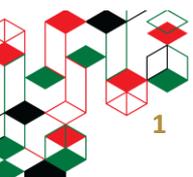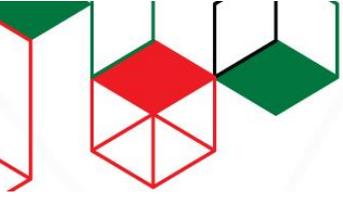# Education Reform: From the System to the School

September 23, 2020

Jenny Gore, University of Newcastle

Building capacity for quality teaching: The critical role of teachers in education reform

Executive Summary

Quality Teaching Rounds (QTR) is a low-cost, scalable approach to teacher professional development involving groups of teachers in professional learning communities who observe, analyse, and discuss each other's lessons, guided by a comprehensive pedagogical framework: the Quality Teaching model. QTR can be carried out by teachers in all subject areas, working in every grade, and at each stage of their careers.

A 2019 randomised controlled trial (RCT) – the largest in Australian education research history – found that QTR improved student achievement in mathematics by 25 per cent, as illustrated in Figure 1. Furthermore, the results were more positive in disadvantaged schools. This study, and an RCT conducted in 2014-15, also demonstrate that QTR improves the quality of teaching, teacher morale, and school culture.

These latest results build upon two decades of research into Quality Teaching and Quality Teaching Rounds by Laureate Professor Jenny Gore and colleagues from the University of Newcastle's Teachers and Teaching Research Centre (TTRC).

Improving the quality and effectiveness of school education is a shared goal of all state and non-government systems. Recently Deloitte Access Economics[1] confirmed the widely held view that the quality of teaching practice is the most significant in-school factor influencing student achievement.

In 2020, COVID-19 has created unprecedented disruption to education delivery and teaching practice across the world. A June 2020[2] report from the Grattan Institute in Australia noted that "even if remote learning was working well, disadvantaged students are likely to have learnt at about 50 per cent of their regular rate, losing about a month of learning over a two-month lockdown."

QTR provides an evidence-based approach to teacher professional development that can support schools and students and potentially make up for lost learning as a result of the COVID-19 lockdown by improving student performance and growth. In addition, QTR supports schools and teachers by building efficacy, morale and school culture, positively impacting on teacher development and retention.

These outcomes can be achieved through implementing a reallocation, rather than additional investment, of teacher professional learning budgetary measures. Further, student performance and growth can be achieved without the need for additional schooling activities.

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[1] Deloitte Access Economics. (2019). *School quality in Australia: Exploring the drivers of student outcomes and the links to practice and schooling quality*. Retrieved from https://docs.education.gov.au/node/52306

[2] Daley, J., Wood, D., Coates, B., Duckett, S., Sonnemann, J., Terrill, M., Wood, T. and Griffiths, K. (2020). *The Recovery Book: What Australian governments should do now*. Grattan Institute.
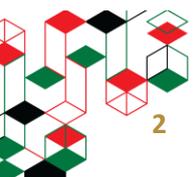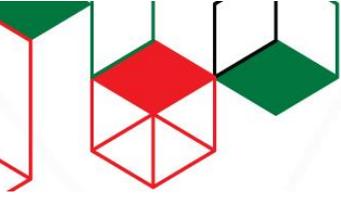
Empirical research[3][4][5][6][7] into the benefits of QTR has found that it:

- Improves student outcomes
- Enhances teacher capacity for quality teaching and ongoing refinement of practice
- Builds teacher confidence and morale
- Builds professional relationships among teachers
- Enhances school learning culture
- Works in every context (metropolitan and rural, advantaged and disadvantaged)
- Works for teachers regardless of grade, subject area or years of teaching experience.

Such benefits provide confidence that QTR can play a strong role in supporting Australian and global education goals.

By increasing teaching quality, QTR improves student academic achievement. This can be associated with long-term benefits to productivity when these students enter the workforce, including higher wages, education level of attainment, and probability of employment.

A 2020 Deloitte Access Economics cost-benefit analysis of QTR[8] determined that each dollar spent on direct program costs returns at least AUD$40 in Gross State Product (GSP). The analysis also found that relative to other recent education interventions in Australia, QTR is a very low-cost intervention achieving positive impact on student progress. Importantly, Deloitte noted several non-monetised benefits that stem from improving student academic achievement, including benefits to health, wellbeing, civic participation, and reduced interaction with the judicial system.

The implementation QTR can be achieved through a redirection of existing state school and teacher expenditure, rather than requiring increased investment, with a variety of appropriate approaches and implementation strategies.

The results of the 2019 RCT demonstrate that such a roll-out of QTR would provide growth in student achievement and improvement in the quality of teaching and teacher morale, positively impacting on factors such as workforce attrition.

The QTR research studies are part of a larger project funded by a $17.1M philanthropic grant by the Paul Ramsay Foundation, and supported by the NSW Department of Education, with

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3 Bowe, J., & Gore, J. (2017). Reassembling teacher professional development: The case for Quality Teaching Rounds. *Teachers and Teaching, 23*(3), 352-366.

4 Gore, J., & Rickards, B. (2020). Rejuvenating experienced teachers through Quality Teaching Rounds professional development. *Journal of Educational Change*.

5 Gore, J., Lloyd, A., Smith, M., Bowe, J., Ellis, H., & Lubans, D. (2017). Effects of professional development on the quality of teaching: Results from a randomised controlled trial of Quality Teaching Rounds. *Teaching and Teacher Education, 68*, 99-113.

6 Prieto, E., Howley, P., Holmes, K., Osborn, J. A., Roberts, M., & Kepert, A. (2015). Quality Teaching Rounds in Mathematics Teacher Education. *Mathematics Teacher Education and* Development, 17(2), 98-110.

7 Gore, J., & Rosser, B. (2020) Beyond content-focused professional development: powerful professional learning through genuine *learning communities across grades and subjects, Professional Development in Education*.

8 Deloitte Access Economics. (2020). *Quality Teaching Rounds – Cost benefit analysis.* University of Newcastle, September 2020. Not yet available online.
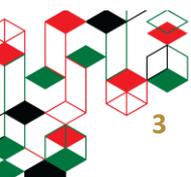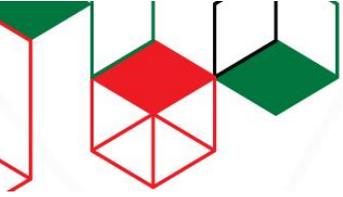
the aim of ensuring equitable access to high-impact professional development for all Australian teachers.

Through the *Building Capacity for Quality Teaching in Australian Schools* project, the TTRC launched a [Quality Teaching Academy](#) in October 2020 to support the scalability of Quality Teaching Rounds. The Academy will have capability to deliver QTR to all Australian teachers and schools. The Quality Teaching Academy also has the capacity to reach an international audience with plans to ensure Quality Teaching Rounds can be trialled and implemented in schools worldwide.
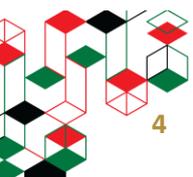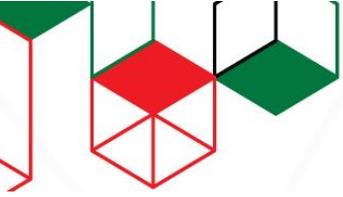
Improve teaching quality to improve student outcomes

Laureate Professor Jenny Gore

UNESCO RCEP, September 2020

The important role of teachers in successful educational reform has been the focus of my thirty-year academic career thus far (Gore, in press). As indicated by many researchers in the field, including those who presented at the UNESCO RCEP event in September 2020, there is pressure from all directions to design and implement reforms that produce substantial benefits. However, strengthening education systems and improving student outcomes ultimately depend on what teachers do in classrooms and other learning spaces, including – of course – online. In this paper, I: (1) provide a brief overview of major approaches to improving teaching in operation around the world; (2) argue for the centrality of professional development in improvement efforts, and; (3) suggest the need to proceed in ways that show respect for teachers thereby eliciting their buy-in. Next, I outline the research I have been doing with colleagues in Australia which is having demonstrably positive effects for teachers and students.
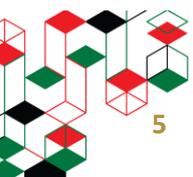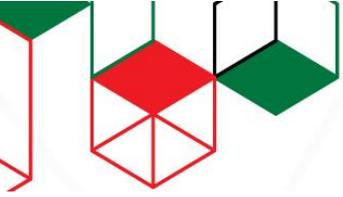
Improving teaching

It is widely accepted in the field of education studies that if we are to improve outcomes for students, we must improve teaching. In efforts to improve teaching around the world, I see four main strategies in play:

1. Recruiting and training 'better' quality teachers;
2. Improving initial teacher education;
3. Measuring and evaluating the quality of teaching;
4. Building teacher capacity.

While all these strategies have merits, they are not equal in their potential for achieving the improvement goals we seek. For example, it can come across as quite disrespectful of the existing teaching workforce to attempt to improve student outcomes by recruiting 'better' quality teachers. Such an approach begs the question, what does 'better' mean in the context, and how might these so-called 'better' teachers be trained? Recruiting 'better' quality teachers as a solution to improving student outcomes implies that the current workforce is somehow inept, which does not inspire or motivate current teachers to engage in professional development or work towards their own personal goals for improving teaching practice.

Furthermore, recruiting better teachers can only ever be a long-term solution. Recruiting and training a stream of 'better' quality teachers is a process of several years. The same point holds for improving teacher education as a solution. There is certainly some merit in efforts to reform teacher education but change, as we know, is often very slow.

Measuring and evaluating the quality of teaching might be helpful in identifying needed reforms, but it is not enough. While value-added measures have certainly played a role in efforts to gauge and improve the quality of teaching, we have seen negative implications of this approach, especially in the United States. In any event, measurement in and of itself doesn't lead to improvement.

I contend that building teacher capacity for ongoing refinement of their own and each other's practice, through professional development (PD), is the most important element of reform, especially when seeking the kind of quick outcomes that are so highly valued. Broad support for the potential of professional development is abundantly evident in the billions of dollars invested annually by governments, all around the world, with the intention of enhancing teachers' knowledge and practice (Birman et al., 2000; Bowe & Gore, 2017). The significant spending is justified by the potential of professional development to improve student achievement and other outcomes (Gore & Rosser, 2020). However, there is little evidence to date that demonstrates these outcomes, or strong return on investment.

In the past two decades, the field of professional development has seen a strong shift toward collaborative forms of teacher development (Loucks-Horsley & Matsumoto, 1999; Desimone, 2009; Borko et al., 2010; Darling-Hammond et al., 2017), including a focus on professional learning communities, lesson study, instructional rounds, and so on.

Our work in the Teachers and Teaching Research Centre (TTRC) here at the University of Newcastle in Australia is centred on a view that professional development processes are not enough. We argue that we must also focus on the *substance* of the professional development. Teachers are often implored to do better or be better, without any clear explication of what that really means.

City and Elmore (City et al., 2009), two of the main proponents of instructional rounds, themselves conclude that 'gaining an explicit and widely held view of what constitutes good teaching and learning in your setting is a first step toward any systematic efforts to scaling up quality' (p. 173). I would go further to say that we need even broader agreement on what we mean by good teaching and learning – while recognising that it's incredibly hard to come by (Gore, 2020).

Indeed, arguably one of the major shortcomings of our profession is a failure to come to terms with what we mean by 'quality teaching'. The notion is often taken up in a technical sense, but a technical account of teaching is insufficient. Teachers need conceptual guidance on the one hand and practical guidance on the other.

As noted above, most nations invest heavily in professional development in order to improve teaching. A recent OECD report, for example, shows that 94% of teachers report engaging in professional development every year (OECD, 2019). Despite this level of provision and engagement however, there is limited evidence of impact, especially on student achievement. And yet, professional development still offers great hope.
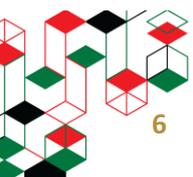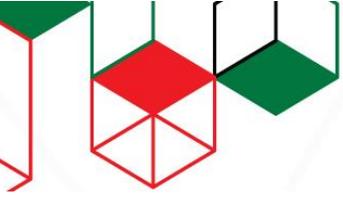
Professional development is key to reform

At the TTRC, we aim to shift the focus of professional development more to the substance of pedagogy, rather than content, wherein pedagogical practices can cut across grade levels and subject differences to truly make a difference (Gore & Rosser, 2020). And we seek evidence of change.

Logically, professional development works in three stages: design; process; impact. We design a form of or approach to professional development, and put in place processes such as protocols, good leadership and facilitation. This professional development is then supposed to have an impact on teacher learning, teaching practice and student outcomes.

The problem with this simple three-stage representation of the logic of professional development lies in its final intention: impact. We have limited strong empirical evidence of the impact of professional development, and when we do have evidence, it tends to be for a narrow part of teacher learning – perhaps one part of the curriculum in one subject area, or one set of skills. Therein lies the problem: Teachers don't have the luxury to focus on one skill at a time in classrooms. As Philip Jackson (1968) says in his book *Life in Classrooms*, classrooms are about simultaneity. So much is going on at the same time and there's also a great deal of unpredictability.

If teachers are regularly engaging in professional development and the professional development is powerful, we would see improvement over the course of teachers' careers. But in three separate studies we've conducted here in Australia, we have found the same result over a 15-year period. When mapping the quality of teaching by years of experience, we find no significant differences (Gore, Miller, & Rosser, forthcoming). This is a confronting finding, and not inconsistent with other recent studies (Graham et al., 2020).

What this result suggests is that teachers are not participating in professional development that fundamentally impacts how they teach. Other kinds of professional development are important in relation to many aspects of teaching and teachers' work; however, these results show a significant lack of engagement in effective professional development of a kind that fundamentally improves the quality of teaching. This, in turn, contributes to the slow pace of change in teacher reform.

Engaging teachers

How do we engage teachers in professional development that makes a difference? How do teachers contribute to reform?

I argue that the way forward is not to increase the regulation and assessment of teachers, or to simply track the performance of their students. Rather, we need to support teachers to embrace their role in the improvement effort. In many places around the world, teachers feel
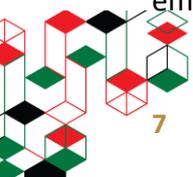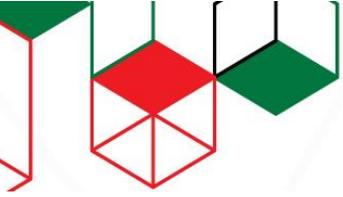
undervalued, their status is low, some feel demoralised and, certainly during the past few months, teachers have been under enormous pressure as they contend with the changing demands of this dreadful pandemic.

In our work, we have found that core to engaging teachers in reform is that we show respect for them and their work. Most of us in the field of education do have enormous respect for teachers, but this is easy to say and harder to enact. The following key points outline how we respect teachers in our work on Quality Teaching and Quality Teaching Rounds – approaches to improvement that are producing impressive results.

A focus on teaching

First, we focus on improving teaching, not teachers, thereby framing the problem as about teaching practice and the work teachers produce in the classroom, rather than conveying a view that teachers are the problem. Our fundamental premise is that all teachers are capable of great teaching, with the right support. At the same time, we aim to honour the complexity of teaching. In so much professional development, in the interest of trying to help, we simplify and reduce the act of teaching in ways that in fact undermine the realities of teachers' work lives. For example, teachers can't simply focus on improving one aspect of their practice at a time in the classroom. They must be ready to address the myriad learning and other needs of their students, all the time.

Providing support for teachers

Second, we provide conceptual and practical guidance on improvement. Imploring teachers to do better is not enough and leaving teachers to figure it out for themselves is counter-productive in the end. Surely, as a profession, with all our wisdom, we can give teachers some conceptual guidance as to what we mean by good teaching and get the balance right between challenge and support. This requires, in particular, that we provide the necessary time and conditions for focusing on the core business of teaching. Teachers tell us that they are so often pulled away from a focus on teaching and learning because there is so much else going on in schools they need to address. Our approach to professional development involves setting aside four days (over the course of one school term) during which teachers can give their full attention to their collective pedagogical practice.

Recognising what teachers bring

Third, we recognise teachers' capacities to engage in refinement of their own practice, effectively doing it for themselves, given the right tools and support. Currently, there is huge investment in coaching as a form of professional development. While there is some evidence of improvement through coaching, it can lead to overreliance on the coach for validation, correction and guidance (Gore, 2020), and it has been found to cost about twelve times as much as other forms of PD, which makes it difficult to scale (Mangin, 2009; Gore et al., forthcoming). Our approach builds on what teachers already know and do. Rather than adopt the stance of some professional development providers who effectively tells teachers to forget what they're doing and follow the
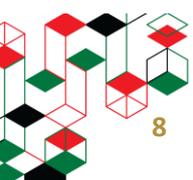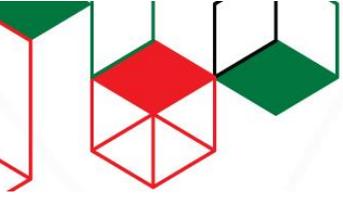
new way, we recognise that teachers bring enormous wisdom, experience and passion to their work, and we need to capitalise on that.

Such respect for teachers and the work of teaching can help build teachers' confidence – acknowledging their strengths, finding ways to give them validation, hope, and support. Just as supporting learners in classrooms is often about building their confidence, the same can be said for teachers, even experienced teachers (Gore & Rickards, 2020).

A way forward

Is it possible to achieve the outcomes we are looking for while showing respect for teachers and really engaging them in the reform process? Our work, which combines respect with powerful professional development, is producing results.

My work with colleagues in the area of quality teaching began many decades ago and continues as a result of funding partners such as the NSW Department of Education and the Paul Ramsay Foundation. We have conducted pilot studies, efficacy trials, design experiments, case studies, longitudinal studies and randomised controlled trials – a host of methods to help build a comprehensive account of our approach to reform.

At the core of the approach is a pedagogical model, called the Quality Teaching (QT) model, and a professional development process, called Quality Teaching Rounds (QTR). Both components focus on teaching, build on what teachers bring, and are designed to support teacher professional learning.

Explicating quality

The first component addresses the question of what quality teaching is, thus offering more support and guidance for teachers. Nearly two decades ago, James Ladwig and I developed the Quality Teaching model, drawing on prior work on Authentic Pedagogy (Newmann 1996) and Productive Pedagogy (Lingard et al., 2001), the intellectual antecedents to the development of this model. The model is applicable to all grades and all subject areas, which is crucial to its capacity to contribute to school-wide and system-wide reform.

Importantly, Quality Teaching is not a technical model listing a set of teaching skills; it is about the *practice* of teaching, as opposed to a set of teaching practices. If we think of the practice of law, or the practice of medicine, it's about the key principles that underpin what we mean by being a teacher. Some years ago, I conducted an interview with a deputy principal in his 40s, who had recently started working with the Quality Teaching model. Poignantly, he said: 'This is the first time in my career I feel like I'm actually teaching students. Until now, I've just been giving them work to do.'

Three key principles underpin the Quality Teaching model: Intellectual Quality; Quality Learning Environment; and Significance. Based on evidence of what makes a difference for student learning, the model highlights: (1) the need for intellectual quality, rigour, or challenge in every learning experience; (2) the need to create quality learning environments that do not just support
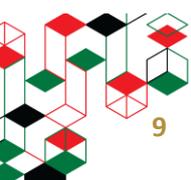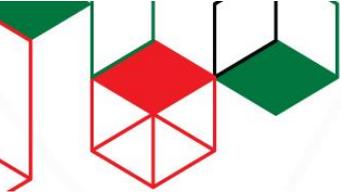
students, but their learning, and; (3) the need to try and increase the significance of that learning so that students can see its connection to the world beyond the classroom.

Under each of these three principles, we have six elements, and have developed a coding scale to add specificity in the articulation of quality teaching. See Figure 1 for coding scales associated with the element we call Deep Knowledge.

DEEP KNOWLEDGE
To what extent does the knowledge addressed in the lesson focus on a small number of key concepts and the relationships between them?

|	
1	Almost all of the content knowledge of the lesson is shallow because it does not deal with significant concepts or ideas.
2	Some key concepts and ideas are mentioned or covered by the teacher or students, but only at a superficial level.
3	Knowledge is treated unevenly during instruction. A significant idea may be addressed as part of the lesson, but in general the focus on key concepts and ideas is not sustained throughout the lesson.
4	Most of the content knowledge of the lesson is deep. Sustained focus on central concepts or ideas is occasionally interrupted by superficial or unrelated ideas or concepts.
5	Knowledge is deep because focus is sustained on key ideas or concepts throughout the lesson.

Figure 1: Coding scale for Deep Knowledge element in QTR (NSW DEC, 2003)

It is important to note that the Quality Teaching model is never used for teacher assessment – only to enable rich analytical conversations on the path to deeper professional learning. Without such a level of specificity, we find that teachers often make vague or general comments when offering feedback to each other, e.g. 'The students seemed really engaged today.' Working through the 18 elements of the model to describe and discuss lesson quality and refinement provides much richer detail and interaction among teachers.

Powerful professional development

However, simply having a model of pedagogy is not sufficient. The genesis of our approach is discussed in detail in Bowe and Gore (2017). Briefly, we draw on work by Elmore (2007) on instructional rounds, with its emphasis of gathering data in multiple sites. We also looked at scholarship by DuFour (2004) and others on professional learning communities. We hypothesised that adding the Quality Teaching model to these collaborative processes might accelerate professional learning to achieve the fast results expected of teachers, schools and systems. Without the pedagogical model, these processes tend to be dependent on the particular people in the group – what they notice and what they choose to talk about.

In our Quality Teaching Rounds approach, at least two teachers per school attend a two-day professional development workshop (which can be online), and then return to their schools to form a professional learning community (PLC) with two other colleagues. These teachers then conduct a set of 'Rounds', which typically occur over a full day, involving a professional reading discussion, a lesson observation coded through the lens of the Quality Teaching model, then
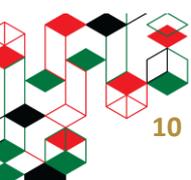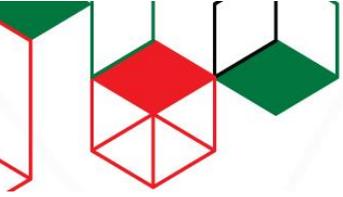
analysis and discussion of the lesson. The process is repeated on separate days until each teacher in the PLC has taught an observed lesson.
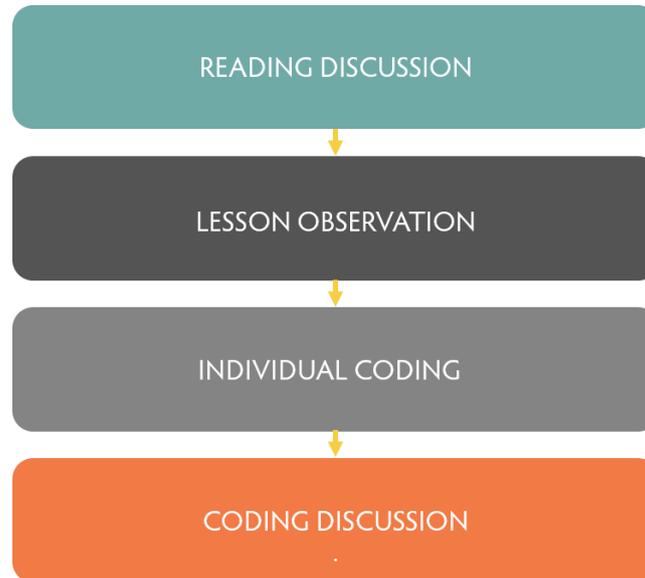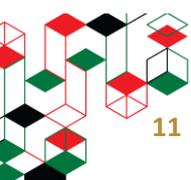

Figure 2: Quality Teaching Rounds process

Principals and beginning teachers sometimes come together in Quality Teaching Rounds, or teachers in different subject areas or from different parts of schools work together, which creates powerful professional learning on a schoolwide basis, thus accelerating reform.

Evidence of impact

Our most recent evidence comes from a study conducted in 2019 which occurred in 125 schools and involved around 500 teachers and 5,000 of their students (Gore et al., forthcoming). We found **significant improvement in the quality of teaching** as a result of participation in Quality Teaching Rounds. Designed as a randomised controlled trial, we compared results for the control group, who participated in whatever professional development was organised for the school, with results for teachers who participated in QTR. Findings (Figure 3) show a 0.46 improvement in the quality of teaching at the eight-month follow-up point. We also found **improvement in teacher morale**, which is important for our research given our passion to change hearts and minds and empower teachers to feel positive about their work.

Most excitingly, the **impact on student learning outcomes** was also significant. Over the eight-month period between baseline and follow up testing, we found 25% greater growth in mathematics outcomes for students whose teachers participated in Quality Teaching Rounds. This is equivalent to an additional two months' growth, as measured by standardised Progressive Achievement Tests (PATs) (ACER, 2011).
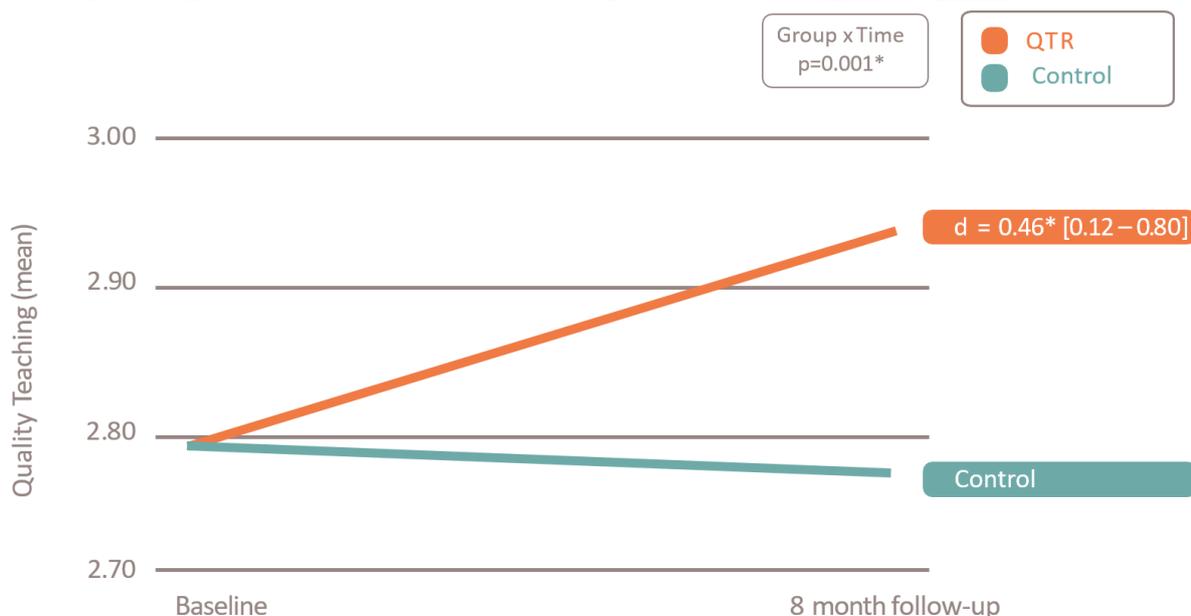
Figure 3: Impact on quality of teaching

Importantly, the **growth was greater in disadvantaged schools**, which suggests that Quality Teaching Rounds has real potential to impact on equity and social justice concerns that dominate the profession and are so important to many of us. In particular, this approach to professional development could positively influence the potential loss of learning that resulted from lockdown and school disruption due to the Covid-19 global pandemic.

In analysing the interview data from the post-intervention and follow-up phases of our research, we uncovered a wealth of information about the impact of QTR on teachers and their colleagues, with 65% of teachers making explicit comments about the positive impact of working with teachers in their schools who teach different grades and subjects (Gore & Rosser, 2020). Teachers reported that QTR enhanced their collegiality, confidence and school culture to become a much more cohesive environment focused on learning.

As demonstrated in the word cloud in Figure 4 below, the most frequent word used during interviews was 'changed'. Teachers reported that QTR changed how they see themselves and what they're trying to achieve as teachers, it changed how they view their colleagues, changed their expectations of their students, and changed the quality of work they are producing. For some, it even changed their career plans; where they might have been contemplating leaving but have now been inspired to stay in the teaching profession.

Figure 4: Post-QTR teacher interviews word cloud

To revisit the previously mentioned logic of PD, the Quality Teaching model has been *designed* to both acknowledge and distil the complexity of teaching. It is grounded in research. The *process* of Quality Teaching Rounds attends carefully to supporting teachers to engage in collaborative analysis and refinement of practice. This approach has produced measurable positive *impact* on teacher learning, teaching practice, and student outcomes.

Core elements of the reform

Lewis, Perry and Murata (2006, p. 5) state that 'innovations often fail when educators focus only on the surface features of the innovation rather than the underlying mechanism[s] that … enable it to work.' Our approach is not just about peer-observation and feedback; there are other foundational aspects of our approach that explain the great results we are seeing. These 'underlying mechanisms' are outlined here. Participation in Quality Teaching Rounds:

- Structures the knowledge base for teaching;
- Flattens power hierarchies in schools to enhance collaboration;
- Enhances relationships to build a culture of learning among teachers (Gore & Bowe, 2015).

The approach is also scalable. Already, teachers and school leaders from more than 1,130 schools in Australia have attended a Quality Teaching Rounds workshop, which prepares them to implement the approach without ongoing external support. An independent cost-benefit analysis conducted by Deloitte Access Economics (2020) fortifies the potential of Quality Teaching Rounds for engaging teachers in reform. Quality Teaching Rounds was identified as a "very low cost" intervention, with a return on investment estimated at AUD $40 for every dollar invested. Higher education investment in Australia, by comparison, returns AUD $3-4 for every dollar invested, so we were particularly pleased with this result and its endorsement of our approach for making a difference at scale.

Our research program is continuing to pursue questions on how to achieve this ambitious reform in ways that empower teachers to enrich student learning and narrow equity gaps. We are examining impacts on teachers and students, not just in terms of academic outcomes, but also in areas of equity, efficacy and wellbeing. We are also using digital technologies to investigate ways of supporting teachers and leaders in small and remote schools who often struggle to access high-quality professional development.

We are pursuing questions of sustainability, by examining how this approach to professional development and its effects can be sustained over time, informed in part by principles of implementation science and improvement science. Teachers tell us that once they understand teaching through the lens of the Quality Teaching model, they cannot go back to the way they were teaching. We have evidence of sustainability in terms of quality of teaching six to twelve months after participation in Quality Teaching Rounds and in a new school year (Gore et al., 2017). In our current work, we are also looking at sustainability two to three years after implementation at certain schools.

Furthermore, we are particularly interested in both scalability and translatability in new contexts and jurisdictions, through pilot studies in new locations. We recognise that it is not a simple matter of transporting these ideas into new places; cultural differences and policy contexts must be taken into account.

Conclusion

If we are to engage teachers in reform, we have found that we need to work with teachers, trust them, and empower them to enrich student learning. We see such an approach as much more powerful than imposing demands, seeking compliance, or measuring their performance. Rather than continue to do as we have done in seeking improvement, I argue that change is needed in how we think about professional development if we are to achieve real reform. As Francois Ewald (1992) said: 'We have a responsibility with regard to the way we exercise power: we must not lose the idea that we could exercise it differently.'

The results of our research thus far demonstrate that a large-scale roll-out of Quality Teaching Rounds would produce growth in student achievement and improvement in the quality of teaching and teacher morale. These studies are part of a larger project funded by a philanthropic grant, which has enabled us to also launch the Quality Teaching Academy – a social enterprise intended to support accessibility to Quality Teaching Rounds professional development, not only for Australian teachers and schools, but with the capacity to reach an international audience.

Teachers are critical to education reform. We must find ways – like Quality Teaching Rounds – that genuinely support them in this critical work. We look to the future of teacher professional development in Australia, and beyond, as an enterprise that supports and inspires teachers to feel challenged and fulfilled at all stages of their careers, positively impacting all students.
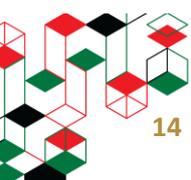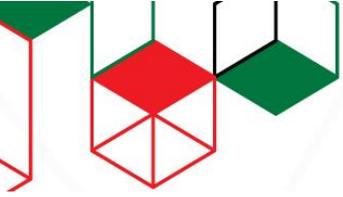
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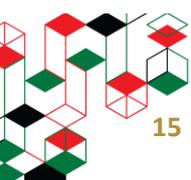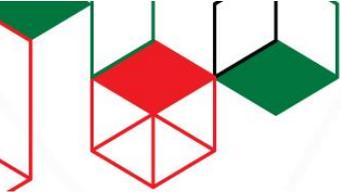
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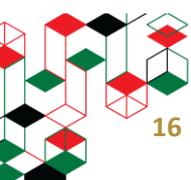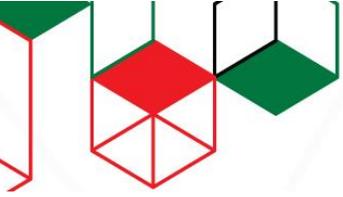
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