

2021

TEACHERS AND TEACHING RESEARCH CENTRE
ANNUAL REPORT

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About the Teachers and Teaching Research Centre

Established in 2013 and led by Laureate Professor Jenny Gore, the Teachers and Teaching Research Centre is part of the School of Education within the College of Human and Social Futures at the University of Newcastle, Australia.

In recent years, the TTRC has grown to a team of around 40, including our core researchers, professional staff, Quality Teaching Rounds Advisers, PhD students and research assistants. Renowned for rigorous, large scale and impactful research, the TTRC is the only research group in Australia with a comprehensive focus on pedagogy across the education spectrum – schools, initial teacher education and tertiary education. The research programs of the TTRC aim to improve teaching and learning and deliver more equitable outcomes through education.

The TTRC conducts ground-breaking research focused on pedagogy and teacher development, school leadership and educational reform, aspirations and equity, and STEM education.

The TTRC engages strategically and collaboratively with government departments and organisations, other peak bodies, the private sector, and researchers across Australia and internationally.

The COVID-19 pandemic has created an urgent need to identify educational priorities in Australia and tackle what matters most. Our impact agenda for 2022-2025 brings attention to three key strategic priorities that can make a significant difference to the Australian education landscape:

- Building capacity for quality teaching in Australian schools
- Supporting student pathways into tertiary education
- Improving tertiary teaching to ensure the quality of graduates.

Our values

- Respect*
- Recognition*
- Making a Difference*
- Teamwork*
- Excellence*

Annual Report 2021

This Annual Report summarises key highlights and achievements of the Teachers and Teaching Research Centre during 2021. Every effort has been taken to ensure the accuracy of the information included. You can contact us at teachers-and-teaching@newcastle.edu.au

Acknowledgement of Country

The Teachers and Teaching Research Centre respectfully acknowledges the traditional custodians, the Pambalong clan of the Awabakal people, on whose unceded lands the Centre resides at the Callaghan Campus of the University of Newcastle.



A message from the Director

Laureate Professor Jenny Gore

2021 has been an incredible year as we have navigated our major research projects through prolonged lockdowns and periods of remote learning.

Despite the challenges and disappointments, we have much to celebrate, as documented in these pages. I touch on a few highlights here.

In March, we published some of the world's earliest and most robust evidence on the impact of COVID-19 on student learning. At the time of writing, this paper has been accessed more than 16,000 times and cited across the world, in reports by the World Bank and by journalists from major mastheads including the ABC, The Australian and The Guardian. The findings also generated widespread community interest, with more than 30 interviews for radio, print and television throughout the year. We're currently analysing data to understand the cumulative effects of the pandemic on students and teachers.

Similarly, our paper on the impact of Quality Teaching Rounds on student academic achievement, published in February, has broken new ground in providing rigorous evidence of professional development that improves academic achievement. Evidence of this kind is a veritable Holy Grail in the teacher development field. With proof of concept and evidence of impact, sustainability and cost-effectiveness, we now have a clear mandate to scale Quality Teaching Rounds into every Australian school and make a significant difference to educational outcomes.

Our efforts to improve teaching and learning in Australian schools this year have been multi-pronged, from working closely with teachers and school leaders through our Quality Teaching Academy to advocating system-wide implementation with federal and state departments and ministers of education. Thanks to the generous and unwavering support of the Paul Ramsay Foundation, we have amassed, and continue to gather, an incredible amount of data. We are delighted to be using the wonderful platform pro-

vided by PRF investment in our work to support students, teachers and the wider community, including in the most disadvantaged areas.

We've broken fresh international ground through exciting engagements with the Jacobs Foundation and the Quality in Nordic Teaching Centre of Excellence. We've also continued our work on aspirations and equity, cementing this body of work as one of the most comprehensive examinations of students' post-school aspirations in the world.

Our PhD candidates have also excelled, with six completions, a best thesis prize (Dr Felicia Jar-emus), successful confirmations for all newcomers, and great progress on thesis-related data collection and analysis, despite the challenges of COVID.

It is clear that we continue to align with our key values of respect, excellence, making a difference, recognition and teamwork.

Our progress in 2021 gives me great optimism for the coming year. We are poised to contribute more fully to enhancing initial teacher education, narrowing equity gaps, and supporting teachers, families and communities in nurturing the next generation of thinkers and leaders.

As we move into an intensive data analysis phase with many of our projects, we look forward to sharing exciting results and embracing new opportunities in 2022.

It has been another enormous year, and I am incredibly proud of and grateful for each and every member of our little research centre.

With deepest gratitude,

2021 at a glance

Team

8
academic staff
(including 2 postdocs)

23
professional staff

45
casual research assistants

9
PhD scholarship holders

4
affiliates
(QTR Advisers)

*includes all who have worked
at the Centre during 2021

Outputs

3
book chapters

16
journal articles

2
in press

12
under review

22
in preparation

63%
of all TTRC articles are in
the highest ranked (Q1)
journals

*published or submitted in 2021

Media engagements

73
media engagements

2
podcast episodes

3
television appearances

17
radio interviews

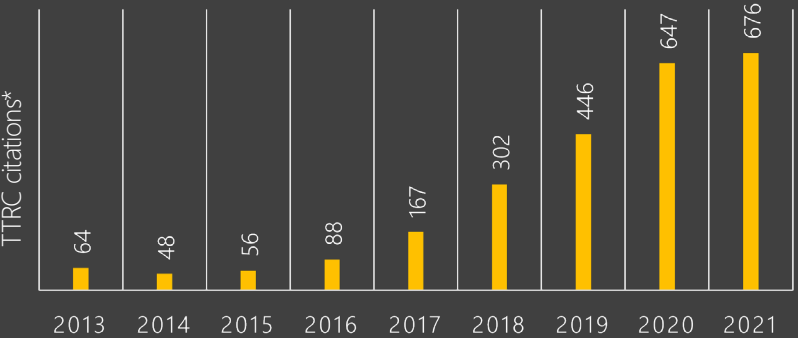
21
opinion pieces

30
print/online media
interviews

Citations

2494
citations
2013-present

676
citations in 2021



*source SCOPUS

Professional development

1,536
QT professional
development participants

821
participants at QTR
workshops

715
participants at other QT
events

48
2-day QTR workshops

23
1-day professional
development workshops

14
Webinars

1
QT online course for
academics

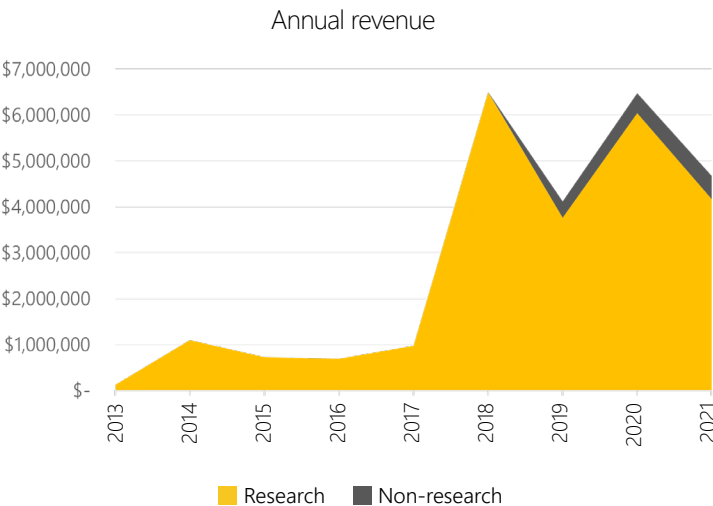
2
open education
Aspirations courses

3,322
Aspirations PD participants

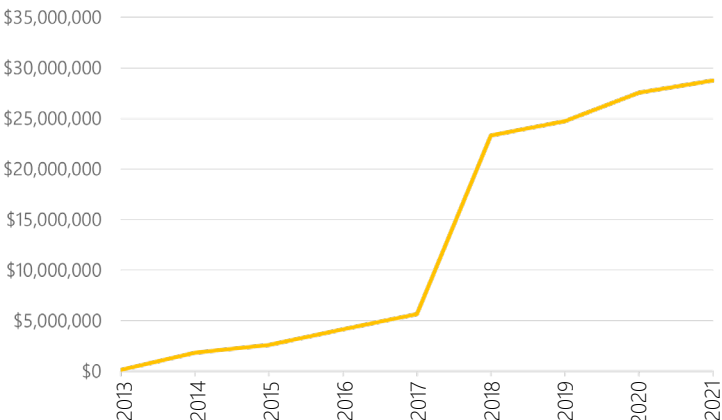
Annual revenue

\$2.83 million
in new research income

\$276 thousand
in commercialisation income



Cumulative awarded funding



Upholding our values: Teamwork

Enhancing initial teacher education

After announcing a review into initial teacher education in March 2021, Laureate Professor Jenny Gore met with the Federal Minister for Education and subsequently with the chair of the Quality Initial Teacher Education review panel, Lisa Paul OAM, to brief them on our quality teaching research and its potential to have a meaningful impact on student teachers.

These conversations led to a small pilot study with University of Newcastle final year teaching students to test their perceptions of a Quality Teaching Rounds workshop prior to their final internship.

With less than a month until submissions to the review were due, conducting a meaningful pilot study took immense teamwork from across the Centre and School of Education. This included an ethics application, participant recruitment, mailing of resources, a bespoke QTR workshop designed and delivered, research questions and surveys designed, data analysed, and a compelling submission drafted.

The pilot study included 34 graduating ITE students across two days, surveyed before and after the workshop and again following their Term 3 internship.

Our analysis of the data showed: gains in understanding the Model, efficacy and confidence; a reduction in pre-internship stress; and enhanced readiness for and connectedness to the profession, with very few participants indicating an intention to leave within the next five years.

The pilot study supported our hypothesis that QTR provides ITE students with a clear quality teaching 'roadmap' that increases their confidence in their ability to teach and continuously improve their practice independently and in collaboration with colleagues.

Our key recommendation to the panel was to ensure all ITE students have opportunities to engage with the Quality Teaching Model and Quality Teaching Rounds to ensure their smooth transition into professional, long and successful careers.

Upholding our values: Recognition

Rethinking gendered participation in school mathematics: Change the culture not the girls

Dr Felicia Jaremus was awarded School of Education Best Thesis Award in October 2021.

Felicia's study focused on two concerning trends in maths education: one, that participation in senior secondary mathematics has been steadily declining over the past decade; and two, that girls are significantly underrepresented in mathematics and STEM more broadly.

Felicia said she has always been interested in maths and trained as a maths teacher but was motivated by personal experiences to undertake this study.

"I always liked mathematics, but no one saw me as good at maths. I grew up being told it was my

brother who had the 'maths brain' in the family."

Through wide-ranging interviews with teachers and students, Felicia chose to emphasise the experiences of young women with mathematics. Felicia has already published a number of papers and reports on gender and mathematics participation and was awarded her PhD in December 2020.

Felicia's was one of several awards won by TTRC Academics, PhD students and professional staff members. The dedication and hard work of the entire team contributes massively to these individual accolades.

Upholding our values: Respect

Building trust and collegiality

At the heart of our Centre is respect for teachers and the work they do.

Teachers participating in our research on the Quality Teaching Model and QTR like how our approach honours the complexity of teaching. This year, teachers in Queensland had their first taste of Quality Teaching Rounds as part of our New Jurisdictions project, which is introducing QTR into states that haven't previously participated.

Tamsin Watson, a Year 5 teacher at Peregrine Springs State School in QLD, is new to QTR and the Model. After completing her first set of Rounds, Tamsin reported building trust and deeper connections with her colleagues and feeling affirmed in her capacity as a teacher.

"As teachers we always value seeing what someone else is doing. But what the QTR structure does is give you a chance to talk it all through,

which is something you don't get when you just pop into someone's class. This gives you the opportunity to really pull it apart and look at every aspect of the lesson."

Tamsin said observations and "walk throughs" can sometimes feel intimidating, but that QTR promotes a safe environment that focuses on building capacity and collegiality.

"It was so much easier to talk in the QTR environment. Everyone felt like they could speak. I like the structure, and the protocols that gave everybody their opportunity to talk. You couldn't interrupt and everyone had their time.

"It was quite reassuring – it was nice to have your colleagues say that was a really good lesson."

Tamsin's experience aligns with our latest QLD research findings that QTR positively impacted on teaching quality, morale and school culture.

Upholding our values: Excellence

Thriving despite floods, fires and COVID-19

In December, Senior Project Manager Wendy Taggart presented at the 2021 Australian Association for Research in Education Conference on her experience managing the largest randomised controlled trial in Australian education research history. Her presentation exposed the messy, unpredictable and challenging rollercoaster of conducting school-based research.

Our massive four-arm randomised controlled trial began in 2019, with final data collected in December 2021. Over the three years of the study, we have contended with once-in-a-generation catastrophes including the Black Summer Bush Fires, state-wide flooding (on several occasions), and a global pandemic with multiple variants, all of which hindered our research.

And yet, despite these challenges, we continued to gather incredible amounts of data and published ground-breaking findings.

In February 2021 our paper demonstrating that QTR improved student achievement in mathematics was published in the international journal, *Teaching and Teacher Education*. Also, after pivoting our 2020 study to focus on the effects of the pandemic on student learning, we published some of the world's earliest empirical evidence on the effects of COVID-19.

By the end of 2021, we had successfully completed the research for our four-arm QTR RCT, our QTR-Digital RCT, the first cohort of an RCT in Queensland and a pilot study of QTR in Victoria, as well as continuing on other research projects.

Upholding our values: Making a difference

Supporting quality teaching at Cessnock High School

Cessnock High School has high levels of socio-economic disadvantage and enrolls a high proportion of Indigenous students. Quality Teaching Rounds is at the heart of an ambitious four-year project to help reinvigorate a culture of high-quality teaching and learning at the school.

In just its first year, the project is already making a difference.

Project lead, Dr Drew Miller, said the overarching goal was lifting students' academic achievement through a holistic focus on quality teaching, assessment, and school culture.

"It is wonderful to be building a relationship with Cessnock High to take a really deep, analytical and long-term approach to the pursuit of improvement and excellence. The initiatives we are implementing will support the leadership team to enhance staff morale and culture, further develop teaching efficacy and embed a shared vision of high-quality practice at the school."

"We will be providing ongoing support for the school's work in achieving their academic, social and community targets over the next four years."

According to Principal Peter Riley, the Cessnock High School staff are committed to holistic improvement that will benefit the entire school and wider community.

"We are aiming to develop a strong culture of educational achievement at Cessnock High, a culture that celebrates success and excellence among our students and our staff," Mr Riley said.

"By focusing on quality teaching, improved leadership and building a positive school culture we hope to increase engagement in education, resulting in improved attendance, retention and attainment rates for students."

"I see this as a real opportunity to create long-term change and improve equity in our region."



See more about this project:

Impact Agenda 2022-2025

Priority 1: Building capacity for quality teaching in Australian schools

Strategy: Widescale implementation of Quality Teaching Rounds for preservice and in-service teachers

Benefits:

- Improving quality of teaching
- Addressing disadvantage
- Enhancing initial teacher education

Priority 2: Supporting student pathways into tertiary education

Strategy: Support schools and communities to nurture student aspirations

Benefits:

- Equipping educators with the tools to support student aspirations
- Empowering community members to create change
- Informing higher education equity policy

Priority 3: Improving tertiary teaching to better prepare job-ready graduates

Strategy: Provide widescale professional development in teaching for tertiary educators

Benefits:

- Improving teaching in universities
- Improving teaching of vocational education

Our priorities in action

Our priorities for the next three years are based on ground-breaking research and a focus on three critical aspects of young people's learning lifecycle – the quality of teaching at school, pathways available post-school, and the quality of teaching they receive in tertiary education.

By supporting their learning journey, we can make a significant difference to students, their teachers, school communities and the wider society.

Priority 1: Building capacity for quality teaching in Australian schools

A) Since our Building Capacity project began in 2019, more than 3,200 teachers from more than 1,200 schools have participated in Quality Teaching Rounds professional development workshops, already positively impacting an estimated 400,000 students.

Results from our first RCT cohort, published in 2021, demonstrated that when teachers participated in QTR their students achieved an additional 25% learning growth in mathematics. Strikingly, these results were even stronger in disadvantaged settings.

B) Our QTR Digital approach enables teachers from different schools to come together and collaborate using the powerful QTR processes. This mode of engagement in QTR addresses issues that often hamper professional learning in

Engagement with and adoption of these priorities by government, education systems and peak bodies will be critical to ensure broad and meaningful impact for all Australian students and their teachers.

Through comprehensive research and engagement activities the TTRC is already demonstrating how these priorities can have positive impact.

small and remote schools such as a lack of casual teachers, low staff numbers, and limited access to quality PD. A robust digital model is all the more important in the context of COVID-related travel restrictions, social distancing and school closures.

C) In a pilot initial teacher education program we demonstrated that providing teaching students with a deeper understanding of the Quality Teaching Model prior to their final internship increased confidence in their ability to teach and capacity for continuous improvement.

This addition to ITE programs can address concerns about the quality of beginning teachers and play a role in ameliorating excessive attrition, which is especially critical at this time of worsening workforce shortages.

Impact to date:

1,200 schools, 3,200 teachers, 400,000 students

Priority 2: Supporting student pathways into tertiary education

Achieving equitable access to tertiary education is a complex challenge. Our Aspirations Longitudinal Study found that to achieve broader participation and equity goals and meet the needs of a 21st century workforce, policy needs to focus on more than just job-readiness. Our first-of-its-kind research led to the development of several successful courses aimed at supporting teachers and communities to understand and nurture students' educational and career aspirations.

Over the past three years, more than 1,300 teachers from across Australia have participated in our free online professional development course,

'Aspirations: Supporting Students' Futures'.

In 2019 we also launched an online EdX course, 'When I Grow Up: Supporting Children's Aspirations' aimed at parents, carers and the wider community to bring them up to speed on the latest in aspirations research and how they can influence and nurture the futures of the young people in their lives. To date, more than 2000 people have enrolled.

Our aspirations research continues, with spin-off studies, ongoing publications and policy advocacy work.

Impact to date:

33 publications, 3,300 participants in 90 countries

Priority 3: Improving tertiary teaching to better prepare job-ready graduates

Improving teaching quality is not just a focus of the school system but is demanding increasing attention in the university and wider tertiary sector. The TTRC has been at the forefront of the pursuit of quality teaching in higher education. A pilot project in 2019 and 2020, identified as a strategic priority by the University of Newcastle Vice-Chancellor, culminated in the mid-2021 launch of an online, self-paced professional development course for academics.

Already, more than 150 academics and teaching staff from the University of Newcastle have enrolled in the course, with 100% of those who completed the evaluation indicating that the course had a positive impact on their teaching practice.

Impact to date:

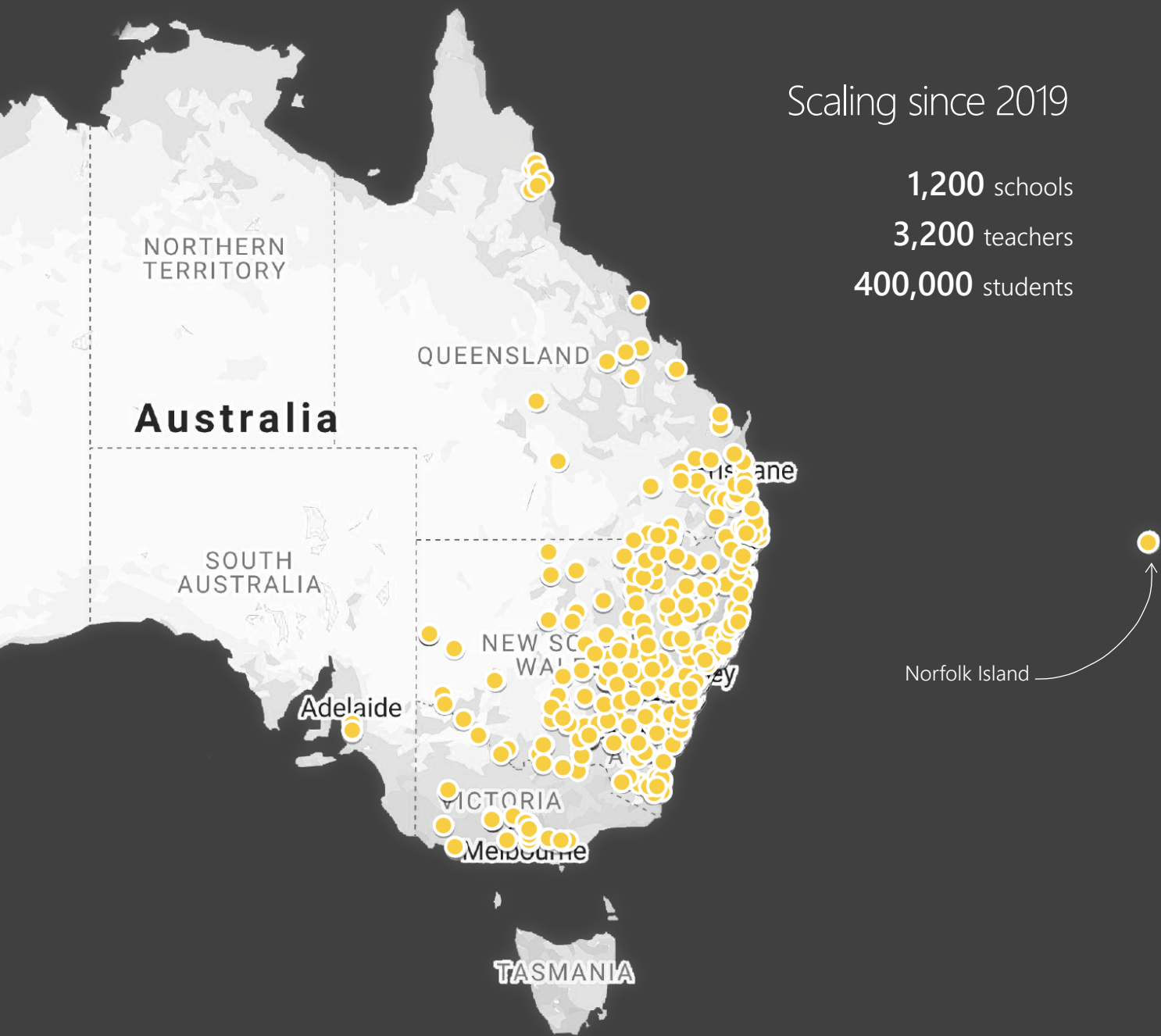
First-of-its-kind course, 150 academics, interest from other universities

Building Capacity for Quality Teaching in Australian Schools

Chief Investigators: Jenny Gore, Drew Miller, Jess Harris, Elena Prieto-Rodriguez

In 2021, despite interruptions caused by the global pandemic, we have continued to undertake an impressive program of Quality Teaching Rounds research and scaling initiatives.

The Building Capacity program of work encompasses the following four research projects and the work of the Quality Teaching Academy.



Impact on student outcomes

Academic Lead: Leanne Fray
Project Manager: Wendy Taggart

Investigating the impact of teacher participation in QTR on student academic achievement is the primary goal of this four-arm randomised controlled trial. Challenges in recruiting schools necessitated a split cohort design, with 125 schools involved in 2019 and 80 schools involved in 2021, following postponement from 2020 due to the COVID-19 pandemic.

The first cohort demonstrated statistically significant positive effects of QTR on student learning outcomes in mathematics, teaching quality and teacher morale. We found slightly greater effects in disadvantaged schools, signalling the potential of QTR for addressing disadvantage. These results are exciting and significant, not just for the project but for the field. Few studies have demonstrated significant effects of professional development on student outcomes, especially with a short-term, low-cost intervention that builds teachers' capacity for ongoing improvement and is applicable across all grades and subjects and for teachers at all stages of their careers.

Despite major challenges for schools during 2021, the research proceeded with high levels of support from participating schools. During Term 1 we conducted 10,585 progressive achievement tests (PATs), 4026 student surveys and 286 lesson observations in 80 schools. Following randomisation into intervention and control groups, all QTR participants (in 40 schools) completed a set of four Rounds and teachers in 17 of the 20 active control schools completed Peer Observations during Term 2. In-school researcher fidelity checks were completed in these 57 schools. Due to continued COVID restrictions in NSW public schools, Term 4 follow-up data (PATs and student surveys) were primarily collected by teachers. Despite the challenges and disruptions, data were collected from all but one school, a huge accomplishment.

QTR Digital

Academic Lead: Jess Harris
Project Manager: Mikahlia Holmes

QTR Digital was developed to enable participation in QTR by teachers in schools that are hampered in accessing high-quality professional development due to low staff numbers and difficulty accessing casuals in regional and remote areas. As part of our commitment to equity and access, this major trial is assessing the impact of QTR Digital on student academic outcomes.

Following disruption due to COVID-19 in 2020, QTR Digital proceeded in 2021 with 128 participants from 75 schools. In Term 1, we worked with schools to collect consent from 1,305 primary and secondary students and supported teachers to facilitate 3,181 progressive achievement tests (PATs) in Maths and Reading. 119 participat-

ing teachers recorded their lessons for analysis, resulting in almost 54 hours of video data that were coded by a team of experienced research assistants. Interviews were also conducted with 23 teachers and school principals.

65 teachers participated in QTR across 18 PLCS in Terms 2 and 3. Follow-up data collection (maths, reading, teacher survey and lesson videos) occurred from Week 6 of Term 4 in 2021. Results indicate a significant positive effect of QTR on the quality of teaching in small, regional and remote schools. Primary students' achievement in reading was also significantly greater in the QTR group than the control group.

New Jurisdictions

Academic Lead: Sally Patfield
Project Managers: Terina Vale, Tim Dean

The New Jurisdictions project aims to introduce and measure the impact of QTR beyond NSW. Pilot studies of QTR in two new educational jurisdictions – Queensland and Victoria – were successfully completed in late 2020 and 2021 respectively. These pilot studies established that QTR can be successfully implemented in contexts where there has been minimal direct prior engagement with the Quality Teaching Model and Quality Teaching Rounds.

Following these successful pilots, attention has now shifted to examining the effects of QTR on student outcomes in Queensland and Victoria. The Institute for Social Science Research at the University of Queensland was commissioned to conduct an independent RCT investigating the

impact of QTR on primary school students in Years 5 and 6 in Queensland, with 58 schools taking part in the first cohort this year. An additional 50 schools have been recruited for a second cohort in 2022, for a combined total sample of more than 90 schools for this trial.

The Australian Council for Educational Research has been commissioned to conduct an equivalent trial of the impact of QTR for students in Year 8 in Victorian secondary schools. Following successful state-level ethics approvals in late 2021 recruitment began in Term 4. The trial will proceed with 40 schools in 2022.

Longitudinal Research

Academic Lead: Drew Miller
Project Manager: Tim Kelso

The longitudinal research is designed to evaluate whether the impact of QTR in schools can be sustained over time, using data from regular surveys, NAPLAN (data linkage with the NSW Department of Education) and case studies. This project is examining data on three different levels.

At the school level, we have recruited 125 schools and are evaluating the implementation of QTR over 3-5 years, looking at the impacts on teachers and students through available school linkage data. The first report on these data was tabled in the 2021 annual report to the Paul Ramsay Foundation.

At the teacher level we currently have 109 participants and through surveys administered more

than three times we are evaluating the impact of teacher participation in QTR over time (e.g., efficacy, morale, burnout).

Finally, through this project we are developing detailed case studies of individual schools to provide rich descriptions of the implementation of QTR in diverse school settings.

One case study paper was published this year, and another is under review.

We are planning additional case studies in disadvantaged schools in 2022. An expression of interest for a QTR TTRC-school partnership program was fully subscribed within a day of being announced in December.

The Quality Teaching Academy

Empowering teachers to enrich student learning

A near decade-long vision was realised in October 2020 when we successfully launched the Quality Teaching Academy. As a non-profit social enterprise, the Academy is charged with providing evidence-based professional development, advocating for the profession, and supporting a community of teachers through a shared vision of quality teaching for every student, every day.

Despite the challenging operating environment of the past 12 months, the Academy has established itself as a leading teacher professional development provider with a community of more than 2,200 members. We ran 48 two-day QTR foundational workshops, an average of more than 1 per school week, which saw more than 1,500 workshop participants taking part from NSW, QLD, ACT, VIC, SA and WA (and internationally).

The necessary pivot to online delivery enabled us to reach into new jurisdictions and hit key milestones in supporting teachers from rural, remote, and disadvantaged schools. We have continued to diversify our offerings with the following new one-day courses:

- *Quality Teaching Masterclass: Extending the Discussion*, a workshop designed to enable teachers to develop a deeper understanding of the Quality Teaching Model; and
- *Quality Teaching: Enhancing Assessment Practice*, a workshop which applies the Quality Teaching Model to assessment practice.

In 2021 we developed key resources to support our scaling efforts and provide additional value to our members, including:

- Revised editions of the Quality Teaching Classroom Practice Guide (January 2021) and the Quality Teaching Assessment Practice Guide (April 2021)
- 21 new short videos (including 18 element videos)
- Three new lesson videos
- A range of free member-only webinars
- A mapping of QTR to the NSW School Excellence Framework
- A mapping of QTR to the National School Improvement Tool



QUALITY
TEACHING
ACADEMY

COVID-19 effects on students and teachers in 2021

Chief Investigators: Jenny Gore, Leanne Fray, Drew Miller, Jess Harris

Academic Lead: Leanne Fray

Project Manager: Wendy Taggart

The COVID-19 global pandemic resulted in unprecedented disruption to schooling for more than 90% of the world's school students. Our research on the impact of COVID-19 on student learning was at the forefront globally in developing an understanding of the pandemic's effects on schooling. A World Bank review on the impact of COVID-19 on teaching and learning found our initial work (published in early 2021) was one of just six studies globally that met the rigorous requirements of empirical research, including having directly comparable data. Additional papers, on the effects of the pandemic on teachers and students are currently in press.

The next challenge is developing an understanding of the short- and long-term effects on student learning of disruption across multiple years, especially for disadvantaged and vulnerable students who appear to have already suffered most. Given the 2021 lockdown in NSW, there is

an urgent need for rigorous empirical evidence on the impact of cumulative periods of school disruption.

The TTRC is in a unique position to undertake this work, given our comparable data sets from Terms 1 and 4 in 2019, 2020 and now 2021.

Our 2021 cohort will help create a more complete picture, producing robust evidence of the impact on student attitudes and academic outcomes in a range of NSW schools, including schools in disadvantaged communities.

Through interviews with teachers and principals, results of this study will also provide insights into effects on teacher morale and efficacy. The study involves more than 2,800 students and 120 teachers from 60 primary schools, with most data drawn from the QTR RCT in NSW.

QTR and Casual Teachers

Chief Investigators: Jacquie Briskham, Jenny Gore, Jess Harris, Leanne Fray, Drew Miller

Project Manager: Tim Dean

Casual Relief Teachers (CRTs) provide an essential role in the effective functioning of schools. In Australia, it is estimated that students spend approximately three hours per week, and up to one cumulative year over the duration of their schooling, being taught by someone other than their classroom teacher. Despite the important role played by CRTs in our schools, they often find it difficult to access high-quality professional development, due to availability, location and cost.

In this project, we are working with eight schools in the Hunter and Central Coast regions to pro-

vide access to QTR professional development for 32 CRTs (four per school). Preliminary interviews, surveys and lesson observations were conducted with each of the 32 participants. Next, the CRTs attended a dedicated two-day QTR workshop. Twenty of the CRTs were able to participate in Rounds prior to school closures in Term 3, 2021. 20 participants will complete Rounds in Term 4, 2021 or Term 1, 2022. This research will provide important insights into the experiences and teaching practices of CRTs across multiple schools and the potential value of QTR for this important segment of the teaching workforce.

Supporting Quality Teaching at Cessnock High School 2020-2024

Chief Investigators: Drew Miller, Jess Harris, Jenny Gore, Leanne Fray

Academic Lead: Drew Miller

Project Manager: Yvonne Dean

Our four-year research project with Cessnock High School, the most disadvantaged school in the Hunter region, is already having a substantial impact since it began in Term 3, 2020. Utilising longitudinal mixed methods to assess a wide range of teacher and student outcomes, the project is tracking the impact of sustained school-wide professional development in Quality Teaching Rounds, assessment practice, and middle leadership.

A key focus of 2021 has been the rollout of QTR to teaching staff at the school. All but two staff members participated in a one-day workshop and a full set of Rounds across 2020-21. Additionally, the school's middle leaders attended two targeted workshops in March and June.

Faculty level data collected in the whole school survey was used during these workshops for the purposes of assessing and planning targeted leadership activities for each middle leader.

The ongoing co-design of the project with the school and its longitudinal nature have ensured that the collected data is functional, relevant, and impactful for the school executive. Follow-up data, collected at 12-month, indicates that the initiatives at the school have already led to improvements in teaching efficacy, wellbeing and school belonging, with significantly improved perceptions of school leadership and positive effects on student outcomes as measured by NAPLAN.

Supporting Quality Teaching in Schools for Special Purposes (SSP) 2020-2021

Chief Investigators: Leanne Fray, Jenny Gore, Drew Miller, Jess Harris with Carl Leonard and Judith Foggett (Special Education Centre)

Academic Lead: Leanne Fray

Project Manager: Yvonne Dean

The TTRC, with colleagues from the Special Education Centre, is working in partnership with Kotara School, to understand how QTR and the Quality Teaching Model impact teaching and student outcomes in Schools for Specific Purposes (SSP).

The Kotara School is home to 28 primary students and seven teachers, as well as students in the NEXUS mental health unit at John Hunter Hospital. Each class is assigned a teacher and a student learning support officer (SLSO). The

Kotara School also leads a Special Education Hub for others in the area.

The project will contribute important empirical evidence on the implementation of QTR in SSPs. Findings reported to Kotara School and to the NSW Department of Education aim to inform practice in other inclusive education settings. Despite initial hesitation about the relevance of a focus on pedagogy among some staff, teachers are now unanimously passionate about its impact.

Quality Teaching in Higher Education

Chief Investigators: Jenny Gore, Sally Patfield, Drew Miller, Elena Prieto-Rodriguez, Leanne Fray
Academic Leads: Jenny Gore and Sally Patfield

A pilot study of Quality Teaching in Higher Education was completed in late 2020. Involving 26 academics working across seven disciplines at the University of Newcastle, the study evaluated the application of the Quality Teaching Model and the Quality Teaching Rounds process for enhancing teaching at the University of Newcastle.

Given positive results from the pilot study, the Vice-Chancellor and Pro-Vice Chancellor (Academic Excellence) endorsed the development of an online professional learning course available to all academic and teaching staff across the University. The course includes videos, resources, and a Quality Teaching Classroom Practice Guide designed specifically for higher education that can be used by academics to analyse their

practice and engage in peer observation with colleagues within and across disciplines.

Since its launch in May 2021, 153 academics and teaching staff across the University enrolled in the course. By the end of 2021, 35 participants had completed the optional evaluation at the end of the course, with 100% indicating that the course will have a positive effect on their teaching.

The course is currently featured in the University's new 'Foundations for Inspiring People' framework, recommended by the University's leadership team as a key strategy for academic staff to enhance the quality of their teaching and a mechanism to provide evidence of strong pedagogical practice.

Enhancing Initial Teacher Education

Project Team: Jenny Gore, Steve Hannan, Jess Harris, Drew Miller, Michelle Ware, Natalie Hudson, Tim Kelso

Clarifying what constitutes quality teaching is fundamental to ensuring the preparedness of ITE graduates.

One of the core arguments in our submission to the Quality Initial Teacher Education Review in July this year was that using the Quality Teaching Model and Quality Teaching Rounds would provide ITE students with a clear quality teaching roadmap to increase confidence in their ability to teach and continuously improve their practice, both independently and in collaboration with colleagues.

We tested this premise by conducting a pilot Quality Teaching Rounds pre-internship workshop with 34 preservice teachers. The pilot took place in the week before students commenced

their internship and its effectiveness was measured using survey data from three time points – pre-internship, post-workshop and post-internship.

The results were striking, with participants strongly agreeing that the workshop improved their preparedness for internship and the profession, strengthened their teaching and student engagement strategies, and reduced internship stress.

Based on these initial results, we recommended to the review panel a multi-institutional funded study to investigate the impact of engagement with the Quality Teaching Model and Quality Teaching Rounds for ITE students.

Leveraging Evidence for Action to Promote change

Project Team: Jenny Gore, Jess Harris, Steve Hannan, Michelle Ware, Julie Cowan, Tom Carey
Project Manager: Julie Cowan

Project LEAP (Leveraging Evidence for Action to Promote change) is an initiative of the Jacobs Foundation designed to enable research and social entrepreneur fellows to contribute as consultants and advisors to a range of impactful education projects across the world.

The potential for the Quality Teaching Model and QTR to make a significant difference globally was identified by the Jacobs Foundation following our participation in its annual conference. Because COVID-19 prevented a face-to-face conference, the Jacobs Foundation partnered with MIT to host a "Solve-a-thon", bringing together hundreds of researchers and education professionals from across the globe.

While we didn't win the "Solve-a-thon", our team received an honourable mention from the eminent judging panel and our pitch was recommended for further investment by the Jacobs Foundation.

Four fellows have contributed to at least 400 hours over a 10-week period to develop an evaluation tool and strategic framework for international expansion of QTR:

Sergio Medina, based in California, has 20 years' experience working with local and national governments and NGOs, including UNICEF, across Africa, Europe and North America.

Clint Bartlett, based in South Africa, has worked across three continents, concentrating on impact finance and social development.

Efua Payida, based in the UK, holds an MBA from the University of Oxford where she specialised in digital transformation and impact investing.

Mahjabeen Raza, is a researcher based in the US focused on providing academic advice on the implementation of education interventions in Africa, Asia and the Americas.

Policy impacts on ITE

Chief Investigators: Jess Harris, Nerida Spina (QUT), Kathleen Smithers
Project Manager: Kathleen Smithers

This research has been ongoing following the publication of the 2020 book *Making it as a Contract Researcher: A pragmatic look at precarious work*. Over the past year, we have continued analysing and producing publications on various aspects of the work and lives of contract researchers within higher education in Australia and Britain. Recent publications have included collaborative work with a range of researchers in Australia and the United Kingdom, including Alex Jones (University of Newcastle), Jen Azordegan (ACU), Simon Bailey (University of Kent), Mhorag

Goff (University of Manchester), Inger Mewburn (ANU), Sarah Gurr (UON) and Troy Heffernan (LaTrobe).

The research team is currently working on an ARC Discovery Project application with Troy Heffernan (LaTrobe), under the mentorship of Janet Rankin, Suzanne Vaughn and Barbara Comber, which proposes the use of institutional ethnography to examine the impacts of recent changes in higher education policy and practice on academics within initial teacher education.

Movement Oriented Games Based Assessment

Chief Investigators: Drew Miller, David Morley (Leeds Beckett)
Academic Lead: Drew Miller
Project Manager: Colin Sanctuary

The Movement Oriented Games Based Assessment (MOGBA) program is the first Specialised Movement Skills (SMS) intervention for children aged 8-12 years participating in multiple sport and physical education settings. MOGBA has been purposefully designed to provide an appropriate range of games-based activities and has an integrated assessment framework to develop and assess children's SMS competence within a dynamic and fluid environment simultaneously.

This program is currently under experimental evaluation across Australia, England and Ireland, with completion expected mid-to-late 2022. If the efficacy trials display positive effects on the motor development and physical activity outcomes of children, the program will be scaled to more than 6 million children worldwide through Nike's Made-to-play network.

Leadership Development for Formal Middle School Leaders

Chief Investigators: Jess Harris, Jenny Gore, Drew Miller, Nathan Towney (PVC, Indigenous Strategy and Leadership), and researchers from the University of Wollongong
Academic Lead: Jess Harris

The critical role of middle leaders in leading school and teaching improvement is acknowledged by the Australian Institute of Teaching and School Leadership (AITSL) and national and international researchers in the field. Despite this acknowledgement, most middle leaders in schools have minimal professional development, ongoing support or expert mentoring in leadership.

The co-design of the Middle Leadership Development Program has been undertaken by a collaborative research team from the University of Newcastle, the University of Wollongong, and the NSW Department of Education's School Leadership Institute.

This ground-breaking program will commence in 2022 with an initial cohort of 200 substan-

tive middle leaders from government schools throughout NSW. Over an 18-month period, participants will engage with four key themes of leadership (Identity, Inquiry, Improvement and Influence) and have the opportunity to select two specialist themes for further leadership development across a broad range of NSW school contexts. Graduates of this program will be eligible to apply for credit into the Master of Educational Leadership and Management at the University of Newcastle or the Master of Education (Leadership) program at the University of Wollongong.

The research team will systematically gather evidence to both refine the program and contribute scholarly insights for the school leadership field.

HunterWiSE

Academic Collaborators: Elena Prieto-Rodriguez (TTRC), and representatives from across UON - Regina Berretta, Karen Blackmore, Anna Giacomini, Sarah Johnson, Juanita Todd, Erica Wanless

The HunterWiSE initiative has been running since 2016, developing mentoring opportunities for women in STEM careers throughout the Hunter region. HunterWiSE promotes positive collaboration and sharing of experiences, building on a partnership between the University of Newcastle and several key regional partners.

The ongoing HunterWiSE program features two key interlinked actions aimed at increasing the number of girls and women participating in STEM. The first is a targeted 10-week program for female students in Year 8 to work alongside STEM professionals and University students to tackle local community issues.

The second initiative is a series of networking events and mentorship opportunities for women working in a wide range of STEM fields across the Hunter.

These initiatives work together to increase interest in STEM careers among young women and develop a positive community for females already working in the field. More than 200 female STEM professionals are active HunterWiSE members, and more than 200 students have participated in the schools program.

Coding and STEM 4 Schools

Chief Investigator: Elena Prieto-Rodriguez

The Coding and STEM 4 Schools project (CS4S) provides professional learning opportunities for, and conducts research into, the teaching and learning of coding and STEM in primary and secondary schools. CS4S research and professional learning opportunities focus on: the implementation of the digital technologies learning area of the Australian Curriculum; the teaching of coding and computational thinking in K-12; and integrating coding and computational thinking with different K-12 subjects (such as Mathematics).

This project is funded by a Google Educator PD grant and, in 2021, included two NESA-accredited

professional learning workshops developed in collaboration with colleagues at University College London on their Scratch Maths program.

Unfortunately, COVID-19 disruptions led to the postponement of the CS4S professional development. Further opportunities will be available in 2022.

Our research in this space, in collaboration with academics from Western Sydney University, argues for the integration of Digital Technologies and Mathematics to increase student achievement and participation in high-level maths.



Aspirations Longitudinal Study

Chief Investigators: Jenny Gore, Leanne Fray, Sally Patfield

Academic Lead: Jenny Gore

Project Managers: Leanne Fray, Sally Patfield

The Aspirations Longitudinal Study was the first of its kind to seek comprehensive insight into factors that shape the career and educational aspirations of students during schooling (Years 3 to 12). Drawing on important findings from the longitudinal study and related studies conducted between 2012 and 2018, the TTRC continues to offer several successful courses for teachers, education students and the wider community:

1. *Aspirations: Supporting Students' Futures* course is a free online professional development course for teaching staff, school leaders and other education stakeholders. Since its 2019 launch, 1,322 teachers across Australia have enrolled in the course.
2. *Understanding Aspirations for Greater Equity* online course is available as an elective for postgraduate students studying at the University of Newcastle. The course, which provides a comprehensive account of student aspirations, was launched in 2020 and completed by 7 students during its first semester on offer. In 2021, the course was completed by an additional 22 students.

3. *When I Grow Up: Supporting Children's Aspirations* is an online EdX course launched in 2019 for parents, carers and community members to help them understand, influence and nurture the career and educational aspirations of young people. The course has now been offered twice through the EdX platform, attracting approximately 2,000 participants, aged from 7 to 70, from 90 different countries around the world.

This year several papers have been published from our Aspirations program of work, focusing on first-in-family students, young people living in regional and remote areas, the stratification of aspirations and institutional choice, and the changing nature of contemporary higher education. The work continues to attract considerable interest from various state governments and stakeholder bodies such as the Career Development Association of Australia.

Aspirations, Equity and Higher Education Course Choice: The Path Travelled

Chief Investigators: Felicia Jaremus, Jenny Gore, Sally Patfield, Leanne Fray, Elena Prieto-Rodriguez

Academic Lead: Felicia Jaremus

In July 2020, Felicia Jaremus and colleagues won a grant for a new project, titled *Aspirations, Equity and Higher Education Course Choice: The Path Travelled*, which sought to engage participants from the Aspirations Longitudinal Study to investigate which students realised their childhood aspirations, for what higher education courses, and why.

Commencing in October 2020, the project surveyed 52 and interviewed 21 participants from the original Aspirations longitudinal studies who had left school prior to 2021. The aim was to determine how their school aspirations shaped their post-school destinations.

In the surveys and interviews, specific consideration was given to students from equity target groups and to the potential exacerbation of inequalities as a result of recent national crises, such as bushfires and COVID-19. The report includes detailed accounts of the experiences of seven young people as they navigated their post-school pathways.

The final report was submitted to the National Centre for Student Equity in Higher Education in October 2021, with a journal article now in preparation.



Current research project funding

Chief Investigators	Description	Funding Body	Awarded (\$)
Gore, Miller, Harris, Prieto-Rodriguez, Lubans	Investigating the efficacy, complexity and sustainability of teacher change	Australian Research Council	590,742
Gore, Miller, Harris, Prieto-Rodriguez, Smith, Lubans	Building Capacity for Quality Teaching in Australian Schools	Paul Ramsay Foundation	17,232,571
Gore, Miller, Harris, Prieto-Rodriguez	Quality Teaching Rounds in NSW Government Schools	NSW Department of Education	1,000,000
Gore, Fray, Harris, Miller	COVID-19 Effects on Students and Teachers in NSW Government Schools in 2020	NSW Department of Education	198,736
Miller, Harris, Gore, Fray	Investigating school change: Supporting teaching, leading, assessment and learning through Quality Teaching Rounds	Cessnock High School	137,202
Gore, Harris, Miller, Fray, Briskham	Investigating the efficacy, complexity and sustainability of teacher change: Impact of QTR on casual teachers	NSW Department of Education	107,232
Jaremus, Gore, Patfield, Fray, Prieto-Rodriguez	Aspirations, equity and higher education course choice: The path travelled	National Centre for Student Equity in Higher Education	32,900
Fray, Gore, Harris, Miller, Foggett, Leonard	Supporting Quality Teaching at Kotara School	Kotara School	24,712
Gore, Harris, Miller, Towney, with UOW	Leadership Development for formal Middle School Leaders Program	NSW Department of Education	666,000
Miller	Movement Oriented Games Based Assessment	UK Sports Trust	25,228
Miller	Supporting Quality Teaching at Birrong Girls High School	Birrong Girls High School	27,244
Prieto-Rodriguez	Educator Grant 2021	Google Australia	12,067
Total			20,054,634

Our PhD candidates

Since our 2020 Annual Report, we have been thrilled to see six students who were supervised by members of the TTRC complete their PhDs.

Congratulations to:

Dr Felicia Jaremus

Rethinking gendered participation in school mathematics: Change the culture, not the girls

Dr Nienke De Vlieger

Nutrition education and assessment methods for children: An investigation of methods, current nutrition education practices and opportunities in Australian primary schools

Dr Berit Follong

Development of a cross-curricular nutrition and portion size education program in primary schools

Dr Jason McGrath

"What if compulsory schooling was a 21st century invention?" A counterfactual study of future schooling

Dr Raju Varanasi

Transforming school systems: The place of contemporary meta-analytics and systems

Dr Hywel Ellis

Factors impacting the choice of Vocational Education and Training (VET): Perspectives of students in NSW schools

Thanks to funding from the University of Newcastle and Australian Research Council, we are fortunate to have eight* PhD scholarship holders currently undertaking research projects on aspects of Quality Teaching and Quality Teaching Rounds. (*Kristina Lee on leave in 2021)



Jacquie Briskham

Prioritising Casual Relief Teachers through the provision of high-quality professional development to advance teaching quality and student outcomes

Jacquie is passionate about ensuring casual relief teachers are properly supported and able to access professional development typically only available to permanent or contract staff.

A primary teacher, who has previously worked in both primary and high school settings, Jacquie believes casual relief teachers are a vital part of our school system but are frequently overlooked and unsupported.

On a daily basis, casual relief teachers face the difficult task of teaching quality lessons at short notice, possibly addressing content with which they are not familiar. Jacquie is investigating how

casual relief teachers can be supported through the experience of Quality Teaching Rounds.

Currently working with 32 teachers and eight principals from eight local schools, her early research suggests Quality Teaching Rounds is making a difference for casual relief teachers in devising meaningful lessons that will engage students and help improve their learning outcomes.

Jacquie believes that, with appropriate support in the form of QTR professional development, casual teachers will feel valued, improve the quality of their teaching and be encouraged to stay in the profession.



Julie Cowan

Enabling Quality Teaching practice in Albanian Upper Secondary schooling: Where political history and pedagogy meet

Julie has a background in international development and has lived and worked in South-Eastern Europe, most recently as a teacher in Albania.

She "has a passion for Albania", the fourth poorest nation in Europe, a country that has spent 30 years recovering from communist totalitarian rule.

Her aim is to help Albanian teachers improve their teaching practice to "bridge the gap between the government's desired reform of modernising and improving pedagogy, and current practice". Julie says many teachers in Albania still adopt a traditional approach, teaching from a textbook.

In 2019, Julie was fortunate to have undertaken research in an Albanian school where teachers

wanted to improve their practice, and that attitude inspired her to begin a PhD at the University of Newcastle's Teachers and Teaching Research Centre.

In her current research, Julie will introduce Albanian pre-certified teachers to the Quality Teaching Model and Quality Teaching Rounds.

Despite distance and language barriers (Julie does speak a little Albanian, and has had the Classroom Practice Guide translated into Albanian), she hopes this will encourage Albanian teachers to think critically about their teaching practice, improving both their teaching and their morale and that, in turn, this will help Albanian students better engage in learning.



Matt Harper

Life in classrooms: A pedagogical analysis of mathematics and drama as emblematic school subjects

Matt hopes to test common assumptions about educational experiences in different subjects by investigating mathematics and drama at two secondary schools.

Matt says these subjects represent a host of issues in contemporary society and are at "the two ends of the status spectrum".

In school curriculum, government policies routinely emphasise core subjects such as mathematics over subjects such as drama which "do not seem to offer as much".

He maintains, however, that knowledge and experience in both mathematics and drama are essential to quality education.

Matt is observing lessons in mathematics and drama across entire units of work, conducting interviews with teachers, reviewing their planning and assessment documents, and facilitating focus groups with students. He aims to discover more about the ways these subjects are taught and how they contribute to quality education.

Kristina Lee

The impact of QTR on teacher self-efficacy beliefs



Robyn Press

Teachers in transition: Exploring the development of beginning teachers' professional identities through Quality Teaching Rounds

Based in Brisbane, Robyn is a former teacher who lectures in teacher education. Having started her teaching career in 1993 in Cootamundra, NSW, Robyn is passionate about supporting teachers in rural and remote schools.

Her PhD research with the University of Newcastle's Teachers and Teaching Research Centre is centred on teacher professional identity and supporting beginning teachers to stay in the profession.

With rates of attrition of new teachers averaging 14% – in some areas as high as 40% – Robyn wants to help new teachers by building morale as well as improving teaching practice.

She says strategies to support beginning teachers are not consistent across Australia because of different jurisdictions, principals and school approaches.

Robyn wants to take a holistic "bioecological" approach that considers all factors that impact beginning teachers' identity and morale. She is particularly concerned to address the physical and social isolation that teachers in rural and remote schools can experience.

Robyn is working with Queensland and NSW teachers in their first five years of teaching, evaluating the impact of Quality Teaching Rounds on their professional identity and teaching practice.



Brooke Rosser

Capitalising on collegiality to improve outcomes? Investigating the importance of teachers' professional relationships and the capacity of professional development to build social capital for enhanced teaching

Working with the adage "it's not what you know, but who you know", Brooke is investigating whether the professional relationships teachers have with each other can enhance their teaching, and whether this can increase their students' learning.

The "social capital" that teachers accrue through professional relationships with colleagues will be explored using data from teachers taking part in Quality Teaching Rounds.

Brooke wants to test her hypothesis that the collegiality developed during QTR, including the opportunity it gives teachers who might not know each other well to interact and discuss their practice, does in fact help them refine their teaching.

Brooke believes this could have ramifications for school leaders seeking best-practice solutions to strengthening teacher collaboration and professional communities in their schools. As teachers participate in QTR, they may forge new professional relationships and fortify existing ones in ways that build social capital, supporting them to enhance their teaching and increase students' learning.

portunity it gives teachers who might not know each other well to interact and discuss their practice, does in fact help them refine their teaching.



Anthony Ryan

Understanding school improvement: Investigating the implementation of professional development across levels of advantage

Anthony is interested in helping schools, particularly disadvantaged ones, help their students achieve greater learning outcomes.

Anthony was inspired to do his research because of the schools he attended; where most students did not go on to university and many left school in Years 9 or 10. "Any improvement in teaching and learning would benefit all students and in particular students attending disadvantaged schools," Anthony says.

His longitudinal study is investigating how schools are implementing Quality Teaching

Rounds, across a range of settings, to help their students improve.

Anthony is working closely with Cessnock High School, the most disadvantaged school in the Hunter Valley, which has a school population that is 22% Indigenous, on a whole-school approach to improvement.

He is hopeful that using the models and frameworks recently developed in the field of implementation science will assist with school improvement and provide a model for other schools to use in the future.



Ran Tian

Investigating the impact, mediators and sustainability of teacher professional development and its transference to student outcomes

With a Bachelor of Science, Applied Statistics (Beijing Institute of Technology, Zhuhai, 2017) and a Master of Statistics (Australian National University 2019), Ran's PhD research is embedded in and focuses on a randomised controlled trial of Quality Teaching Rounds.

Her research aims to investigate and unpack the underlying mechanisms for associations between professional development, changes in teaching practice and student achievement, which remain largely unexplored.

Her hypothesis is that participation in QTR improves teaching quality, which in turn improves

student outcomes, but are there other factors that affect the equation?

Could it be that QTR improves teacher morale and this in turn improves teaching quality, which, in turn, improves student outcomes? Or could it be that teacher morale has an indirect effect on learning but no visible effect on teaching quality?

Ran's thesis adopts and may propose advanced statistical techniques to produce robust evidence about the relationships among teacher professional development, teaching practice, and student achievement.

Other PhD candidates supervised by TTRC academic staff are listed below. Many of these students also support Centre activities while working on their own projects.

Rory Davis	Kirsten Ramage
<i>Soft skills and artification: Visual education in Australian secondary schools</i>	<i>Body image and the rise of social media: The role of media literacy in the curriculum</i>
Tammie Jakstas	Nicole Thew
<i>Opportunities to enhance nutrition knowledge and culinary nutrition skills in secondary schools to enhance student diet quality and wellbeing</i>	<i>The role of student-teacher trust in improving student engagement: Prioritising student voice in participatory action research</i>
Brad Jones	Simon Watts
<i>Evaluate the effectiveness of the MASTER coaching program as a coach development tool for improving coaching practices of football coaches and for improving a range of player outcomes</i>	<i>An investigation of the learning attributes and meta-cognition of innovative policy entrepreneurs</i>
Arun Mehta	
<i>Teaching advanced mathematics to Australian high school students: Role of excellence in teaching and use of research-based strategies, including experiential education</i>	

Researcher profiles



Laureate Professor Jenny Gore

Jenny is the Director of the Teachers and Teaching Research Centre and founder of the Quality Teaching Academy.

Jenny began her career in education as a secondary physical education teacher before commencing her highly successful academic career. Her educational and research interests have consistently centred on quality and equity, ranging across such topics as reform in teacher education, pedagogical change, and professional development.

Over the years, Jenny has held executive roles on numerous councils and advisory committees. She is a visiting professor at the University of Oxford and a Fellow of the American Educational Research Association. Her work has been widely published and highly cited, with more than 100 books, chapters and journal articles over the span of her career.

Jenny’s research on Quality Teaching and professional learning is having significant impact in Australia and beyond.



Dr Drew Miller

Chief Investigator

Drew's research is focused on securing optimal development of children and young people in both physical and academic settings and finding innovative and practical ways to improve these outcomes at-scale.

Drew provides significant depth of understanding and expertise in high quality evidence production and quantitative data analysis for the Centre and the Quality Teaching Academy. His goal is to make the complexities of rigorous research more comprehensible for teachers and school leaders, enabling schools to successfully implement high quality evidence-based strategies in their ongoing practice.



Associate Professor Jess Harris

Chief Investigator

Jess' research interests centre on educational leadership, research training, and communication. She has expertise in qualitative research methods, with a focus on analysing the everyday practices of teachers, students and school leaders to develop local solutions to issues in their school communities.

Jess is passionate about the examination of practices used by school leaders, teachers, students and community members to improve schooling for all students both in Australia and internationally. She also conducts research into the working lives of academic staff within higher education to advocate for those in precarious employment.



Associate Professor Elena Prieto-Rodriguez

Chief Investigator

With a doctorate in Computer Science and more than 15 years' experience in educational research, Elena brings together the key foundations for successful STEM education research. Her research interest is equity of access to Science, Technology, Engineering and Mathematics (STEM), and in this field she has been successful in conducting multiple projects.

Elena is Deputy Head of School Teaching and Learning (Initial Teacher Education) and is passionate about teacher education and professional development.



Dr Leanne Fray

Senior Research Fellow

A former teacher, Leanne has extensive experience in qualitative and mixed methods research and has previously worked on research projects across such disciplines as health, education, and social science. Recently Leanne has been involved in a number of major research projects including evaluating the impact of Quality Teaching Rounds on student outcomes, and a longitudinal study aimed at understanding students' educational and career aspirations.

Leanne's research interests include improving student access to, and participation in, higher education.



Dr Sally Patfield

Postdoctoral Research Fellow

Sally's research focuses on the sociology of education, examining different kinds of social and systemic inequalities that shape young people's experiences of schooling and their post-school educational transitions. Conferred in 2018, her doctoral thesis, which investigated young people who would be the first in their family to pursue higher education, was awarded the prestigious Ray Debus Award for Doctoral Research in Education by the Australian Association for Research in Education. Sally is currently co-convenor of the national first-in-family network (with Professor Sarah O'Shea) and a member of the College of Human and Social Future's Equity and Diversity Committee.



Professor David Lubans

Chief Investigator

David began his career as a PDHPE teacher before turning to academia where he has more than 100 peer-reviewed publications. Having secured over \$30 million in competitive research funding, he focuses on understanding the determinants of physical activity and the development and evaluation of interventions in school and community settings.

David leads school-based research in the University of Newcastle's Priority Research Centre for Physical Activity and Nutrition and has a 20% affiliation with the Teachers and Teaching Research Centre.



Dr Felicia Jaremus

Postdoctoral Research Fellow

With a passion for equity, Felicia's research interests include access to higher education, gender, mathematics education, and teacher education. Felicia has extensive experience with both qualitative and mixed methods research and has been involved in a number of research projects including an investigation into student participation in mathematics, a longitudinal study of student aspirations, and an investigation into the effects of Quality Teaching Rounds. Her PhD thesis, which explored the relationship between gender and access to school mathematics education, was selected for the School of Education Best Doctoral Thesis award in 2021.



Professor Max Smith

Chief Investigator

Max joined the University of Newcastle in 2012 following a 36-year career with the NSW Department of Education. Originally a secondary social sciences and computing studies teacher, Max held a series of senior departmental positions in quality assurance, assessment and evaluation, school accountability and improvement, research management and strategic initiatives.

Max has a strong interest in quantitative research and evidence-based practice in education with a particular focus on quality teaching and equity in education and its impacts on public policy. Max is enjoying semi-retirement and contributed a day a week to Centre activities in 2021.

Project Managers



Wendy Taggart
Senior Project Manager



Tim Dean
Project Manager



Yvonne Dean
Project Manager



Tim Kelso, PhD
Project Manager



Mikahlia Holmes
Project Manager

Project Officers

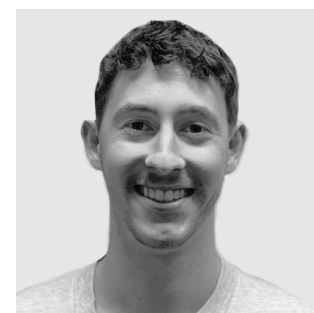


Terina Vale
Project Officer



Emily O'Shea
Project Officer (-Jun)

Research Assistants



Dom Barnes
Research Assistant



Skye Gibson
Research Assistant



Shanaya Hedley
Research Assistant (-Jul)



Kirsten Ramage
Research Assistant



Bernadette Rickards
Research Assistant (-Jun)



Rebecca Sewter
Research Assistant (Sep-)



Kristina Sincock, PhD
Research Assistant



Kate Smithers, PhD
Research Assistant

Quality Teaching Academy



Steve Hannan
Executive Director



Tamaryn Curry
QTR Adviser



Natalie Hudson
QTR Adviser



Lee-Anne Rhodes
QTR Adviser



Michelle Ware
QTR Adviser



Leah Crockett
Project Officer (Aug-)



Claire Hayes
Project Officer (-Jul)



Anoushka Naik
Project Assistant (Apr-)

Executive support



Samantha Brookes
Executive Officer



Amy Lovat, PhD
Executive Assistant (-Aug)



Micaela Paddon-Row
Executive Assistant (Aug-)



Alyce Carroll
Senior Finance Officer

Florida Joeng
Senior Finance Officer (-Sep)

Anani McMahon
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Communications



Tom Carey
Communications and Marketing Specialist



Jaslyn Ladwig
Junior Graphic Designer



Alysson Watson
Communications Officer (-Aug)

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Follong, B., Verdonshot, A., **Prieto-Rodriguez, E.**, **Miller, A.**, Collins, C., & Bucher, T. (2021). Nutrition across the curriculum: A scoping review exploring the integration of nutrition education within primary schools. *Nutrition Research Reviews*, 1-44. doi:10.1017/S0954422421000111

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2021 Publications - under review

Fray, L., Jaremus, F., Gore, J., Miller, A., & Harris, J. (under review). Under pressure and overlooked: the impact of COVID-19 on teachers in NSW public schools. *The Australian Educational Researcher*.

Gleeson, J., **Harris, J.**, Cutler, B., **Rosser, B.**, Walsh, L., Rickinson, M., Salisbury, M. and Cirkony, C. (under review). Educators' use of research: Findings from two large-scale Australian studies. *Research Papers in Education*.

Gore, J., Rickards, B., & Fray, L. (under review). From performative to professional accountability: re-imagining 'the field of judgement' through teacher professional development. *Journal of Educational Policy*.

Gore, J., Rosser, B., Jaremus, F., Miller, A., & Harris, J. (under review). Beginning teachers are not the problem: Fresh evidence on the relationship between years of experience and teaching quality. *Teaching and Teacher Education*.

Gore, J., Patfield, S., Fray, L., & Harris, J. (forthcoming, under contract). *Community matters: The complex links between community and young peoples' aspirations for higher education*. Local/Global Issues in Education series, Routledge.

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