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# The role of intrapersonal intelligence in self directed learning

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Supporting students to be self-directed learners in classrooms is currently more important than it has ever been in the past. The rapidly changing nature of society, the demands of the 'new economy' and the contemporary understanding of life long learning have combined to highlight the need for students to be increasingly independent learners. This study investigated eight and nine year old children's capabilities to develop skills in the intrapersonal intelligence domain as defined by Howard Gardner. A group of twenty-seven students identified as low achievers in English were introduced to a program specifically designed to foster their self-knowledge as learners and establish how this self-knowledge may be used to improve their self-management skills in the English learning environment. The results obtained evidenced a considerable improvement in the students' self knowledge and attested to how this impacted on their perceptions of themselves as learners and their behaviours in the learning context. The students grew increasingly aware of their own relative strengths and used this information to negotiate their learning environment, to identify strategies that worked for them and to take increasingly more responsibility for their own learnings.

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## Introduction

Schools, traditionally associated with preparing young learners to take their places in an adult social and economic world, are under increasing pressures to implement pedagogical changes that will support students and provide them with a positive start to a lifetime of learning. The difficulty appears to be that, whilst much of the corporate world may have embraced reforms and restructured to accommodate the changing nature of society and economy, it is more complex to achieve these reforms in schools (Hartley, 2003). This is not surprising, considering that the enterprise upon which schools are embarking involves the nurturing and education of young people. The complexity of meeting the many needs of young individuals is reflected in the considerable amount of literature that is available regarding the nature of teaching and learning to meet future needs, the basic elements of productive pedagogies and contemporary theories about the nature of intelligence.

In his discussion of the characteristics of schools of the future, Beare (2003) identifies seven differences that distinguish these schools from traditional institutions. Lepani (1995) also gathers together educational theories relating to education for the future and proposes eight principles upon which to develop a 'mind ware industry'. Lepani (1995) and Beare (2003) both stress the need for schools to develop and implement curriculum that facilitates integrated, customised learning for a diversity of learners. They also place increasing emphasis on the students' own capacities to customise the curriculum to complement their individual relative strengths and limitations and develop awareness of themselves as learners. These proposals embody radical changes to the way in which education has been traditionally perceived. To embrace this model would mean redefining *school* as we know it, particularly the roles of teachers and students and the complex relationships that bind them together in educational institutions. Facilitating achievement for a diversity of students in educational settings now requires educators to recognise and encourage individual

students, value their learning preferences and provide environments that allow for a shift in the locus of control (Grantz, Gershaw 1989; Lynch, 1997; Ishiyama, McClure et al., 1999; Mamlin, Harris et al., 2001; Perry, 2003; Grimes, Millea et al., 2004) and allow students to take more responsibility for their own learning. The two fundamental concepts in this model of education that define the role of students are firstly, students' capacities to increase their knowledge of 'self' as learners and secondly, the effectiveness with which this self knowledge impacts on their endeavours to become self-directed learners.

Neither the importance of understanding one's self nor the benefits of self-directed learning are new. Knowledge of self reflects the ancient wisdom of Socrates' *know thyself*. The importance of self knowledge and awareness has become increasingly significant in recent times. Self directed learning has been extensively investigated in academic literature (Dembo & Jakubowski, n.d.; Grow; Thomas et al. 1988; Abdullah 2001; Costa & Kallick, 2004) and presumes that students have accurate knowledge regarding specific aspects of self. Originally explored in the context of adult learners, the characteristics of self directed learners are currently considered to be desirable for learners of all ages, specifically those students in elementary schools. Patterson, Crooks and Lunyk-Child (2002) define self-directed learning as

a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes (2002, p.1).

Students must make decisions in determining their learning goals, plan the means by which to successfully achieve their goals, regulate their own behaviours and cognition to use a range of strategies, including reflection, to assess and evaluate their learning products and processes. This pedagogical model not only requires a shift in the locus of control from external (teacher) to internal (student). It also requires students to have the knowledge and skills to determine appropriate learning goals, investigate and develop a repertoire of strategies for achieving these learning goals that are personally customised, and the capacity to critically evaluate both the learning process and completed product in terms of pre determined criteria and their own cognition. In order to become self-directed learners, students must have accurate knowledge of themselves as learners.

An important aspect of self-knowledge for students is an awareness of their own cognition and the capacity to use this knowledge to customise the learning context. Flavell (1977) refers to this ability as metacognition, and defines it as "Knowledge that takes as its object or regulates any aspect of any cognitive behaviour" and discusses the two aspects of this construct; knowledge of cognition and regulation of cognition. The former refers to the individual's knowledge of their own thinking and how appropriate or adequate it is for the task. This has three aspects. These can be simply explained as knowing what, knowing how and knowing why. The latter focuses on higher order thinking processes that acts to direct and monitor the cognitive processes. Students who have this meta cognitive knowledge have the opportunity to use it in various learning environments to ensure optimal success, as it provides students with the information they need to individually 'learn how to learn' (Gillies, Walker & Bailey, 1995; Sheppard & Kanevsky, 1999; Hennessy, 1999; Hall, Myers & Bowman, 1999; Antonietti, Iganzi & Perego, 2000; Blank, 2000; Hine, 2000; Desoete, Roeyers & Buysse, 2001; Schraw, 2001; Pugalee, 2001). Students who know about their own thinking and learning are better equipped to direct their own learning successfully. Livingston (1997) discusses metacognitive knowledge as the knowledge of person variables, knowledge of task variables, knowledge of strategy variables, and metacognitive regulation, which is the self-questioning that checks and critiques the resultant answers. A new focus on metacognition is also a significant component of the Revised Bloom's Taxonomy (Anderson & Krathwohl, 2000). Metacognitive knowledge now constitutes a fourth knowledge domain and includes students' knowledge of general strategies for learning (strategic knowledge), student knowledge of cognitive tasks themselves, when and why to use certain of the aforementioned strategies, (knowledge about cognitive tasks), and self

knowledge, which relates to '... both cognitive and motivational components of performance' (2000, p.56).

Self knowledge and its importance in the learning process have also been highlighted by the inclusion of intrapersonal intelligence in Gardner's Multiple Intelligences theory (1983; 1993). Gardner's theory not only challenges the notion of a single intelligence, it redefines intelligence itself and offers a definition of intelligence that is dynamic and responsive to environmental and experiential stimuli. This is an important consideration for educators seeking to facilitate the development of learners' self knowledge, as it is an indication that knowledge of self (intrapersonal intelligence) can be developed and strengthened. Gardner defines intrapersonal intelligence as

... the development of the internal aspects of a person. The core capacity at work here is access to one's own feeling life - one's range of affects or emotions: the capacity instantly to effect discriminations among these feelings and, eventually to label them, to enmesh them in symbolic codes, to draw upon them as a means of understanding and guiding one's behavior (1993, p.239-240).

It is noteworthy that Gardner (1993; 1999) continues to reflect upon and revise his original perceptions of intrapersonal intelligence; a process that he has not applied to other the intelligence domains of his Multiple Intelligences theory (1983). Commenting on his original definition (1993), he indicates that if he were to rework the section discussing intrapersonal intelligence, he would place greater emphasis on the importance of having accurate intrapersonal intelligence and applying this knowledge to decisions that individuals have to make in life. More explicitly, he advocates that accurate self knowledge will be the most important characteristic of successful learners in the twenty first century (Noble & Grant, 1997).

Shepard, Fasko & Osborne (1999) studied the importance of intrapersonal intelligence in thinking and learning specifically. They linked high levels of intrapersonal intelligence as defined by Gardner (1983; 1993) to other aspects of self, self image, self regulation, self efficacy and also to higher achievement for students. They believed that it is the understanding each student has of self that effects and regulates his or her performance. Gardner stresses that metacognition "is the awareness of one's mental processes - rather than ... a full range of emotional abilities" (Noble & Grant, 1997, p.24-25. However despite Gardner's comment on these limitations on interpreting intrapersonal intelligence as metacognition, it is likely that a program designed to strengthen students' intrapersonal intelligence may impact positively on the students' capacities to become increasingly metacognitive and become itself an important component of self directed learning.

## **The context**

This paper discusses one aspect of an intervention program implemented to support a group of 27 eight and nine year old students who were assessed as low achievers in literacy, a skill basic to both educational and long term achievement. The setting was a large Catholic school serving a rural community. The students' major difficulties were identified in the results of a range of diagnostic tests, running records, teacher observations and assessment of work samples. The implications of these results were far reaching for these students, thirteen of whom had learning difficulties which were diagnosed by specialist support agencies. Two of the factors that influenced the direction in which the intervention was developed and implemented were the teachers' concerns regarding the students' observable lack of motivation, task engagement, organisational skills and self efficacy and the school's programming policy, which utilised the Bloom-Gardner matrix (McGrath & Noble, 1995) as a planning tool for curriculum differentiation. The support program and hence the research study was designed to be implemented over a ten month period.

The support program was developed by the teacher researcher in consultation with teacher colleagues, whose role it was to integrate the program into their everyday English activities in a

manner that suited the students, the individual teachers and the purpose of the study. The teacher researcher was active in supporting both teachers in their classrooms by participating in the initial diagnostic strategies, demonstrating how some of the planned activities might be effectively implemented in the context of their programs of work and by withdrawing the students for the interview process. The teachers collaborated on an informal basis as part of the working relationship amongst staff members and more formally at regular intervals to review, revise and plan the implementation of suitable strategies and activities from the intervention program as the project progressed.

## **Intervention program**

The intervention program (Appendix 1) was based on the results of the individual Multiple Intelligences Profiles (McGrath & Noble, 2003). These gave an overview of the students' perceived relative strengths and limitations across the eight multiple intelligences. This data provided the basic information for the development of teaching strategies and learning activities that comprised the intervention program. This was designed so that students may have opportunities to use their relative strengths to help overcome their relative limitations in English. The intervention program of suggested strategies was developed using the Bloom-Gardner planning matrix (McGrath & Noble, 1995), and the information provided by the multiple intelligences profiles (McGrath & Noble, 2003). All the activities were designed to assist the students when they began the process of choosing suitable goals, identifying which strategies worked best for each of them and commencing the process of managing their goals. They were also designed to provide learning experiences which were interesting and engaging. In this way the program changed the type of interaction with the curriculum from that which the students usually experienced. It was not anticipated that all the students would undertake all the activities; rather that the program would offer tasks choices and differentiated strategies to suit each learner's individual strengths and weaknesses.

## **Methodology**

Designed as an action research project, the initial step required students to set individual learning goals in English. The students were asked to nominate something they would like to achieve in English which they had never achieved before in their class, as their learning goal. In order to implement a variety of strategies to achieve these goals, the students were introduced to the intervention program and to the notion of negotiating their learning environment to provide optimal support.

Students were introduced to the negotiation process by a series of discussions, during which the teachers and students nominated aspects of the learning environment which may be able to be changed to allow students some opportunities to explore their own and others' strategies for completing tasks. These included the timing of activities, types of activities students felt were of interest to them, student involvement in designing activities and resources, organisation of the physical environment and debate about social aspects of the group.

Information relating to the students' progress in the development of self- knowledge and details of their work habits was gathered from a variety of sources. These comprised of the responses of the students to a series of three student interviews, the observation and anecdotal records of the teachers and the teacher-researcher, an analysis of the students' reflection journals, the students' individual achievement records in English and the data collected from the multiple intelligences profiles (McGrath & Noble, 2003), utilised as pre and post tests.

The intervention commenced in February. The student interviews (Appendix 2) were conducted on an individual basis during May, August/September and November. The student responses were recorded verbatim and provided information about individuals' progress in setting and achieving goals and the strategies that were used to promote their successful completion. The teacher and

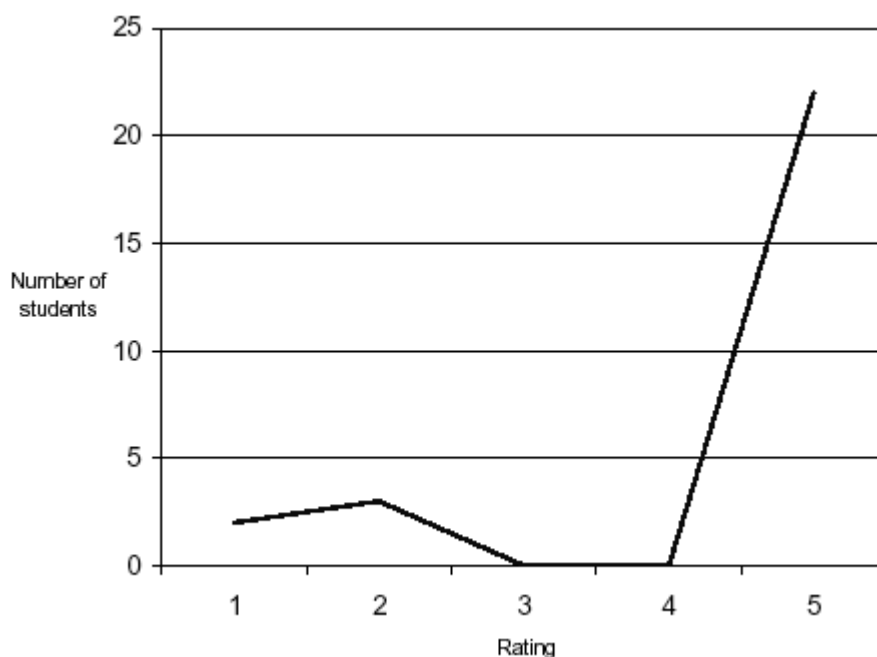
teacher researcher used evidence from their anecdotal records to complete the teacher interview sheet (Appendix 3) for each student at the completion of the project, using the categories agreed at the commencement of the project (Appendix 4).

The students were also introduced to the idea of journal entries to record their feelings and responses to the work they were undertaking. These student entries in the reflective journals provided evidence of the type of thinking that students were recording in relation to their learning in English. These were rated according to a set of indicators (Appendix 5) developed to gauge how clearly the students were relating their reflections to themselves as learners. The students' individual achievement records comprised the analysis of work samples, records of completed tasks and students' individual progress in relation to the New South Wales K-6 English syllabus (Board of Studies, 1999) assessments. The multiple intelligences profiles (McGrath & Noble, 2003) were compared as self reporting assessment tools by using a paired *t* test to examine the responses given by the students in February and November.

## **The findings**

Initially, the process was difficult for the students. Only one student was able to independently set a learning goal. The remainder struggled with the specific nature of goals and instead offered suggestions such as 'be a better reader', 'be the best at spelling', 'read lots of books'. One group of eight students was unable to complete the SMART goal contract (McGrath & Noble, 2003) and had a modified process in which they simply wrote a specific goal and discussed the remainder of the planning with an adult, who recorded their plans. Once specific goals were established, reasonable timelines agreed upon and resources sourced, their suggested strategies for achieving these goals remained problematic. The students tended to offer strategies that they associated with 'school work' and had not necessarily achieved well in the past, for example 'work harder', 'pay attention', 'stay quiet and don't talk'. They tended not to give consideration to strategies that they might enjoy, or which may prove successful for them as individuals. This was overcome by the teacher researcher and colleague teachers encouraging the students in general terms to consider strategies from the intervention program which focused on what each student had recorded as a relative strength on his or her profile (McGrath & Noble, 2003).

Within six weeks colleague teachers' and teacher researcher's records showed that twenty two of the students had demonstrated improved skills in starting promptly, staying on task for increasingly longer periods, persevering and seeking help when the task got difficult and completing more tasks appropriately. They had also demonstrated skills in thinking ahead and preparing for their new tasks. These students continued to improve their organisational skills and became increasingly independent learners. At the conclusion of the study, their records showed that all the students had made progress and their work skills had improved. This was recorded on the Teacher Interview sheet (Appendix 3). Not all the students were rated as being self directed, however. Two students still had some difficulty sustaining their on task behaviours and organisational skills. Three other students were inconsistent and needed constant refocusing and reassurance. These results are recorded in Graph 1 and were compiled using the anecdotal evidence recorded by the colleague teachers during the study and the student work samples and assessments that indicated the students had become increasingly productive in English.



**Figure 1:** Teachers' observations of student work skills (Question 3) (1= low, 5 = high)

Figure 1 illustrates the ratings the colleague teachers awarded to the students for work skills at the conclusion of the project.

These results provided evidence which was supported by the Student Interview responses, which confirmed the increase in the development of the students' capacities to organise themselves according to their learning needs and preferences, remain on task longer and persevere when the tasks were difficult. The individual responses to interview questions indicated that students had developed a heightened awareness of the optimum learning conditions for each of them personally and that they were able to articulate clearly what conditions impacted negatively on their learning. They were able to discuss not only the work skills, for example being organised or having what they needed available, they also could explain how they would try out different strategies if they had difficulties and occasionally commented that the way other students worked did not always work for them. The responses also indicated that the students' use of strategies and thinking skills were both reflective and evaluative in nature.

This continued as an ongoing strategy, with teachers regularly asking the students what they could do to support the students in their efforts to become better learners. As students became accustomed to this new dimension in the teacher student relationship, they initiated the negotiations and nominated increasingly specific suggestions regarding their learning context. Many students frequently changed their usual working pattern in response to the demands of different tasks. Individuals who were generally observed working as members of a small group varied their interaction in response to the demands of specific tasks. Those who often worked alone were observed joining others and gradually the more active, concrete activities lost favour for all but a handful of students. Interestingly, these few had nominated strength in the Bodily Kinaesthetic intelligence domain in the original Multiple Intelligences Profiles (McGrath & Noble, 2003).

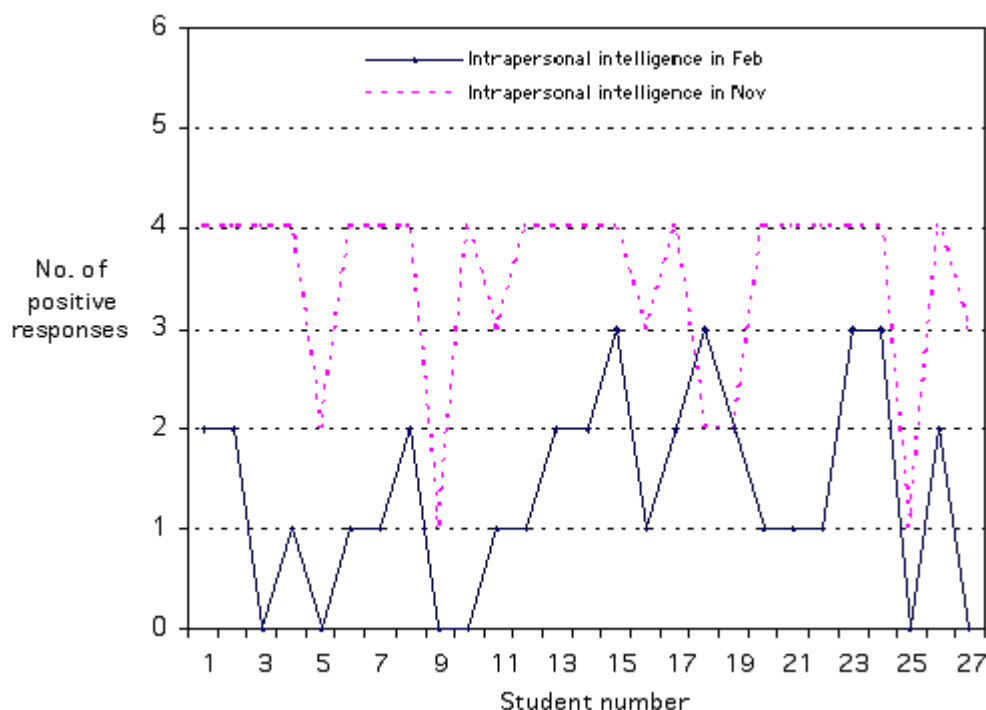
Teacher records provided evidence that, having determined their learning goals in English and developed individual strategies which helped them achieve these goals, the students became more confident that they would be able to complete tasks successfully in English and they felt able to persevere, even when the tasks were difficult. Students who elected to nominate two goals that they were trying to achieve concurrently demonstrated evidence of this perseverance. Examples of long terms goals might have included reading a novel, being awarded a pen licence (instead of being restricted to using pencil) and having a specific number of pieces of work in their English folder by

the end of the year. Shorter term goals included activities such as reading silently for 15 minutes every day for a week, getting all spelling correct in a weekly spelling test for two weeks and completing homework tasks for a week.

Those students who evaluated the long term goal as being too difficult for them to achieve in a short timeframe, had then taken one step at a time over a longer period until the more difficult, long term goal was achieved. Other, short-term, goals were also achieved during this time. Considering that these students had previously not been very successful in English, it was reasonable to assume that many tasks they attempted would present some difficulty for them. Evidence that this was the case was found in the Student Reflective Journals.

Students had recorded their reflections on the learning activities provided in the English classroom and the goals they were trying to achieve. Responses included: 'it was hard today', 'my goal is hard', 'neat handwriting is hard for me', 'B helped me because I got stuck', 'the work was hard today'. These comments indicated that the students experienced a degree of difficulty with various tasks. Only three of the Student Reflective Journals did not contain any reference to tasks being difficult on occasion. However, the colleague teachers' records indicate that, despite the difficulties experienced, students were increasingly productive and the task completion rate was immensely improved when compared to the students' individual performance records of previous years. This evidence, combined with the strategies that the students had recorded as being their personal strategies, indicated an increase in students' awareness of the nature of their own learning and how to adapt their learning environment to meet their individual learning needs.

The Multiple Intelligences Profiles (McGrath & Noble, 2003) compiled at the commencement and conclusion of the study indicated that there was a considerable increase in the students' self knowledge during this time. Although this project was primarily concerned with an action research model, some data was able to be interpreted using methodology more commonly associated with traditional, empirical research methodologies. Consequently, a paired t test was carried out using the students' scores on the intrapersonal intelligence domain of the Multiple Intelligences Profiles (McGrath & Noble, 2003) as shown in Figure 2. The result of 9.052 indicated a significant change had occurred. The significance of .000 indicated that there little margin for error. The results of the paired t test support the teachers' and teacher researcher's records of the increasing incidences of students initiating changes to the learning environment, approaching tasks intelligently, using a variety of strategies to solve difficulties and knowing when to access assistance.



**Figure 2:** Student responses in the intrapersonal intelligence domain

Figure 2 illustrates the number of positive responses the students gave in February and November to the five questions relating to intrapersonal intelligence on the multiple intelligences questionnaire.

## Discussion

The intervention program was designed to initially allow students to use their relative strengths to support their learning in an area of relative limitation, English. The Bloom-Gardner matrix (McGrath & Noble, 1995) was an important planning tool, as it facilitated differentiation of both content and cognitive process and supported the regular, integrated planning of activities designed to develop students' self knowledge. By encouraging students to be innovative and use their self knowledge to design strategies to accomplish the learning goals they had nominated, they began to experience some success. As successive goals were nominated and accomplished, students began to be more confident regarding their capacities and attempt increasingly difficult tasks. As the students learnt how to learn in their individual ways and developed a range of strategies that suited their individual learning preferences, they began exhibit some of the characteristics associated with self directed learners.

They were able to observe that some tasks were difficult without expressing concern that they were unable to attempt them. They frequently displayed considerable persistence and both gave and received support from their peers. Many became increasingly reflective in their evaluative comments. The students also were able to use their knowledge of themselves to regulate their on task behaviours in addition to their thinking. They were able to choose to avoid conditions and circumstances that did not support their learning in English and most students regularly did this. They became increasingly comfortable in the negotiation process and accept that other students could achieve success by using a wide variety of different, alternative strategies that may or may not work for them. The majority of students did not require any advice or assistance in the goal setting process after the initial goals had been developed. Many students were confident to source materials and information independently, or nominate with increasing specificity the support they required. The students' growing awareness of themselves as learners and their increasing knowledge of their individual relative strengths and limitations had permitted them to exercise some control over their own learning in one area of the curriculum. Reports from parents indicated that students were able to



take more responsibility for their learning outside of school also. They organised their time and resources and worked independently at home in order to accomplish their learning goals. The students knew what they wished to achieve in English, although they had experienced limited success in the past.

Without sufficient, accurate self knowledge, it is difficult to envisage that the students would have been successful in translating their ideas into personally achievable learning goals, in developing their strategies to support these learning goals or in negotiating the environment to accommodate their learning preferences. If the students had not experienced some success in achieving their goals, they would have had great difficulty becoming more confident and developing some degree of self-efficacy. Once the students realised that they could find ways to achieve their goals, which were based on their relative strengths, they were able to become more positive about learning in English and increasingly persistent in the face of difficulties. They were also able to develop some skills as self directed learners and become gradually more reflective about their learning experiences in English. Their journal entries evidenced the students' development in their knowledge about their own thinking and strategies. These results suggest that strong, accurate intrapersonal intelligence may underpin all the other aspects of self, including the knowledge and skills needed to develop self-directed learning.

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## Appendix 1

### Intervention program designed for The Affective Component in Education

Stage Two English

Verbal/Linguistic				

Remembering	Understanding	Applying	Analysing	Evaluating	Creating
Recall various sounds already learnt. Recall story details Recall characteristics of text types.	Work out which sounds blend together to make new sounds. Make relationships between new sounds and known sounds. Look for commonalities and differences in text types.	Seek out words from any source for spell-ing list formation. Compile spelling list from all groups' lists. Complete spelling activities, handwriting practice, comprehension activities. Practice text types using the guided books. Find dictionary meanings. Read the texts from the MI list and discuss the implications in the stories. Make an alphabet of achievement/success words. Read champ quotes.	Analyse words given and construct a spelling rule from your ideas. Check characteristics of text to determine text types. Compile character profiles of story characters Write the characteristics of good handwriting. Write a definition of decoding. Devise a short procedure for decoding. Use dictionary words in sentences that show their meanings. Create entries for Learning Log. Tell a friend for 3 minutes, write for 5 minutes initially.	Check the rules. Are they able to be complied consistently? How many exceptions are too many? Check the accuracy of the text type activity, justify differences of opinion.	Create comprehension questions using Bloom's cubes. Create a variety of text types. Compose speeches Compile spelling lists and activities Make own books.

### Logical/Mathematical

Remembering	Understanding	Applying	Analysing	Evaluating	Creating
Recall the steps in a narrative, procedure, speech.	Count letters in spelling words. Check and see if a procedure will work or not. Counting on Frank. Find the title clue. Retell story in sequence. Group rhyming words. Write meaning for persistence. Make flow chart of words with related sounds.	Play hangman, other spelling games which focus on number of letters in words Select random beginnings, events and characters and swap one or two with neighbours Practice word building. Revise SMART goal process sequence. What does CHAMP mean? What does SMART mean? What does TEAM mean?	Determine if a spelling rule applies to certain words or not. Differentiate between the various sounds the same letters can make. Group common sounds. Make graphs of words using common sounds for columns. Make Venn diagrams of words to show commonalities and differences. Discuss the MI profile graph to determine relative strengths and weaknesses. Complete relative strengths checklist.	Check the sound activity above for accuracy. Determine if other groups' questions are valid or not. Evaluate the degree of difficulty of own goals for yourself. Score 1-3. Plot the sequence of progress in each goal to determine which strategies worked, which are relative weaknesses and strengths.	Create questions from the idea given that proved not to be a question. Create story timelines. Create new spelling games that involve number of letters in the words. Organise some personal rules of how best to reach your goals, step by step. Create personal sequence for goal scoring.

### Visual/Spatial

Remembering	Understanding	Applying	Analysing	Evaluating	Creating
Recall sight words. Draw	List the characteristics of	Play flashcards games. Draw	Match spelling words with	Evaluate the usefulness of	Make a cartoon that tells a story.

<p>shapes of letters in the air. Remember where visual clues are found. Recall the signs in the community.</p>	<p>each letter. Note where the join is. Break words into syllables then blend back together. What do community signs tell us? What do we know about other languages? Are they written the same as ours?</p>	<p>shapes of spellings. Play spelling games on blackboard Do word finds. . Sequence pictures into stories. Find pictures to match spelling words or theme Investigate genre wheels. What signs can be made by students that carry a universal message. Is our writing the same as other cultures, ancient writing. (include the Japanese teacher) Make flappers.</p>	<p>shapes. Tell a story from pictures. What happens when the letters in a word are changed at the beginning, middle or the end. Read stories through the illustrations. Complete learn and grow sheets. Make and complete before, middle and after from the accompanying questions and answers. What are the keys to my success?</p>	<p>visual clues for each person. Give reasons. Evaluate the usefulness of the goals scored display. Give reasons for responses. Why do my keys to success differ to some others/ are similar to some others? Why do my keys to success work for me? Give three reasons.</p>	<p>Make a find a word. Illustrate a story, procedure or other text type. Create genre wheels. Make a resource hand. Draw yourself in the process of achieving your goal. Draw yourself when you have achieved a goal. Make a business card for yourself promoting your relative strengths. Create a Japanese label.</p>
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**Bodily/Kinaesthetic**

Remembering	Understanding	Applying	Analysing	Evaluating	Creating
<p>Remember your favourite activity. Recall all the spelling games and word games you know. Recall who likes team games, individual sports/.dance and who enjoys all or none of these.</p>	<p>Discuss different roles in baking activity, other activities or team games. Discuss using strengths positively. Brainstorm ways in which strengths could be used whilst doing English activities that are difficult to be interested in.</p>	<p>Skip spelling, call spelling whilst kicking a ball against a wall, throwing and catching a beanbag etc. Practice cross-lateral exercises, kinaesthetic exercises. Play spelling games. Role play stories. Make biscuits. Play quickdraw. Play champs ball game. Play ID game for various people in story, words etc.</p>	<p>What given characters might behave like, how they might do and say things. How do you learn new games/ physical activities? What are the bodily characteristics of good presenters? What happens when I do things to learn?</p>	<p>Which activities you enjoy the most. Give reasons Are the activities you enjoy the ones that help you learn best? Evaluate yourself as a presenter using agreed criteria. What are the differences when I do things to learn? Complete questionnaire. I am happier doing my English homework Y/N I have learnt to read and spell more new words Y/N This is fun Y/N I am learning better Y/N</p>	<p>Make a board game about spelling, text types, grammar, Other areas of interest. Create a mime depicting spelling words. Make a dance routine for the spelling words. Use your physical skills to help in the English area. Create any games to help you learn better. Create mini games with rules and instructions, role descriptions for each player. Play it.</p>

**Musical/Rhythmical**

Remembering	Understanding	Applying	Analysing	Evaluating	Creating
<p>Recall clapping and singing rhymes. Indicate favourite songs. Recall favourite nursery rhyme and where you learnt it. Recall any songs about champions you</p>	<p>Chant the spelling words. Clap out the Syllables in the words. Do cross laterals etc to suitable music. Play champion songs.</p>	<p>Sing the spellings. Sing the sentences made from spelling words. Clap out the pattern in word families. Sing as you work. Replace a word in a favourite song</p>	<p>Select music that is suitable for exercises, reflection time, quiet reading time etc . Choose percussion music to indicate the various sequences in text types.</p>	<p>Why does the chosen music suit or not suit the purpose, give reasons. Which music suits you best when you are happy, tired, cross, sad etc. Give reasons. Evaluate</p>	<p>Create a rap, song or Rhyme for some of the spelling words, text type characteristics, grammatical terms. Create sound offs for spelling rules,</p>

have heard.		with a word that rhymes. Sing along so it fits into the song. Substitute spellings for words in popular song. Sing champion songs.	Identify tempo that suits the spelling words each week. Identify feelings associated with different types of music. Write how to substitute spelling words for song words.	the groups' favourite music using criteria to do with feelings. Validate choices. Evaluate the procedures for substitutions on a score of 1-5, depending on clarity and accuracy. How much easier is it to learn if there is a music activity? Score 0-5. Give reasons.	stories, and different text types. Create a song list For each group of spellings, so that everyone can make some substitutions.
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**Interpersonal**

Remembering	Understanding	Applying	Analysing	Evaluating	Creating
Recall working together in groups, classes, families, teams, dance troupes etc. Remember the names of the children you played with, liked or disliked at preschool, in your street, at kinder-garten or in Stage One.	Investigate how each group stays together, what do they do together? How do people help each other? What is not helpful to group harmony.	Make groups for a variety of activities. Allow lots of partner work. Set up groups with badges that have role definitions on them. Change roles in the group regularly. Use listening triangles, inside outside circles for discussion. Use talking chips for groups. Make classroom yellow pages. Play English games in teams. Do tag reading. Write a group story. Set up co-operative groupings. Assign roles in groups that rotate so each student has a turn at each responsibility.	Identify the characteristics of successful groups. Nominate behaviours that detract from group cohesiveness and productivity. Find commonalities and differences in the groups. What makes differences good, important, useful in groups? What do you notice now about other that you hadn't noticed previously in their appearance or in their strengths? Share in circle time.	Evaluate group performances give reasons for the statements. Use sets of criteria specific to each group activity and score from 1-5 according to performance of group. Criteria should be negotiated with students so they are fully understood.	Create own criteria for group evaluation. Make a group mat. Make three group rules. Create a group badge, logo or cartoon. Make a TEAM poster for your group. Create a goal to achieve for someone else. (another class, mission effort etc.)

**Intrapersonal**

Remembering	Understanding	Applying	Analysing	Evaluating	Creating
Recall favourite times at school, home, with families, friends, alone. What skills and talents have you developed over the years? Who looked after you	What were you doing during favourite times? What were others doing? Why was it a favourite time? Who helped you develop these skills and talents? What chores do	Make comment letter for each child. Make a diary. Conduct a person search to find out who likes, dislikes the same things as you. Find some in the same birth month and	Make a list of commonalities and differences between yourself and one or two friends. Write several I can ... statements. Complete I learn best when .....	Evaluate own work habits, goals and strategies on several criteria. Evaluate the classroom interaction and make suggestions for variations in environment,	Create personal development chart. 0-7yrs Create own work schedule from the weekly homework. Create personal learning goals and strategies.

before you could do things for yourself?	you have at home? Why are you able to do the chores?	compare colouring, height, physical characteristics. Make Who am I? Leave room underneath for others to guess and write who they think it is. Learn guided imagery. Have silent reflection time. Answer MI questionnaire. Record goals achieved on display. Record own progress on Steps to Success chart. Write/say what being organized means for you? How are things organized in each household?	statement. Select the best ways to learn spellings and spelling rules. Identify own strengths and weaknesses and, make MI profiles. Identify Learning preferences. Complete I learnt to ..... because... for each skill. Make a personal strengths list. Name emotions. Do I know what causes me to feel that emotion?	content and delivery of lessons. Evaluate own work on given criteria, proof read and check written work. Do spelling tests. Evaluate own organizational skills at home, at school, in the morning, after school. Use agreed criteria after brainstorming. Will being organized help me learn better? Validate yes or no answers with reasons. Do my personal strengths help me become a better learner? Give reasons.	Write reflections in Learning Log. Make a personal logo, homework sheet. Make a champ scroll. Devise a personal plan to enable you to become a better learner.
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**Naturalist**

Remembering	Understanding	Applying	Analysing	Evaluating	Creating
Recall what happens in nature in the morning and in the afternoon / evening. Do regular things happen at your home at these times?	What do birds/ animals, plants, reptiles and all of nature do as the seasons begin to change? How do they cope? Do they just do the same things irrespective of the season, weather, habitat etc? How do we organize ourselves in order to cope with different weather, seasons, situations?	Make a seasons chart. Include a picture of an activity that birds, plants and people do at that time of year. Make a series of landscapes and arrange in the order of the seasons, starting with the current season. Put yourself and your family in the landscapes doing something that the reflects the changes in seasonal conditions.	How does nature organize herself in order to survive, sustain the species and respond to the seasonal changes? Make a list of statements. What would happen if nature did not do this? Is there a lesson for us about being prepared for changes in order to survive comfortably. Give examples. Determine a good place for a class photo to be taken outside. Give reasons. How does your family respond to changes in seasons, places or people? How do you get organized for changes in seasons, places or people? Create a personal list of things you could organize better by	Evaluate nature's strategies to survive comfortably with changes. Rate 1-5, give reasons. Evaluate own strategies in responses to changes you have to make everyday. How organized are you? Rate 1-5 and give reasons and examples. Does looking at how the natural world prepares and organizes itself for changing conditions help you understand the process of being prepared and organized? How?	Create a wish list of things you wish to get organized straight away, soon, before the end of term, before the end of the year, before your next birthday. Create a personal timetable of what you need to do when you wake up, before you set out for school, ect. Make a list of how you get organized for hot weather, cooler weather, different conditions and places.

			<p>yourself, a list of those you could organize better with help and a list of those things that are very difficult for you to organize.</p> <p>Nominate the time of day that you felt best able to organize yourself.</p> <p>Give examples of times when you are not able to organize yourself well. Why is this so?</p>	
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## Appendix 2

### Student interview questions

- Q1. What would help you learn better in ..... class? If you could wish for something to make you a better learner, what would it be?
- Q2. Which activities do you like best? Do they help you learn easier? What stops you learning well?
- Q3. What is the area you are best at? Can you use this to help you with your English work?
- Q4. Do you write in your learning log? Do you like that? What sorts of things do you write?
- Q5. Have you achieved any goals? How did you do it?

## Appendix 3

### Teacher interview sheet (to be completed for each student)

- Q1. Has ..... improved in defining learning goals in English?
- Q2. Has ..... been able to demonstrate better skills in articulating how they can achieve own goals in English?
- Q3. Has ..... been able to demonstrate better skills at starting work promptly, staying on task, persevering when the task is difficult and completing tasks?
- Q4. Has ..... developed a better understanding of his/her own relative learning strengths and limitations?

## Appendix 4

### Criteria for teachers to use to rate students in teacher interview

#### Q1.

**Rating 1.** Needs teacher to help define ideas and write as a goal. This rating was recorded for students who could not independently formulate their goals. These students needed prompting to set a new goal and also needed help completing each section on The SMART Goal Contract.

**Rating 2.** Beginning to define ideas and set goals independently. Students who did not require



prompting to set a new goal or assistance in deciding the general area in which they wanted to achieve, but could not complete the goal-setting process on The SMART Goal Contract independently. These students had difficulties making their goals specific and needed assistance in not more than two other sections of The SMART Goal Contract.

**Rating 3.** Has well defined ideas but needs support in formulating these on The Smart Goal Contract. Students who demonstrated independence in determining their own goals, learning strategies and time frames but were not able to make the goals specific enough without teacher assistance were recorded as rating 3 points.

**Rating 4.** Independently formulates goals and monitors progress. The students who were able to complete The SMART Goal Contract independently, needed no prompting to set new goals and kept their own informal or formal records of their progress were rated in this category.

## Q2.

**Rating 1.** Not able to plan strategies independently, not able to determine or discuss which strategies work without reviewing previous goals and identifying strategies in conference with the teacher.

**Rating 2.** Beginning to articulate own ideas and strategies. These students could identify strategies that had worked in the past but were unable to identify how these could apply to new goals without conferencing with the teacher.

**Rating 3.** Has own definite ideas, needs support in organization. These students knew about own strategies and how they could be used to achieve their goals, but were not able to consistently plan and assess strategies independently.

**Rating 4.** Can plan independently, articulate strategies and monitor own progress by assessing the efficiency and effectiveness of the strategies. These students were able to consistently demonstrate these skills.

**Rating 5.** Articulates clearly, independently plans, monitors strategies, consistently plans ahead. (latter was to be evidenced in who displayed any of the following capacities: planned two goals to work towards simultaneously, planned the strategies and goals for the future, that is, before the completion of the current goal, anticipated which skills would be required to achieve in the future in English.)

## Q3.

**Rating 1.** Not able to plan strategies independently, not able to determine or discuss which strategies work without reviewing previous goals and identifying strategies in conference with the teacher.

**Rating 2.** Beginning to articulate own ideas and strategies. These students could identify strategies that had worked in the past but were unable to identify how these could apply to new goals without conferencing with the teacher.

**Rating 3.** Has own definite ideas, needs support in organization. These students knew about own strategies and how they could be used to achieve their goals, but were not able to consistently plan and assess strategies independently.

**Rating 4.** Can plan independently, articulate strategies and monitor own progress by assessing the efficiency and effectiveness of the strategies. These students were able to consistently demonstrate these skills.

**Rating 5.** Articulates clearly, independently plans, monitors strategies, consistently plans ahead. (latter was to be evidenced in who displayed any of the following capacities: planned two goals to

work towards simultaneously, planned the strategies and goals for the future, that is, before the completion of the current goal, anticipated which skills would be required to achieve in the future in English.)

#### **Q4.**

**Rating 1.** The students who consistently need outside intervention to assist them in settling to work on given tasks and who had to be consistently reminded of the strategies that they had nominated as facilitating learning for them.

**Rating 2.** Students who are beginning to take responsibility for starting promptly, negotiating more successful working conditions on occasion and showing more responsibility for facilitating their own learning by using their strategies in the English classroom. These students were not able to demonstrate these skills consistently and intermittent intervention from teachers was necessary.

**Rating 3.** Students who need support occasionally. These students were able to regularly negotiate the learning environment in order to develop their strategies and consistently attempted to use their nominated strategies where appropriate. These students made good progress in identifying the conditions that impacted negatively on their learning.

**Rating 4.** Students who consistently use the successful strategies they had identified to facilitate their own learning and negotiated the learning environment to enhance their potential to become more successful learners. These students were able to do this independently.

**Rating 5.** who demonstrate the skills described in Rating 4 but in addition, organize themselves by thinking and planning ahead and showing initiative in their negotiations for future learning in the English classroom.

## **Appendix 5**

### **Criteria used to assess the reflective journal entries**

**Rating 0.** Entries that contained one or two word answers to the starter/support questions. For example, yes, no, sometimes, don't know.

**Rating 1.** More expansive answers to the starter questions. These were the student responses that did contain information but were still responses made to the starter questions. The other response that rated only one was that which merely described what occurred in class. For example, Today I learnt about verbs. In response to the question "Did you learn anything new today?"

**Rating 2.** Own responses, that is responses not prompted by the starter questions, that included some indication of 'feelings towards lessons, activities, their own performance etc. For example, I liked writing procedures.

**Rating 3.** Own responses, that is responses not prompted by the starter questions, that included definite learning preferences. These were responses that students made that gave some information regarding the types of activities that they preferred to do as learning activities. For example, I like doing the activities where we have to have a partner and we do things together.

**Rating 4.** Entries made that contained some evaluative comment and were not in response to the starter questions. For example, The spelling games are very good. They help me remember my spellings.

**Rating 5.** Any entries not made in response to the starter questions and that contained specific comments regarding self knowledge. For example, The work was hard for me today. I am not good

at those sort of questions.

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