

Education Horizon research grant scheme

# Approved proposals 2024



Lead researcher	Project title	Project summary	Sponsor organisation	Funding awarded
Dr Julie Arnold	Accessible assessment for learning in English and Mathematics: Excellence through equity	<p>Assessment for Learning (AfL) is an internationally accepted approach for improving educational achievement that needs to be considered from an inclusive lens because AfL that is not accessible can contribute to inequity by fragmenting learning experiences. This project is an extension to the Australian Research Council Linkage Accessible Assessment that established a successful professional learning process integrating student voice for English teachers adapting AfL practices to be more accessible. It builds on that professional learning in two ways:</p> <ul style="list-style-type: none"> <li>• it includes mathematics teachers, exploring how accessible AfL is enacted for the Australian Curriculum in foundational subjects</li> <li>• as requested by teachers, generates annotated videos with professional learning resources.</li> </ul> <p>Sustainable resources for urgent professional learning developed with professional association network partners will highlight the challenges alongside conditions for accessible AfL.</p>	Queensland University of Technology	\$32,200
Professor Christine Edwards-Groves	Leading beyond the gate: The role of school leaders establishing schools in new communities	<p>Across South East Queensland (SEQ), rapid development of new communities has necessitated growth in educational infrastructure. Often schools are the first public institution to be constructed within new communities, leaving leadership teams to both launch the new school and support the development of the surrounding community. While there has been research on urban principals leading 'full-service' community schools in the United States, to date there is little research into leading new schools in new communities in Australia. This project will shed light on the experiences of school leaders establishing schools in new communities across SEQ, identifying their challenges and supporting factors. This research is timely, significant and its outcomes may inform policy and programming recommendations related to recruitment and support, and provide personalised professional learning, system wellbeing structures, community partnership models and succession planning to enable school leaders to establish strong community partnerships.</p>	Griffith University	\$59,431

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Professor Linda Graham	Understanding, reducing, and preventing risky behaviour through skills identification, restorative learning co-design, and tiered interventions	<p>This project engages with a serious problem that is increasingly affecting Queensland communities with the aim of developing tiered interventions that will both prevent and reduce problem behaviour in and beyond schools. Along with the project's co-sponsors – Aboriginal and Torres Strait Islander Legal Service (ATSILS), National Indigenous Youth Education Coalition (NIYEC) and the Queensland Family and Child Commission (QFCC) – the team will employ an exploratory sequential phase mixed-methods design to:</p> <ul style="list-style-type: none"> <li>• Characterise the educational histories, social and environmental preferences, and motivations of young people who journey out of school and into youth crime.</li> <li>• Engage young people in the co-design of impact case studies and assess the effect on participants' understandings of peer, familial, and community experience.</li> <li>• Establish proof-of-concept for ARC Linkage project in which the team will develop and test tiered interventions for use in an Integrated-Multi-Tiered System of Support (MTSS) model.</li> </ul>	Queensland University of Technology	\$100,000
Dr Govind Krishnamoorthy	Equity-focused multi-tiered systems of support: Developing differentiated disciplinary and intersectional practices for students with disabilities from priority equity groups	<p>Research indicates that up to 80 per cent of Australian students with multiple suspensions in a year were living with a disability and a large proportion of these students (17 per cent) belonged to multiple priority equity groups.</p> <p>Intersectional pedagogical practices respond to the unique learning needs of students from multiple priority groups. However, there is limited guidance on integrating intersectional practices into multi-tiered systems of support (MTSS). This research aims to:</p> <ul style="list-style-type: none"> <li>• Examine how disability, exposure to trauma, and cultural diversity, separately and together, influence student learning needs. The findings will inform MTSS implementation resources that ensure students have equitable access to quality education.</li> <li>• Determine guidelines for integrating a differentiated continuum of supports into MTSS for students with disability from different equity groups.</li> </ul>	University of Southern Queensland	\$50,000

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Dr Ellen Larsen	Practicing preservice teachers: An investigation of Permission to Teach arrangements in Queensland	This study investigates the experience of preservice teachers' learning within Permission to Teach (PTT) arrangements, such as Turn to Teach and Trade to Teach, in Queensland state schools. The rapid emergence of PTT arrangements means current literature and practices in Initial Teacher Education (ITE) are out-dated. A systems theory/learning ecologies analysis of preservice teacher experience and progression within PTT arrangements across urban, rural, regional and remote settings, within undergraduate and postgraduate programs, provides invaluable insights into the complex, cross-sector contexts in which practicing preservice teachers now learn. Outcomes include an evidence-base to inform strategies, policies, and frameworks for ITE stakeholders including higher education institutes, schools, the Department of Education, and Queensland College of Teachers. Benefits include the design of cross-sector initiatives that effectively and efficiently support preservice teacher preparation for equity and excellence in teacher preparation.	University of Southern Queensland	\$62,142.92
Professor Doune Macdonald	Understanding the drivers of success in secondary-to-tertiary transitions	The aim of this study is to identify key drivers of success for students transitioning from secondary to tertiary studies. Secondary schools invest heavily in programs and experiences designed to support students in preparing for tertiary entry and success, yet schools have limited access to post-school feedback to inform their planning and advice. Adding to this complexity are the differences in students' cultural and home lives, and schools' socio-educational advantage, geographical locations, and access to engagement with higher education institutions. Creating and disseminating an evidence-based framework for transition best-practice from Queensland state secondary schools to tertiary education will enable school and university leaders alike to best support students, and make better-informed choices about resource allocation and practices for tertiary preparation.	The University of Queensland	\$119,410

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Dr Stephanie Malone	Supporting mathematics outcomes: What strategies work to support the word-based mathematical problem solving of Autistic students in the classroom?	Autistic children are four times more likely to experience mathematics difficulties than non-Autistic children. Additionally, over 65 per cent of Autistic children experience reading comprehension challenges. This combination of difficulties in maths and reading comprehension hampers Autistic learners' ability to answer word-based mathematical problems. This is of concern as word-based mathematical problems are used to teach mathematics in the classroom and form the basis of many NAPLAN numeracy questions. While disparate research supports the use of pointing, highlighting, and text-to-speech conversion in enhancing word-based mathematical problem-solving for non-Autistic children, no research has explored the effectiveness of these strategies in supporting Autistic children. This proposed mixed-methods project will ascertain which of these strategies are effective for Autistic children, and what the practical implications are from the teacher's perspective for supporting Autistic learners in the classroom. Combined, these findings will enable differentiated support to facilitate mathematical success for both Autistic and non-Autistic learners.	Griffith University	\$40,643.80
Dr Natasha Matthews	Metacognition in the classroom: Understanding and measuring the relationship between classroom metacognition and academic wellbeing in the transition to high school	The ability to regulate one's own cognition (metacognition) is vital for learning and wellbeing, especially during the transition to high school when educational demands increase, and adolescents are increasingly expected to manage their own learning. Previous research has established that greater metacognitive ability in the early years of high school predicated academic wellbeing, but these abilities are relatively invisible in the classroom. The project aims to design and test a set of classroom tools for teachers to use in measuring and tracking metacognitive ability in students, which will allow teachers to evaluate the effectiveness of pedagogical approaches aimed at enhancing metacognition.	The University of Queensland	\$98,778

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Dr Loraine McKay	The affordances and constraints of the Turn to Teaching (TTT) program: Strategies to strengthen the effectiveness of mid-career change teacher preparation	<p>The study, proposed by a Queensland alliance of universities, responds to small-scale studies and the Strong Beginnings Report that recognise more research is required to inform evidenced-based decisions to scale-up bespoke mid-career Initial Teacher Education (ITE) programs such as the Department of Education's Turn to Teaching (TTT) program introduced in 2022. The cross-institutional multi-case study aims to illuminate the affordances and constraints of the TTT program, and appraise the implications of these for ITE providers, employers and employment-based pathways into teaching.</p> <p>Seeking perspectives from a broad range of key stakeholders of the TTT program, the qualitative dominant mixed-method approach will reveal in-depth understandings of the TTT graduates' identity development and preparedness for teaching. Elucidating transformative ways of thinking about professional learning during ITE, the findings will inform evidenced-based outputs to support a changing landscape of ITE and shifting focus on employment-based pathways.</p>	Griffith University	\$98,027
Associate Professor Mia O'Brien	Strategies to support the health, safety and wellbeing of early career teachers teaching students with trauma: A co-designed case study and PERMAH-based intervention	<p>This project develops interventions that support early career teacher wellbeing, safety and self-protective capabilities when teaching students with complex trauma. Teachers who teach students with complex trauma are at risk of developing secondary trauma stress, compassion fatigue and significantly diminished quality of professional and personal life. These factors, together with the pedagogical demands of complex behavioural and academic challenges that students with trauma can bring to the classroom, place compounding stressors on teachers' day-to-day experiences and negatively impact their sense of wellbeing, safety, and engagement in the profession. This project engages early career teachers in a co-designed case study to:</p> <ul style="list-style-type: none"> <li>• identify the mitigating and protective factors that support teachers teaching students with complex trauma</li> <li>• develop accessible, self-directed, multi-tiered interventions based on the PERMAH framework that consolidate and sustain teacher's sense of safety, and wellbeing in the classroom.</li> </ul>	University of Southern Queensland	\$32,011.99

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Associate Professor Shiralee Poed	Keeping Prep-aged students engaged at school: Creating a preventative pathway for eliminating school disciplinary absences and restrictive practices	The project aims to provide a pathway to prevent, reduce and eliminate school disciplinary absences (SDAs) and restrictive practices (RPs) in the preparatory year of schooling. Since 2018, Prep students at Queensland state schools have experienced 5,577 SDAs, including 26 long suspensions and 2 exclusions. Significantly, in 2022 alone, there were 685 instances. In order to prevent SDAs and RPs from occurring in Prep, it is essential to understand the factors leading to their occurrence since this forms the foundation for generating preventative interventions. This project will provide a better understanding of the factors that lead to the use of SDAs and RPs, particularly for groups who are vulnerable. This will benefit both Prep-aged students, and their families and teachers, so that learning days can be maximised.	The University of Queensland	\$94,363
Dr Andrew Rixon	Catalysing innovation and educational leadership in the age of Generative AI	This project will empower education leaders to integrate artificial intelligence (AI) for positive impacts in their schools, fostering innovation and improving teaching quality while alleviating the challenges faced by educators. The research focuses on a critical exploration of the diverse experiences, perspectives, and strategies associated with the use of Generative AI in Queensland schools through a participatory action research framework. This project will engage education leaders across diverse regions and identify enablers, barriers, and leadership challenges emerging from Generative AI. Leveraging a strengths-based approach, a key outcome of the project will be the formation of a community of practice, fostering a collaborative leadership environment to support effective use of AI in schools. The project will equip education leaders with tools and supportive environments to champion transformational teaching practices that deliver positive outcomes, such as reducing teachers' workload and augmenting innovative learning strategies.	Griffith University	\$146,850.80

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Dr Michelle Ronksley-Pavia	Building teacher capability to leverage Generative AI to personalise learning for neurodiverse students: Inclusion for students with learning disabilities and neurodevelopmental conditions	Educators at Queensland schools strive to address the learning needs of neurodiverse students, for example students with ADHD/dyslexia/dyscalculia, through strengths-based differentiated instruction (SB-DI). However, despite best efforts of teachers, challenges persist, which can lead to disengagement and poor outcomes. With the emergence of Generative AI (GAI), opportunities exist to reshape education by harnessing GAI's potential for advancing inclusive practices to address learning needs of neurodiverse students. This project aims to explore and understand applications of GAI through co-designing a comprehensive 'cognitive kit' (including professional development) for leveraging GAI while also advancing teacher capabilities in both GAI and SB-DI. This will promote high-quality instruction for this vulnerable population to address disengagement and underachievement.	Griffith University	\$131,034
ARC Laureate Professor Karen Thorpe	Places and spaces to thrive: Optimising early childhood education and care (ECEC) environments for children's health, wellbeing, and learning	How ECEC environments impact children's health and learning is not well understood, yet such knowledge is critical to ensure they are safe and afford optimal capacity for learning, health and wellbeing. In partnership with the ECEC Regulatory Authority and international environmental design experts, this project aims to review current evidence to specify key considerations for optimal design, and generate new evidence through analysis of the effects of ECEC environments on the quality of learning experiences and learning outcomes. The expected project outcomes and guidance for decisions in approvals of new ECEC spaces, and optimally-designed ECEC places and spaces that enable children to thrive. The longer-term benefit is support for educator effectiveness and promotion of child learning and wellbeing.	The University of Queensland	\$199,011



## Further information

For more information, please refer to the *Education Horizon research grant scheme* webpage:

<https://education.qld.gov.au/about-us/reporting-data-research/research/research-funding/education-horizon>

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