A planned provision for appropriate literacy learning opportunities, based on Michael's needs, was not observed. It certainly would appear possible that had he been placed in a small group, such as the one where he finally received his maths instruction, he may have had opportunities for literacy advancement through engagement in contextually relevant activities, while advancing his capacity to use the abstract elements of English.

It may have been feasible to include meaningful literacy learning opportunities in collaboration with the special education teacher, in a similar way to that in which he eventually received his maths instruction, which had also been problematic prior to that form of instruction being instituted. On entry to high school, Michael experienced very low levels of numeracy and literacy skills.

Where situations observed in the inquiry were conducive to appropriate language learning, they were due to existing conditions, attributable to the particular ability of the student, or the teacher. Language development needs were apparently not ascertained at the time of enrolment. In none of the cases was there evidence that the students' linguistic needs were formally identified, nor any identification of the provisions required for language learning.

There were instances where schools implemented Signed English programs for students and teachers. These had positive effects, but there were insufficient individuals, who developed enough skills in this way, to do anything other than communicate informally with a student in the playground. There was little evidence of teachers developing skills sufficient to be able to deliver complete academic programs through sign.

While the provision of appropriate language learning opportunities, and literacy learning, should be a major requirement in the inclusion of deaf students into regular schools, this inquiry made it clear that without literacy ability, a deaf student had little chance of success in a regular high school. The provision of literacy learning situations, which are based on empirical evidence of how deaf students learn to read, is clearly indicated (see Section 3.6.1). Literacy acquisition should not be the responsibility of itinerant teachers alone, even though some may be expert in this regard.

In the rural situation of this inquiry, the difficulties associated with the deployment of personnel who are insufficiently trained, or skilled in language and literacy development, (whether that be an itinerant teacher or interpreter/aide) were potentially exacerbated by the fact that a deaf student may be served by a single person for very extended periods of time. The pool of available support staff is very small, and movement in and out of situations, tends to be very limited.

Efforts need to be made to address this fundamental problem. While it is possible to refer to the literature dealing with reading instruction (see Section 3.6.1), and appreciate the complexity of learning to read for deaf students, appreciation alone is not sufficient to rectify

the situation. Changes need to be made in acquainting, or reacquainting, itinerant teachers with this crucial area of learning.

12.5 Summary

It has been asserted that all the deaf students in this inquiry were, at least on some observed occasions, included successfully in the regular classes. That is, they were not all, always, working in isolation, either inside, or outside, the classroom. Some of the features, that contributed to successful inclusion included: The availability of direct access to the teacher discourse through the use of signing by the teacher, the availability of sufficient auditory receptive skills on the part of the student, and the itinerant teacher's provision of a concurrent comprehensive interpretation of what was being spoken by the teacher. The nature of the subject in which the student was participating, also had a major bearing on their ability to be included. If the subject was of a visual nature, delivered systematically, explicitly, and hierarchically, by competent teachers in their field of expertise, and with an itinerant teacher able to assist the deaf student keep pace, the student was successfully included. On the other hand, if the subject was textually based, there needed to be auditory access to the teacher dialogue on the part of the student, a significant amount of program adaptation, or an interactive teaching style on the part of the classroom teacher (working collaboratively with the itinerant teacher), for the lesson to be inclusive.

Lessons, which did not provide for academic inclusion, tended to be those that exhibited some of the following features: (a) they were based on linguistic understandings that the students did not possess, (b) were stripped of a theoretical basis, (c) were supported by a teacher's aide, (d) were delivered in isolation by the itinerant teacher, or (e) delivered by the itinerant teacher independent of the communication between the teacher and the rest of the class. The following figure 12.1 is a summarised version of the teaching and support modes observed in this inquiry, and their outcomes. It shows the comparison of the likely outcomes for students, either with good auditory ability and language skills; and those with difficulty accessing intact language, or poor literacy ability. Proceeding vertically, it shows the teaching styles, the support modes, and subject types, with likely outcomes for both

groups of students shown at the bottom. Shaded areas indicate successful educational situations and outcomes; unshaded areas indicate unsuccessful situations and outcomes.

Figure 12.1 Summary of teaching and support modes

Student with good auditory ability and language skills		Student with difficulty accessing intact language or Poor literacy ability	
Transmission teaching style with visual backup and technical attention	Interactive teaching style catering for language learning and academic learning	Transmission teaching style with skills based teaching of language and academic content	
Support personnel assistance minimal attending to technical needs, awareness and seating	Support staff working collaboratively	High support staff involvement, separate assistance, withdrawal, one-to-one	
Any subject, language based, and hierarchical	Any subject, language based and hierarchical	Language based subjects	
Successful inclusive classroom performance		Unsuccessful, non-inclusive classroom performance	

From the appraisal of the inclusive practices, observations about provisions of adequate language learning opportunities, and other concerns about existing situations, it is evident that alternative proposals are called for. Changes in practice could range from relatively simply implemented ameliorative changes (Goodman, 1995), to those that are more far-reaching and radical. Ameliorative changes could include changes to the provision and purposes of interpreters, improved initial planning when a deaf student is presented for enrolment, and an upgrading of knowledge of all personnel involved with the integration. As well as these changes retraining for itinerant teachers, on the subject of literacy, is clearly a factor worthy of consideration. It is likely that itinerant teachers will continue to have a role to play in the teaching of literacy to integrated deaf students. For this reason, they need to be experts in this regard.

Further modifications would involve the planning of suitable language learning conditions, placement options, and renegotiation of itinerant teacher placement, and roles. It

is evident that the language learning conditions required by all children are specific to them, and dependant on interaction and construction of meaning in social contexts (see Section 3.2.4). These conditions are not common features of regular schools. For deaf students, the usual language learning conditions are missing, and must be consciously and deliberately replicated to overcome the auditory and linguistic deficits. Teaching style, which involves social interaction and the construction of meaning through communication, is the crucial ingredient if the solution to this problematic situation is to be found. On the evidence of this inquiry, a focus on teaching style is one potentially highly productive response to meeting the needs of integrated deaf students, to enable them to develop language skills and access the curriculum. In the final section of this chapter proposals for improvements to the existing practices are offered.

For these changes to occur requires a basic change in ideology of those involved in the provision of inclusion for deaf students. First, it must be realised that the current situation is largely ineffective, and needs revision. Without a change in thinking, personnel will not be compelled to seek alternatives and provide solutions. The situation will remain unsatisfactory. It is only with a good deal of energy and determination that change can be effected.

While social performance and Deaf identity were not major focus areas in this inquiry, it became apparent that they are also areas for concern. Access to the curriculum, may not be sufficient for a student if they are the only Deaf student in the school. There are implications in regard to social well being. Concerns for the future welfare of deaf students need to be held, if they; do not perform well enough at school to ensure future employment; do not develop lasting friendships with hearing students; or do not have the prospects of entering the Deaf community on leaving school. Social isolation in rural districts, in such cases, is a probability. In these cases, there seems little value in being educated in a regular school, if it doesn't lead to the possibility of a future successful life on leaving school.

The futures of the students in this inquiry are not guaranteed to be successful or comparable to their hearing peers. It is hoped that at the end of their school life they will have succeeded in acquiring enough skills to be employed, or enough self-esteem to be confident and able to enter whichever world they wish—hearing or Deaf. This is not likely for all of the students in this inquiry. For this reason, it would appear highly appropriate, that at the least, the curriculum for integrated deaf students should have a focus on the development of

functional language skills, as well as a focus on accessing the regular curriculum. The following proposal is intended to achieve these ends.

12.6 Extrapolations to proposals for future practice

12.6.1 An alternative model

The problem of language is central to the education of deaf children. It can be viewed from a pragmatic, ameliorative, perspective that seeks to improve the situation in regular rural schools, by doing the best possible in non-ideal situations. A more radical view claims that the education of deaf children in schools, where their linguistic needs cannot be comprehensively addressed, is patently inappropriate, if not abusive of childrens' rights (Jokinen, 2000). According to Jokinen (2000, p.3) it is not the right of parents of deaf children to "make the child into something", but to accept them for whom they are, acknowledging that for deaf children their linguistic needs are different from those of their hearing parents.

The right to education is a basic human right, and when comparing the rights of children to the rights of parents, philosophically, they are equal. Nevertheless, it is parents who have the primary responsibility for the upbringing and development of the child. When hearing parents choose to have their deaf child educated in a regular school, it can be argued that the rights of the child to have access to a language they can acquire without having to have it taught to them, and to be educated through that modality, have been overridden. In rural regions this is problematic, as parents do not have the opportunity to choose between schools designed specifically for deaf children, and those designed for hearing children. It is unlikely that perfect, and completely ideal, linguistic environments can be provided for rural deaf children. However, it is necessary to ensure that the best possible compromises are reached.

Branson and Miller (1993) described countries that do not subscribe to the view that a monolingual schooling system, which assumes that language immersion in the dominant language by those whose first language is a minority language, is appropriate. Countries such as Sweden and Denmark legislate for, and practice, provision of an education system for the Deaf in which native sign language is offered as their first language, and the medium through which the acquisition of the national spoken and written language, Swedish, takes place. However, Ahlgren (1990), who was quoted by Branson and Miller, observed that the real picture in those Scandinavian countries was not as bright and far-reaching as the curriculum would suggest. The real impediment to progress, according to Ahlgren, was the absence of

sufficient sign language users, who were good enough to be good teachers. Practice and policy were said to be narrowing after a period of progressive legislation, however, while improvements were not immediate under such a far-reaching and radical mandate, they were in evidence.

Given that the Scandinavian linguistic provisions are well in advance of any suggested here, it is clear that providing perfect conditions for the unimpeded access to language for the Deaf, and an education delivered through that language, are not easily achieved. It is unrealistic to suggest that they could be provided in rural NSW. This does not preclude movement towards a more satisfactory system to that which was in operation in schools described in this inquiry.

The inclusion movement was based on the belief that equality of opportunity could be achieved for children with disabilities, if they were educated in “the least restricted environment”, and motivated the movement of deaf students from segregated to integrated education settings (see Section 2.3.4). This study has demonstrated that this precept was not unanimously realised for the students observed, as inclusion was considered in some cases, to be in fact highly restrictive. It is clear that effective linguistic input is a fundamental concern in rural schools. According to Branson and Miller (1993) deafness remains defined as a pathological, rather than a cultural difference, which places the ideals of the inclusion movement in conflict, with less likelihood that the linguistic requirements of deaf students would be fully recognised in integrated settings.

It is evident that different linguistic backgrounds impact significantly on the acquisition of sign language as a first language, for those deaf children whose parents do not opt for a cochlear implant and an oral / aural approach (see Section 3.5.1). A native sign language, such as Auslan, is basic to the effective acquisition of a second language for those using signing as a first language. English, as a second language, is necessary for school success. Branson and Miller (1993) stated:

What cannot and must not be avoided given these research findings, is that at least partial segregation of the Deaf in educational settings is essential if they are to begin to achieve their educational potential. The bilingual mode of education required, demands such segregation irrespective of whether it offends the latest ideological sensibilities of those dependent on ideological rather than cultural orthodoxy, the politicians. The segregation required is, of course, radically different from the ‘remedial’ and ‘special education’ practice still associated with the segregation of the Deaf. The denial of segregation is in fact the denial of social justice. (34)

While the transformation of the segregated deaf school through the provision of comprehensive primary and secondary curriculums for the Deaf that all girl schools for girls provide (see Section 4.2.3), may be a possibility in metropolitan regions, it remains impractical in rural regions.

However, the need to improve the educational provisions for deaf children is recognised throughout Australia. In Queensland, in 1998, moves were begun to implement a bilingual-bicultural model of education for deaf children based on the principles of the need for early exposure to an accessible first language such as Auslan. Fluency, in both Auslan and English, were objectives of the program (Baker, 2000). The model was based on a co-enrolment model from the United States, with deaf and hearing students enrolled in the same class in a hearing school. Team teaching, in which the teacher of the deaf shared responsibility for all students in the class, was proposed. Students were to be grouped in multiage classes to enable large clustering of deaf students in groups and a focus on cooperative learning strategies. That proposal demonstrates that the need for segregated education for deaf students is recognised in Queensland, with creative proposals designed to address the need, put in place.

Similarly, bilingual-bicultural educational programs are offered in Sydney and Melbourne. The Thomas Pattison School in Sydney is an independent school operating for deaf and hearing children from the Deaf community (Naylor, & Paterson, 2000). Differences in Auslan and English are explored, even at the kindergarten level, with the purpose of building metalinguistic awareness of the two languages. Both Auslan, the first language, and English, the second language, are equally valued. In that school, fingerspelling is used as an accurate way of representing English, and Signed English is not used to replace Auslan.

The Victorian Department of Education is responsible for the Princess Elizabeth Junior School, which provides a statewide educational program for deaf children from three years of age providing certain residential facilities (Coleman, Walsh, Pavia, Leane, & Bartlett, 2000). It offers a choice of bilingual-bicultural programs and oral-aural programs. It employs developmental play techniques with young children using both English and Auslan. Two languages in the classroom allows for “contrastive analysis” to occur, with similarities and differences of the two languages highlighted.

In Hobart, when the Claremont Project was established (Robinson & Brown, 2000) it meant that the majority of deaf and hard of hearing students were moved to one of three established regular schools in northern Hobart: a primary school, a high school, and a senior

college. The students were placed in regular classrooms with full-time teacher of the deaf and interpreter support. This developed into bilingual-bicultural classes, which were team-taught by regular hearing teachers, and a teacher for the deaf operating in Auslan. The Auslan using interpreter had a very clearly defined role designed to enable the children to develop the skills of using an interpreter, and not that of a tutor. One of the defining features of that project was its innovative and flexible approach.

In Western Australia a study to determine, and re-define the role of the itinerant teacher (Richards, 2000), further demonstrated the need for an agreed and clear understanding of that role (see Section 4.2.6). With the shift from schools for the deaf to inclusive education, where only a small number of students were assisted by the itinerant teacher in integrated settings, the need for an alternative and more efficient way to support the deaf or hard of hearing student in the regular school setting was recognised.

Describing these educational moves for deaf students, in parts of Australia, merely accentuates the fact that the need for both curriculum innovation, and alternative language learning opportunities, are widely recognised, and are impacting on how service provision is viewed and provided. These examples, of alternative approaches taken in varied circumstances and locations of Australia, confirm the need to move towards better practice proposals to improve the linguistic provisions and educational opportunities for deaf children. This is just as true for integrated deaf students in rural regions of NSW. Certain practices, which were in evidence in this inquiry, contributed to unsuccessful outcomes for the deaf students observed, and should be avoided. For this reason, it is apparent that although no one solution will apply to all cases, it is possible to develop more effective and appropriate solutions in country areas, providing there is a willingness to explore alternatives and recognise current weaknesses.

It is possible to identify two areas, which warrant change in rural areas. These changes are easy to achieve, and could facilitate related benefits. They are: (a) the concentration of deaf students in targeted schools, and (b) the placement of deaf students in the classes of teachers, who have the recognised appropriate teaching style and skills.

To incorporate both of these changes in rural regions would make it possible to concentrate on the provision of improved linguistic environments for deaf students, while providing the benefits of some degree of congregation of deaf students. Deaf students would have the opportunity to interact with other deaf students, as well as having their linguistic needs addressed. If concentrated in a school that had the capacity to modify its program to

cater for the specific needs of the deaf students, it would be possible to achieve this in ways that did not involve isolated withdrawal.

Adopting the above proposal would make it possible to change how deaf students are supported in rural regions where there were a number of deaf students. Such changes would not require major structural changes, or involve significant cost. These changes could overcome some of the concerns expressed earlier about teachers and departmental directives that are not uniformly implemented. It has been stated that teachers are generally not ready to embrace new ways of teaching (see Section 5.3.1). Changes to teaching practice have been called for in the past, and not widely implemented. In regard to making improvements to existing conditions, it is potentially more productive to avoid such obstacles as inflexible teachers, and approach the problem pragmatically, and creatively, with adhoc solutions, by concentrating on schools and teachers who are flexible (Skirtic, 1991). The essential component is that prescriptive provisions, which do not take into account individual needs of students, as well as the ability of schools and teachers, are inappropriate, and new and innovative solutions need to be sought in each situation. This is essentially an adhoc solution.

To implement these changes in rural areas it would be necessary to determine: (a) where deaf students were already situated, and (b) where there were schools, which presented as being able to adapt to new challenges, and/or where inclusive practices (as defined herein) already existed. While inclusion policy mandates the right of all students to attend their local school, it is possible in metropolitan regions for parents of deaf students to exercise choice in deciding if they wish to send their child to an independent segregated school, or to a regular local state school.

Targeting a particular school for the *option* of placement of deaf students would extend the right of choice to rural regions. In this way, a local population of deaf students could be concentrated in one school. This move could offer social cohesion for the deaf students, and the opportunity for the regular school staff to develop the requisite skills to facilitate effective inclusion for deaf students. Such a plan would duplicate the metropolitan situation, to some extent, by offering enrolment choice to parents.

A deaf student presenting for enrolment in a regular school requires a full and encompassing assessment of communicative abilities. If, and only if, linguistic and literacy abilities are such that they are unlikely to lead to comprehension of curriculum content, the student should be offered placement in a learning situation where interactive teaching

opportunities exist, or are created, and in which the student can acquire linguistic competence with communicative partners, either hearing or deaf. The following sections provide a fuller explanation of the suggestions, which include preschool, primary school, and high school proposals

12.6.1.1 Pre-school

Chapter 3 described the difference between early and late language learning. It is clear that targeting the point where most language learning usually occurs—the pre-school level—is essential. It is an obvious potential area for change to provide more effective inclusion for deaf students in rural regions. Where possible, pre-school aged deaf children should be offered support and enrolment in one designated pre-school where other deaf children are enrolled, and included on an itinerant teacher's caseload. The purpose would be to facilitate interactive language learning with an emphasis on the discourse strategies considered essential prerequisites for literacy learning and school learning (see Section 5.7.1).

The students in this inquiry, who did not have effective home language input prior to school, or effective pre-school experiences, notably Case 1 and Case 4, entered school with a paucity of language skills, which had not been addressed by the educational service they had received. It did not appear that addressing the deprivation was even a possibility in the primary school or high school situations observed. It was shown in some detail in Chapter 2 that when deaf children are born into hearing families that opportunities for language acquisition are severely curtailed. It was also shown that language acquisition most easily occurs when children are in their pre-school years before it becomes a memorisation, rather than acquisition task. Ideally, the deficit should be addressed by appropriate intervention prior to school entry; consequently pre-school is an obvious place to target.

A pre-school model of co-enrolment described by Kirchner (2000) was based on a Montessori classroom, which was designed to elicit and support a child's active exploration and participation. Such a pre-school was staffed by a teacher trained in deaf education, as well as one trained in Montessori ideology with experience with children in general. All staff were required to use both Auslan and English if the children were potential sign users. The curriculum encouraged prolonged informal interactions with adults and children, in sign and English, as required by the children. Hearing children, using English, were incorporated in

the pupil population to serve as reminders of the developmental needs of this age group, helping to set realistic standards of behaviour and learning for the deaf children.

Warden (1997) described a situation in Western Australia where Auslan was introduced in an Early Intervention Program using the signs of the family home, and fingerspelling was used as part of the communication. The teacher's role was one in which natural language development was encouraged. The program considered all aspects of the child's development, as well as pre-reading and pre-maths skills, with the role of the teacher not didactic, but one of play interaction.

Such basic practices could be easily incorporated in the pre-school model with deaf children, the nature of the communication dependent on the characteristics of the home and child, with the underlying assumption that natural language exchanges occur, in a climate of play, discovery, and interaction.

In an alternate model of service delivery in rural areas in NSW, a suitable pre-school would be the precursor to a primary school with a program in which the support strategies offered were similar to those already described as being productive and desirable. This would centre the focus of the support of deaf students at the formative point of their education, so that by the time the student reached school, it could be possible to have addressed many communicative needs. This could be achieved through a concentration on the development of various essential discourse strategies thought necessary for school success (see Sections 5.7.1, 5.7.2, 5.7.3, 5.7.4). This would be undertaken in an environment that mirrors the home, in which natural exchanges occur, and traditional nursery rhymes, and stories, are part of the focus, as well as meaningful interactive communicative exchanges.

12.6.1.2 Primary school

Where it is not realistically possible for the local school to provide an adequate environment for language and literacy acquisition, the parents of enrolling deaf students should be informed of this. Alternatives, such as placing the student in an alternative targeted school, such as that proposed above, and described below, and where such conditions do exist, should be offered. This would allow for groups of students, both hearing and deaf, to work in quasi-segregated contexts for specific language learning experiences.

Age differences, should not preclude deaf students from being able to be included in special language learning environments. Where the needs of the student are great, and a maximum allocation of itinerant support is required, a co-enrolment option is likely to offer benefits. Co-enrolment involves more than one deaf student enrolling in a targeted school, which is not necessarily their local school (in this inquiry three of the students were educated in schools not more than three kilometers apart).

Enrolment of a number of deaf students in the one school would permit the itinerant teacher position to be converted to a position in which the itinerant teacher co-teaches with the class teacher. The teacher for the deaf position may become a permanent position in the school, attracting all the associated benefits, such as being replaced when sick. This proposal is similar to that described by Kirchner (2000) and the Queensland bilingual-bicultural model (Baker, 2000), as well as The Claremont Project in Hobart (Robinson & Brown, 2000). The teacher of the deaf position would be extended to warrant equal responsibility to the class teacher in class program planning and implementation. Ideally, the teacher of the deaf would not be in the position of an intruder, but would be expected to have an equal role in the development and delivery of the curriculum for the students concerned.

This alternative strategy would offer opportunities that could overcome many of the perceived problems of the existing situation. A number of students with differing degrees of deafness, and of different ages, enrolled in the one school would enable the teacher of the deaf role to become one in which team teaching, and co-programming allowed for mutual skill development in the areas of deafness, as well as subject areas and literacy learning. Such a model could reduce the pull-out nature of existing support models and increase the likelihood that language learning would be incorporated in interactive teaching practices. The need for teacher's aide support of deaf students could, as a result, be reduced.

A deaf student presenting for enrolment in a regular school with sufficient ability to access Auslan, as a major source of information input, should be provided with an accredited Auslan interpreter in all subjects. This clearly poses problems about availability of such individuals in rural areas. However, unless it becomes a required standard for staff selection, individuals with appropriate qualifications, or skills, and/or appropriate training courses, are not likely to eventuate. The case of The Claremont Project in Hobart serves to demonstrate that such obstacles can be overcome. When that project began there were no venues in Tasmania offering classes, or courses in Auslan. With the assistance of the Deaf community,

this has been overcome, and Adult Education classes in Auslan are a continuing source of accredited interpreters and skilled teaching staff for the program (Robinson & Brown, 2000).

Demonstrably, on the evidence of the situations examined in this inquiry, teacher's aides with minimal training in Signed English should not be employed to work in a tutorial role. When a signing student, who has a preference and the capacity to use English through sign, these results suggest that they should be supported by itinerant teachers who are efficient exponents of grammatical Signed English.

12.6.1.3 High school

Deaf students, reaching high school without sufficient literacy skills, clearly pose significant problems for those trying to provide effective educational solutions. It is for that reason suggested previously, and described above, that pre-school is the point where intervention is likely to be easiest and most effective. Nevertheless, it is not always possible to intervene at that point. To return to the writings of Skirtic (1987, 1991), it is apparent that student diversity is a necessary component of a movement towards change and improvement in education. Providing effective education for deaf students, with poor literacy skills at high school level, is possibly a challenge for adhoc solutions to a very difficult educational problem. While the following suggestion is hypothetical, as it has not been implemented, it is an example of how it is possible to evolve alternative solutions once the problem is identified and acknowledged.

For deaf students, who do reach high school age without the required levels of literacy skill, enrolment in a Joint School Training and Further Education (JST) program, may be a preferable option to the current situation. Currently, in NSW high schools, JST programs have become a common feature providing many students with alternative pathways to future education and training. In these cases, students move between high schools and Technical and Further Education (TAFE) Colleges. A situation, such as this, was described in the case of Todd (Case 1) (see Section 7.1). School education and technical education are both part of the same organisation, the Department of Education and Training (DET), which suggests that flexibility and adhoc solutions to difficult educational problems, may be a realistic possibility.

Literacy tuition has, in the past, been offered for post-school students at local TAFE colleges in rural regions. Literacy and language tuition, could potentially be offered to high

school deaf students as well, and be addressed in a socially interactive/experiential environment, which may be provided more readily and effectively by the TAFE College, than in many local high schools. A class may draw students from a range of sources. Some high schools are not willing, or equipped, to make such adaptations. At the same time as being enrolled in such a class, deaf students without the required level of literacy skills might be enrolled in their local high schools for the subjects that facilitate visual and hierarchical presentation of content, and which are less dependent on linguistic and literacy skills. This may require travel assistance between school and TAFE, to be provided by the DET.

In this manner, as an alternative to full enrolment in the local high school, deaf students with high linguistic/literacy needs could be enrolled in their local school for practical subjects and at a TAFE facility for language learning. A TAFE College, or a similar class in a high school (willing to institute it), could have the freedom to structure the program to cater for the needs of the students, rather than adhering to a preexisting program. As a further alternative, an independent school, which has available boarding arrangements and the provision for appropriate instruction, should be suggested to the parents as an option to be considered.

Clearly, such practices were they to be successful, would need to be prescribed and supported by the DET as a matter of policy. The exact nature of the modifications would be dependent on the actual local circumstances, with the present proposal being only a general description of possible changes. In remote regions where the population of deaf students is low, it is clear that alternative solutions would need to be sought. This may involve exploring the possibilities offered by the independent school system, or a boarding arrangement provided by the DET. The essential factor, to be remembered, is that satisfaction and complacency about an inappropriate school placement for a deaf student should not be maintained. The real needs of the student have to be recognised, and appropriate decisions made. If this requires placing demands on the DET to provide funding, that should be undertaken.

In a model such as the one described, the teachers, regular and specialist, would have the opportunity to be complementary in their areas of expertise. In this way, assessments of deaf students would be realistic (see Section 10.9.4), which is not always the case if the itinerant teacher is solely responsible for the deaf student, in isolation.

Provisions for transport, when required, would be necessary. The enrolment in a particular targeted school should not be compulsory. School personnel involved with the deaf student should be provided with in-service education on the needs of deaf students.

To implement such a proposal successfully, a certain amount of local DET mandating and support, would be required, with the DET recognising that the current situation has many significant flaws for deaf students. The alternative model at primary, and high school level, would offer many benefits in the realm of observational opportunities for other teachers unfamiliar with interactive teaching strategies, and the inclusion of deaf students, from which they could learn, and thus benefit the educational district generally. The alternative high school proposal serves as an example of how local solutions to difficult educational problems can be arrived at once they are recognised, provided rigid maintenance of existing rules and regulations does not prevail.

A further suggestion, to ensure cohesion and harmony in the proposals, is that all enrolments of severely deaf students be overseen by an executive teacher, whose role it is to monitor progress in a supervisory manner, rather than in a direct teaching role. The role, would serve to inform the situation, so that the task is not left in the hands of individual itinerant teachers. The executive teacher should have the task of upgrading knowledge of all concerned. This could prevent regular teacher misconceptions about what inclusion means, and what can be considered satisfactory progress and outcomes for the deaf students. This would be further supported by appropriate assessment of the student abilities and performance.

Figure 12.2 is a representation of an alternative model of service delivery for deaf and hard of hearing students in a rural region (See Appendix H for a proposal for practical implementation of similar changes in the study district, which took place as a result of the proposal).

Figure 12.2 An alternative model of support service delivery for deaf and hard of hearing students in rural regions

Examination of existing local situation to determine:

- Deaf and hard of hearing student distribution
- Location of pre-schools and primary schools with potential to provide opportunities for establishment of co-enrolment, and cooperative learning programs, to become targeted schools for concentration of students with hearing disabilities.

<p>Targeted Pre-school</p> <ul style="list-style-type: none"> • Deaf children enrolled to be serviced by itinerant teacher concurrently • Interactive language learning support in which ever language modality is required by the clientele • Development of a variety of discourse strategies and pre-reading and pre-maths skills in preparation for later school learning and literacy learning 	<p>Targeted Primary School</p> <ul style="list-style-type: none"> • Deaf students to be enrolled in central location • Itinerant teacher to work cooperatively as co-teacher, involved in program development for classes where deaf children are included as well as offering opportunities for vertical streaming for specific language learning in interactive situations and associated literacy learning • Itinerant teacher to be based in targeted school • Facilitation of cooperative learning opportunities • In-servicing of school staff and staff from other schools
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<p>High School / JST Option</p> <ul style="list-style-type: none"> • Deaf students without sufficient literacy skills to access a regular high school program to be enrolled in practical classes in regular high school and to attend a local TAFE college or specific high school program which has specifically designed language / literacy learning opportunities of interactive nature. 	<p>Regular High School Program</p> <ul style="list-style-type: none"> • Deaf students with sufficient literacy ability and knowledge of English to be supported by properly trained interpreters / notetaker using the preferred communication mode of the student, signed or written English or Auslan • Access to regular school program
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12.7 Conclusion

Duffy, Warby, and Phillips (1993) reported the later recollections of a deaf person about their experience in a regular school:

I didn't like reading and writing - I didn't understand what it was all about, what was going on, why you have to read it. It's OK for the hearing - they enjoy it, they can make connections, they can recognise the word as what they've heard. For us it's difficult. (p.127)

This passage exemplifies some of the difficulties literacy has presented people who are deaf and hard of hearing—difficulties, which clearly still applied to some of the students whose educational experiences have been described in this inquiry.

It was evident that for some of the students in this inquiry, nothing had changed significantly since Gow described inclusion in NSW in 1988. At that time, she stated that the experience of students was not uniformly unsuccessful, but that a “lucky dip” of conditions existed, which either made inclusion for deaf students a positive experience, or a negative one. Conditions, described by this inquiry, do not suggest that being enrolled in a regular

education setting necessarily provides better social or academic outcomes than segregated education, or even, for that matter, that it necessarily provides for outcomes that are acceptable by any reasonable standard. Physical proximity, to children without disabilities, clearly does not in itself, lead to acceptance or social access, as some have suggested (see Section 4.3.9). Placement is not enough to ensure success, and indeed, instead of being a basis for social justice, may in fact be a basis for exclusion, and/or diminished academic outcomes. Patently, the conditions for enrolment in regular schools, as suggested by the National Association of the Deaf (1994) in the USA, were not met for any of the students in this inquiry (see Section 4.3.10).

Although differentiated programming was evident among the teachers in this study, especially where students were clearly unable to access the regular class program, the point of differentiation seemed to differ to that described in the literature (see Section 6.11.1). A program so differentiated as to be totally individualised and minimized in content and scope, cannot be said to offer a student access to the same range of curriculum opportunities as are available to the other students. In some instances, in this inquiry, the student's situations were perhaps better described as a class of one. It is difficult to see how such a practice can be considered to be providing equality of access to curriculum outcomes for deaf students.

In reference to linguistic input for deaf children, Maxwell (1990) noted that teachers' consistently minimized representation of the grammatical components of English in their signing, and that this was a likely contributor to the difficulty that many deaf children have in acquiring the grammatical elements of language. The task of language learning in those cases may be a memorization, or intellectual task, but not an acquisition process. The same point applies to the effects of any reduction of input of other information available to deaf students. Reduction of input can account for some of the difficulties in language acquisition, and concept development for deaf children, and appears to apply in cases described here.

On the evidence of this inquiry, it would appear that inappropriate, or at least misdirected, support can either create additional problems for deaf students, who are enrolled in regular classes, or exacerbate those problems by significantly reducing information access. It would appear that poor language development, and failure to access the curriculum are as much a result of poor teaching and support practices, as an effect of deafness for some students in this inquiry. The reasons for this may be not a result of neglect on the part of the teaching and support personnel but, rather, it may reflect a situation in which they have not

received sufficient direction as to which methods and techniques need to be pursued (see Section 4.2.6).

It is evident that parents differ significantly in their expectations about inclusion. While some have high expectations, others are satisfied with minimal outcomes. In this inquiry, parents generally had less concern about any need for the creation of a Deaf identity for their children, or the development of positive personality attributes, such as a more internal locus of control, than they were about having their child located in a “normal” environment. For some, at least, the child being considered happy and not troublesome was the measure of success for their educational placement. Clearly, from the child’s perspective, such a situation is potentially problematic. Some students, because of their compliant personalities, were willing to comply with circumstances that other less affable children would not tolerate. Such a situation must be a concern. Concern, has to be held for the rights of the child, in such cases, and for the limitations inclusion imposes on their opportunities for communicative development and social interaction.

The limitations and difficulties involved in regular schools attempting to meet the requirements of a deaf student should be made clear to parents. On the evidence advanced here, there is room for much more extensive information provision to parents, and much more substantial canvassing of potential outcomes and difficulties associated with educating children in fully integrated situations.

In some cases, it appeared that some school support personnel did little more than continue as usual in the presence of the deaf student. This appears to have been a consequence of lack of knowledge about providing appropriate educational opportunities for deaf students. This is consistent with Skirtic’s (1987) caveat about teachers’ unwillingness to change. To reverse the situations described in this study, so that inclusion is not a “lucky dip”, proactive steps must be taken to focus on the essential ingredients for successful inclusion.

Regular teachers, who do have the required skills to accommodate a range of students, and do possess quality teaching skills, may possibly be utilised to teach other less adaptive teachers (Quality teaching in NSW public schools, 2003). In this way, quality teaching practices, which involve an interactive/experiential approach, may be extended. Policies that the DET mandate, in regard to teaching practice and educational philosophy, may then, as a result, be implemented. Teachers with superior skills should be recognised and rewarded in a way that reflects their ability. The education of students with special needs, such as deaf

students, should not be left to chance. Recognition of excellence, in teaching practice, may be a first step to address this issue.

Deaf students constitute a group of individuals with widely differing needs. As diverse as those needs may be, they typically relate to communicative abilities. Freedom to initiate creative solutions to individual problems in ways described by Skirtic (1991) should be the foundation upon which the placement of students with high degrees of deafness, and service delivery practices are based. This inquiry showed that for some deaf students, the educational outcomes associated with inclusive education, are far from those desired of such an approach.

Without a sound literacy capability, it is apparent, that on the evidence of this inquiry, a deaf student will be unlikely to access a high school curriculum successfully. Brice Heath, Mangiola, and Schecter (1991) and Erting (1992) have noted that the development of literacy is inseparable from the development of language skills at a more fundamental level. Literacy, it was stated, is related to, and proceeds in tandem with, the development of face-to-face communication competencies. As explained in Chapter 3, literacy emerges through the development of complex symbolic processes that develop concurrently, rather than sequentially in both face-to-face and written language domains. For these processes to take place, educational conditions must be of a certain type to compensate for the impact of a significant hearing impairment. These conditions must be recognised if they are already in existence and utilized, or, if not in existence, need to be created, so that language, literacy, and academic learning can occur for deaf students, regardless of their educational setting.

To deny deaf students, who are enrolled in regular schools, effective opportunities for the development of literacy, is to deny them the same basic rights on which the inclusion movement is premised. Individuals, with impaired auditory capabilities, must be included in environments in which they have competent communication partners through whom to develop their linguistic potential.

As described at the beginning of this thesis, the original premise of segregated education for students with disabilities was to effectively address the educational consequences of their difference. Inclusion is premised on the notion that the location of individuals with disabilities in regular educational environments, with student who do not have disabilities, will enable development of regular patterns of behaviour. To some extent both systems can be seen to be flawed where deaf students are concerned. The proposals presented in this chapter seek to achieve a combination of elements of both separate, and

inclusive education; to retain such advantages as may accrue from each for deaf students, while seeking to eliminate the disadvantages.

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APPENDIX A

Nomenclature used to refer to individuals with hearing impairment.

About 1 in 500 children is born with a significant sensory-neural hearing impairment requiring hearing aids and educational intervention (Bortoli, Furlonger, & Rickards, 2001). Hearing impairment affects access to speech sounds and manifests itself in a range from mild to profound. With educational and audiological assistance most hearing-impaired children will develop spoken language, but it is more difficult for those with profound degrees of deafness.

People with impaired hearing, regardless of degree, may be referred to as “deaf”, “Deaf”, “hard of hearing” or “hearing -impaired”. From a social perspective people with impaired hearing can be seen to fall into two groups. The first comprises those that identify with the Deaf Community and who would describe themselves as Deaf. For this group being deaf is not an audiological matter but rather a basis for membership of a social group who share characteristics such as endogamous marital patterns, shared historical awareness and most importantly a common language, Auslan. The second group, which constitutes the majority of people with impaired hearing, is frequently referred to as “hard of hearing”. The individuals in this group often have lesser degrees of hearing impairment. Whatever the degree of hearing impairment, the most significant feature which applies to the latter group is the use of the majority language and speech based communication, which may be supported by hearing aids, lip-reading, and occasionally forms of manual communication such as Manually Coded English (Signed English), or Cued Speech.

For the purposes of this thesis, the term deaf without capitalization, has been used as an all-encompassing term to apply to all individuals with impaired hearing. It has been chosen to refer to the entire population of students with impaired hearing regardless of degree of impairment, linguistic status, or socio-cultural affiliation. Clearly, other researchers and authors have used different descriptors to refer to the population of individuals with impaired hearing. When citing the work of others authors (i.e., where reference is made to specific sub groups), that nomenclature has been retained.

There is a contemporary rejection of the deficit model in the use of nomenclature for individuals with disabilities. This contemporary approach rejects the use of disability descriptors as adjectives for people with those disabilities (e.g. deaf people, blind people, etc.). This approach is acknowledged. However, it is also noted that all terms relating to individuals with impaired hearing are regularly used adjectivally, as in “deaf children”, or “Deaf People”, rather than “children who are deaf” or “people who are deaf”. As noted by Leigh (1995), a review of the literature suggests that the former types of description are in

constant use. For these reasons, reference to “deaf children”, rather than “children who are deaf”, has been the preferred form of reference used in this thesis.



Information Statement for Parents/Guardians

This is an invitation to participate in the project titled: How classroom teachers provide an inclusive education for students with severe to profound hearing loss in rural settings in NSW.

Description: The project is being undertaken by Ms Jill Cameron (02 6550 6265) who is a candidate for the degree of Doctor of Philosophy in Education at the University of Newcastle. Ms Cameron is working under the supervision of Dr Greg Leigh (02 9872 0303) and Associate Professor Phil Foreman (02 49216292).

The aim of the project is to determine how classroom teachers meet the communicative and educational needs of the severely and profoundly deaf students who are integrated into their regular school classes. All the students who are to be involved in the study are being educated in schools of the Department of Education and Training (NSW) which has granted approval to conduct the study. Some of the students are on the caseload of the researcher and Itinerant Teacher of the Deaf, Ms Jill Cameron, or on the caseload of Itinerant Teachers who are supervised by her in her capacity as Executive Teacher Itinerant Support Teacher (Hearing).

The main benefits from this study will be (a) the identification of teaching strategies and practices which are most commonly linked with successful outcomes for students who are deaf in integrated educational settings, and (b) the identification of problematic aspects of the process of inclusion of deaf students as a basis for overcoming these difficulties in these and other integrated environments. It is the aim of the study to improve integrated educational practices in these and other similar situations around the state and country.

The research methods that are to be used involve taking observation notes of what happens in the classes of the students in question, collecting samples of the written work that the students produce in class, collecting results of reading and other achievement tests, and conducting interviews with all stakeholders in the integration process. The stakeholders include: parents, class teachers, previous class teachers, integration personnel within the schools, interpreters, itinerant teachers, and principals. The observation notes will show the different ways the teachers and students communicate and the lesson content and teaching strategies used. The interviews will provide information about the training and experience of the teachers, past experiences of the students, communication methods, and what parents and teachers know and think about the situation.

All the information will be analysed in collaboration with the supervisors and other teachers of the deaf so that an accurate picture is drawn. Class teachers and all interviewees will be given the opportunity to read the notes taken and their comments will be included in the analysis. Interviews will be of approximately 30 minutes in duration and, for the sake of accuracy, will be tape-recorded. Interviewees will be able to review, edit or erase the tape recording if they so wish. Classroom observations will cease once it is apparent that the situation has been accurately described and no further new



information is forthcoming from the data. Ordinarily, the data collection process should be completed within one semester of school time.

All information will be anonymous with no school or person involved being named in the data or in any subsequent reports. Each school and all participants (i.e., teachers, parents, and students) will be given a number code for identification so it will not be possible to identify individuals or schools in the final report.

As little disruption as possible to the daily school events is intended. The biggest imposition will be the small amount of time taken to interview people or for them to read the observation notes, if they desire.

All data will be stored at the home of Jill Cameron and, at the end of the project, at Renwick College in Sydney. Data will be held in secure circumstances for a period of seven years but will not be able to be accessed by anyone other than the investigators, or for any purposes other than those which have been described in relation to this project.

Participation in this project is entirely voluntary and, whether or not you decide to participate, the decision will not affect your relationship with the researcher or the services provided to you or your child.

You should ensure that your child plays a role in the decision about participation. Please discuss this invitation with your child before you agree to give your consent. If you both agree to participate then please sign the consent form which follows this statement. If your child is of high-school age then he/she should also sign the form to indicate his/her consent. Please return the signed form to the researcher and retain the second copy for your own records.

Participants may withdraw from participation in the project at any time without having to give a reason. If, at any time, you have a complaint regarding the way in which the study is being conducted, or the actions of any member of the research team, then you may do so by contacting (a) one of the members of the research team, or (b) the University's Human Research Ethics Officer, Research Branch, The Chancellery, University of Newcastle, Callaghan, NSW, 2308, telephone (02) 4921 6333.

APPENDIX C

Semi-Structured Interview Schedule

To be administered to parents (P), school executive (SE), interpreters (I), class teachers (CT), and support teachers (ST).

Note: Other issues will be pursued based on the particular circumstances of the student and the relevant observations and field notes pertaining to each case. However, the topics pursued will be restricted to each of the headings listed below. As noted in the summary of ethical considerations, participants will retain the right to see and to review the notes of interview in the same manner that they are able to review field notes and observational data.

Historical Information

1. What previous experience have you had with deafness?
(P), (SE), (I), (ST)
2. Why was the student enrolled in the school?
(P), (SE), (ST)
3. Were there any alternative educational placements available at the time?
(P)
 - 3 (a) Affirmative: why did you choose this placement?
 - 3 (b) Negative: would you have chosen a different placement if you could have?
4. What other schools or pre-schools has your child attended?
(P)
5. What did that program involve in terms of specialist support mechanisms or special curriculum?
(P)
6. Was it successful?
 - 6 (a) Affirmative: What do you think contributed to the success?
 - 6 (b) Negative: what do you think contributed to its failure?
(P)

Attitudinal Information

1. What were your feelings about the idea of integration in general and for deaf students in particular at the time that this educational placement commenced?
(P), (SE), (I), (CT), (ST)
2. Have those feelings changed in any way as a consequence of the experience?
(P), (SE), (I), (CT), (ST)
3. What were your initial concerns (if any) when the student was enrolled?
(P), (SE), (I), (CT), (ST)
4. Have they changed?
(P), (SE), (I), (CT), (ST)

4. Affirmative: What do you see as the reason for this?
(P), (SE), (I), (CT), (ST)
5. What do you see as your role in the integration situation?
(P), (SE), (I), (CT), (ST)
6. What do you understand by the notion of Deaf identity?
(P), (SE), (CT), (ST)
7. Do you believe that it is important for deaf / hearing-impaired student to develop an identity as a deaf person?
(P), (SE), (I), (CT), (ST)
- 7 (a) Affirmative: How do you see that as being achieved?
- 7 (b) Negative: Why do you think Deaf identity is unimportant / not applicable in this case?
(P), (SE), (I), (CT), (ST)

School and Classroom Adaptations

1. Has the school made any special provisions and adaptations for the student?
(P), (SE), (I), (CT), (ST)
1. (a) Affirmative: What are they?
1. (b) Have they been successful?
1. (c) Affirmative: Why are they successful/
1. (d) Negative: Why are they unsuccessful?
2. What special adaptations are made to the class program to cater for the deaf student?
(CT), (ST)

Communication

1. Can you describe the process that lead up to your making a decision about the mode of communication that you use (or is used in school) with your child?
(P)
2. What motivated your choice of communication mode with your child?
(P)
3. How do you feel about the communication mode now?
(P)
- 3 (a) Positive: Why do you think it is appropriate / successful?
- 3 (b) Negative: Why do you think it is inappropriate / unsuccessful?
(P)
4. How do you communicate with the student in terms of every day exchanges?

(P), (SE), (I), (CT), (ST)

5. Do you think these strategies are effective / satisfactory?

5 (a) Affirmative: why are they successful?

5 (b) Negative: Why are they unsuccessful?

(P), (SE), (I), (CT), (ST)

6. How do you transmit new information to the student?

(P), (SE), (I), (CT), (ST)

7. How would you rate the student's academics performance compared with other students?

(P), (SE), (I), (CT), (ST)

Social Integration

1. How would you describe the student's social integration into school?

(P), (SE), (I), (CT), (ST)

1 (a) Positive: What do you feel contributes to the student's positive social experiences in this school?

1 (b) Negative: What do you feel contributes to the student's negative social experiences in this school?

(P), (SE), (I), (CT), (ST)

Summing Up

1. Overall would you consider the integration of this student to have been a successful / positive / satisfactory experience? Please comment.

(P), (SE), (I), (CT), (ST)

1 (a) Affirmative: What do you think has contributed to its success?

1 (b) Negative: what do you think has contributed to its lack of success / failure?

APPENDIX D

Selection of unanalysed Language Performance Data, Observation Data and Interview

Data from across the five cases

Case 1 Todd.

Language Performance Data

Reading Data

Neale Analysis of Reading

Practice "Y" (above 7 year olds)

s= sign, (fs)= fingerspell, word in brackets is mis-spelt, word without brackets is mis-signed

My friend and I made a tree-house

s s s s s s s

We like to hide in it.

s s s s s s

We climb up the rope and pull it up after us.

s (ci/climb) s s (fs) s fs s s s (as)

Then no-one knows where we are

Om (some-one) s(-s) s s s

We play spaceships

S s (fs)s

At tea-time we slide down fast and we are always first for tea.

S s s s (fs) s (fs) s s s s s s s

Questions

1. What would you say was the best name for the story?

Res.: What was a good name for the story? Maybe the tree-house?

T.: nods

Res.: What was that story about?

T.: book

Res.: Was it about a tree-house?

T.: (points to picture of the tree-house.

2. Who built the house in the tree?

Not attempted

3. How did the boys /girls get up in the tree house?

Not attempted

4. How could the children's friend guess what they were playing up in the tree-house?

Not attempted

5. What game did the boys /girls play in the tree house?

Not attempted

6. How did the little boys / girls manage to always be first for tea?

Not attempted

Bird (level 1)

A bird hopped up to my window.

s s (fs) s s s (wind)

I gave her some bread.

S (fs) he s s

She made a nest in my garden.

He s s (fs) s s s

Now I look after her little ones.

S s s s he s one

Questions

1) Where did the bird hop to?

T.: Bread

2) What did the little boy / girl give the bird?

T.: Bread

3) What did the bird do in the garden?

T.: What garden

4) What does the little boy / girl now do for the bird?

T.: Now I look after her little ones

Road Safety (Level 2)

Ken stopped on his way to school.

(fs) s (ed) s he (fs) s s

In the middle of the traffic lay two children,

S s (fs) s s (fs) (fs) s s

Their bicycles had crashed into each other.

This (fs) he (fs) s (fs) (fs)

Ken ran quickly to get help.

(fs) s (fs) s s s

He saw that no-one was hurt.

s s s s we (fs)

The children pointed to a television camera.

S s (fs) s s (fs) (fs)

"We are taking part in a road safety lesson", they said.

S s (fs) (fs) s s (fs) (fs) (fs) s s

Questions.

1. Where was Ken going?

T.: Where school

2. Why did Ken stop?

T.: Bus

3. What happened to the bikes?

T.: Long way to school

4. How do you think Ken felt?

T.: Ken walked quickly (fs)

5. What did Ken do?

T.: Bike home

6. Were the children hurt?

T.: Hurt (fs) no

7. What were the children really doing?

T.: (no response) pointed to text

8. How did Ken find out what was happening?

T.: Bike

Case 3

Examples of Language Performance Data

Description:

Res.: Tell me about your room. Pretend I'm a blind lady and you have to tell me what it is like.

W.: You're blind. You go that way and then you go that way and then you go to the shoe cupboard, then you go that way. You can't go that way you have to go straight (gesturing). You turn that way and go that way and you see a TV and then go that way and you see a bookshelf and things on the bookshelf and then you go that way. Then you go that way and you see my computer.

Case 4

Free Afternoon activity.

After all the art work had been given out which took a considerable amount of time, it was free time. Maisie went and got a tub of leggo. She had seen the other children moving off to select activities. She sat by herself and started to look at the toys. Meanwhile the teacher continued looking for the owners of the art work and giving it back and having the children put it away in their folders. "Quietly" was the order of the day. All the groups of children worked away very quietly considering it was free choice time. Maisie made a little truck and showed it to a boy as she stepped into the middle of his group. One boy sort of put his hand up to keep her from stepping on him. She indicated her truck but no one attempted to sign or verbalise to her.

Maisie then went to a different group and started building with their construction toy. She elbowed a boy out of the way and commandeered some wheeled toys to go in the compound she had made. Another boy came and sat beside her and talked to the two other boys but Maisie was

oblivious to their game and they to hers. Then she touched a boy on the arm and pointed to her building. He didn't take her up on her offer to communicate but continued with his own activity of rocket launchers. Maisie persisted in trying to interact with the boys and involving them in her construction. Finally one boy did add bits to hers. She made a series of verbalisations and laughed out loud and wrecked a few pieces. The boy with her didn't try and speak to her. The others were surrounded by continuous babble of talk. Maisie was with a group of boys and no girls.

She came back to the leggo by herself and tried to verbally get the attention of one boy as he went by but he didn't stop. Other boys came near her leggo more or less accidentally. She frowned and said "Na". They moved away. She collected bits from the previous area and then poked the two boys in the bottom with bits of toys. they didn't respond. She came over and investigated what I was doing. Then moved away to a group of three girls with a jig-saw. One moved away but the others stayed and worked away on the jig-saw silently although it was actually independent play as no comments or cooperation took place. They seemed to be working on different sections. The teacher told them to pack up and the children near Maisie made no move to do so. The teacher said "Carmen look after Maisie and pack up".

Case 5

Examples of Language Performance Data

The conversation was carried out between his IST(H) and videotaped by the researcher. Total communication was the communication method used by the IST(H).

Description:

I.T.: Can you tell me about your bedroom at home? What does it look like? What's in it?

M.: (gestures bed) soft, beautiful, water very cold bed

I.T.: There's a bed.... chair

M.: (vocalises) lie on chairs, chairs, top, up, side, bed, water, very cold.

I.T.: Have you got a video in your room?

M.: Yes (gestures there, there and tried to return to the photo book),

I.T.: Forget about Wonderland.

M.: A bed I lie on.

I.T.: What's it look like?

M.: You know.

I.T.: I've forgotten.

I.T.: You know.

I.T.: Have you got your own TV video game?

M.: TV, video, new video. Watch video bedroom, TV video game (all gestures) 2 TV paper.

I.T.: Do you have a good chair in room to watch TV?

M.: No lie bedroom watch video lie in the bedroom, in the bed.

I.T.: Where are your pillows you made at school?

M.: (gestures all about.)

I.T.: On the floor, or on the bed?

M.: On bed. When bed take off.

I.T.: On the floor?

M.: No.

I.T.: Do you feel good? Do you lie on them and watch video?

M.: (Gestures and mimes how he lies watching TV)

I.T.: Do you have AUSTAR TV in your room? You know the special TV Poppy got for you in your room? You know animal shows and Mickey Mouse. Can you watch in your room?

M.: I don't know

I.T.: Where do you keep your clothes?

M.: (indicates in drawer), Game, TV video cupboard. (then gestures and indicates 4 windows).

I.T.: 4 windows where's the door?

M.: (gestures opening the door)

I.T.: What about your books?

M.: (gestures, table gestures drawer)

I.T.: What else in your room?

M.: Window (gestures)

I.T.: Where's the door?

M.: There, there video, table, write draw.

I.T.: Doing homework?

M.: I put bag in cupboard, hat in cupboard.

I.T.: Have you got pictures?

M.: I have picture and sword.

I.T.: Star Wars

APPENDIX E

Emic Issues Table

The following is a summary of the emic issues in the five cases which were identified.

Case 1	Case 2	Case 3	Case 4	Case 5
<u>Language</u>	<u>Language</u>	<u>Language</u>	<u>Language</u>	<u>Language</u>
<ul style="list-style-type: none"> • Too low for successful school performance • Signing systems and exponents 	<ul style="list-style-type: none"> • Oral / Aural • CI • Language learning opportunities incorporated in class program • Language level sufficient to perform in class 	<ul style="list-style-type: none"> • Oral / Aural • CI • Proficient communicator • Language levels sufficient to access class program 	<ul style="list-style-type: none"> • Rudimentary language capabilities • Paucity of language learning opportunities • Language input insufficient 	<ul style="list-style-type: none"> • DCDP natural visual language • Lack of efficient language input by support personnel
<u>Literacy</u>		<u>Literacy</u>	<u>Literacy</u>	<u>Literacy</u>
<ul style="list-style-type: none"> • Literacy level insufficient to assist learning 		<ul style="list-style-type: none"> • Literacy level sufficient to assist learning 	<ul style="list-style-type: none"> • Literacy level insufficient to assist learning 	<ul style="list-style-type: none"> • Literacy level insufficient to assist learning
<u>Teachers</u>	<u>Literacy</u>		<u>Literacy</u>	<u>Teachers</u>
<ul style="list-style-type: none"> • Good teaching style going from the known to the unknown at the appropriate level successful • Question of responsibility for teaching content • Direct v indirect teaching • Skirting difficult aspects of the program • Interpreter expertise • Teacher lack of knowledge of deafness and support services • Program adaptations 	<ul style="list-style-type: none"> • Literacy level sufficient to assist learning 	<u>Teachers</u>	<ul style="list-style-type: none"> • Literacy level insufficient to assist learning 	<ul style="list-style-type: none"> • Withdrawal with itinerant teacher in the past had been unsuccessful in literacy and numeracy learning • Learning hampered by reduced and poorly produced visual input • Inability of teacher's aide to communicate adequately • Direct teaching not successful • Reliance on concrete with little opportunity or demand for abstract concept development • Irrelevant practices such as copying text • Language capacity not extended • Avoidance of theoretical material • Highly adapted subjects successful • Subjects capable of hierarchical presentation successful • Unrealistic teacher appraisal of the situation
	<u>Teachers</u>	<u>Teachers</u>	<u>Teachers</u>	
	<ul style="list-style-type: none"> • Teaching style conducive to direct teacher / student input • Class teacher responsible for program delivery • Cooperative learning situations • Visual input supported by written and spoken language input • Cooperative involvement of itinerant teacher • Difficult concepts tackled • Logical hierarchical subjects more accessible (maths) • Program adaptations to facilitate language learning and access • Ineffectiveness of interpreter support 	<ul style="list-style-type: none"> • Traditional style with physical attention to including deaf student • Direct instruction between teacher and student • Class teacher responsible for delivery of class program • Reduced role of teacher's aide • No reduction in content • Adaptations physical rather than to the program 	<ul style="list-style-type: none"> • Itinerant teacher responsible for program delivery • No effective direct teacher / student input • Teaching style irrelevant because she was unable to participate because of communication lack • Difficult content issues avoided • Reliance on visual here and now concrete material for communication • In the class but not part of the interaction • Inappropriateness of untrained teacher's aide working directly with this student • No program adaptations only physical considerations 	
<u>Deaf Education</u>		<u>Social Interactions</u>		
<ul style="list-style-type: none"> • Alternative placement options 		<ul style="list-style-type: none"> • Highly successful with at school and after school interactions • High level of home support • Deaf identity 		
<u>Social Interaction</u>				
<ul style="list-style-type: none"> • No social interactions at school or after • High level of home support of academic not linguistic nature • External locus of control • No Deaf identity 				

<u>Success</u>	<u>Social</u>		<u>Social</u>	<u>Social</u>
<ul style="list-style-type: none"> • Definition of success 	<u>Interactions</u>		<u>Interactions</u>	<u>Interactions</u>
<u>Human rights</u>	<ul style="list-style-type: none"> • Social interactions at school and after hours • No Deaf identity • High level of home support 		<ul style="list-style-type: none"> • No best friend • Social involvement superficial 	<ul style="list-style-type: none"> • High level at school, none at home • External locus of control • Low level of home support • Deaf identity
<ul style="list-style-type: none"> • Meeting the student's or parent's needs 			<u>Success</u>	
			<ul style="list-style-type: none"> • Satisfaction with situation by those directly involved • Low level of home support • No Deaf identity 	

APPENDIX F

Example of summary of Classroom Observations

Case 2

Variables associated with lesson observations 4, 5, 7, 8, 10, 11, and highest inclusiveness rating

Variable 1 Classroom and curriculum adaptations

Variable 2 Accessibility of content

Variable 4 Communication

Variable 5 Teaching Style

Variable 6 Success of student participation

Variable 8 Interaction

Variables associated with observations 2, 3, and 6 (Moderate level of inclusion)

Variable 1 classroom and curriculum adaptations

Variable 2 Accessibility of content

Variable 4 Communication

Variable 5 Teaching Style

Variable 6 Success of student participation

Variable 8 Interaction

Variables associated with observations 1, 9, and 12 (Low level of inclusion)

Variable 2 Accessibility of content

Variable 3 Lesson type

Variable 4 Communication

Variable 6 Success of student participation

Variable 7 Where lesson fell in the program

Highest level of inclusion: observations, 4, 5, 7, 8, 10, 11, 13

Variable 1 Classroom and curriculum adaptations

There was emphasis on visual material from recording of key words supporting questioning, picture books, reference to pictures during information delivery, reading texts revisited to check comprehension, video input of information, concrete material, key points recorded, extra questions (visual support of verbal input and text support), modified shorter questions, use of the itinerant teacher to establish difficult concepts and working in small groups collaboratively.

Variable 2 Accessibility of content

Multi modal input of material including verbal questioning, written and graphic descriptions, and mime and gesture. Verbal information alone was not enough. The itinerant teacher support was needed to keep pace, use of dictionary to check vocabulary, illustrating answers to check comprehension, relating stories to topics studied, cooperative working to allow observations of other responses to model on, visual support plus itinerant teacher for expansion and clarification, extra questioning with visual support such as captioning, modified questions with one idea per question, saying and writing similar sounding words in classroom context with the itinerant teacher, new concepts written, new sentences constructed with itinerant teacher help using lesson concepts and grammaticality checks and extension, video input of content followed by explicit questioning, written expansion and recording to test understanding, itinerant teacher assistance for Kelly as well as other children, story maps for understanding and sequence, group work and dramatic portrayal of concepts.

Variable 4 Communication

Extra question modified and repeated with responses expected, repeated good answers from other students, visual support of spoken information, miming and gesture to test understanding and to impart information, the itinerant teacher used to expand grammatical understanding, teacher and children responded to Kelly's

answers and questions, provision of alternative responses to questions, extended her responses and given reasons for wrong answers, speech correction incorporated into class content with the itinerant teacher, familiar format of news delivery, checking comprehension in reading by extra reference to text.

Variable 5 Teaching Style

Group work in maths. In regular class teacher directed discussion supported by written recording and pictorial support material, thorough teaching, including Kelly in dialogue, deductive questioning, large proportion of information deduced through questioning involving many children, follow up with text, group work for idea formulation, highly child centered, directed video information input, story segmenting and assessment through illustration and text checking. This was an interactive teaching style.

Variable 6 Success of student participation

Itinerant teacher assistance allowed access of information concurrently with the rest of class allowing oral participation. Kelly was able to mime to demonstrate understanding, and write and draw responses. After initial observation she was able to participate in games and activities. She was chosen to give answers frequently and her answers supported by further questioning. She was able to write written responses with itinerant teacher support. Dramatic performances enabled her to easily demonstrate understanding. Familiar format of news allowed full participation.

Variable 8 Interaction

In group activities Kelly interacted on an equal footing. In class activities there were a high number of questions directed at her and she volunteered answers regularly.

Moderate levels of inclusion: observations 2, 3, and 6

Variable 1 Classroom and curriculum adaptations

Seating separately with her friend and the itinerant teacher at back of room. Emphasis on visual material. Key words on board and written summaries on board.

Variable 2 Accessibility of content

Kelly was not able to access the on going oral questioning of the lessons so they were written by the itinerant teacher. Graphic representation of maths concepts easily accessed. Multi modal input of information by the itinerant teacher, oral and written was not enough to establish concepts. Use of dictionary to establish vocabulary. Use of itinerant teacher for clarification and expansion.

Variable 4 Communication

No maths teacher dialogue or jokes were accessible to Kelly and there was no direct maths teacher dialogue with Kelly, all information was delivered through the itinerant teacher. The maths teacher worked with the itinerant teacher to incorporate visual and explicit teaching methods for the whole class. All oral questioning and marking were inaccessible to her. Graphic explanations by the itinerant teacher to establish concepts and concrete material were used to establish concepts as well as ability to recall visual experiments and activities.

Variable 5 Teaching Style

There was no student interaction. It was essentially all teacher talk in the maths lesson. The teacher collaborated with the itinerant teacher for appropriate demonstrations and techniques for concept establishment. There was step-by-step and explicit instruction, use of competitive games to stimulate recall and learning of facts.

Variable 6 Success of student participation

There was no oral participation, but Kelly was able to participate in visual activities. Itinerant teacher assistance enabled concurrent access to information and access to concurrent demonstrations. There was no homework completed. Kelly was able to make visual connections from workbook graphics. She was unable to overhear any of the discussion related to the content of the lesson between teachers or other students. She was able to help her friend with visually graphic topics.

Variable 8 Interaction

There were no interactions in these lessons with anyone other than the child next to her involved in mutual copying and sharing of equipment and there were no direct interactions between the teacher and Kelly.

Lowest levels of inclusion: observations, 1, 9, and 12

Variable 2 Accessibility of content

Oral information presentation had to be written by the itinerant teacher. When Kelly worked with the Teacher's Aide there was no concurrent working with the rest of the class. The information was reduced and different and sometimes inaccurate and ambiguous. Children gave answers at the front of her desk so she could lipread them but this was never reciprocal.

Variable 3 Lesson type

One lesson was introductory to a completely new lesson delivery, lesson revision with TA, to an on-going daily format.

Variable 4 Communication

No teacher dialogue was accessible. TA did not attempt to relate what class teacher said and misinterpreted concepts and described them wrongly. Repetitive daily format in which Kelly worked independently with itinerant teacher assistance. There was no student talking or discussion in class as all dialogue was delivered by the teacher.

Variable 6 Success of student participation

The only interaction was with the itinerant teacher or copying from the friend seated next to her. Kelly was always a recipient of answers from classmates but no delivery of answers from Kelly.

Variable 7 Where lesson fell in the program

An introductory lesson with a new teacher or on-going daily repetitive lesson format where students worked directly from the maths book.

APPENDIX G

Summary of data analysis

<p>Stage 1 Determination of variables, summarising, and description</p> <p>Level 1* Raw data read manually coded for different variables accounting for all the data</p> <p>Level 2* Variable data described in summarised terms</p> <p>Level 3* Combination of all summarised data from each observation together under variable headings</p> <p>Level 4* Repetitions eliminated and summaries expressed in more readable form</p> <p>“Issues” revealed for each case</p>
<p>Stage 2 Inclusiveness Rating</p> <p>Isolating features of teaching and support modes which were thought to relate to the degree that the deaf students were “included” in the classroom activities</p> <p>Highly Inclusive</p> <ol style="list-style-type: none"> 1. The deaf students worked on the same material as the rest of the class concurrently receiving information directly from the class teacher a) with the same theoretical content as the rest of the class b) without theoretical content 2. As 1 with support personnel assistance <p>Moderately Inclusive</p> <ol style="list-style-type: none"> 3. The deaf student worked on the same material as the other students but at a different rate 4. The deaf student worked alongside their hearing peers with support personnel but on different tasks <p>Not Inclusive (Low)</p> <ol style="list-style-type: none"> 5. The deaf student worked in isolation from their hearing peers either on similar or completely different topic <ul style="list-style-type: none"> • Observed lessons rated H, M, L, divisions for the categorised lessons • Grouping of the variables in each of the H, M, L, categories for the categorised lessons • Examination of stage 1 data to determine which aspects of each variable applied in each particular lesson to determine which practices and conditions applied to the differentiation evident in the H, categories • Summarisation of the accumulated features in the categorised lessons <p>This analysis answered “how” the classroom teachers provided inclusive educational opportunities</p>
<p>Explanations, assertions, and generalisations</p> <ul style="list-style-type: none"> • Return to the literature to examine the specific features revealed in the issues

determined after stage 1 analysis which referred to classroom performance

1. Language and thought
2. Literacy learning
3. Pedagogy

- Salient points applied to the individual cases

This analysis explained “why” events occurred as they did

APPENDIX H

Proposal for alternative support practices for children with hearing impairment in a rural district of New South Wales

The following information was presented to a representative of the Department of Education and Training as part of a proposal for alternative support strategies for deaf students in the inquiry district.

Existing Practice

- 1) Students enrol in their local school with itinerant teacher support, which often takes the form of individual assistance.
- 2) Classroom teachers have the primary responsibility for educating a hearing impaired student with assistance from the itinerant teacher.
- 3) Classroom teachers generally have little knowledge or experience with hearing impairment.
- 4) Untrained teacher's aides have a central role in program delivery for the hearing impaired student.

Problems associated with existing practice

- 1) Deaf students in the district may be enrolled in schools which are close by, yet they have limited opportunity to meet or mix with other deaf students. As a consequence they are presented with limited opportunities to develop their deaf identity. Their hearing parents often do not recognise this as a concern.
- 2) Classroom teachers currently apply a wide range of teaching approaches, some of which are not consistent with the best possible learning outcomes for deaf students (see Kretschmer, 1997; & Cummins, 1989). A detailed review of teaching approaches which are most supportive of the particular linguistic and cognitive needs of deaf students as well as those with learning disabilities is available for consideration.
- 3) Without specific assistance, classroom teachers often do not understand the implications of deafness, especially severe degrees of deafness. On the evidence of a recent inquiry undertaken in this district, many teachers would appear to respond to the enrolment of a deaf student by deferring entirely to the itinerant teacher, or by omitting so much content from the program for the deaf student in an attempt to provide a "differentiated" program.
- 4) Teacher's aides who have had either no training, or at best a minimum of training—usually using Signed English,—are often relegated to the task of rendering lesson content to the deaf student because the class teacher often feels unequipped to do so.
- 5) Itinerant teachers often intervene by withdrawing the deaf student to provide assistance either specifically designed to meet the linguistic needs of the students, or tutorial assistance. This practice has a number of associated problems such as further isolating the student so that they are "excluded" from classroom activities. Further, there may be limited transference of the material dealt with in the withdrawal situation into the classroom situation. More importantly, there is evidence to suggest that learning or improving language skills in a one-to-one situation is less desirable than in the context of group

experiences (for criticism of models of withdrawal support see Stainback and Stainback, 1984).

Alternative Proposal

- 1) Wherever possible deaf students could be enrolled in one particular school where they are able to be regularly involved with other deaf students on a daily basis either by being in the same class or participating in specially designed activities which involve language learning opportunities under optimum conditions (i.e., through social interaction with more competent others—see Vygotsky, 1978).
- 2) The itinerant teacher could be based at that particular school to be on hand for those staff involved with the deaf students.
- 3) The role of the itinerant teacher would be a more central one, playing an active part in the selection of teachers who are capable of implementing an interactive approach to teaching students generally, and being involved in the planning of class activities and programs. The itinerant teacher would also be responsible for co-teaching the class generally, with the classroom teacher (see Kirchner, 2000).
- 4) Where there are deaf students of different ages in the targeted school, the itinerant teacher could set up literacy groups which involve a number of students of different ages, listening status, and capabilities. This would permit the establishment of an investigative/interactive approach to student learning, aiming to facilitate the development of communication and literacy skills based on sound theoretical premises.
- 5) Because deaf students would be congregated in the one school, saving would be made on itinerant teacher travelling time with the possibility of in-school activities being conducted in the morning, and support of preschool children or home visits to children and families being conducted in the afternoon. With more itinerant teacher time available to deal with the needs of the hearing impaired students within the school, teacher's aide time would be significantly reduced and could therefore be replaced with more itinerant teacher assistance. Where it were necessary to employ additional staff to assist students (e.g., aides or assistants), they could be employed on the basis of a student's particular additional support (e.g., to provide for physical access needs), or as a properly trained interpreter if the student relies on manual communication and has attained a level of communication that facilitates such an approach.
- 6) Because the itinerant teacher would have a central role in class program planning and implementing, regular classroom teachers would be able to learn about hearing impairment in as meaningful way by observation. If there were a number of students in the same school it becomes very apparent how hearing impairment affects individuals in variable ways.
- 7) If such a program were implemented and operating successfully it would be possible to use the situation in a demonstration mode to provide in-service education opportunities for other teachers. Specifically such programs could address interactive teaching methods (e.g., other class teachers may be provided with video-taped records of interactive teaching and effective support of deaf students).
- 8) Finally, under such a model, children of preschool age would be given every opportunity to reach age appropriate language goals before school entry, by being involved with interactive language learning opportunities.

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- Kretschmer, R.R. (1997). Issues in the development of school and interpersonal discourse for children who have hearing loss. *Language, Speech, and Hearing Services in Schools*, 28, 374-383.
- Stainback, W., & Stainback, S. (1984). A rationale for the merger of special and regular education. *Exceptional Children*, 51(2), 102-111.
- Vygotsky, L. (1978). *Mind in society*. Cambridge: Harvard University Press.

Status of the proposal at time of thesis submission

Currently there are students of both primary school and high school age located in schools in the northern end of the region across a number of towns. There are a number of preschool age children in two adjoining towns in the northern end of the district on my caseload as an itinerant teacher. I would not seek to move children already enrolled in school. Nevertheless, there are perceived benefits of enrolling all the preschool-age children in the one preschool with the possibility of them attending the same primary school when they are old enough. As there is one family with two children who have cochlear implants, with one attending primary school, and the other about to enter preschool, the schools involved are the obvious choices to target. Both the Principal of the primary school and the Superintendent of the preschool have been included in discussions. The Principal of the primary school was positive about the prospect of his school being targeted as a potential target school for the enrolment of hearing impaired students in the future.

The preschool Superintendent put the proposal to the preschool board, which was approved, and I have begun delivering the preschool support concurrently over a three hour period weekly. The aims of the support are to encourage verbal interaction amongst the children in naturally interactive situations and to introduce an awareness of literacy discourse strategies in the treatment of nursery rhymes and stories so that, when they do enrol in primary school, the children are aware of the literary tradition, which is often missing in the understandings of children with hearing impairment and is thought to be crucial in the development of satisfactory literacy skills. Other activities to encourage language development, are once again, based on an interactive approach to language learning. Each of the children receive a follow-up session with their mothers to reinforce the concepts introduced in the preschool situation. The attempt is thus to encourage the greatest opportunity for language development prior to school entry.

Additional proposed action to address future needs of hearing impaired students of school age in this rural district

(Note: these concepts could be implemented in other areas where a number of hearing impaired students of similar ages are enrolled in local schools which are geographically close)

- 1) The transference of the itinerant teacher executive position from the existing school to the targeted school for the enrolment of students with hearing impairment.
- 2) Support by the DET of a change in the role of the itinerant teacher from support teacher, in the case of the targeted school, to co-teacher
- 3) Encouragement of other hearing impaired students in the district to enrol in the targeted school—even if they are out of that school zone—with provision of the appropriate transport as required.
- 4) Requirement that the teaching strategies employed are those based on an interactive model of learning.

Provisos

- 1) Under broader DET policy, there will/would be no compulsion on any parent to enrol their child in the targeted school if they don't wish to do so.
- 2) Decision making is cooperative at all points, involving all interested parties: parents, school personnel, and DET personnel.
- 3) Provisions are/will be at all times a response to local actual needs and not constrained by inflexible policy.