



FINAL REPORT
TO THE PAUL RAMSAY
FOUNDATION

BUILDING CAPACITY FOR
QUALITY TEACHING IN
AUSTRALIAN SCHOOLS
2018 – 2023

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The project also would not have been possible without our funding bodies, the Paul Ramsay Foundation, the NSW Department of Education, and the University of Newcastle, and our colleagues at each organisation. Special thanks to John Bush for his unwavering support, helpful advice, high expectations, and good humour. We are deeply humbled by the major investment and belief in us to undertake this ambitious project.

We also acknowledge the extraordinary effort and commitment of our entire research centre staff, as well as the large group of casual research assistants, service providers, and other key experts engaged during the project. A team effort like no other.

The Teachers and Teaching Research Centre

The *Building Capacity for Quality Teaching in Australian Schools* project was conducted by the Teachers and Teaching Research Centre (TTRC). Established in 2013, the TTRC is led by Laureate Professor Jenny Gore and sits within the School of Education at the University of Newcastle. The TTRC is an Australian leader in high-quality, impactful educational research into quality teaching, teacher professional development, school change, leadership, student aspirations, equity, initial teacher education, and STEM education.

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Executive summary

Building Capacity for Quality Teaching in Australian Schools, 2018–2023, remains unprecedented in the Australian education research landscape for its investment, scope, and ambition. It was generously supported by a \$17.2M philanthropic grant from the Paul Ramsay Foundation as well as cash and/or in-kind support from the NSW Department of Education, the Australian Research Council, and the University of Newcastle.

Through three interrelated activities – research, scaling, and setting up a sustainable business model – we set out to comprehensively explore what the ‘Quality Teaching Rounds’ (QTR) approach to teacher professional development could do for schooling in Australia.

Research

The program of research, including a series of randomised controlled trials and other research methodologies, determined that participation in QTR had significant positive effects on:

- primary student achievement in mathematics and reading,
- teaching quality, and
- teacher morale and efficacy.

QTR was shown to be applicable in a broad range of schools and alternative settings and was highly valued by teachers, regardless of their subject area, teaching context, or years of experience.

Scaling

Almost 4,500 teachers from 1,300 Australian schools participated in QTR during the five-year life of the project, attesting to its scalability. Importantly, teachers in small, rural, and remote schools were able to access the program through our development of QTR Digital, a fully online version of QTR. The establishment of our non-profit social enterprise, the QT Academy, also contributed greatly to our national reach and impact.

Social enterprise

The QT Academy is a rare example of research commercialisation in the social sciences. It fulfils five key functions – delivery of high-impact professional development, translation of research into practice, review and reporting services, advocacy for the teaching profession, and connecting a community of like-minded educators. Through the QT Academy, the QTR initiative will continue to support teachers and improve educational outcomes at scale.

Key lessons

In this report, we also outline the project’s wider impact on schooling and school systems, society and policy, and the field of research. We also share important lessons for researchers, philanthropic organisations, other funding bodies, education departments, and government policymakers who seek to have the kind of impact in education that the *Building Capacity* project achieved. These lessons include:

- the importance of nurturing and developing a team,
- the flexibility required in navigating multi-party projects,
- the necessary adaptability when working with schools,
- the support required to conduct RCTs in education, and the way research commercialisation can facilitate sustainability.

As one initiative with broad impact, QTR is uniquely positioned to address some of the thorniest challenges facing education including lifting student outcomes, ameliorating enduring equity gaps, raising the status of the teaching profession, strengthening initial teacher education, and improving teacher retention.

The *Building Capacity* project stands as a testament to the difference education can make. It was only possible because of the vision, belief, and dedication of each of the project partners, the hundreds of people involved in bringing it to fruition, and the thousands of supportive teachers and school leaders who shared their professional expertise with each other through the rounds process.

Final report

Building Capacity for Quality Teaching in Australian Schools, 2018–2023, set out to comprehensively explore what the ‘Quality Teaching Rounds’ (QTR) approach to teacher professional development could do for schooling in Australia. The focus was improving teaching through QTR to improve student outcomes, including greater equity. This broad goal was in line with the Paul Ramsay Foundation’s commitment to investing in partnerships with clear potential for social impact that is scalable and sustainable.

This report summarises the five-year project, including findings and impact, and elaborates key insights gleaned from undertaking such an ambitious body of work of a scope that remains unprecedented in Australian education.

Quality Teaching Rounds

Quality Teaching Rounds (QTR) is an approach to teacher professional development that uses the Quality Teaching (QT) Model (Table 1) to focus attention on the quality of pedagogy. It brings teachers together to observe, analyse, and refine their everyday teaching practice. In small groups (usually comprised of four teachers), known as professional learning communities (PLCs), teachers work through the four-step process depicted in Figure 1:



Figure 1. Quality Teaching Rounds process

Completing the four steps of the QTR process constitutes a “round.” Completing a “set of rounds” means the process is repeated on separate days, usually spread over a month or a school term, until each member of the PLC has taught an observed lesson. Participants are asked to focus on the *teaching* rather than the *teacher* and use the codes as a means to rich professional conversations rather than as an end in themselves. These principles are designed to create a psychologically safe environment for teachers to engage in critical collaborative analysis of practice.

The QT Model is comprised of three dimensions of quality teaching (see Figure 2), derived from decades of research on pedagogy that makes a significant difference to student learning:

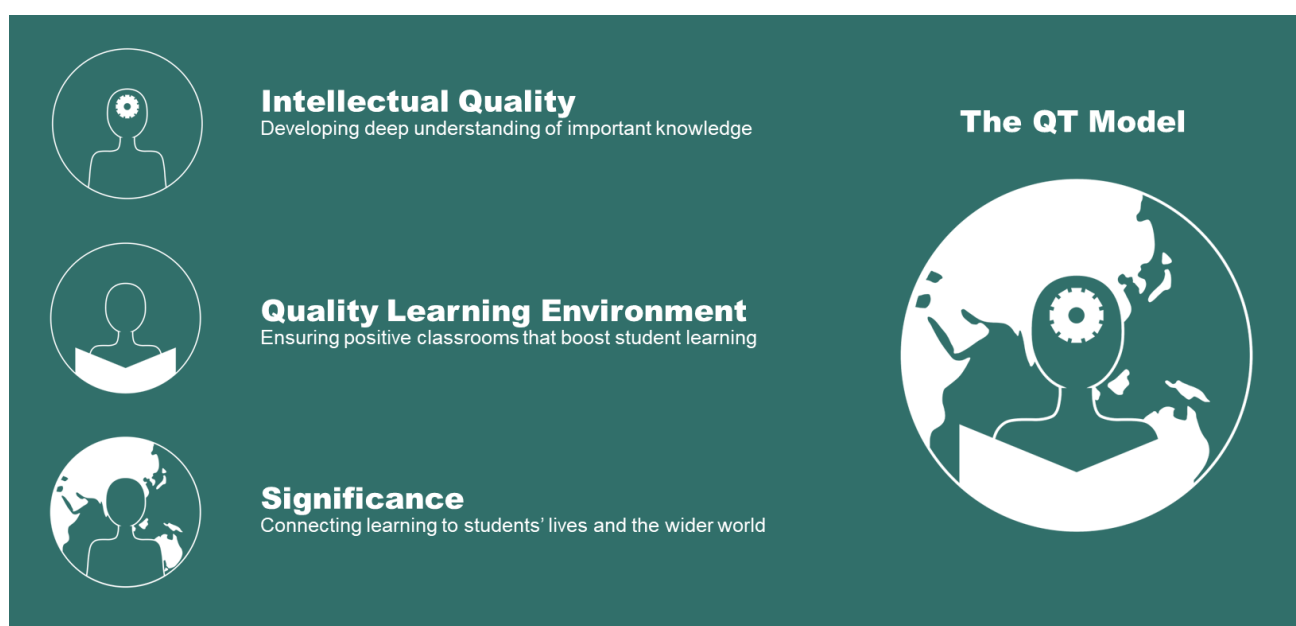


Figure 2. The three dimensions of the QT Model

Each dimension of the QT Model includes six elements of teaching practice as detailed in Table 1. These are elaborated in the *QT: Classroom Practice Guide* (NSW Department of Education, 2022) via descriptions, notes, suggestions, and a coding scale.

Table 1. Quality Teaching Model

Intellectual Quality	Quality Learning Environment	Significance
Deep Knowledge	Explicit Quality Criteria	Background Knowledge
Deep Understanding	Engagement	Cultural Knowledge
Problematic Knowledge	High Expectations	Knowledge Integration
Higher-order Thinking	Social Support	Inclusivity
Metalanguage	Students' Self-regulation	Connectedness
Substantive Communication	Student Direction	Narrative

The *Building Capacity* project was preceded by 15 years of systematic research, development, and evaluation of the QT Model and the QTR process. The QT Model was developed in 2003, building on the foundations of Authentic Pedagogy (Newmann et al., 1997), Productive Pedagogy (Gore, 2007; Gore et al., 2004; Lingard et al., 2001; Mills et al., 2009), and extensive literature on effective

pedagogical practice (Ladwig & King, 2003). Following an evaluation of teaching quality in NSW public schools (2004–07) using the QT Model (Gore et al., 2008), the QTR process was developed as a potentially powerful way to engage teachers with the Model, drawing on extant literature on effective professional development (Bowe & Gore, 2017).

QTR has since been subjected to a range of studies designed to refine the approach, identify its underlying mechanisms and essential features, and support its sustainability in diverse school settings. These studies adopted a variety of methodological approaches – including randomised controlled trials, longitudinal analysis, case studies, and other qualitative analyses – and a range of theoretical perspectives, including:

- Implementation science (e.g., Proctor et al., 2011)
- Theories of social justice (e.g., Fraser, 2007)
- Practice architectures (e.g., Kemmis & Grootenboer, 2008)
- Bronfenbrenner’s bioecological model (e.g., Bronfenbrenner & Morris, 2007)
- Critical discourse analysis (e.g., Gee, 2004)
- Pedagogic discourse and schooling message systems (e.g., Bernstein, 1990)
- Power-knowledge (e.g., Foucault, 2020)
- Conversation analysis (e.g., Hutchby & Wooffit, 2008), and
- Social capital (e.g., Bourdieu, 1986).

The Building Capacity project

The *Building Capacity* project was funded by the Paul Ramsay Foundation (PRF) and supported by the NSW Department of Education (DOE), the University of Newcastle (UON), and an Australian Research Council (ARC) grant. The \$17.2M¹ philanthropic investment made by the PRF was, and remains, unrivalled in Australian education.

Underpinning the investment were:

- a previous randomised controlled trial (RCT) (2014–15) demonstrating the positive effects of QTR on teachers and teaching;
- the conceptual strength and methodological breadth of the project team, including experience in the conduct of RCTs;
- the commitment of the NSW DOE to the QT Model and QTR, including substantial prior financial investment;
- shared values and goals among the three parties centred on improving excellence and equity in schooling; and
- the strong track records of the project leaders and other staff in the TTRC in successfully conducting large-scale, high-impact projects.

We designed the project with three intersecting activities:

1. Scaling QTR within Australia;
2. Undertaking an extensive program of research on QTR; and
3. Establishing a suitable business model to ensure sustainability of QTR.

¹ The total value of cash and in-kind funding for this program of work was \$35.2M, comprised of \$17.2M from PRF, \$11.8M from DOE, \$5.6M from UON, and \$600K from the ARC.

1. Scaling QTR. The scaling arm of the project set ambitious targets for widescale uptake of QTR in Australian schools. Engagement was strong in NSW, with 3,641 teachers from 1,060 schools participating in QTR workshops over the five-year life of the project. Engagement grew elsewhere, with 340 Queensland and 332 Victorian teachers participating in workshops, together with teachers from each of the other mainland states and territories, and teachers from six other countries (Jordan, Ireland, Vanuatu, Indonesia, Albania, and Sweden) during the project period. Major challenges to greater expansion included: the COVID pandemic and its ongoing disruption to schooling; the current shortage of teachers and associated relative scarcity of available casual relief teachers; and the crowded professional development market in education.

2. The research program. The comprehensive research program involved four RCTs investigating the impact of QTR on student achievement: a four-arm trial in NSW; a two-arm trial in NSW of a fully online approach, QTR Digital, designed to cater for teachers in small, rural, and remote schools; and, independently conducted replication trials in both Queensland and Victoria. The four RCTs effectively became six due to recruitment challenges and the disruption to schooling caused by COVID, necessitating split cohorts in NSW and Queensland, and resulting in an underpowered trial in Victoria.

Qualitative data were gathered throughout, via interviews, focus groups, and case studies. Longitudinal analysis was also undertaken using quantitative data from ongoing surveys of participating teachers and school leaders.

In the final two years of the project, we tested proof-of-concept for a partnership model involving whole school engagement in QTR, supported by our team, with the aim of school-level improvement. A comprehensive overview of each study is provided in Table 2.

Such programmatic, intervention-based research is extremely unusual in the Australian education research context. It produced an unparalleled body of evidence, including compelling findings of positive effects of QTR for teachers and students.

3. Establishing a business model. From the outset, it was important to the project partners that access to QTR professional development would be sustained beyond the life of the project. PRF funding enabled the launch of our not-for-profit social enterprise, the Quality Teaching (QT) Academy, in October 2020. The QT Academy fulfils five key functions – delivery of high-impact professional development, translation of research into practice, review and reporting services, advocacy for the teaching profession, and connecting a community of like-minded educators.

This social enterprise is a rare example of research commercialisation in the social sciences, drawing on multiple revenue streams, including government and philanthropic sources, membership, and participant registration in professional development events. Adopting this mixed funding model will ensure the financial sustainability of the QT Academy until at least the end of 2026, while new projects and partnerships in the pipeline are set to support ongoing sustainability.



Designing a series of studies aimed at producing high quality evidence for QTR was an exciting, yet daunting task. I'm happy to say we had a real crack at it and did all we could, with every decision we made, to contribute high quality evidence to our field.

Dr Drew Miller, Deputy Director & Quantitative Lead

Table 2. *Building Capacity* research program overview, in chronological order

	PROJECT	DESIGN	SAMPLE & DATA	RESULTS
2018	A developmental evaluation of the approach to training QTR Advisers	Evaluation of the approach to training QTR Advisers, their capacity to conduct QTR workshops for teachers, and the subsequent fidelity of implementation in participating schools	24 teachers from 8 schools, involving: <ul style="list-style-type: none"> • 8 school visits • 15 workshop evaluation surveys • 3 teacher focus groups • 15 QTR Adviser interviews • 8 researcher fidelity checks • 25 self-reported fidelity checks 	The approach to QTR Adviser preparation was found to be effective with positive evaluations from QTR Advisers and workshop participants, and high implementation fidelity in participating schools.
2018	A developmental evaluation of a digital (entirely online) approach of QTR	Evaluation of the viability and effectiveness of QTR Digital for participating teachers	16 teachers from 16 schools, involving: <ul style="list-style-type: none"> • 17 teacher interviews • 3 teacher focus groups 	The digital approach, which involved online delivery of the workshop and online conduct of Rounds, was found to be effective and viable.
2019–2021	An RCT on the impact of QTR on student and teacher outcomes in NSW	Four-arm RCT involving: <ul style="list-style-type: none"> • Intervention group (with researcher-led workshop) • Intervention group (with Adviser-led workshop) • Waitlist active control group (with peer observation workshop) • Waitlist passive control group (PD as usual) 	Cohort 1 (2019): 497 teachers and approximately 5,480 students from 133 schools, involving: <ul style="list-style-type: none"> • 344 school visits • 757 lesson observations • 30,827 student tests (mathematics, reading, science) • 7,786 student surveys • 1,635 teacher surveys • 49 teacher interviews • 34 school leader interviews • 94 researcher fidelity checks • 347 self-reported fidelity checks 	The RCT found: 2 months' additional growth in mathematics for students in Years 3–4 (in the researcher-led group); statistically significant improvements in teaching quality and teacher morale; and overwhelmingly positive teacher perceptions of QTR as indicated by the qualitative data.
			Cohort 2 (2021): 320 teachers and approximately 3,640 students from 83 schools, involving: <ul style="list-style-type: none"> • 177 school visits • 282 lesson observations (baseline only due to COVID) • 20,313 student tests (mathematics and reading) • 5,659 student surveys • 892 teacher surveys 	No statistically significant differences were found between the QTR groups and control groups. Teacher perceptions of QTR were overwhelmingly positive as indicated by the qualitative data.

	PROJECT	DESIGN	SAMPLE & DATA	RESULTS
			<ul style="list-style-type: none"> 10 teacher interviews 7 school leader interviews 57 researcher fidelity checks 266 self-reported fidelity checks 	
2020	A pilot study of the applicability of QTR in Queensland	Pilot study evaluating teacher responses to QTR and their views on the alignment of QTR with local policies and practices.	41 teachers from 10 schools, involving: <ul style="list-style-type: none"> 10 school visits 80 teacher surveys 10 teacher interviews 10 teacher focus groups 10 school leader interviews 10 researcher fidelity checks 40 self-reported fidelity checks 	The translatability of QTR was established, with high fidelity, in an educational jurisdiction with limited prior engagement in QTR.
2021	An RCT on the impact of QTR Digital on teacher and student outcomes	Two-arm RCT involving: <ul style="list-style-type: none"> Intervention group (with online Adviser-led workshop and PLCs formed across schools to conduct Rounds fully online) Waitlist passive control group (PD as usual) 	127 teachers and approximately 1,580 students from 76 schools, involving: <ul style="list-style-type: none"> 230 video-recorded lesson observations 4,746 student tests (mathematics and reading) 207 teacher surveys 35 teacher interviews 8 school leader interviews 19 researcher video-recorded fidelity checks 	This RCT found: 2 months' additional growth in reading for students in Years 3–6; statistically significant improvement in teaching quality and teacher efficacy; and overwhelmingly positive teacher perceptions of QTR Digital.
2019–2023	Longitudinal analysis of the implementation and sustainability of QTR	Ongoing longitudinal analysis involving data linkage with the NSW Department of Education, six-monthly teacher surveys, and annual school survey	Teacher level: 1,824 teachers from 674 schools, involving: <ul style="list-style-type: none"> 2,430 teacher surveys (to date) School level: 176 schools, involving: <ul style="list-style-type: none"> 212 QTR Liaison Officer surveys (to date) 	Teacher wellbeing decreased and intention to leave increased across the study period due to COVID and teacher shortages which made it difficult to distinguish the impact of QTR.

	PROJECT	DESIGN	SAMPLE & DATA	RESULTS
2021–2022	An independent RCT on the impact of QTR on teacher and student outcomes in QLD conducted by the Institute for Social Science Research at the University of Queensland	An independently run two-arm RCT involving: <ul style="list-style-type: none"> Intervention group (with online and face-to-face Adviser-led workshops) Waitlist passive control group (PD as usual) 	Cohort 1 (2021): 202 teachers and approximately 2,050 students from 58 schools, involving: <ul style="list-style-type: none"> 25 school visits 7,700 student tests (mathematics and reading) 3,751 student surveys 684 teacher surveys 25 researcher fidelity checks 	No statistically significant differences were found between the QTR group and control group.
			Cohort 2 (2022): 106 teachers and approximately 1,500 students from 42 schools, involving: <ul style="list-style-type: none"> 6 school visits 2,361 student tests (mathematics and reading) 968 student surveys 398 teacher surveys 16 researcher fidelity checks (10 online) 	This RCT found 3 months' additional growth in reading for students in Years 5 and 6.
2021	A pilot study of the applicability of QTR in Victoria	Pilot study evaluating teacher responses to QTR and their views on the alignment of QTR with local policies and practices.	40 teachers from 10 schools, involving: <ul style="list-style-type: none"> 3 school visits 72 teacher surveys 8 teacher interviews 8 teacher focus groups 9 school leader interviews 9 researcher fidelity checks (6 online) 32 self-reported fidelity checks 	The translatability of QTR was established, with high fidelity, in another educational jurisdiction with limited prior engagement in QTR.
2022	An independent RCT on the impact of QTR on teacher and student outcomes in VIC conducted by the Australian Council for Educational Research	An independently run two-arm RCT involving: <ul style="list-style-type: none"> Intervention group (with face-to-face Adviser-led workshops) Waitlist passive control group (PD as usual) 	147 teachers and approximately 310 students from 39 schools, involving: <ul style="list-style-type: none"> 7 school visits 1,776 student tests (maths and reading) 317 student surveys 460 teacher surveys 7 researcher fidelity checks 31 self-reported fidelity checks 	No statistically significant differences were found between the QTR group and control group (the sample was under-powered).

	PROJECT	DESIGN	SAMPLE & DATA	RESULTS
2022–2023	An evaluation of partnership models to support QTR implementation in Hunter region schools servicing communities experiencing disadvantage	A pilot study evaluating the effectiveness and scalability of different supports for the implementation of QTR in low-ICSEA schools	89 teachers from 10 schools, involving: <ul style="list-style-type: none"> • 46 school visits • 171 lesson observations • 1,094 teacher surveys • 19 teacher interviews • 26 school leader interviews • 17 QTRLO interviews • 4 QTR Adviser interviews 	The partnerships supported schools to engage with and embed QTR. QTR was sustained in the second year when most supports were withdrawn.
2023	An evaluation of sustainable forms of QTR support in partnership with NSW schools serving communities experiencing disadvantage	A study evaluating the effectiveness of different levels of support for the implementation of QTR in low-ICSEA schools	67 teachers from 20 schools, involving: <ul style="list-style-type: none"> • 602 teacher surveys • 13 teacher interviews • 23 school leader interviews • 14 QTRLO interviews • 4 QTR Adviser interviews 	Both half-day and full-day online support for the conduct of Rounds was valued by teachers. The half-day model is more scalable.
2019–2023	Case studies of the effects, implementation, and sustainability of QTR in diverse school contexts	Case studies of diverse schools examining how schools implemented QTR and teacher and school leader perceptions of its impact	108 teachers from 15 schools, involving: <ul style="list-style-type: none"> • 15 school visits • 117 teacher surveys • 108 teacher interviews • 11 school leader interviews • 14 Rounds observations 	Adaptations had varying effects, from successful refinement to lethal mutation. While the fidelity of QTR was retained in many, if not most, adaptations, when the integrity of the intervention was lost or weakened, teacher learning was compromised.

Major findings

Investigating the impact of QTR on teacher and student outcomes over a five-year period generated many findings, as elaborated in 48 academic publications and reports (see [Appendix A](#)) and summarised below. In total, this research involved more than 450 schools, 2,000 teachers, and tens of thousands of Australian students.

QTR had significant positive effects

In conducting this program of research, we maintained exceptionally high standards. While many RCTs in education report positive effects, we only report results that were statistically significant, meaning some positive results achieved are not reported here. We strictly adhered to conventions for the design and conduct of RCTs, commissioned independent trials, and welcomed oversight by the RAND Corporation. Publications were submitted to top-tier peer-reviewed journals and were also reviewed by the NSW Centre for Educational Statistics and Evaluation.

This research produced robust evidence of significant positive effects associated with participation in QTR on teaching quality, teacher morale, teacher efficacy, and school culture. These positive effects for teachers signal the potential of QTR to intervene in the current teacher shortage and unprecedented levels of teacher burnout and attrition.

Most importantly, three of the RCTs produced robust evidence of positive effects on student achievement using ACER's progressive achievement tests (PATs). The magnitude of additional growth was two to three months² compared with the relevant control group, between Terms 1 and 4 of the school year (Gore et al., 2021; Harris et al., 2022; Povey et al., 2023), and the effects were slightly greater in low-ICSEA schools. Across the RCTs positive effects on student achievement were found in:

- two subjects (maths and reading)
- two stages (Years 3–4 and Years 5–6)
- two states (NSW and Queensland)
- two modes (face-to-face and fully online PD), and
- an independent trial conducted by the University of Queensland.

What makes these results exceptional is that they were achieved following participation of just two teachers per school in a two-day QTR workshop and just four days of in-school Rounds (in PLCs of four teachers), with no further external input. Positive effects were also achieved in trials where the workshops were conducted by either researchers or our 'trained' QTR Advisers, signalling the scalability of QTR.

No other intervention has been so thoroughly tested in Australian schools using experimental methods or amassed such a comprehensive body of rigorous evidence. Moreover, establishing positive effects of professional development on standardised measures of student achievement is rare on the global stage, especially for an approach focused on pedagogy rather than specific teaching skills or subject matter.

² Months of additional growth were calculated using conventions adopted by the Education Endowment Foundation (EEF) in the UK and Social Ventures Australia (SVA).

Three of the six RCTs did not produce statistically significant results and not all outcomes tested at each time point were significant. Such mixed results are common in education given the complexity of research in schools. Indeed, an analysis of large-scale education RCTs in the US and UK found only one quarter of trials produced a statistically significant result (Lortie-Forgues & Inglis, 2019).

Achieving significant results in *multiple* trials is especially rare and even more remarkable considering the challenges posed by the COVID-19 pandemic.

Importantly, these results were amplified through the qualitative insights of teachers and principals gathered throughout the project. These rich qualitative data enabled a deeper understanding of how, why, and under what conditions QTR is effective. Almost universally, participants spoke positively about their experiences of QTR, which they saw as:

- providing important processes for discussing pedagogy with clarity and precision, and generating rich, evidence-based conversations about practice;
- creating new kinds of professional relationships with colleagues, which helped to combat feelings of professional isolation and boosted morale;
- affirming the knowledge, experience, and expertise of teachers rather than relying on external ‘experts’; and,

- being relevant to all teachers, regardless of their years of experience, specialisation, or role within the school.

Teachers and leaders felt these benefits enhanced not only their practice and their students’ learning, but the profession more broadly.

For my students, I've already seen so many improvements in their confidence and in the quality of the work that they're producing.

Joanie, teacher, metropolitan primary school

It's increased our engagement because suddenly every component of the lesson is differentiated properly. It's focused on [students'] own knowledge and building up their knowledge to the next part. It's sequential for the learning to take place. Every child is capable now.

Bianca, teacher, regional primary school

This body of research has solidified our understanding of the underlying mechanisms that enable QTR to work. In short, the QT Model provides *shared concepts and language* with which to analyse teaching practice holistically. The Model honours the complexity of teaching and shows respect for teachers’ intellectual capacities to analyse and refine their core business – teaching and learning. The design of QTR creates *sustained time* for teachers to observe entire lessons and engage in deep analysis and discussion of pedagogy, usually during the school day when they are feeling relatively fresh and freed from distractions. QTR also builds a *climate of trust* by deprivatising practice, ensuring turn taking, and requiring a commitment to confidentiality. These features flatten the power hierarchies that often thwart powerful professional learning, build teachers’ confidence and professional relationships, and enhance their teaching. The result is better outcomes for their students.

QTR is widely applicable across educational contexts

The *Building Capacity* project (and other related opportunities during the project period) enabled scaling and testing of QTR's applicability in a diverse range of settings, including:

- primary (K–6), secondary (7–12), and central (K–12) schools
- low-, mid-, and high-ICSEA³ schools
- small, rural, and remote schools, and regional and metropolitan schools
- government, Catholic, and independent schools
- co-educational and single-sex schools
- high-achieving and low-achieving schools
- distance education centres
- environmental education centres
- inclusive education contexts
- hospital schools
- casual teaching
- initial teacher education
- teaching in higher education

In all these settings, QTR was readily applied and positively experienced by teachers.

The case studies ([Appendix B](#)) and partnership studies ([Appendix C](#)) provided detail on how diverse schools successfully integrated the approach within their contexts, mostly through minor adaptations (Patfield et al., 2022).

Our study of QTR Digital demonstrated the applicability of the approach to support teachers and improve student outcomes in small, rural, and remote schools (Harris et al., 2022). This study demonstrated that QTR could bring four teachers together from four different schools in any geographical location, providing they could find convenient times for the synchronous discussion components.

Our studies of alternative educational contexts – such as distance education, environmental education, hospital schools, and inclusive education ([Appendix D](#) and [Appendix E](#)) – also showed the relevance and effectiveness of the approach. In these contexts, where students are often transient, the initial scepticism of some teachers about the relevance of QTR was typically overcome once they experienced the approach, seeing its impact on their practice and their students (Fray et al., 2022). Such teachers often became strong advocates.

I got a lot out of it in the early stages of learning how to code, especially being matched with other teachers who were in similar classroom scenarios to myself, so cross-stage classrooms in small schools or small central schools. It was really nice to have some other people to talk to about their classroom practice and [know] that I'm not the only one out there teaching a cross-stage class.

Lily, teacher, small remote school

One thing I have noticed, there was significant improvement in engagement... because I was teaching a bit differently. [My students] were taking in the work and they were much, much more driven. The other thing that improved was their comprehension work because it was really targeted using more specific criteria... I think that was reflective of what I was doing more so than what they were doing.

Gregory, teacher, small regional school

³ The Index of Community Socio-Educational Advantage (ICSEA) provides an indication of the socio-educational backgrounds of students. See https://docs.acara.edu.au/resources/About_icsea_2014.pdf

In a series of related studies that took place during the *Building Capacity* project timeframe but were separately funded, QTR was also found to be relevant for different parts of the education workforce, including casual relief teachers, those learning to teach, and those working in higher education settings.

Our study of 32 casual teachers from eight NSW government primary schools found improved quality of teaching, enhanced confidence and morale, a stronger sense of professional identity and belonging to the profession, stronger professional networks, and, subsequently, better job prospects ([Appendix F](#)). Given that Australian students, pre-pandemic, were estimated to spend as many as three hours per week or one year of their schooling being taught by casual teachers (AITSL, 2019), the policy implications of these findings are important.

In initial teacher education (ITE), we delivered a tailored two-day QTR workshop for more than 80 ITE students, over the period 2021–2023. We found participation to be associated with a greater sense of preparedness for, and less stress associated with, their final internship and greater confidence during the internship. Embedding the QT Model and QTR could significantly enhance the preparedness, success, and retention of ITE students and set them up for a successful transition into the teaching workforce.

A pilot study of QT in higher education, involving 27 academics from all academic levels and a diverse range of university disciplines, also demonstrated the broad applicability of the QT Model. Those who engaged with the QT-based professional development reported enhanced conceptual understanding of quality teaching which, in turn, had benefits for analysing practice, course planning, collegial collaboration, and improving the student experience. In a sector that addresses quality teaching primarily through proxies such as teaching awards and student evaluations, the QT Model offers a powerful conceptual and practical alternative (Patfield et al., 2022).

I guess it's appropriate everywhere, after seeing it at Nexus [acute mental health unit for young people at local hospital]. And if it's going to work at Nexus it's going to work wherever ... because Nexus is the most non-classroom setting you can have. ... If you put in the time and you put in the effort, it just works... It can be adapted for anything. You can do a five-minute lesson and still code it.

Sam, teacher, hospital school

[As a casual teacher] you get given a piece of paper with a basic overview of what you're meant to do, and it's usually simplified down for a casual teacher. [Since QTR], you're thinking, "How could you extend that lesson to make it more interesting?" ... making sure some of the [QT] elements are being used where they probably weren't [before].

Amber, casual teacher

This experience was absolutely fantastic. I entered the [two-day] webinar stressed and nervous about my internship... I felt as though the QT model was something abstract and idealised. However, I came out of the experience feeling empowered, excited, and inspired for my upcoming [school experience]. ... I feel as though my confidence has risen exponentially.

Sarah, ITE student

What I found really useful [about] the whole process is having a more formal framework to actually assess your teaching and to benchmark against. We all talk about wanting to have quality teaching and be quality teachers, but often we don't actually think about what does that mean, or have an actual way of assessing the quality as such.

Alina, academic



In addition to supporting teachers to enhance their teaching, the Ramsay grant has cultivated new ways of thinking about and conducting research that will contribute to Australian education long into the future.

Associate Professor Jess Harris, Qualitative Lead

QTR is valued by teachers

Across the OECD, 94% of teachers and 99% of principals participate in at least some form of ongoing professional development every year (OECD, 2019). In a context where many PD activities are experienced as episodic, superficial, disconnected from teachers' own interests (Little, 2012), or wasted time (Hunter & Parkinson, 2023), our research shows that QTR is highly valued by teachers. This is indicated by the outstanding net promoter score⁴ of 74 for the QTR workshop and by teachers' overwhelmingly positive comments about their in-school experience of QTR. Teachers reported that they value:

- The chance to focus on their core business of teaching and learning
- The chance to see inside other teachers' classrooms, including in other grades and subject areas
- The chance to see their students (current or past) in other teachers' classrooms
- The opportunity to discuss educational ideas in depth with their colleagues
- The opportunity to discuss pedagogy at a level of specificity they have not experienced before
- The opportunity to be heard by colleagues, regardless of their experience or positional authority in the school
- The affirmation from their colleagues' comments while also being challenged to improve their practice
- The critical collegiality that QTR facilitates, rather than the contrived and comfortable forms of collegiality that are more common among teachers during collaborative activities
- The immediate impact of QTR on their practice and on their students

The QTR experience is often reported to be transformative. Teachers say they can't go back to the way they were teaching before.

⁴ A net promoter score (NPS) is a metric used to indicate customer satisfaction. Scores of more than 50 are considered 'excellent' with 80+ considered 'world class.' See <https://www.qualtrics.com/experience-management/customer/good-net-promoter-score/>



As a former primary teacher myself, it's an honour to make such a positive contribution to the profession and see the real difference this work makes on such a large scale.

Dr Sally Patfield, Senior Research Fellow & Qualitative Co-Lead

Long after the QTR process is done, I don't think I'll ever not think about these 18 elements to some level, as I go through my practice. Even now, when I start thinking about planning the next area or planning the next unit, I will run through the things in my head being like, "How am I going to make sure that I'm inclusive? How am I going to make sure that I look at different cultural knowledge? Where can I draw on the kids' background knowledge?" I just find it's going to be beneficial and helpful long-term.

Ava, teacher, metropolitan secondary school

So, it's kind of validating to have people come into your classroom and say, "Hey, you're doing a good job. We can improve here and here, but ultimately what you're doing is great." I found it just builds your confidence up a little bit. Yeah, and it just makes you reflect on your pedagogy... As much as you try to reflect when you do your programs and stuff, you really don't have time. So, I think this was a really good way to just stop and think, "Okay, where am I at?"

David, teacher, regional primary school

As researchers, we have a responsibility to look for disconfirming evidence. From more than 300 interviews conducted during the past five years, we find almost no comments that are critical of the approach from teachers who have participated in QTR. By and large, it is only when the integrity of QTR has been undermined – such as running 'intensive' versions of Rounds (when a PLC conducts two Rounds in one day) or spreading out the components of a single Round across a whole term – that teachers express concerns ([Appendix B](#)). While recognising the need for flexibility to address the varying contexts in which QTR occurs, we caution against adaptations that reduce teachers' professional learning and highlight the importance of attending to both the principles and the processes of QTR (Patfield et al., 2022; Patfield et al., 2023).

Everyone is willing to try new things and implement new things, but the programming and how we run lessons is completely different [since QTR]. That's done a 180 and I think for the better. Better for our students and the better for our own teaching and the lessons.

Jo, teacher, School for Specific Purposes



QTR can support sustainable school improvement

With continuous improvement seen as essential to education systems both in Australia and across the world, many school leaders have embraced QTR as a lever for change and a critical means to transforming everyday practice and school culture. Clear evidence for this claim comes from our 2022 analysis of the publicly available quadrennial Strategic Improvement Plans (prepared by all NSW government schools) which showed one in seven schools included QTR as a strategic direction. QTR, by design, is a sustainable model of teacher professional development because after the initial two-day workshop, schools are able to continue to support and embed QTR with no further external input. This means, over time, they can engage increasing numbers of teachers in a way that is both cost-effective and capable of delivering the wide-ranging benefits of the program.

It's an automatic line item in the budget ... And it's a normal process, I guess, with the casual [staff] coordinator allocating some days where we can bring in a large amount of casuals to support [QTR]. And that's all just a standard practice. And when people get up and talk at executive meetings or communication meetings with the whole staff, it's not just saying, "[QTR's] happening again now, we're looking for names [volunteers]." It's business as usual, standard practice. We don't make a big deal out of it. We don't need to.

Gordon, principal, metropolitan central school

What we're looking at doing is how we can ...develop a model that's sustainable throughout our small schools' network and involving those that haven't been a part of that learning to sort of share the benefits of [QTR Digital]. ... Not only that, [we're] looking at how the people who've been trained can take on a bit more of a leadership role in developing a model that goes across the network.

Jeremy, principal, regional primary school

Our longitudinal and cross-sectional examination of schools' implementation of QTR ([Appendix G](#)) identified three key factors that influence the impact and sustainability of QTR over time:

1. *The level of internal support.* Schools with dedicated resources, committed leaders, and staff buy-in were more likely to have a larger proportion of their staff engaged in QTR and report more positive perceptions of the impact of QTR in their school;
2. *The interaction between funding allocated to QTR and fidelity of implementation.* Schools that allocated adequate funding per teacher to the intervention made fewer adaptations and teacher perceptions of the impact of QTR were more positive; and
3. *The effect of adaptations.* Adaptations had varying effects, from successful implementation to lethal mutation. Schools that implemented QTR with fidelity, adhering to its key principles and processes, were more likely to continue engaging in QTR and report more positive perceptions of its impact. Schools that made adaptations that undermined the integrity of QTR were more likely to cease engagement in QTR, report fewer positive perceptions of its impact, and report reduced teacher learning.

Aside from challenges related to the current teacher shortage, most schools reported having the organisational capacity and necessary funding to engage in and embed QTR, supported by the two-day QTR workshop and other implementation supports provided by the QT Academy. However, we found that lower ICSEA schools (ICSEA <950) had more difficulty in implementing QTR than their higher ICSEA counterparts which means additional implementation supports are likely to enhance outcomes in these contexts.

To this end, we developed a partnership model that supports low-ICSEA schools to engage in QTR. We found that the extra support from and enhanced connection with the University boosted teachers' confidence with the QTR process and helped schools to successfully implement QTR ([Appendix C](#)). Importantly, once schools had engaged in these partnerships, they were able to continue to embed QTR without ongoing support. The organisational capacity developed through the partnerships aided in the sustainability of QTR in these low-ICSEA schools.

We've got another two years to go on [our Strategic Improvement Plan]. ... QTR is very prominent. ... It was developed collaboratively with the staff... and it was like, "Well, what is the most important thing we do? We teach, and we model every single day." I strongly believe that we can never stop that journey of improving practice... We have to keep improving and we have to keep remaining sharp because we are impacting on so many students and so many teachers that come to us. So, [QTR] was in my last school plan and it's in this one because it just fits so well.

Chris, principal, environmental education centre

To support school improvement efforts, we have mapped the QT Model and QTR to the *National School Improvement Tool* and the *NSW School Excellence Framework*, outlining ways to link QT and QTR to systemic priorities, populate planning templates, and evaluate school change. Our *QT Pulse: School Longitudinal Health Survey* was also developed to provide timely whole-school data on school culture and change over time.

QTR is the vehicle through which we can achieve our school goals. It's not the end point. It's enabling that professional learning, that reflection, that dialogue to happen. And that's going to improve our knowledge of students, improve explicit teaching, improve lesson planning. That's going to improve all those elements that sit underneath the Quality Teaching Model. That's all going to be what we achieve through Rounds.

Gwen, principal, metropolitan secondary school

Our analysis of the impact of QTR on middle leaders (assistant principals and head teachers) provides further evidence of its value in supporting school improvement. We found QTR supported middle leaders to drive improvements in classroom practice and enhance the learning and collaborative cultures in their schools (Harris et al., under review). QTR provided middle leaders with a structured approach for sharing their expertise, a clear framework for analysing and giving feedback on the quality of classroom practice, the opportunity to learn alongside their colleagues, and time to focus on teaching practice.

In terms of how I ... interact with the teachers that I supervise, it's helped me with feeling more confident about doing observations in classrooms, in a respectful way, without feeling like I'm intruding in their classroom. ... It's changed some of the conversations I have with my teachers about planning and that sort of thing.

Jessica, assistant principal, outer regional primary school



Every single person has come away going, "I wish we could do that more," because you never get the chance to just go in and watch what other people do and then have those conversations afterwards. So, there's not a single person who has come away from it going, "That's not for me." Not at all.

Annabel, QTR Liaison, partnerships project

It's been a really good experience and, you know, being tied to the uni meant that we didn't just do the training and press eject because it got busy. We had to prioritise it, and out of that we could see the value of it. And so now it's sustainable, isn't it? Like... it might have got pushed to the side had we not had the accountability of the uni project behind it, too. So yeah, I think sometimes you need someone to say, "You must eat your greens," don't you, because it's good for you and you will enjoy it eventually.

Sue, teacher, partnerships project

Wider impact

In addition to the positive effects of QTR on students, teachers, and teaching in a diverse array of schools, the *Building Capacity* project demonstrated wider impact on schooling and school systems, society and policy, and the field of research.

Impact on schooling and systems

Greatly increased access to QTR PD

Prior to the commencement of the project, a total of 232 schools had attended a QTR workshop during the period 2014–2018. Over the five years of the project (2018–2023), 4,493 teachers from 1,297 schools accessed QTR workshops, representing an increase in school engagement of more than 500%. The workshops are delivered by QTR Advisers who are experienced teachers recruited directly from schools. We estimate at least 803,000 students have benefited from the professional learning of these teachers in QT and QTR.

Figure 3 depicts the widespread locations of these 1,297 schools. Our data highlight the diversity of schools accessing QTR PD, with 35% of schools in the lowest ICSEA <958), 41% in regional and remote areas, and 13% with Indigenous enrolments of 25% or greater. Such schools often have greater need for high quality professional development but struggle with access due to limited provision, distance, costs, and staff shortages.

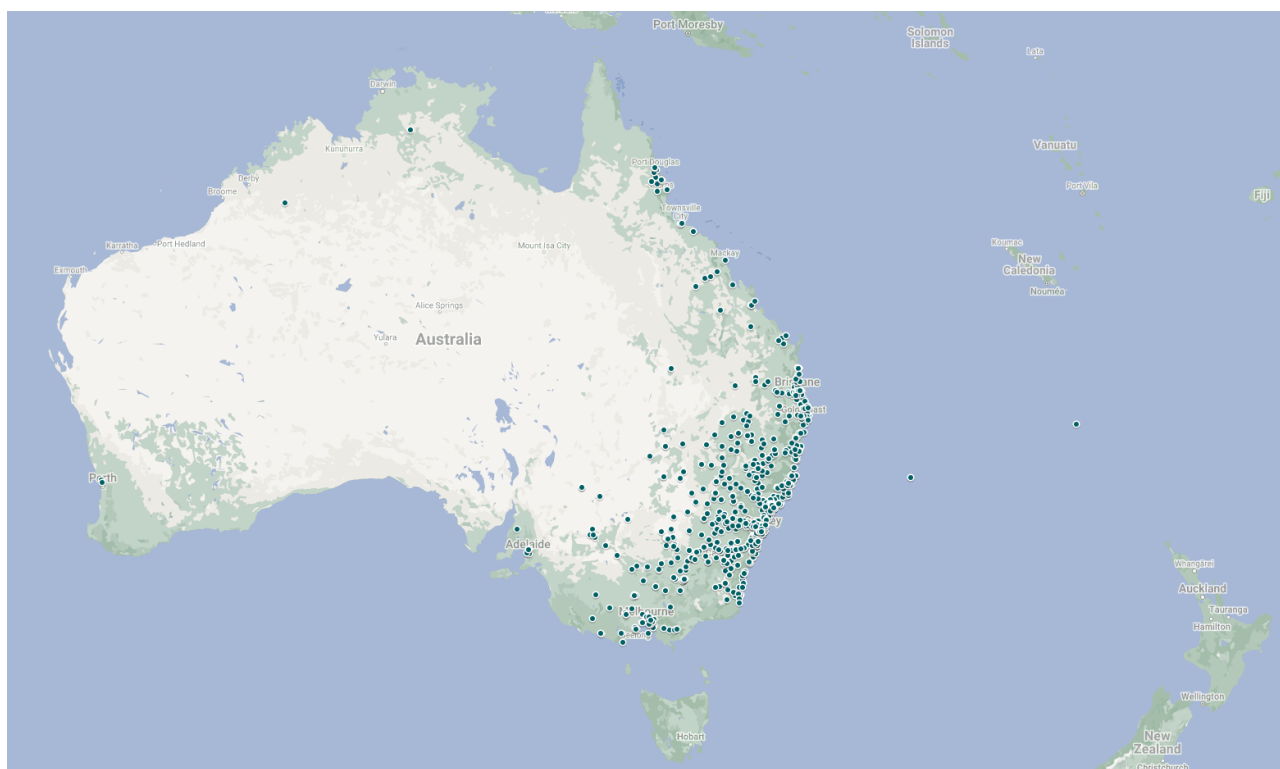


Figure 3. Map showing participation in QTR workshops to 30 September 2023

An ambitious scaling target of 3,200 Australian schools (or roughly one-third) was set at the beginning of the project. However, the harsh realities of COVID-19 and its ongoing effects on schools necessitated a revised target of 1,400 schools, which we will reach early in 2024. Importantly, a substantial proportion of schools send multiple teachers to workshops over several years, electing to engage deeply and implement QTR on a whole-school basis. Specifically, of the 1,297 schools with participants at a QTR workshop, 603 schools (or 46%) have sent more than the recommended two teachers. In addition, 22 schools have engaged the QT Academy to provide whole-staff professional development.

Ongoing, ready access to QTR PD is assured by the existence of the QT Academy and its services/resources.

Major investment in schools

The project provided \$3.9M in direct funding to Australian government schools participating in the research during the period 2018–2023. This funding enabled thousands of teachers to participate in and experience the benefits of QTR professional development. In addition, through participation in the research, teachers were able to gain valuable diagnostic information about their students' learning through access to progressive achievement tests. More than \$1M worth of tests were conducted during the project.

Systemic engagement in QT/R

The project raised the profile of QT and QTR, based on compelling evidence of impact. As a result, other groups have taken up QT/R or expressed interest in how these approaches fit with their agendas. Various units within the NSW DOE have engaged with our work, through attendance at workshops or specific projects, including school leadership, Aboriginal education, environmental education centres, arts, mathematics growth team, teacher quality, curriculum reform, inclusive education, and hospital schools ([Appendix D](#)). Other states and educational jurisdictions are also engaging with our work beyond this project, including: the Australian Department of Education; Australian Independent Schools; the National Catholic Education Commission; the Victorian Academy of Teaching and Leadership; and the Grok Academy. Recent international interest is also providing additional entry points for widespread uptake, including projects underway in

Sweden, Albania, Japan, Indonesia, and Ireland ([Appendix D](#)).

Impact on society and policy

Potential economic return to society

A cost-benefit analysis conducted by Deloitte Access Economics (2020a), based on evidence from the 2019 RCT, identified QTR as a “very low-cost intervention.” The analysis provided a “conservative” estimated uplift in Gross State Product (GSP) of between \$40 and \$150 for every dollar spent on QTR, derived from increased lifetime earnings, productivity gains, and increased taxation. By comparison, \$3.32 is returned to the economy for every dollar spent on the national competitive research grants scheme (ACIL Allen, 2023) and an estimated \$4.00 for every dollar invested by students and society in university education (Deloitte Access Economics, 2020b).

Extrapolation of the Deloitte estimate to all funding provided to schools across the entire project equates to a return in future GSP of between \$155M and \$592M over students' lifetimes. These calculations do not take into account the non-monetised benefits of gains in academic achievement to individual and societal welfare, such as improved personal wealth, wellbeing and finance, increased civic participation, and lower crime rates.



This project has enabled me to see beyond the spreadsheet and budget tables, to see exactly how funds can be used effectively to have impact.

Alyce Carroll, Senior Finance Officer

Clear policy influence

Through our contribution to briefing papers and submissions to multiple reviews, and more than 135 meetings with stakeholders – including six federal or state ministers and shadow ministers – QTR and its associated evidence base has been highlighted or recommended in the following policy documents:

- NSW Productivity Commission: 2020 Green Paper and 2021 [White Paper: Rebooting the Economy](#)
- NSW Department of Education Centre for Education Statistics and Evaluation: [What Works Best](#), School Excellence Framework [School Excellence in Action](#), and the [Guide to Evidence-Based Models of Collaborative Inquiry](#)
- Australian Productivity Commission: Review of the National School Reform Agreement [Interim Report 2022](#)
- Australian Government: *Next Steps: [Quality Initial Teacher Education Review 2022](#)*, and the [National Teacher Workforce Action Plan \(2022\)](#)

The strongest signal of our policy influence to date is bipartisan federal government support for the expansion of QTR during the 2022 election. This commitment led to a \$5.3 million national, cross-sectoral project on strengthening the induction of early career teachers through QTR. Launched by Federal Education Minister, The Hon. Jason Clare MP, in July 2023, more than 300 expressions of interest from schools across the country have been received.

Increased visibility and recognition

Prior to commencement of the *Building Capacity* project, awareness of QTR was limited, even in NSW government schools where the QT Model had been in place for 15 years. Since mid-2020 when we began documenting media engagement, our research has featured in 185 media pieces. Highlights include: five national television appearances on *ABC News* and the *7.30 Report*, *Studio 10* and *The Project* (Channel 10), and *Nine News*; 15 articles in *The Conversation* with a readership of more than 300,000; and 11 opinion pieces and articles in the *Sydney Morning Herald* and *The Age*, which are Australia's largest and fourth largest mastheads, respectively, with a combined readership of 12.5 million.

Several high-profile awards also illustrate growing recognition. In 2022, the TTRC received the Engagement Australia Excellence Award for Outstanding Research Impact for its partnership with the NSW Department of Education and the Paul Ramsay Foundation. These awards identify and celebrate the most exciting and impactful engagement activities undertaken by Australian and New Zealand universities across all disciplines and fields. In 2023, Kotara School won a NSW Department of Education Secretary's Award for Outstanding School Initiative for their school-wide implementation of QTR ([Appendix E](#)). Broadwater Public School won the *Teacher Magazine* Special Contribution Award for the remarkable efforts of its teachers to sustain the school's identity and reengage students, using the QT Model, after the NSW Northern Rivers floods destroyed their school.

This media engagement and recognition helped realise the broader goals of the project by advocating for teachers and teaching, and raising the profile of the work and the people behind QTR.



It's been a thrilling and hard-fought journey to this point, but my job has been made easy on the back of the groundbreaking, high-quality research produced by the Centre.

Tom Carey, Media and Communications Specialist

Impact on the field of research

Leadership of RCTs in education research in Australia

We have demonstrated the viability of conducting RCTs in Australian schools, helped elevate the visibility of RCTs to inform policy making, and are sharing key insights with others through academic publication (Taggart et al., in press) and wider engagement (Taggart, 2021).

The team's expertise in running RCTs has also been enhanced, with the TTRC leading the conduct of RCTs in Australian education research. In 2019, we hosted a national RCT forum and are planning a subsequent event based on our experiences and learnings over the last few years.

Attesting to the rigour of our RCT work, QTR has also been subjected to independent RCT evaluations conducted by the Institute for Social Science Research at the University of Queensland and the Australian Council for Educational Research in Victoria. These evaluations not only added weight to the body of evidence on QTR but also increased the capacity in these external institutions for the conduct of education RCTs, which have rarely been undertaken in Australia. The trials we conducted ourselves were registered with the Australian and New Zealand Clinical Trials Registry (ANZCTR) and the Registry of Efficacy and Effectiveness Studies (REES) and adhered to Consolidated Standards of Reporting Trials (CONSORT) guidelines for group trials (Moher et al., 2010). The trials were overseen by the RAND Corporation, the NSW Department of Education's Centre for Educational Statistics and

Evaluation, and the PRF Measurement, Evaluation and Learning team.

High quality, high impact academic outputs

We have contributed fresh theoretical and methodological insights in the areas of teacher professional development, scaling and adaptation in education, quality teaching, implementation science, school improvement, conducting RCTs in education, and increasing student outcomes and equity.

To date, 21 articles from this program of work have been published in prestigious journals⁵. These papers have outstanding citation rates and field-weighted citation scores, and very high Altmetric scores⁶, indicating their significant impact both within and beyond academia. These influential indicators position our scholarly output at the very top of the field internationally and demonstrate the impressive impact of these publications. A further five articles are currently undergoing double-blind peer review and another 20 are in preparation. In addition, 22 book chapters, monographs, and reports were produced during the project period ([Appendix A](#)).

⁵ Quartile 1 journals as per the global [Scimago journal ranking list](#).

⁶ Field-weighted citation scores are indicators of academic take-up. Papers produced as a result of this research program are cited at a rate 490% above the normal rate for the field. Altmetric scores are indicators of broader interest in the work (see [Research Impact and Citation Analysis](#)). Altmetric has identified 721 mentions of these papers in social media, news, and blogs and, policy documents, including multiple policy documents produced by the World Bank and OECD.

It is truly a privilege to have been part of a program of work that has had such a wide-ranging and positive impact on teachers and students.

Dr Leanne Fray, Senior Lecturer and Qualitative Co-Lead



Demonstrated value of programmatic research

The program of research has been described as conducting 20 years' worth of research in just five years, in terms of the level of funding, scope of data gathered, and volume of evidence amassed (see Figure 4). The large-scale and longitudinal datasets generated have enabled, and will continue to enable, multiple analyses.

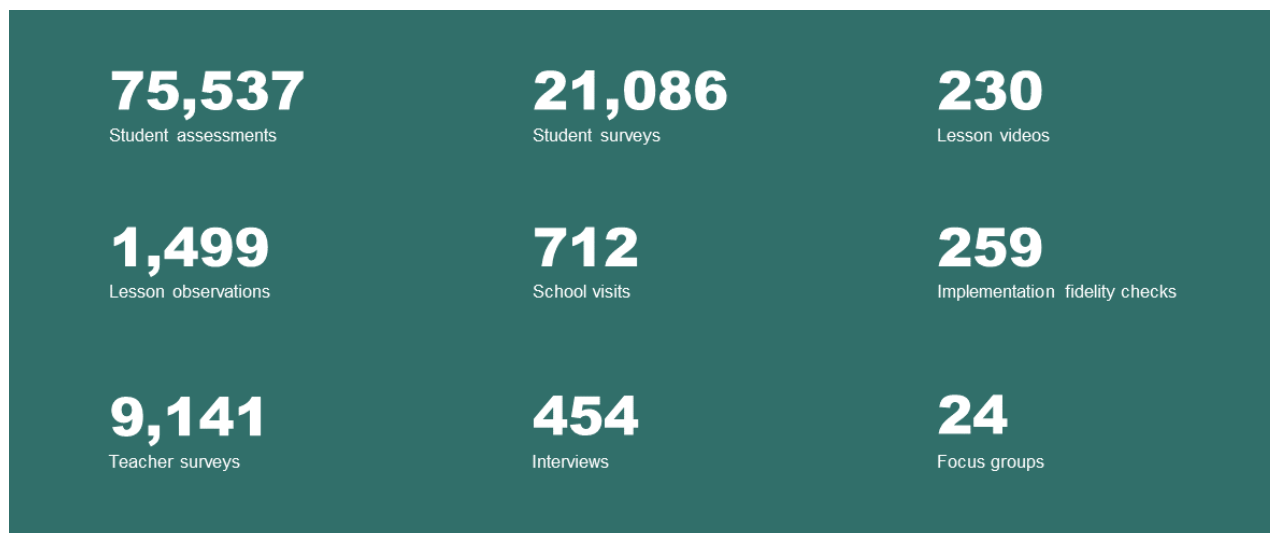


Figure 4. Data collected over the program period, by type

In contrast, most education research occurs on a small scale with modest budgets. The latest data available from the Australian Research Council indicates that only 1.5% of all funded research was in the field of education (ARC, 2022) and the median funding provided for education grants was \$369,590, compared with \$592,722 for all ARC grants, typically for three- to four-year projects.

Our program of research provides an exemplar for governments and education policymakers seeking robust evidence of initiatives that support school improvement. Without this kind of substantial multi-year funding, educational research in Australia will remain severely limited in generating sufficiently robust evidence of impact to effectively inform policy and practice. Notably, such investment in research produces substantial economies of scale. The *Building Capacity* project enabled cost savings of approximately \$3M in research activities. That is, had each study been funded and conducted separately, the overall total cost of our research activities would have been approximately \$16.2M, instead of the \$13.1M spent, due to a reduction in overall operating costs associated with grant establishment, personnel, and knowledge translation.

Contribution to the future of education research

The project contributed to the development of the next generation of Australian educational researchers, creating a cohort of junior scholars who have gained rare experience of programmatic empirical research informed by diverse methodologies and theoretical perspectives. Three postdoctoral researchers and nine PhD candidates have benefited from and contributed enormously to the program of work, with rare access to integrated scaling, research, and commercialisation activities.

The PhD candidates have undertaken studies directly connected with the *Building Capacity* project. Using the QT Model and/or QTR, they have applied the approach to different parts of the teaching workforce (early career teachers and casual teachers), different cultural contexts (Albania and Japan), and different school subjects (Maths and Drama). They have examined impact on teacher efficacy and social capital, and interrogated QTR

through statistical modelling and implementation science. The specific PhD topics⁷ supported by this project are:

Completed:

- The relationship between professional development opportunities and teacher self-efficacy beliefs: A mixed-method hermeneutic phenomenological study (Dr Kristina Lee)

To be submitted in 2023:

- Demystifying subjects, troubling status: A pedagogical analysis of high school mathematics and drama in the Australian schooling context
- A critical investigation of implementation science as a framework for scaling interventions in education
- Multilevel structural equation modelling of complex educational data: Investigation of the relationship between teaching quality and student achievement

To be submitted in 2024:

- An investigation examining improved support for casual relief teachers through the provision of high-quality professional learning

- Capitalising on collegiality: Investigating the impact of high-quality collaborative professional development on teachers' social capital and students' achievement
- Enabling quality teaching practice in Albanian upper secondary schools: Where political history and pedagogy meet
- Teachers in transition: An examination of the effectiveness of Quality Teaching Rounds in supporting Australian teachers during times of transition
- Elements of affinity: How online learning shapes teacher professional development

To be submitted in 2025:

- Quality Teaching Rounds in the Japanese context

Additionally, the project supported the development of a large team of professional staff members. Over the past five years we employed eight project managers, 16 project support staff and research assistants, 12 QTR Advisers, and 83 casual research assistants, each of whom has acquired new and transferable skills and insights because of their involvement in this research program.

⁷ Tentative titles for those not yet submitted

Key learnings

In this final section, we detail key learnings gained from conducting the *Building Capacity* program of work that we hope will be useful for researchers, philanthropic organisations, other funding bodies, education departments, and government policymakers.

Nurturing and developing a team is critical

The people who designed, supported, and worked on the *Building Capacity* project were critical to its success. Between 2018 and 2019 we grew from a staff of eight to more than 40. This rapid growth of our research centre both created exciting opportunities and posed fresh challenges. We learned several key lessons about managing teams in a project of this size:

Nurturing rapid growth. Prior to the project, the Centre functioned with an organic structure, where a small team of academics and professional staff pitched in to complete all work, and roles were flexible and agile. With more staff managing many projects simultaneously, we developed a functional organisational structure with clearer delineation and definition of roles and reporting lines, and enhanced planning, communication, and decision-making processes. We also focused on building a positive team culture centred on wellbeing, connectedness, and development.

To this end, we instituted monthly 'TTRC team days,' internal staff newsletters, regular social events (in-person and online during COVID), and opportunities for team members to step into a variety of roles and engage in both on-the-job and formal professional development. Team turnover was an inevitable consequence of our success in developing capacity, which required us to continually nurture the culture as new people joined the Centre.

Creating a fit-for-purpose team. With a leadership team of just four active Chief Investigators (at any point in time), our research staff – post-doctoral researchers, PhD students, and research assistants – made the impossible possible. These staff: supported data collection by visiting schools, administering surveys, and interviewing research participants; carried out

preliminary qualitative and quantitative data analysis; and delivered project outputs, including drafting and leading papers and reports. The opportunity to work with a cohort of PhD candidates on scholarship (based on a model more typical in the sciences and engineering than humanities and social sciences) contributed significantly to our ability to manage the volume of research. They, in turn, benefitted from being part of a structured cohort, with access to tailored workshops designed to hone their skills in all aspects of research (including ethics applications, methodology, research paradigms, quantitative and qualitative analysis, and academic writing).

In addition, we hired and developed targeted expertise in finance, ethics, business, data management, project management, administration, and communications. Academics working on smaller projects typically need to fulfil all these responsibilities themselves; however, this in-house expertise meant we were able to be more agile and responsive than is usually possible within university processes and structures.

Recognising the demands on people. Our team displayed impressive tenacity and perseverance, often negotiating multiple roles while being stretched by competing demands, new competencies, and the volume of work. For instance, we carried out 12,000 hours of data collection in schools from Nashdale to Norfolk Island in Term 1, 2019 alone. At the same time, we negotiated institutional protocols within the University and NSW DOE (such as per diem travel allowances for research assistants and safe access to schools during the pandemic), while meeting research and scaling milestones. Academic and professional staff of the Centre were continuously pushed to reimagine productive ways of working within their areas of expertise.

Striving to live by our Centre values of recognition, respect, teamwork, excellence, and making a difference meant continually trying to look after our people in these pressured circumstances. The monthly team days played a key role in monitoring how staff were feeling and provided important time

out from the busyness of the work to celebrate progress and ensure everyone felt valued. Ultimately, the team thrived because of a shared vision for, and commitment to, the project and its aims.

I've lost count of the "firsts" experienced as one of the five original Quality Teaching Rounds Advisers. Working with so many passionate, talented people across the TTRC and QT Academy, the extraordinary quickly became the norm and nothing was impossible.

Michelle Ware, QTR Adviser



Navigating multi-party projects requires flexibility

The *Building Capacity* project could not have been delivered without the involvement of multiple organisations and hundreds of people. In particular, the three partner organisations (UON, PRF, and NSW DOE) played crucial roles in the success of the project. We have identified the following key lessons about managing and navigating roles, relationships, expectations, and complex bureaucracies to deliver successful outcomes:

Navigating legal agreements. We (and our project partners) returned to our legal agreements on numerous occasions to help guide the conduct of the project and navigate the path to achieving our goals. We opted for separate agreements to be signed between UON and PRF, and UON and DOE (no agreement was signed between DOE and PRF). At the time, this approach was considered simpler and more likely to progress through the complex legal processes of our organisations. However, with the power of hindsight, we can see that a three-way agreement, despite requiring more time, would have supported the alignment of expectations, particularly following movement of key personnel in each of our organisations. Alternatively, greater specification of deliverables, roles, and responsibilities may have been helpful. Granted, this was extremely difficult at the commencement of an unprecedented, multi-dimensional project and does not detract from what was achieved. Nonetheless, our underlying

ambitions for systemic outcomes that went beyond project deliverables were somewhat sidelined by the narrower focus of the legal agreements.

Leveraging governance structures. Our Project Steering Committee was made up of key TTRC, PRF, and DOE personnel, as well as a range of external policy, research, and social enterprise experts. In the early stages of the project, when we were stretched to capacity doing the research, we approached Steering Committee meetings with an accountability mindset, reporting on activities, milestones, and accomplishments, and outlining next steps. As we progressed through the project, we sought guidance and 'steering' from the committee. This guidance became increasingly important as we managed the fall-out from the pandemic and sought advice on future directions which led, for example, to our focus on whole-school change in disadvantaged contexts ([Appendix C](#)). Specifically, we found our Steering Committee meetings were enhanced by appointing a chair who was not from a partnership organisation and preparing briefing papers seeking advice on specific challenges and opportunities.

Building genuine partnerships. Partnering with PRF stretched us into new areas, such as clarifying our 'endgame' and 'theory of change,' learning about social enterprises and business models, and building new networks with government and other

peak bodies. As a funding agency, PRF differed from the hands-off accountability structures of typical education research funders. Instead, our partners at PRF were readily available with advice, support, and introductions to new networks, coupled with high expectations for the quality of work and reporting. This approach added great value to our project and enabled it to be conducted in an agile manner, which was crucial to conducting research of this scope in schools. Similarly, the NSW DOE, despite being a massive bureaucracy with a multitude of priorities, responded quickly and flexibly to supporting project deliverables during the pandemic when most research in schools was suspended. This response was based on a shared understanding of the importance of the work, built over our 20-year partnership.

Utilising external expertise. In addition to support from the external experts on our Steering Committee, the project benefited from the establishment of three specific advisory groups (Business Advisory Group, QTA Teacher Advisory Group, Jurisdictions Advisory Group), each bringing specialist advice and perspectives. We also developed highly productive relationships with SVA Consulting for business planning support, TSB Advisory Group for government and policy advice, and Redback Solutions for digital marketing and website solutions, among others. The expertise of these individuals and organisations helped fulfill the vision of the project partners.

The complexity of schools requires adaptability

The *Building Capacity* project would not have been possible without the engagement, enthusiasm, and commitment of schools, teachers, and students. Conducting research in schools at any time requires navigating the complexity of classroom and school environments, being responsive to inevitable changes, and having adaptable plans. During the past five years, conducting research in schools has only increased in complexity. Our experience in this project has highlighted the following key lessons:

Nurturing relationships with teachers and school leaders. We built warm and productive relationships with teachers and leaders through clear and regular communications. Having a single project manager as our key point of contact and a 'champion' in each school to manage scheduling of research activities and help with troubleshooting as issues arose, were key to fostering these relationships. Our steadfast commitment to building relationships also made a difference when we needed to adapt. For example, teachers and school leaders stayed with us when the 2020 RCT was postponed, with 73 of 80 schools retained in 2021. Their flexibility and willingness to collect data on our behalf as needed during the pandemic is further testament to the productive relationships we developed.

Ensuring meticulous organisation and contingency plans. The complexity of schools means that research in these settings is invariably messy. Our original proposal detailed a linear sequence of studies, with items costed and logistics mapped out. But, as we soon discovered, the conceptual plan did not match the complex reality. Back-up plans on back-up plans were essential to manage the necessary pivots and ensure agile decision making. During the project we experienced the Black Summer bushfires, the

pandemic, and then the flooding of 2021 and 2022. These consecutive 'once-in-a-lifetime' events all highlighted the external challenges that can impact research in schools.

I am in awe of the passion, drive, and commitment of our whole team, and privileged to have worked with so many amazing, motivated teachers and school leaders.

*Wendy Taggart, TTRC Executive Officer
(former Senior Project Manager)*



Figure 5 illustrates the disruption to just one of the six RCTs and highlights the magnitude of the challenges faced.

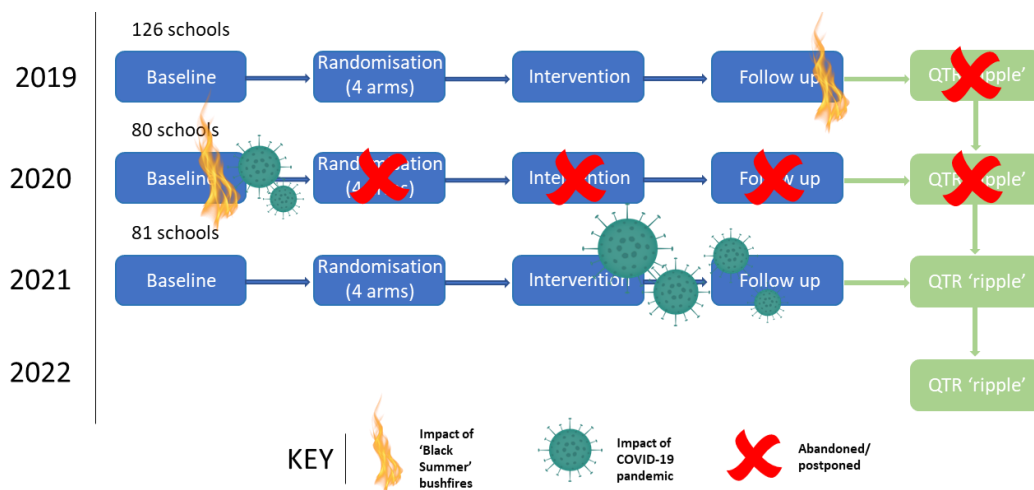


Figure 5. The disruptive reality of the NSW RCTs, 2019–2021

Of course, it's not just major external events that disrupt research. On more than one occasion, our team arrived at schools and could not proceed with data collection because of unforeseen events affecting staff or the school community. Knowing things can and will go wrong, we developed detailed contingency plans and set up support mechanisms, such as a dedicated phone number for research assistants who needed technical support when administering PATs or help with on-the-fly decisions. These plans enabled us to remain responsive and adaptable, ensure the safety of our staff and wellbeing of the school communities we visited, and uphold the integrity of the research program.



Applying for human ethics and State-level research approvals within a climate of post-COVID vigilance and high teacher workload has been challenging. Fortunately, the overwhelming volume of evidence as to the positive outcomes of Quality Teaching Rounds enabled us to secure approvals for all our key projects.

Tim Dean, Human Ethics Coordinator

Allowing student opt-out consent. To evaluate the impact of QTR, we needed to obtain research consent from principals, teachers, and students (personally and via their parents/ carers). While the intervention required voluntary teacher participation in QTR, the only impost on students was to complete standardised tests that are widely used across the sector. In some cases, students were completing these tests anyway and arguably they benefitted from the valuable diagnostic data their teachers could access immediately. It is not surprising, particularly for schools in disadvantaged contexts, that other demands often take precedence over returning consent forms. In our program of research, the opt-in consent processes routinely required for all students by some state departments made it difficult to recruit adequate numbers for sufficiently powered trials. By contrast, in NSW where student opt-out consent was approved, participation and retention rates were much higher. While we appreciate the important controls on research in schools to ensure the safety and wellbeing of participants, allowing opt-out student consent for studies that pose minimal risk to students would help generate the robust evidence sought by funding bodies and policymakers.

Systemic support is needed for RCTs in schools

Despite a growing call for RCT evidence to inform education policymaking (Leigh, 2009), educational RCTs in Australia are neither well understood nor straightforward to conduct. Unlike much of the data produced in medical trials where individuals enter a study, trials in education typically involve “clustered” groups (students within classes within schools). Clustered trials mean that design, recruitment, randomisation, and testing processes are more complex, harder to control, and dependent on accessing very large samples. Based on our vast experience during this project, if education systems wish to have robust, large-scale experimental evidence to inform their decision-making, the following key lessons require attention:

Securing system-level support for recruitment.

One of the most critical types of support needed to enable RCT research is communication through system channels to drive recruitment, so the required samples can be obtained. This support does not need to be overly burdensome but must go beyond simply providing approval for the research to occur. An email to eligible schools from a system leader can be a powerful way of motivating school leaders to take action. There is no clearer illustration of this need in our studies than the smaller-than-expected sample sizes obtained in Queensland and Victoria, where little jurisdictional support was provided to aid the recruitment process. The challenge of recruiting sufficient participants ultimately reduced the probability of achieving statistically significant results in these contexts.

Establishing better access to annual student achievement data. Student NAPLAN data could be used in experimental research. However, the two-year time interval between test occasions (e.g., Year 3 to Year 5), delayed reporting of results, and difficulty in accessing de-identified student data, means it is of limited value when seeking to analyse the impact of an intervention at the classroom level during a single year. Our solution to administer and use progressive achievement tests was effective in obtaining outcomes, but was an additional impost on teachers and students, and was expensive to conduct at scale (due to the costs associated with in-school data collection to maximise rigour and the cost of the tests themselves). We are not advocating for more testing of students, but better access to systemic data that can be used to evaluate educational interventions in Australia. Testing regimes in the UK, by comparison, deliver readily available data for use in RCT evaluations.

Communicating the value of RCTs in education.

While RCTs are common practice in medicine, in education, particularly in Australia, they are relatively new and not well understood. Given our experience in undertaking 13 RCTs during the past decade (six in this project), we can attest to their value in producing compelling evidence that can influence policy and practice. This project would not have been funded by PRF without the prior RCT establishing the impact of QTR on teachers and the quality of teaching. Similarly, our policy influence, such as the federally funded expansion of QTR to support teacher induction, was an outcome of the accumulated RCT body of evidence. Such causal evidence provides a level of assurance that investment in QTR is likely to have positive effects for teachers and students.

Common misconceptions of RCTs in education include that they are ‘unethical’ because only one cohort of participants receives the benefits of the prescribed intervention. However, the ‘waitlist control’ mechanism routinely employed in RCTs means control groups access the intervention once a trial is completed. All control groups in our studies were afforded this opportunity. Another misconception is that RCTs only produce numerical evidence. While it is true that RCTs foreground quantitative outcomes, good RCTs also collect qualitative or process data. Our trials used qualitative methodologies informed by diverse theoretical perspectives to help understand not only ‘if’ QTR worked, but ‘how’ and ‘why.’

Commercialisation can facilitate sustainability

A key objective of the *Building Capacity* project was to develop a business model that would ensure financial sustainability after the grant period ended. We met this requirement through the establishment of the not-for-profit Quality Teaching Academy. In the same way the research of the TTRC is driven by a desire to improve outcomes for teachers and students, our research commercialisation initiative was motivated by making a difference, not making money. The following key lessons arise from the experience of creating and launching our social enterprise:



To our core, making the world a better place is what drives the team at the TTRC. Establishing the QT Academy as a social enterprise is the embodiment of this drive.

Steve Hannan, Executive Director QT Academy

Commercialising research in the social sciences without compromising on values. The QT Academy was originally conceptualised as a research commercialisation initiative that would achieve financial sustainability through fee-for-service activities. This concept has since evolved to arrive at a social enterprise model. While research commercialisation places greater emphasis on revenue generation, social enterprises exist to make the world a better place, supporting their mission and achieving financial sustainability through the trade of products and/or services. As a not-for-profit social enterprise, any additional revenue made by the QT Academy, above our modest operating expenditure, will go toward additional research and supports for schools that help achieve our social impact aspirations. A social enterprise model aligns with our values and mission, while balancing attention to financial sustainability with achieving the greatest benefits for schools. Adopting a mixed funding model consisting of fee-for-service, philanthropic, and government investment ensures sustainability while keeping costs down for schools wanting to implement QTR.

Strengthening social enterprises through research. The research conducted by the TTRC is core to all offerings of the QT Academy – workshops, resources, services, and conferences

– boosting teachers' confidence that their engagement with the Academy is likely to produce benefits. Because they value the scale and rigour of the research, teachers often advocate for the Academy within their professional networks, which contributes further to the growth of our social enterprise. In addition, the work, credibility, and expertise of our QTR Advisers, who deliver the professional development and other services of the Academy, are enhanced through their direct involvement in some of the research and research translation activities of the TTRC. In all these ways, the grounding in research has been integral to building a strong and viable social enterprise.

Strengthening research through social enterprises. Too often when research funding ends, so do the interventions being investigated. Establishing a social enterprise has enabled QTR to be sustained and delivered at a scale well beyond what is usually possible for educational researchers. Typically, when conducting research on the impact of interventions, researchers deliver the intervention, collect, and analyse data and report on impact. In contrast, the Academy's QTR Advisers are supporting our more recent studies of the impact of QTR by delivering the professional development component. Doing so creates more time for researchers to carry out their research and pursue new opportunities at a scale that is

inconceivable for most of their peers in education. The support is mutually beneficial because the research funding associated with intervention delivery contributes to the financial sustainability of the social enterprise. Additionally, the QTR

Advisers who staff the social enterprise are a valuable resource for the researchers, providing a sounding board on the realities of schools and ensuring the appropriateness and relevance of the research.



Conclusion

The *Building Capacity* project achieved its three main goals.

- We scaled QTR professional development, enabling access for almost 5,000 teachers from across Australia;
- We meticulously and systematically interrogated the impact of QTR on teacher and student outcomes through a series of experimental and qualitative evaluations; and
- We established a values-driven and sustainable social enterprise that delivers evidence-based professional development, builds a professional community, and advocates for teachers.



What a daunting, exhausting, humbling, gratifying, exhilarating experience. Most of all, it has shown the power of collective effort and shared vision. Truly the greatest privilege of my career to be trusted to lead this work.

*Laureate Professor Jenny Gore,
Director & Project Leader*

We know QTR works, we know why it works, and we know how it can work at scale to support teachers and students nationwide. This body of work represents a triumph for Australian education research and an example of how such programmatic research could be funded, conducted, and sustained across the sector.

Improving educational outcomes for all young Australians is at the heart of the 2019 Alice Springs (Mparntwe) Declaration and central to the reform and improvement goals of federal, state, and territory governments. QTR offers policymakers a powerful, low-cost, rapid, and effective approach to achieving these reform ambitions. It is an approach teachers have already embraced, which helps them feel more confident and connected, enhances their work, and improves outcomes for their students.

At a time when education is front and centre in the mind of the public, due to the teacher shortage, poor student *and* parent behaviour, stagnating/declining results, and the widening gap in achievement between advantaged and disadvantaged students, the adoption of QTR at a system-level, at scale, would support urgent government reform objectives to:

- Raise the status of the profession;
- Strengthen initial teacher education;
- Improve retention in initial teacher education and the teaching workforce;
- Support teacher and student wellbeing;
- Lift student achievement; and
- Narrow enduring achievement gaps.

As one initiative with broad impact, QTR is uniquely appropriate for tackling the challenges of lifting outcomes and promoting both equity and excellence in Australian education.

The *Building Capacity* project stands as a testament to the difference education can make. It was only possible because of the vision, belief, and dedication of each of the project partners, the hundreds of people involved in bringing it to fruition, and the thousands of supportive teachers and school leaders who participated.

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