

Submission 19 - Child Development Education and Care Research Group - Early Childhood Education and Care - Public inquiry



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About the submitting group

The *Child Development, Education and Care Research Group*, at the Queensland Brain Institute at the University of Queensland (UQ) is a multi-disciplinary team of researchers led by ARC Laureate Professor Karen Thorpe. Within UQ our group is also a key component of the Kids-360 network with funding of \$10 million to support preventative child health research. Our work focuses on the early years of life as the foundation of ongoing life course trajectories of health, education, and social participation. Experiences in the years from conception to school entry are critical in shaping brain architecture and the quality of these experiences potent in driving ongoing life chances. Accordingly, our group focuses on key policy investments aimed at improving early childhood experiences for all Australian children, across the diversity of family origins and circumstances. Our central focus is early childhood education and care (ECEC) and encompasses long day care, family day care, playgroups, preschool and kindergarten provision, alongside innovative programs customised to engage families who do not have access to ECEC services or who are reluctant to participate. Our work involves large scale longitudinal research that includes observation at scale, innovative measurement approaches, and use of data-linkage techniques. Within our large-scale studies, we embed detailed qualitative studies to identify mechanisms underpinning the complex economic and social system of ECEC in Australia.

The *Child Development and Early Learning Group* is embedded within the *Australian Research Council Centre of Excellence for Children and Families across the Life Course* whose mission is to find solutions to deep and persistent disadvantage. Within the Centre of Excellence, our team leads the ECEC flagship program, working in partnership with Goodstart Early Learning, the Commonwealth Departments of Social Services and Education, Victorian Government, Queensland Government, Australian Education Research Organisation, Australian Research Alliance for Children and Youth, Thriving Queensland Kids Partnership, Health and Wellbeing Queensland, as well as a large number of non-government organisations. A key focus of the research endeavours of the *Child Development and Early Learning Group* is the delivery of ECEC provisions to redress educational and social inequities. International studies have identified ECEC as the single-most effective form of public intervention to support child development with broad population reach. In Australia, formal licensed ECEC services reach 96% children before school entry with additional non-licensed services such as playgroups extending reach to young children and families.

The following submission is based on analyses of the largest and most current Australian data sets providing evidence on ECEC as follows:

- Commonwealth Government – Multi-Agency Integrated Data Program (MADIP) First Five Years Project.
- E4Kids – ARC-Linkage 2009-2016 – study of 2600 children observed in ECEC services in Victoria and Queensland
- E4kids-PLUS – data-linkage of individualised records of children in E4Kids through the entire educational journey to the end of secondary school
- Early years workforce study (ARC Linkage 2014-2018) – study of 1250 educators
- Sleep and food provision in ECEC – Data base of over 3000 children observed

We append to this submission some key research papers discussed with the Productivity Commission Inquiry panel in Brisbane on the 28th of March 2023.

Submission response

Affordability of, and access to, quality ECEC services that meet the needs of families and children

Australia's ECEC provision is set within a mixed market of providers in which some have a remit to generate profit and others work without a profit remit. Our research identifies a complex interaction between

economics (organisational remit × market competition), cost (affordability × market competition) and organisational prioritisation of structure and content of ECEC provision (quality × market competition). While Australia has a National Quality Standard, our research shows that delivery of at least minimal quality is not guaranteed and access to the highest quality ECEC services is less likely for those who would benefit most.

- **Disadvantage and access to high quality ECEC** – There is a statistically significant association between disadvantage and quality of ECEC (assessed using CLASS observations) in which children from more disadvantaged locations on average attend a lower quality service. However, there is also evidence of high-quality delivery in disadvantaged areas – associated with not-for-profit, often local government, provision (see Figure 1 below – source Thorpe Laureate fellowship).
- **Market competition and associated resourcing decisions can constrain quality and perpetuate inequity** – Through analysis of public data we examined food provision as a function of community disadvantage, fee structure and market competition (Thorpe et al. *Social Science and Medicine*, 2022). This showed that food provision is least likely in disadvantaged communities except in circumstances of high market competition. In circumstances of high competition, cost to parents did not change but food was provided – suggesting cost savings are made elsewhere. Savings are seen in reduced staffing levels that restrict child freedoms and reduce ECE quality. These occur disproportionately in disadvantaged communities. Our series of studies of sleep and mealtime practices show higher restriction of child choice in disadvantaged communities. For example, in disadvantaged communities we found all services had a mandated sleep time regardless of child need, where this was not the case in advantaged locations. We observed children who did not need to sleep being required to lie down without any learning activity for up to 2.5 hours (Staton et al. *J Developmental and Behavioural Pediatrics*, 2015; *Behavioral Sleep Medicine*, 2017). In these circumstances the explanation was that educators were required to undertake cleaning duties (Thorpe et al. *Early Years*, 2018). The cost was manifest in behavioural distress (Pattinson et al. *Early Childhood Research Quarterly*, 2014) and stress measured via salivary cortisol (Thorpe et al. *Scientific Reports*, 2018). A study of services not meeting Australia’s national quality standard found these services were characterised by high staff turnover, low morale, and ‘for-profit’ organisational type. Those rated *Exceeding* the standard were most likely to be in high income communities and less subject to resource constraint (Thorpe et al. *Australian Educational Researcher*, 2021). Thus, market pressures can create a double jeopardy of more stress for children and reduced exposure to high ECEC quality for those already experiencing higher levels of adversity in their home settings.
- **Access to high quality ECEC** – Analyses of MADIP show that children from immigrant families, including highly skilled immigrants, are less likely to access the highest quality ECEC services as rated by NQS (Tang et al., 2023).
- **The ECEC workforce is central to delivery of high-quality experiences for children yet is in crisis** – The early years workforce study documents high staff turnover rates (35% per annum) and experiences of social and financial stress among educators: factors that disrupt attachment relationships and quality of interaction (MacDonald et al. *Journal of Industrial Relations*, 2018; Thorpe et al. *Journal of Educational Change*, 2020) Grant et al. *Cambridge Journal of Education*, 2018). Worryingly, the educators who were most qualified and/or motivated to work with children were also those most likely to leave ECEC, often seeking to work in the school sector. In deeply disadvantaged communities, however, we found there was a core of highly committed, experienced, and qualified staff (Thorpe et al. *Journal of Educational Change*, 2020).

Summary: Our research identifies complex interactions between cost, quality, and market competition. Affordability is an important enabler of access to ECEC. Market competition keeps fees down in low-income areas, but the challenge then presented is the interaction of affordability and quality. In the context of disadvantaged locations, organisations working for-profit opt not to engage (creating childcare deserts) or may reduce quality. While for-profit services may constrain fees, the effect is often on staffing, staff stress and quality of interactions in locations where high quality would make the biggest difference. Greater support

of organisations with remit for equity, typically those that do not have a remit to operate for-profit, is critical in low income, high vulnerability settings.

Developmental and educational outcomes for Australian children, including preparation for school

There is a strong, international body of evidence that identifies the potential of ECEC to improve life outcomes. The realisation of this potential is predicated on the quality of ECEC experience provided. Not all ECEC services or programs promote development. Key questions to address are: What constitutes high quality? For whom? And, under what conditions can high quality in ECEC be achieved?

While school readiness is important, a focus on basic numeracy and literacy skills, alone, does not have long-term effects. Children can catch up in the early years of school and for children who have already learnt these skills in ECEC, early schooling can fail to build on such skills - resulting in fade-out of the ECEC advantage (Thorpe et al., *submitted Developmental Psychology*, 2023; also available as a report to Queensland Government, 2021). The skills learned in ECEC that have enduring effects beyond school entry are those that instil motivation for learning, social skill, and regulation of emotion. We provide evidence on emotional quality as an enabler of long-term positive child outcomes and of barriers faced by educators and teachers in their delivery:

- **Emotional quality of the ECEC environment is the most potent long-term predictor of child development and educational outcomes** – Our team has generated the most current (post 2010 policy reforms) population level data on the impact of ECEC quality on Australian children’s development, learning and wellbeing. Taking data from E4Kids (ARC Linkage study 2009-2014) in which the ECEC experiences of 2600 children from Victoria and Queensland were intensively studied, we have created a longitudinal data set through data linkage. We find the emotional aspects of the ECEC environment predict child outcomes (Maths, Science, English – effort, behaviour, and grades, and NAPLAN) from Year 1 through to the first high school year – year 7 (Thorpe et al. *submitted Developmental Psychology*, 2023). We also use robust statistical design to show changes in emotional quality across ECEC, prep, and year 1 predicts growth in language skills (Rankin et al. *Child Development*, 2022).
- **Barriers to delivery of optimal child outcomes relate to staffing and staff wellbeing** – Two major concerns identified by educators as a barrier to effective teaching are (1) children’s challenging behaviours and (2) staff ratios that do not account for the complexity of the community and children served (Thorpe et al, *Australian Educational Researcher*, 2023). Poverty increases the complexity of the teaching task. In the most disadvantaged locations where children experience hunger in their ECEC day there is escalating conflict across the day (Searle et al. *Appetite*, 2021; Searle et al. *Social Science and Medicine*, 2023; Searle et al. *Children and Society*, 2023). Additionally, the National Quality Standard, and particularly the Assessment and Rating process, have been identified as a source of stress (Thorpe et al, *Australian Educational Researcher*, 2023). Teachers and educators report that the demand to ‘perform and record quality’ directs them away from the rewards of deep and authentic engagement with children (Grant et al, *Cambridge Journal of Education*, 2015; Thorpe et al. *Australian Educational Researcher*, 2023).

Summary: Our research highlights the importance of the quality of ECEC in supporting Australian children’s developmental outcomes at school entry and across their entire journey into secondary school. Critical in what is delivered in ECEC is the emotional environment as the underpinning of learning, enabling children to (1) be actively engaged in learning (2) engage confidently in learning and (3) regulate emotion in the face of challenge. Emotionally supportive environments require emotionally well and supported educators. To improve educator wellbeing requires immediate action on pay and conditions. Review of the administrative burden experienced by the workforce is essential – though intended to improve quality, the reality is the effect may be an unintended reduction in the quality of children’s experiences that count.

Economic growth, including through enabling workforce participation, particularly for women, and contributing to productivity

ECEC supports the economic productivity in three ways. First, **ECEC facilitates parent workforce participation**. ECEC serves to enable parents (mostly women) to establish or maintain careers and averting loss of skill and experience after the birth of a child. Second, **ECEC increases family income and resources to support child development**. Increasing family resources supports child development by removing the stresses of poverty and enabling the meeting material needs and exposure to educational experiences at home. Third, **high quality ECEC provides rich educational experiences outside the home and supports positive life course trajectories**. International research, and that from our team in Australia, indicates that ECEC environments can promote child development and have enduring effects not only at school entry but throughout the school journey and into adulthood.

- **Critical in realisation of the potential of ECEC to deliver improved economic productivity is the ECEC workforce** – Our data show that the biggest threat to the economic benefit of ECEC is the workforce crisis. Turnover rates are 1 in 3. Those who stay are stressed (Thorpe et al. *Journal of Educational Change*, 2021). There is an imperative for immediate action on pay and conditions. Included within conditions should be the reduction of administrative burden associated with NQS and the assessment and rating system (Thorpe et al. *Australian Educational Researcher*, 2023). Ratios are not equitable but standard, disadvantaging children in more complex communities where more favourable child-to-educator ratios are required. The need to grow and sustain the workforce is critical. *Shaping our Future (2022-2031)*, the Australian strategy for the ECEC workforce for the next decade, is very weak in commitment to improving the pay conditions and wellbeing of the workforce and does not focus on key problems such as regulatory burden (Thorpe et al. *Australian Educational Researcher*, 2023). Currently, the important role played by provider organisations and educators - especially those working in disadvantaged communities - is not sufficiently recognised or compensated.

Outcomes for children and families experiencing vulnerability and/or disadvantage, First Nations children and families, and children and families experiencing disability

International evidence is clear: high quality ECEC can make the greatest difference to children experiencing vulnerability, with significant gains also for national, social and economic wellbeing. Setting positive trajectories of learner engagement occurs early at a time when social and educational experiences entrain neural pathways. Positive trajectories are most strongly predicted by the quality of interactions between educators and children. Unfortunately, although 96% of Australian children attend ECEC before school entry, 1 in 5 enter developmentally vulnerable and these are mostly from families experiencing social and economic disadvantage. To realise the potential of ECEC and redress inequity requires attention to a range of barriers. A suite of studies undertaken by our team show not only that ECEC access and quality matter for redressing educational inequities but also speak to the underpinning mechanisms:

- **Structural barriers** – Transport, food provision, information and misinformation, cost, paperwork, and literacy are among the key barriers identified (Staton et al. *Kindy LinQ Evaluation*, 2022).
- **Cultural barriers** – CALD and First Nations families prefer dual generation learning opportunities. Cultural safety is critical and the presence of educators of the same cultural identity is highly supportive and motivating (Thorpe et al. *Access to Kindergarten Report*, 2011; Staton et al. *Kindy LinQ Evaluation*, 2022).
- **Learning barriers** – We now have a suite of studies on food provision in ECEC with observational studies in the context of poverty. Hunger emerges as a substantive barrier for emotional regulation and learning in these sites. We find that in some centres where families are required to bring food there is not enough and the quality is poor. In some centres providing food (usually for-profit) food quality is very poor. The effects are seen in escalating conflict throughout the day. Conflict disrupts learning opportunities (Searle et al., 2023).

- **Challenging behaviours** – Educators identify challenging behaviours of children and families as an impediment to effective teaching. This is exacerbated in more disadvantaged and complex communities. Educators identify the need for additional staffing and supports to enable effective learning for all children (Thorpe et al. *Australian Educational Researcher*, 2023).
- **Learner engagement** – To achieve positive outcomes requires investment in services to deliver excellence, particularly in places of socio-economic disadvantage, as seen in Figure 1 below. Data from E4kids (Australia’s largest study of ECE quality) show a median trend in which low SES areas typically have lower quality ECEC (Thorpe et al., 2021, 2023). Yet, importantly, there are some services – typically not-for-profit – that are delivering the highest quality ECEC within these complex communities (Circled-1). Moreover, the poorest quality is occurring in moderately disadvantaged locations, suggesting a policy action is creating a disjuncture (Circled-2).

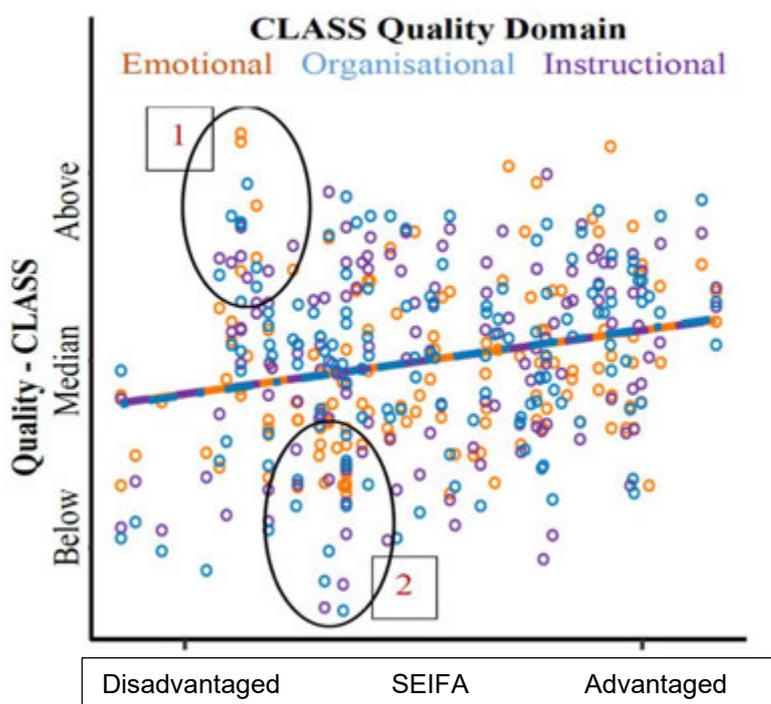


Figure 1: Association of ECEC quality (CLASS emotional instructional and organisational domains) with socio-economic indices for area

Summary: Our research highlights that if the range of barriers to access and engagement can be overcome, then ECEC can deliver exceptional outcomes for children experiencing vulnerability. Approximately 1 in 5 children enter school developmentally vulnerable despite the fact that some 96% access at least one year of ECEC before school entry. Those entering school developmentally vulnerable are mostly from circumstances of socio-economic adversity and include an over-representation of culturally and linguistically diverse and Aboriginal and Torres Strait Island children. Currently Australia’s ECEC system focuses on meeting the National Quality Standard. While important, a standard does not address inequity. The ARC Laureate fellowship awarded to Professor Karen Thorpe is examining how current inequities should be addressed. Greater supports for providers within locations of high developmental vulnerability is an imperative to achieve educational equity.

Efficiency and effectiveness of government investment in the sector.

We note two key areas to support effective delivery of ECEC: *Excellence* and *Equity*.

Excellence – ensuring high quality provision – Australia invests heavily in a quality assurance program for ECEC and is a world leader in having a national assessment and rating system and national curriculum. However, there are inefficiencies in this system and some unintended consequences. Our research suggests the need to increase efficiency in assessment of quality as follows:

- **Streamlining the assessment and rating process to increase validity and efficiency** – Owing to the heavy demands of the current assessment and rating (A&R) process, the time between rating of services can be many years. Ratings, therefore can be out-dated given that there is such high staff turnover in the sector and staff are the main factor in delivery of the aspects of ECEC quality that predict child outcomes (Staton et al. *Report to Queensland Government, 2021*; Rankin et al., *Child Development, 2022*). For the NQS rating data to be a valid source of data to inform policy decisions, practice improvement, and parent choice, there is an imperative for more frequent but less intense assessment. Working with the Australian Children’s Education and Care Quality Authority (ACECQA) and Queensland Government our team has developed a method to improve efficiency of the A&R process and reduce variability across different assessment officers (Staton et al. *Report to Queensland Government, 2021*).
- **Ensuring authenticity of the assessment and rating process** – There is also evidence from work by our team and others at University of Sydney that some ECEC services ‘game the system’ as they are given time to prepare. Examples include moving staff and resources between settings and providing standard documentation across sites (Staton et al. *Report to Queensland Government, 2021*).
- **Reducing the administrative burden placed on ECEC staff** – The regulatory requirements and A&R process can drive a focus on performing and recording quality to the detriment of interactions with children. Our workforce studies identify “paperwork” as a key stressor and cause of turnover of staff while imposition of policies from organisations who see NQS ratings as a marketing tool can undermine professional responsibility (Thorpe et al. *Australian Educational Researcher, 2023*; Thorpe et al. *Journal of Educational Change, 2021*).

Equity – investing more in vulnerable communities – A quality standard is important, but without additional supports in the most disadvantaged communities a standard will generate inequity. Providing additional government supports in areas of high vulnerability to increase staff, provide allied health support and basic need of high-quality food is critical to deliver on the promise of ECEC as a vehicle of equity. Currently not-for-profit services are those providing the highest quality services (Thorpe et al. *Australian Educational Researcher, 2021*). The strongest National and International evidence base suggests additional funding directed to high quality providers in vulnerable communities will deliver highest return on investment.

Summary: Our research and that from other national and international sources identify the need to

1. Reduce regulatory and assessment burden to deliver data that is current and useful for research and to inform policy, practice, and parents;
2. Reduce regulatory and assessment burden to enable educators and teachers to deliver the highest quality interactions with children by reducing stress and the high “paperwork” loads;
3. Examine ways to increase resourcing in vulnerable communities, adjusting ratios to accommodate higher demand in these communities;
4. Recognise and learn from those delivering high quality in vulnerable communities;
5. Identify structural barriers for services struggling to provide high quality ECEC provision and implement effective and timely supports.

Supporting materials

Papers

- Grant, S., Comber, B., Danby, S., Theobald, M., & Thorpe K., (2018). The quality agenda: governance and regulation of preschool teachers' work. *Cambridge Journal of Education*, 48(4), 1-15.
- Mc Donald, P., Thorpe, K., & Irvine, S. (2018). Low pay, but still we stay: Retention in early childhood education and care. *Journal of Industrial Relations*, 60(5), 646-668.
- Panthi, N. Karen Thorpe, Sandra Houen, Sally Staton (submitted 2023) The Challenges of Challenging Behaviour: Early Childhood Educators' understandings of child behaviour and impact on occupational wellbeing Teachers and Teaching.
- Pattinson, C., Staton, S., Smith, S., Sinclair, D., & Thorpe, K. (2014). Emotional Climate and Behavioral Management during Sleep Time in Early Childhood Education Settings. *Early Childhood Research Quarterly*, 29(4), 660-668.
- Rankin,P., Staton,S., Potia, Azhar Hussain, Houen, Sandy and Thorpe, Karen (2022). Emotional quality of early education programs improves language learning: A within-child across context design *Child Development*.
- Searle, B. E., Staton, S., Littlewood, R., Thorpe, K. (2022). Associations between food provision and feeding practices in socially disadvantaged childcare centres. *Appetite*.
- Searle, B., Staton, S., Littlewood, R., & Thorpe, K. (2023). Mealtimes in the context of poverty: Comparison of ECEC services providing food and those requiring food provided from home. *Child: Care, Health and Development*.
- Searle, B., Staton, S., Littlewood, R., Thorpe, K (submitted 2023) A missed opportunity? Meal provision in early childhood education and care services in the context of socioeconomic disadvantage *Social Science and Medicine*.
- Staton, S. L., Smith, S. S., Hurst, C., Pattinson, C. L., & Thorpe, K. (2017). Mandatory nap times and group napping patterns in childcare: an observational study. *Behavioral sleep medicine*, 15(2), 129-143.
- Staton, S., Smith, S., Pattinson, C. & Thorpe, K. (2015). Mandatory naptimes in childcare and children's nighttime sleep. *Journal of Developmental and Behavioral Pediatrics*, 36, (4), 235-242.
- Tang et al – (submitted to *Demography*, 2022) MADIP data – latent class analysis examining who gets access to high quality ECEC using NQS rating as the measure.
- Thorpe, K., Bell-Booth, R., & Vromens, L. (2011). Accessing Kindergarten in Queensland: Barriers and enablers for marginalised groups. *Department of Education, Queensland Government*.
- Thorpe K, Irvine, S., Pattinson, C. and Staton, S. (2018). Insider perspectives: The 'tricky business' of providing for children's sleep and rest needs in the context of early childhood education and care. *Early Years*, 40(2), 221-236.
- Thorpe, K., Pattinson, C., Smith, S., Staton, S. (2018). Mandatory Naptimes in Childcare do not Reduce Children's Cortisol Levels. *Nature Scientific Reports*, 8.
- Thorpe, K. , Houen,S. Rankin,P., Pattinson,C. Staton,S. (2022) Do the numbers add up? Questioning measurement that places Australian ECEC teaching as 'low quality'. *The Australian Educational Researcher*, 1-20.
- Thorpe, K., Jansen, E., Sullivan, V., Irvine, S., McDonald, P., & Early Years Workforce Study team Karen Thorpe Sue Irvine Paula McDonald Joanne Lunn Jennifer Sumsion Angela Ferguson Mary Lincoln Kate Liley Pam Spall. (2020). Identifying predictors of retention and professional wellbeing of the early childhood education workforce in a time of change. *Journal of educational change*, 21, 623-647.

Thorpe, K., Panthi, N., Houen, S., Horwood, M., & Staton, S. (2023). Support to stay and thrive: mapping challenges faced by Australia's early years educators to the national workforce strategy 2022–2031. *The Australian Educational Researcher*, 1-25.

Thorpe, K., Rankin, P., Beatton, T., Houen, S., Sandi, M., Siraj, I., & Staton, S. (2020). The when and what of measuring ECE quality: Analysis of variation in the Classroom Assessment Scoring System (CLASS) across the ECE day. *Early Childhood Research Quarterly*, 53, 274-286.

Thorpe, K., Potia, A. H., Searle, B., Van Halen, O., Lakeman, N., Oakes, C., ... & Staton, S. (2022). Meal provision in early childhood education and care programs: Association with geographic disadvantage, social disadvantage, cost, and market competition in an Australian population. *Social Science & Medicine*, 312, 115317.

Thorpe, K., Westwood, E., Jansen, E., Menner, R., Houen, S., & Staton, S. (2021). Working Towards the Australian National Quality Standard for ECEC: what do we know? Where should we go?. *The Australian Educational Researcher*, 48, 227-247.

Thorpe, K., Rankin, P., Potia, A., Houen, S., Casey, C., Siraj, I. and Staton, S. (2023 submitted). Understanding the long reach of early care and education (ECE): Testing the contribution of emotional qualities of the Pre-K classroom *Developmental Psychology*.

Reports

Staton, S., Thorpe, K., Pattinson, C., Coles, L., Houen, S., Cooke, E., Westwood, E., Gnani Srinivasan, A., Searle, B., Van Halen, O., Menner, R., Zheng, Z.. (2021) *KindyLinQ Program Pilot: Pilot evaluation report and executive summary*, Queensland Government.

Staton, S., Houen, S., Thorpe, K. (2022) *The when, what, and how of observing and assessing practice in Early Childhood Education and Care*, Queensland Government.

Staton, S., Houen, K., Thorpe (2022) *Assisting Observation Toolkit for Authorised Officers in Early Education and Care Service*, Queensland Government.

Staton, S., Coles, L., Houen, S., Seale, B., Mecklenburgh, N., Van Halen, O., ... & Thorpe, K. (2023) *Responding to challenging behaviour with Children aged 2-5 years in Early Childhood Education and Care settings*. Melbourne: Social venture Australia, Evidence for Learning.

Potia, A.H., Rankin, P., Thorpe, K. (2022) *Successful transitions: Identifying predictors of resilient trajectories of transition into secondary school*.

Other

Thorpe Laureate Fellowship 2023-2028

Inclusions

Thorpe ARC Laureate project description

Submitted papers under review

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