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## Research Symposium

Listening, empowering  
and innovating  
8–9 February

Discussion  
Papers

## Table of Contents

Day 1: Thursday 8 February 2024/Room 1/11.50 am–1.50 pm/Symposium presentations.....	6
Integrating universal and local research methods: Listening and innovating to engage diverse stakeholders in curriculum development.....	6
Authors: Lennie Barblett AM, Fay Hadley, Susan Irvine, Linda Harrison, Jennifer Cartmel, Francis Bobongie-Harris .....	6
Listening, empowering and using knowledge: The use of Delphi panels to gather and interrogate data .....	8
Authors: Lennie Barblett AM, Fay Hadley, Susan Irvine, Linda Harrison, Jennifer Cartmel, Francis Bobongie-Harris .....	8
Listening and empowering research participants: Walking alongside practitioners.....	10
Authors: Lennie Barblett AM, Fay Hadley, Susan Irvine, Linda Harrison, Jennifer Cartmel, Francis Bobongie-Harris .....	10
Day 1: Thursday 8 February 2024/Room 2/11.50 am–1.50 pm/Symposium presentations.....	12
Listening to children: The ‘Children Draw Talking Project’ .....	12
Authors: Belinda Downey, Sharynne McLeod .....	12
Development of an instrument and protocol for the virtual collection and analysis of children’s drawings.....	14
Authors: Carolyn Gregoric, Van H. Tran, Suzanne C Hopf, Sharynne McLeod.....	14
A meaning-making analysis of children’s drawing vs children’s talking in the drawing: A cultural–historical perspective.....	16
Authors: Shukla Sikder, Lysa Dealtry, Sarah Stenson.....	16
Day 1: Thursday 8 February 2024/Room 3/11.50 am–1.50 pm/Roundtable presentations.....	18
Digital media as a portal to enhance children’s learning.....	18
Authors: Sue Grieshaber, Jane Caughey, Kate Highfield, Susan Edwards .....	18
Tuning in to young children’s peer-to-peer interactions when engaging with digital technologies	20
Authors: Andrea Nolan, Deb Moore .....	20
Investigation of home family interactions for children under three years of age using a 360-degree camera .....	22
Authors: Sarah Nilsen.....	22
Day 1: Thursday 8 February 2024/Room 4/11.50 am–1.50 pm/Roundtable presentations.....	24
An exploration of protective behaviours in early learning contexts .....	24
Author: Sara Evans.....	24
Educators’ practices in supporting and building children’s resilience in early childhood settings ..	27
Authors: Miroslava Bozic, Susan Beltman, Madeleine Dobson .....	27

Developing a program to support children’s social and emotional wellbeing through the physical and sensory environment .....	29
Authors: Andrea Tamblyn, Helen Skouteris, Claire Blewitt, Yihan Sun .....	29
Day 1: Thursday 8 February 2024/Room 5/11.50 am–1.50 pm/Roundtable presentations.....	31
The Teachers in Early Education (TEE) tool: An innovative, co-design approach to assessing teacher quality in the early years.....	31
Authors: Marianne Fenech, Sandie Wong, Tracy Durksen .....	31
Teacher–educators as researchers: Crossing boundaries. Developing bicultural habits of mind....	33
Authors: Yo Heta-Lensen, Helen Wrightson, Sarah Probine, Jo Perry, Rachael Burke, Joanne Alderson, Fi McAlevey.....	33
Understanding knowledge construction between mentor teachers and pre-service teachers within ‘co-design’ education research methodology .....	35
Authors: Edith Nicolas, Parian Madanipour, Jane Page.....	35
Day 1: Thursday 8 February 2024/Room 6/11.50 am–1.50 pm/Roundtable presentations.....	37
How can generating stories about culture and place ground and mobilise leadership in ECE? .....	37
Authors: Kiri Gould, Maria Cooper.....	37
Leading early childhood education through crises and complex times.....	39
Author: Leanne Gibbs .....	39
Day 1: Thursday 8 February 2024/Room 1/2.20 pm–3.20 pm/Roundtable presentations.....	41
Early childhood educators’ wellbeing and views on mathematics.....	41
Authors: Katherine Canobi, Halina McNally, Jane Page.....	41
A scoping review of the role of multimodal resources for inclusive STEM participation in early childhood education .....	44
Authors: Sarika Kewalramani, George Aranda, Gerarda Richards, Jiqing Sun, Lihua Xu, Kylie Smith, Bridgette Van Leuven, Linda Hobbs, Jan van Driel, Victoria Millar, Belinda Dealy.....	44
Day 1: Thursday 8 February 2024/Room 2/2.20 pm–3.20 pm/Roundtable presentations.....	46
Missing boats, railroads and a camel’s back: Pandemic transition to school experiences of Australian families.....	46
Author: Kathryn Hopps .....	46
Co-creating affirmative transitions for children with refugee and asylum-seeker backgrounds....	48
Authors: Eseta Tualaulelei, Kerry Taylor-Leech, Diana Homer .....	48
Day 1: Thursday 8 February 2024/Room 3/2.20 pm–3.20 pm/Roundtable presentations.....	50
‘What a melodious sound!’: Children learning through the arts in a bush kinder program .....	50
Authors: Jennifer Stevens-Ballenger, Emily Wilson .....	50
Young children’s understandings of sustainability .....	52
Author: Mia Christensen .....	52

Day 1: Thursday 8 February 2024/Room 4/2.20 pm–3.20 pm/Roundtable presentations.....	54
Assessment at play: Championing the capacities of children and empowering the mathematical pedagogue. ....	54
Authors: Jo Grimmond, Cathrine Neilsen-Hewett, Steven Howard .....	54
Inclusive STEAM pedagogy in early childhood settings in Qingdao, China: A teacher’s perspective .....	56
Authors: Jahirul Mullick, Qiusu Wang.....	56
Day 1: Thursday 8 February 2024/Room 5/2.20 pm–3.20 pm/Roundtable presentations.....	58
Leading for change: Developing a culture of curiosity .....	58
Authors: Claire Philp-Clark, Belinda Quinn, Sue Grieshaber .....	58
Antecedents to developing trust in collaborative partnerships: A poststructural case study utilising participatory Situational Analysis methods .....	60
Authors: Kathryn Mason .....	60
Day 1: Thursday 8 February 2024/Room 6/2.20 pm–3.20 pm/Provocations.....	62
An intentional approach to meaningful teacher–child musical interactions .....	62
Author: Lynn Lee-Pang.....	62
Responding to children’s voices: A new frontier in education policy reform.....	64
Authors: Amelia Ruscoe .....	64
Care in the curriculum for three-year-old children: A qualitative case study .....	65
Author: Sarah Louise Gandolfo .....	65
Listening-with-care to educators’ and children’s cultural needs in a multicultural centre in Victoria, Australia .....	67
Authors: Gloria Quinones, Vanessa Field.....	67
On being certain of uncertainty .....	69
Author: Kerrie O'Neill.....	69
Day 2: Friday 9 February 2024/Room 1/11.40 am–1.40 pm/Roundtable presentations.....	71
Empowering placement experiences through professional partnerships.....	71
Authors: Natalie Robertson, Katherine Bussey.....	71
EDGE Study: Early childhood teachers’ experiences working with other professionals to support three-year-old children’s learning and development.....	73
Authors: Jane Page, Laura McFarland, Halina McNally, Sarah Young, Tricia Eadie, Penny Levickis .....	73
Partnership as method: Creating ecologies of reciprocity.....	75
Authors: Sue Grieshaber, Elise Hunkin, Kelly Walsh.....	75
Day 2: Friday 9 February 2024/Room 2/11.40 am–1.40 pm/Roundtable presentations.....	77

Transitioning to university via a VET pathway: Challenges and opportunities.....	77
Authors: Mandy Cooke, Nicole Downes, Fiona Phillips .....	77
A framework for online learning environments supporting student engagement and retention in initial early childhood teacher education programs.....	79
Authors: Leanne Gibbs, Jo Grimmond .....	79
Forming a Community of Practice to improve food environments in early childhood education and care: ‘How to’ for system change .....	81
Authors: Ros Sambell, Rebecca Byrne, Penny Love .....	81
Day 2: Friday 9 February 2024/Room 3/11.40 am–1.40 pm/Roundtable presentations.....	83
Talking the talk: Enriching language interactions with infants and toddlers.....	83
Authors: Tracy Redman, Sheila Degotardi, Linda J. Harrison.....	83
How are children and their adults participating in a bicultural context through inquiry-based project learning in Aotearoa, New Zealand? .....	85
Authors: Sarah Probine, Jo Perry, Yo Heta-Lensen, Rachael Burke, Fi McAlevey, Joanne Alderson, Helen Wrightson .....	85
Promoting equity for multilingual children.....	87
Authors: Bridget Healey, Luke Collier .....	87
Day 2: Friday 9 February 2024/Room 4/11.40 am–1.40 pm/Roundtable presentations.....	89
Drawing thought: Young children’s representational approaches to meaning making in science ..	89
Author: Rachael Hedger .....	89
Capturing the voice of young children in evaluation.....	91
Authors: Claire Blewitt, Alexandra Fraser, Yihan Sun, Helen Skouteris.....	91
Children’s voices in policy: How considered study design is vital in balancing rigour and authenticity .....	93
Authors: Chris Mason, Daniel Hannington-Pinto, Dan Leach-McGill.....	93
Day 2: Friday 9 February 2024/Room 5/11.40 am–1.40 pm/Roundtable presentations.....	95
Assessment as learning in the app generation .....	95
Authors: Qiyue Wang, Tina Stratigos .....	95
Understanding young children’s lived experiences in the post-digital through alternative theoretical frameworks .....	97
Author: Honor Mackley.....	97
AI and the ethics of early childhood research: Unpacking the impact of generative tools.....	99
Authors: Kate Highfield, Jo Bird, Holly Tootell.....	99
Day 2: Friday 9 February 2024/Room 6/11.40 am–1.40 pm/Symposium presentations.....	101
Scientific literacy in the early years: Understanding through a cultural-historical lens .....	101

Authors: Goutam Roy, Shukla Sikder, Lena Danaia .....	101
Transformative inclusion in early years: Using the lens of cultural–historical theory .....	103
Authors: Arifa Rahman, Shukla Sikder, Lucia Zundans-Fraser .....	103
Storycrafting enhances children’s imagination and creativity in the early years of Bangladesh: A cultural-historical view.....	105
Authors: Jagazziban Biswas, Jahirul Mullick, Shukla Sikder .....	105

## Day 1: Thursday 8 February 2024/Room 1/11.50 am–1.50 pm/Symposium presentations

### Integrating universal and local research methods: Listening and innovating to engage diverse stakeholders in curriculum development

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**Presenters: Fay Hadley, Jennifer Cartmel, Linda Harrison**

*Fay Hadley is a Professor of Early Childhood in the School of Education and Deputy Director, Centre for Research in Early Childhood Education (CRECE). Fay's primary areas of research examine leadership in early childhood education and family partnerships. She is especially interested in the socio-political environment and how this affects early childhood teachers' work. Fay was the lead Chief Investigator (CI) on the recent Approved Learning Frameworks (ALFs) Update project and CI on the National Quality Improvement project. Fay is currently a CI on the UNICEF funded project: Study on the Effectiveness of School Readiness Programme – Timor Leste*

*Jennifer Cartmel is Associate Professor, Child, Youth and Family Practice in the School of Health Science and Social Work at Griffith University. Her research interests include workforce development, children's social and emotional learning, intergenerational practice and the many facets of outside school hours care service delivery. Jennifer was a Chief Investigator on this team that updated the Australia Approved Learning Frameworks. Jennifer is an executive member for the World Education Research Association Task Force for Global Research on Extended Education.*

*Linda Harrison is a Professorial Research Fellow in Early Childhood Education at Macquarie University, Sydney and Adjunct Professor at Charles Sturt University, Bathurst, NSW. Linda has a long-standing interest in the design and use of innovative research methods to better understand the relationships and conditions that support high quality practice and promote children's learning, development and well-being in education and care contexts. A key feature of her work has been to form or contribute to collaborative partnerships, including with Commonwealth, State and Local governments, providers of early education and care, and other stakeholders*

#### **Abstract**

The updating of Australia's two national learning frameworks, the *Early Years Learning Framework* (EYLF) and *My Time, Our Place* (MTOP) employed collaborative and inclusive research methods that assisted in forging relationships, facilitating dialogue and co-creating knowledge. A participatory research framework was key in designing and implementing mixed methods to engage and listen to a diverse array of stakeholders to inform the updates and support their implementation.

This paper describes the three-phase research design and spotlights the critical success factors in conceptualising and undertaking the research. Collaboration was a key tenet framing the work of the project team, which included a large consortium of research and practice colleagues. Stakeholder engagement was underpinned by eight principles: inclusion; respect; accessibility; ethical collection and use of data; a positive and strengths-based approach; timeliness; transparency; and collegiality

and collaboration. Stakeholders included policymakers, authorised officers, approved providers, academics and researchers, teachers and educators, parents, other professionals and most importantly children and young people.

In order to reach and engage a diverse range of stakeholders, research methods were both universal and targeted. Universal strategies included a discussion paper and national online surveys customised for different audiences. More tailored strategies were critical in engaging stakeholders who are often not well represented in policy conversations such as this. Targeted strategies leveraged the expertise, experience and established relationships of the broader consortium. Attentive listening and reciprocity are key when developing notions of empowerment, building relationships and ensuring participants know they have been heard.

The research team will share a number of feedback strategies including talking to children about what was found and the use of the data.

#### **Discussion questions**

- When designing research how do researchers ensure they have the key stakeholders involved?



## Listening, empowering and using knowledge: The use of Delphi panels to gather and interrogate data

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**Presenter: Susan Irvine**

*Susan Irvine is a Professor and Head of the School of Early Childhood and Inclusive Education at QUT. She maintains a longstanding interest in ECEC policy, curriculum and quality standards, and has undertaken multiple research projects focusing on the ECEC workforce. Recent projects include: the National Quality Improvement project, the Approved Learning Frameworks (ALFs) Update project and the in-progress ORICL project – Observe, Reflect, Improve Children's Learning.*

### Abstract

A three-phase study using a participatory research framework was key in reaching, engaging and listening to multiple stakeholders when updating the *Early Years Learning Framework* (EYLF) and *My Time, Our Place* (MTOPI). The research team conceptualised the research process to involve a consortium of experts across a range of transdisciplinary research areas and early childhood education and care (ECEC) and outside school hours care (OSHC) practice contexts, informed by a detailed stakeholder engagement process that included universal and targeted engagement strategies. Extending beyond data collection to elicit diverse stakeholder views, methods were required that enabled continuing dialogue and feedback on analysis, alternatives, and recommendations for change.

With this goal in mind, the project design included a series of Delphi panels, strategically positioned to facilitate collaborative critical reflection on Phase 1 and 2 findings, to inform the draft frameworks to be tested during the pilot.

A Delphi panel is a method for focusing and structuring research conversations on a shared topic of interest—in this case, updating the approved learning frameworks. Our method involved purposefully drawing together a group of experts on the topic of interest and using a series of open-ended questions to identify and engage with similarities and differences in views and understandings; and work towards expert consensus. Typically, the Delphi method employs a series of rounds, with findings from each round feeding into the next. We adapted the Delphi model to suit the specific needs of the project, comprising two rounds, each with a different goal.

Round 1 comprised five panels that purposefully engaged ECEC and OSHC colleagues from diverse contexts (policy, practice, research, peaks, unions) and different jurisdictions alongside consortium members to interrogate findings (n=105 experts). Round 2 comprised one panel involving consortium members only; this was our decision-making panel. Round 2 provided time and space to critically reflect on a small number of contested areas, where there were lower levels of agreement, to deepen understanding of different perspectives to inform final recommendations. Each panel went for approximately two hours, and was hosted by a member of the research team on Microsoft Teams. Panel conversations were audio-recorded and transcribed, and supplemented by facilitator notes.

This paper will describe the rationale behind the use of Delphi panels, how they were implemented and how the data was used in the updates. We will discuss the need for a clear protocol that promotes shared understanding of what the Delphi panel hopes to achieve, unpacking the roles and responsibilities of facilitators and participants, creating a safe, respectful and collaborative space with opportunity for all to participate, and being clear about how information will be used. In this project, Delphi panels offered a research method that honoured participants' expertise, empowered them to contribute their expert knowledge, facilitated deeper understanding of different perspectives, and used this knowledge in the updates to the approved learning frameworks.

#### **Discussion questions**

- What methods are useful in extending reach, engagement and interrogating data with others?

## Listening and empowering research participants: Walking alongside practitioners

**Authors: Lennie Barblett AM, Fay Hadley, Susan Irvine, Linda Harrison, Jennifer Cartmel, Francis Bobongie-Harris**

**Presenter: Lennie Barblett**

*Lennie Barblett has research interests in quality early childhood curriculum and practices, play based pedagogies, leadership, effective environments and children's wellbeing. She has been invited to contribute to the work of numerous state and national committees and working parties focusing on curriculum reform, ethics and teaching standards. She is a co-writer of the ECA Code of Ethics and has recently worked with the team on the updates of the Early Years Learning Framework and the My Time, Our Place framework.*

### Abstract

The final phase of the research into updating two national learning frameworks, the *Early Years Learning Framework (EYLF)* and *My Time Our Place (MTOPI)* involved piloting the draft frameworks in 16 sites around Australia. These sites were purposefully selected to maximise variation in the sample reflecting the diversity of providers, settings and contexts in Australian early childhood education and care (ECEC) and outside school hours care (OSHC). In the pilot, educational leaders, teachers and educators, children and young people became the researchers, respected as authorities on educational practices, thinking and learning in ECEC and OSHC.

Using a participatory research design, the methods used in this stage prioritised the end-user perspective of both educators and children. Seeking to optimise educator engagement and striving for authentic feedback, data collection was embedded in everyday practice. Over seven weeks, a nominated contact, most often the educational leader, assisted educators to plan for implementation, test and interrogate the recommended changes and offer suggestions to inform and improve the updated frameworks. Each setting was allocated five to seven changes to test, however, we relied on leaders and teams to determine how they would approach and support implementation in their local context.

Mixed methods were used to gather feedback. Educator perspectives were captured through the collection of curriculum documentation, use of video diaries, and end-of-pilot focus groups. Through their educators, children and young people were invited to comment on how the changes manifested in the pilot. Children's perspectives were collected through the techniques of dialogic drawing, talking circles and photo elicitation. All data was analysed in Nvivo and brought together through a week-long process of meta-analysis.

In this paper, we critically reflect on our role in walking alongside the pilot settings. We will identify approaches and strategies that supported meaningful engagement, while enabling and making visible professional autonomy, the influence of context, and different ways of working. Drawing on participant feedback, enablers included: building on relationships established through the consortium; the structured reflective and planning for change techniques supported by the research

team; and bringing participants with similar roles in different settings together to share and reflect on their experiences in the end-of-pilot focus groups. Educators also reported that children and young people were excited and pleased to be asked about aspects of the changes, the spaces they inhabit and the relationships they make.

#### **Discussion questions**

- How do researchers forge relationships and show they are authentically listening and presenting different points of view?

## Day 1: Thursday 8 February 2024/Room 2/11.50 am–1.50 pm/Symposium presentations

### Listening to children: The ‘Children Draw Talking Project’

**Authors: Belinda Downey, Sharynne McLeod**

**Presenters: Belinda Downey, Sharynne McLeod**

*Belinda Downey is an Associate Lecturer in Early Childhood Education. She has worked as part of a team on large Australian Government funded research projects focusing on early childhood education. Specifically, the ‘Early Childhood Education Workforce Capacity Project’ (2009–2011), the ‘Indigenous Child Care Choices Project’ (2008) and the ‘Strong Foundations of Literacy and Numeracy Pilot Project’ (2010) for very remote Indigenous preschool children.*

*Sharynne McLeod is a Professor of Speech and Language Acquisition at Charles Sturt University, Australia. Her research focuses on children’s speech and multilingualism, and she has advocated for communication rights at the United Nations and the World Health Organization. She was an Australian Research Council Future Fellow, is a Fellow of the Academy of the Social Sciences in Australia and a Fellow of the Royal Society of New South Wales. She is a speech-language pathologist, served as editor-in-chief of the International Journal of Speech-Language Pathology, and has received Honors of the American Speech-Language-Hearing Association and Life Membership of Speech Pathology Australia. The Australian Newspaper named her Australia’s Research Field Leader in Audiology, Speech and Language Pathology and Best in the World based on the quality, volume and impact of her work.*

#### Abstract

The ‘Children Draw Talking Project’ was developed with the aim of giving young children a voice and advocating for the importance of children’s voices being heard (Articles 12 and 13 of the United Nations *Convention on the Rights of the Child*, (UN, 1989). Drawings can support children’s agency to share their views and their voices crossing the boundaries of language and speech ability (McLeod et al., 2023). This project built on the work of McCormack et al. (2022) and examined children’s perspectives of talking.

The participants included 200 children from 24 countries and ranged in age from two to 12 years. The children submitted a drawing and explanation to the Children Draw Talking Global Online Gallery presented at the Early Childhood Voices Conference (ECV2022). The drawings were elicited using the Children Draw Talking Protocol (McLeod et al., 2023) and were analysed by a diverse interdisciplinary team including early childhood teachers, speech pathologists, psychologists, a physiotherapist and a computer scientist.

The children drew themselves talking to a friend (22%), their mother (16%), father (14%), animals (9%), siblings (9%), other family members (5%), and teacher/speech pathologist (4%) (some unable to be classified), identifying relationships as a major theme in children’s explanation of their drawing. The majority of children (79%) felt happy about talking, 8% felt unsure, 1.5% felt sad, and some did not respond or said another feeling. The majority of characters drawn were an incomplete

person where the arms, legs or body were not connected, which is typical for children aged between four and five years (de Lemos & Doig, 1999).

This project provided an inclusive opportunity for children's perspectives to be collected, and included children of diverse ages, cultures, contexts and abilities while encouraging children's agency to express their views about their world. The analysis of the drawings provides an informed understanding of how young children participate, play and live in the world. The project offers children's diverse world views and experiences of talking. This project provided an inclusive, child friendly technique to support children's voices and their agency to express their views.

### Discussion questions

- How can research empower children's voices and agency?
- How can research be more inclusive of all children's voices?

### References

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McCormack, J., McLeod, S., Harrison, L. J. & Holliday, E. L. (2022). Drawing talking: Listening to children with speech sound disorders. *Language, Speech, and Hearing Services in Schools*, 53(3), 713–731. [https://doi.org/10.1044/2021\\_LSHSS-21-00140](https://doi.org/10.1044/2021_LSHSS-21-00140)

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United Nations (UN). (1989). *Convention on the rights of the child*. <https://www.unicef.org/child-rights-convention/convention-text>

## Development of an instrument and protocol for the virtual collection and analysis of children's drawings

**Authors:** Carolyn Gregoric, Van H. Tran, Suzanne C Hopf, Sharynne McLeod

**Presenters:** Carolyn Gregoric, Van Tran, Sharynne McLeod

*Carolyn Gregoric is a research officer for the Charles Sturt University Early Childhood Interdisciplinary Research team. Carolyn's research explores interdisciplinary collaborations and working collaboratively for change across the life cycle.*

*Van H. Tran gained her second PhD from an ARC-funded project on Vietnamese language maintenance and Vietnamese-English competence. Her first PhD was an SFL-based linguistic project on the quality of post-graduate education in Vietnam. She is also a NAATI-accredited translator. She has been teaching English language and linguistics and translation at University of Wollongong and Western Sydney University. Her research focuses on home language maintenance, multilingual children's speech and language acquisition, and discourse analysis.*

*Sharynne McLeod is a Professor of Speech and Language Acquisition at Charles Sturt University and a leading international researcher in speech and language development.*

### Abstract

Children's drawings provide important insights into their emotional and social development. Children's drawings of their talking provide insights into their communication needs. Analysis of children's drawings requires a meticulous protocol and procedure to ensure ethical considerations and research reliability.

This study aimed to develop guidelines for an instrument and protocol that can enable researchers to remotely collect and analyse children's drawings of talking, leading to a more profound understanding of their experiences and emotions.

A team of researchers conducted virtual data collection and analysis of 196 children's drawings. Analysis methods were informed by a comprehensive review of existing literature on children's drawings, virtual data collection methods, and children's drawing analysis theories (McLeod et al., 2023). A structured protocol for online drawing collection, complete with instructions for children and their guardians, and consent forms was developed. In addition, drawing analysis tools and processes from diverse fields of research were applied to construct a dataset and analyse the results.

Our research has shown that a digital platform, such as Early Childhood Voices Conference (ECV 2022), is an effective tool for collecting children's drawing online. The review and analysis of drawings (n=196) proved to be more reliable when conducted by small teams of researchers (n=3-4) rather than individual researchers. The main approaches for analysis were a combination of quantitative and qualitative analysis, including developmental analysis, focal point analysis, systemic functional linguistics analysis, and meaning-making analysis (McCormack et al., 2022).

This paper highlights the importance of a well-defined instrument and protocol in the virtual collection and analysis of a large quantity of children's drawings, often with limited contextual information. Interdisciplinary collaboration and organisation of the research team provides diverse expertise to ensure the validity and reliability of data collection and analysis.

### Discussion questions

- How can a systematic research protocol support data collection, analysis, and reporting for a large-scale children's drawing project?
- Why are interdisciplinary teams recommended to ensure research reliability and validity when researching children?

### References

McCormack, J., McLeod, S., Harrison, L. J. & Holliday, E. L. (2022). Drawing talking: Listening to children with speech sound disorders. *Language, Speech, and Hearing Services in Schools*, 53(3), 713–731. [https://doi.org/10.1044/2021\\_LSHSS-21-00140](https://doi.org/10.1044/2021_LSHSS-21-00140)

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## A meaning-making analysis of children's drawing vs children's talking in the drawing: A cultural–historical perspective

**Authors:** Shukla Sikder, Lysa Dealtry, Sarah Stenson

**Presenters:** Shukla Sikder, Lysa Dealtry, Sarah Stenson

*Shukla Sikder is a Senior Lecturer in the School of Education at Charles Sturt University. She has expertise in science, technology, and play-based pedagogy for early childhood education. Shukla has taught as a science teacher in primary and secondary schools in Bangladesh and early childhood education programs in Australia and Singapore. Her PhD, which she received from Monash University in 2016, focused on the scientific development of infants and toddlers aged from 10 to 36 months through their everyday family activities. Shukla is currently working on a variety of STEM education research projects.*

*Lysa Dealtry is a Lecturer with the School of Education on the Albury-Wodonga campus of Charles Sturt University. Lysa's research is primarily concerned with facilitating inclusion and social justice in and through education. Her work has explored research methods that facilitate young children's participation in research and how eliciting children's voices on their experiences can inform inclusive pedagogies. Her doctoral study explored transition to school experiences from the perspectives of Aboriginal children and their families living in urban communities on Tharawal land, NSW. Lysa's current research interest is in First Nations community-informed teacher education programs and pedagogies.*

*Sarah Stenson is a Registered Nurse who has a master's qualification in Child & Family Health. In addition to being an active member of Charles Sturt's Early Childhood Interdisciplinary Research Group, Sarah teaches into the Bachelor of Nursing at Charles Sturt University. Sarah takes a particular interest in child protection, perinatal and infant mental health, supporting breastfeeding, immunisation, and nursing research. Before joining academia, Sarah worked as a child and family health clinical nurse specialist in rural NSW. Sarah also served as an ordinary member of the NSW Child & Family Health Nurses' Association in 2017 and was involved in several projects, including planning the annual conference and promoting the specialty of child and family health nursing. Sarah is a PhD candidate and her research involves looking at education provided to undergraduate registered nurses to prepare them for recognising and responding to child maltreatment in their future practice.*

### Abstract

As a common cultural activity for children around the world, drawing is viewed as an artistic or creative pursuit as well as a free play activity. In the 'Children Draw Talking' project, a specific guideline was given to parents or adults to invite their child/ren to draw themselves talking to someone. After drawing, children were asked questions such as: Who is in the drawing, and what are you talking about?

In the *Early Years Learning Framework V2.0*, asking questions is an important strategy as part of intentional teaching to extend children's knowledge, skills and enjoyment in thinking and learning (AGDE, 2022). In the 'Children Draw Talking' project, meaning-making analysis was used to interpret children's responses to the question: What are you talking about? Ten categories were developed and are depicted in a figure titled 'What children are talking about in the drawings based on their reporting' (McLeod et al., 2023).

However, little is known about how a specific guideline and a set of questions could support children's drawing and thinking process, and eventually enhance higher mental functions. According to cultural historical theory, the development of higher mental function outlines development as qualitative change (Vygotsky, 1997), which emerges a new system of functions and cultural signs and sign mediation support to reorganise this qualitative changing process (Veresov, 2010).

From the total 166 drawings, ten drawings have been selected to represent each of the ten categories of what children are talking about in the drawings (McLeod et al., 2023). Children's explanations of what they were talking about in the drawings are analysed using Hedegaard's three levels of analysis (2008).

The presentation will discuss how drawing represents a cultural tool of children's minds that supports the development of higher mental functions such as logical thinking and concept formation (Bodrova and Leong, 2018). It is argued that early childhood educators could set guidelines for children to draw, and a set of thoughtful questions might support children to think about their drawing, which will support the higher mental functions of children's thinking and learning process.

#### Discussion questions

- How can drawing support children's development of higher mental functions?
- Why does intentional teaching matter for children's thinking and learning processes?

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## Day 1: Thursday 8 February 2024/Room 3/11.50 am–1.50 pm/Roundtable presentations

### Digital media as a portal to enhance children's learning

Authors: Sue Grieshaber, Jane Caughey, Kate Highfield, Susan Edwards

**Presenters: Sue Grieshaber and Kate Highfield**

*Sue Grieshaber is Professor of Early Childhood Education in the School of Education at La Trobe University. Her research interests are informed by a range of critical, feminist, and post theories that address social justice and equity, and include early childhood curriculum, policy, pedagogies and families, and women in higher education.*

*Kate Highfield is an experienced teacher and researcher working as an Associate Professor at the University of Canberra. Her research explores the use of technology in play, learning and engagement. Kate has strong curriculum understandings in STEM and STEAM and an interest in how we innovate in ECEC.*

#### Abstract

Children's play has changed because digital technologies, media and popular culture now play a greater part in children's everyday lives and provide a contemporary context for play. Play is a signature pedagogy for early childhood education (ECE). However, the slow uptake of digital technologies, media and popular culture by early childhood educators shows that children's interests in these areas are yet to be supported in similar ways to 'traditional' play and emergent curricula (Edwards et al., 2020). This contradicts a central premise that ECE curricula are based on play anchored in children's interests, reflecting a possible lack of attunement between educators and young children's daily experiences and interests. Capitalising on children's interests in media, popular culture and digital technologies matters because these interests offer powerful ways to enhance children's learning (Grieshaber et al., 2021).

This presentation is drawn from Australian research that supports children's interests in digital technologies and popular culture to enhance learning through play and pedagogies. It is part of a larger project that investigates young children in digital society from the perspectives of the four components of the Early Childhood Australia (2018) statement on digital technologies: relationships, health and wellbeing, citizenship, and play and pedagogy. The research question framing the play and pedagogy investigation is: How does classroom access to digital technologies influence educator provision of play activities? A case study with nine Australian early childhood educators draws on data from semi-structured interviews, video observations, listening conversations with children, photos, environmental technology scans and workshops. A thematic analysis identified five constructs that show how media can work as a portal to assist educators to enhance children's learning with digital technologies. A portal is a connector that serves simultaneously as entry and exit points and is where possibilities lie for something new or innovative to happen pedagogically. The paper discusses the five constructs: educators moving onto the portal, peering through the portal and experiencing the portal; and a portal acting as a transitioning agent and as a transformative agent. The concept of a portal enables explanations of how educators create

innovative analytical questions and for something different from the known to emerge. Using the idea of a portal can assist in understanding how educators were able to produce knowledge differently, making it valuable professional learning and a persuasive asset for supporting children's interests and learning with digital devices.

### Discussion questions

- What can I do if I want to use digital media and technologies and don't have resources?
- What does *Belonging, being & becoming: The early years learning framework for Australia V2.0* (2022) say about children's learning using digital technologies?

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## Tuning in to young children's peer-to-peer interactions when engaging with digital technologies

Authors: Andrea Nolan, Deb Moore

**Presenters: Andrea Nolan, Deb Moore**

**Andrea Nolan** is Professor of Early Childhood Education in the School of Education at Deakin University, Australia. She is a member of the university's strategic research centre, Research for Educational Impact. Andrea is the founder and Chair of the Victorian Early Childhood Research Consortium, a group of 83 cross-disciplinary researchers from Victorian universities who support research capacity-building in early childhood. She has conducted research in both schools and preschools and has worked on a number of state, national and international projects. Her research is framed around the capabilities of the early childhood education and care workforce, focusing on the professionalisation and practice of teachers. She has researched the impact of the current Australian reform agenda on professional identities and educator practice, mentoring, inter-professional work, and reflective practice.

**Deb Moore** is a Research Fellow (Early Childhood) at Deakin University. Deb's research interests and publications primarily focus on researching with young children and their outdoor play environments, especially those places children physically and/or symbolically construct themselves for their imaginative play. Deb has also conducted research into early childhood and primary teachers' engagement with environmental education for sustainability (EEFS) and has published a book on newly graduated teachers' stories about their experiences. Deb's research has recently moved into work on professional placement experiences for early childhood pre-service teachers and mentor teachers; workforce issues for early childhood teachers and educators; and young children's engagement with digital technology and their experiences within a digital society.

### Abstract

Young children are accessing digital technologies from increasingly younger ages, with this being commonplace for many (Wilson et al., 2023). Influential Australian documents on children's digital engagement, such as Early Childhood Australia's *Statement on Young Children and Digital Technologies* (2018), are recognising this trend and encouraging educators to incorporate technologies into their programs for young children. As a consequence, it is time to tune in to children's experiences to enhance the positive benefits that technologies can afford.

This presentation focuses on the peer-to-peer relationships of very young children that can be formed through the use of digital technologies. Specifically, it addresses the dearth of research relating to children aged from birth to three years and their technology use. This study investigates infants and toddlers' social interactions with each other while they are engaged with digital technologies in six family day care settings in one region of Australia. To further understand the practice of social interaction and relationship building from a theoretical stance, we have drawn on Coleman (1988) and Putnam's (2000) conceptualisation of social capital to intentionally include children's capacity to create and operate their own social capital within their own socially constructed social networks.

Data for this study included researcher and family day care educators' videos of children engaging in experiences involving digital technologies. The experiences were decided upon by the educators and

embedded in their usual programming. Our analysis of the video data identifies behaviours that broaden the characteristics usually associated with peer-to-peer interactions.

In the presentation we will use data excerpts to illustrate how young children can effectively interact with each other when engaged with digital technologies, and in opportunity-affording ways that enable relationship-building, positive social interactions, learning and positive experiences with their peers. We propose a broader conceptual understanding of the notion of interactions than what is traditionally understood in the literature around young children and their social interactions with peers when engaging with digital technologies. It is hoped that by being aware of these interactions, educators can be sensitively in-tune with young children's experiences and use this knowledge to strengthen their programming and pedagogy to foster peer-to-peer relationships. This is significant, as the area of relationships has been acknowledged as important in early childhood education (ECA, 2018).

#### Discussion questions:

- How can we heighten our awareness to the subtleties of young children's interactions, especially when engaging with digital technologies?
- Could a better understanding of young children's peer culture support us to be more in-tune with their relationship building?

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## Investigation of home family interactions for children under three years of age using a 360-degree camera

**Authors:** Sarah Nilsen

**Presenters:** Sarah Nilsen

*Sarah Nilsen is a current PhD student at Griffith University. Her PhD examines interactions in home environments of children under three years of age. She has advocated for young children throughout her 18-year early childhood education and care career. This experience includes positions within the Queensland Early Childhood Regulatory Authority and Australian Early Development Census (AEDC) team. She received a scholarship in 2018, which supported her goal to work and learn about early childhood education in Scandinavia. In her teaching role in an international school in Sweden, she facilitated the early childhood program for the Reception class in the 2018/19 and 2019/20 school years. Sarah has experience as a research assistant at Griffith University and holds undergraduate and postgraduate qualifications in early childhood education and care, and child and family studies. Her honours degree focused on story-reading experiences in the home.*

### Abstract

Verbal and nonverbal communication concepts are central to understanding children's development. When children are very young, they show that they are interested and engaged with the people around them by verbally making sounds and through nonverbal communication such as body movements, imitating and smiling. The importance of adult–child conversation is highlighted by Vygotsky's (1978) sociocultural theory of child development (Milburn et al., 2014). According to this theory, language is the key social tool in which learning takes place as participants co-construct meaning through conversation (Rubin et al., 1983). As children increase in age, they develop a wider range of communication strategies (AGDE, 2022).

The presentation will outline the approach of a current study that captures interactions between young children under the age of three and their family members in their homes. The data will be captured in an immersive way through the use of 360-degree video. The use of 360-degree cameras is not prevalent for early childhood research and it is an exciting opportunity to observe how the same verbal or non-verbal interaction is received by the adult and child.

The benefit of a 360-degree camera is it captures a point in time from multiple angles that are seamlessly stitched together to form a comprehensive picture of the interaction. This method is expected to generate a large amount of valuable data to inform the research questions. The interactions will be analysed through contemporary interaction scales.

This study has the potential to provide a deeper understanding of behaviours used by parents and children and inform a diverse range of stakeholders in the early childhood sector, including policymakers and facilitators of parent education programs (Nilsen, 2017).

### Discussion questions

- How can this interactive video footage method be used in your work in early childhood?

- What considerations for early childhood policy and practice more broadly do these research findings suggest?
- What are the implications of this research for building the collective capabilities of families and early childhood educators?

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## Day 1: Thursday 8 February 2024/Room 4/11.50 am–1.50 pm/Roundtable presentations

### An exploration of protective behaviours in early learning contexts

Author: Sara Evans

**Presenter: Sara Evans**

*Sara Evans is an accomplished early years professional with a Bachelor of Education from the University of Southern Queensland and two decades of experience in the education and care sector. She began her career as an early childhood educator, laying the foundation for her lifelong commitment to the safety and wellbeing of children and their families. Sara's dedication to the safety and wellbeing of children led her to become a Universal Protective Behaviours Practitioner. Currently, as the National Lead for Safeguarding Children at Goodstart Early Learning, she oversees the implementation of National Principles for Child Safe Organisations and state-based Child Safe Standards in 653 early learning centres across the nation. Sara is also actively engaged in research on protective behaviours in early learning contexts.*

#### Abstract

Protective behaviours are of paramount importance for young children's learning, development, health and wellbeing. Guided by the fundamental principle that every child has the right to feel safe and live free from abuse, neglect and harm (UN, 1989), this research addresses critical issues at the intersection of child protection and early childhood education.

The *National Principles for Child Safe Organisations* (AHRC, 2018), founded on recommendations from the Royal Commission into Institutional Responses to Child Sexual Abuse (Commonwealth of Australia, 2017), are essential in ensuring the safety of children attending education and care services. However, gaps persist between the *National Quality Framework* and the National Principles, notably in relation to key action area 2.3, which recommends children should be provided access to sexual abuse prevention programs and age-appropriate information (AHRC, 2018). While numerous protective behaviours programs are available in Australia, research on their effectiveness and delivery in early learning contexts remains limited (Evans, 2023).

Considering the substantial number of young children accessing early learning across Australia, this research presents a significant opportunity to empower children and adults with protective behaviours strategies that promote safety and resilience. In teaching children protective behaviours, educators equip them with the skills to recognise and respond to potentially unsafe situations (including online); to understand their bodies, emotions and early warning signs; and to set boundaries and persist in seeking help from a trusted adult when needed (Goodstart Early Learning, 2023).

This study employs a design-based research approach to build on existing research and protective behaviours strategies, aiming to co-design guidance materials, tools and resources specifically tailored for early years practitioners working with young children. Design-based research involves an iterative process with a focus on developing solutions, or interventions, to test how well they work,

with data being analysed between iterative comparisons (Bakker, 2018). The approach is pragmatic, which is well suited to this topic because it focuses on real-world situations to explore people's experiences (Duram, 2010). The following research question will contribute to supporting the aims of this research: What strategies, tools and resources will support early learning practitioners to implement the teaching of protective behaviours in everyday practice?

Data collection is currently underway, using a survey and in-depth focus groups. Braun and Clarke's (2012) contemporary reflexive approach to thematic analysis is being used to provide a theoretically flexible approach to the analysis of this qualitative data. It is well suited to design based research, and the pragmatic approach for this project, because it enables the researcher to make sense of shared meaning between people's experiences.

It is intended the interventions designed during this research will be made freely available to practitioners working in the early years sector to help services provide young children access to protective behaviours programs in an age-appropriate way and in alignment with the National Principles.

#### Discussion questions

- In what ways could protective behaviours strategies be adapted to cater to the unique needs of children with diverse backgrounds and abilities in early learning settings?
- How do families view the teaching of protective behaviours in early learning settings, and what approaches could be used to enhance their engagement?
- What specific strategies, tools, and resources could effectively aid practitioners in integrating protective behaviours into their daily practice within early learning settings?

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Day 1: Thursday 8 February 2024/Room 4/11.50 am–1.50 pm/Roundtable presentations

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## Educators' practices in supporting and building children's resilience in early childhood settings

**Authors: Miroslava Bozic, Susan Beltman, Madeleine Dobson**

**Presenters: Miroslava Bozic**

*Miroslava (Mira) Bozic is a PhD student at Curtin University. She has worked in various early learning settings such as education and care services, women's refugee services, family day care, and primary schools for more than 20 years. For the past 14 years, Mira has lectured in early childhood education at TAFE. Mira's inspiration for learning about children's development and resilience came from her mother, who worked as a nurse with young children. During her time at Curtin University, Mira's love for learning has motivated her to investigate the ways in which early childhood educators promote and foster children's resilience. As part of her research, she has gathered information and described the educators' immediate experiences and interpretations of their actions.*

### **Abstract**

Early childhood educators play a critical role in helping children develop resilience. Resilience is a crucial process for children to develop as they navigate their emotions while playing. It is often described as the ability to effectively adapt to challenges that may impact their functioning or future development.

The literature indicates that developing resilience in young children is important for their emotional wellbeing. This research presentation focuses on initial findings from a larger project which aims to discover if children feel emotionally supported while educators connect with them through conversation, acknowledge their feelings, and provide them with space to practise specific behaviours. The research will further address how educators perceive children's self-regulation and behaviour, and how the environment plays a role in building children's resilience.

This qualitative study explores how educators in early learning services support self-regulation and build resilience in young children. The research participants are educators who work with children aged between three and five in early childhood services. The study recruited six services located in the Western Australia regional and Perth metropolitan area. Data was collected via a questionnaire, interviews and observations. The visits to various services occurred at different times of the day and on different weekdays, to capture a wide range of educators' practices. The diverse settings of the services were documented through daily observations. The rich data was analysed using NVivo software to perform coding and theme analysis.

The preliminary findings indicate that most educators believe children are capable of developing resilience with love and support from educators or persons close to a child. During the interview process, a few educators had to be reminded what resilience is, but once explained, they were able to create meaning around the topic and give examples from their practice. The findings revealed limitations in educators' constructive instructions and engagement in children's play. Furthermore, interviews with the early childhood service managers confirmed that they believe the environment plays an important role in building children's resilience, and that staff need more training to work

with children experiencing trauma and mental health issues. It is necessary to learn how to help children to self-regulate emotions and build resilience.

The literature confirms that more research is needed to learn about early childhood educators' role in helping children develop and build self-regulation and resilience. Data analysis from this study should help deliver a better understanding of educators' practices and identify gaps in their knowledge and performance in building children's resilience. The final research findings should assist educators in shaping their skills and learning how to use new strategies to improve children's ability to cope with adversity and stress and build resilience.

#### **Discussion questions**

- How do you define resilience?
- Why is building children's resilience important? What are the long-term consequences?
- What is the biggest challenge that educators experience while building children's resilience? Do you have any suggestions on what type of support educators might need?
- What are the key factors for successful practices to help children develop resilience? Do you believe the environment plays a role in children's resilience?

## Developing a program to support children's social and emotional wellbeing through the physical and sensory environment

**Authors: Andrea Tamblyn, Helen Skouteris, Claire Blewitt, Yihan Sun**

**Presenters: Andrea Tamblyn**

*Andrea Tamblyn is a PhD Candidate in the Health and Social Care Unit in the School of Public Health and Preventive Medicine at Monash University. Andrea's PhD research involves developing an intervention to optimise the physical and sensory early childhood education and care environment to support children's social and emotional development.*

### Abstract

#### Background

The early childhood education and care (ECEC) environment can provide unique opportunities for children. The physical and sensory environment factors that are related to preschool children's social and emotional competence have recently been explored (Tamblyn et al., 2023). This project aims to describe the application of Intervention Mapping (IM) methodology to develop a program that early childhood educators can use to support children's social and emotional wellbeing through the physical and sensory environment.

#### Methodology

IM guided the program development. Using a socioecological approach, IM focuses on integrating theory and evidence with stakeholder engagement across all aspects of program design, implementation and evaluation planning (Bartholomew Eldredge et al., 2016). IM involves six steps, and this presentation will focus on the first four: (1) a needs assessment to understand the problem, including three literature reviews and qualitative interviews with ECEC educators; (2) defining outcomes, performance objectives and change objectives; (3) selecting methods and practical strategies; and (4) building the program materials and resources.

#### Program co-design

This project involved three stakeholder groups: an advisory group, a co-design group and a resource development group. First, an advisory group involving ECEC leadership and researchers was convened to steer the project development process by providing input from a leadership viewpoint. Second, a multidisciplinary co-design group was formed to participate in the program development activities related to IM steps 1 to 3, and share their professional perspectives on how ECEC organisations, teams and educators can support children's social and emotional development through the environment. The co-design group involved education and allied health professionals, and health and education researchers. Finally, the resource development group, including an occupational therapist, psychologist and researcher, built the program content that aimed to translate health knowledge for ECEC educators.

#### Results

Drawing on empirical evidence, theory and qualitative interview data, which were combined with insights from the co-design group, an online resource was developed to build educators' knowledge,

awareness, beliefs, skills and self-efficacy to adapt the environment to children's sensory needs and use it as a resource to support children's social and emotional wellbeing. The resource translated allied health knowledge and strategies for ECEC educators, teams and organisations. This project offers a universal approach to sensory environment provision to support the sensory needs of all children attending ECEC services.

### Discussion questions

- How can research teams and program developers support collaborations between education and health professionals?
- How can we support ECEC services, teams and educators to use the environment to foster children's development?

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## Day 1: Thursday 8 February 2024/Room 5/11.50 am–1.50 pm/Roundtable presentations

### The Teachers in Early Education (TEE) tool: An innovative, co-design approach to assessing teacher quality in the early years

Authors: Marianne Fenech, Sandie Wong, Tracy Durksen

**Presenters: Marianne Fenech, Sandie Wong**

*Marianne Fenech is an Associate Professor in early childhood governance and director of the BEd(EC) program at the University of Sydney. Marianne's teaching, research and service work is grounded in advocacy and activism for policy and practice that supports quality, inclusive and accessible early childhood education, particularly for families experiencing disadvantage. Marianne serves as co-chair of the Australian Early Childhood Teacher Education Network and represents the Network on the national Workforce Strategy Reference Group.*

*Sandie Wong is a Professor in Early Childhood and Co-Deputy Director of the Centre for Research in Early Childhood Education at Macquarie University. Sandie conducts collaborative research with academics, early childhood organisations and practitioners, and governments on early childhood practices, workforce issues and educator wellbeing. Sandie is Vice President of OMEP for the Asia Pacific Region.*

#### Abstract

This presentation reports on the development of an innovative tool—the Teachers in Early Education (TEE) tool—designed to assess early childhood teacher (ECT) quality in context. We contend that such a tool is needed given limitations of current research measures and professional teaching standards, including having the early childhood setting as the unit of analysis, and standards/observations that do not adequately reflect the scope of ECTs' practice (Fenech & Watt, 2023; Garvis et al., 2018). The TEE tool is situated in a holistic, ecological conceptualisation of quality ECTs as multi-dimensional, socially constructed, and context-specific (Dahlberg et al., 2007; Fenech et al., 2021). From this social constructivist paradigm, we have drawn on implementation science (Metz et al., 2015) and a co-designed Delphi approach (Green, 2014) to progress the TEE tool's development. Partnering with and listening to multiple expert stakeholders has been integral to this approach. Our collaborative work will support the Tool's validity and usability, and the ethical use of the Tool to support professional development.

Findings to be presented are drawn from multiple perspectives gathered at a TEE tool stakeholder workshop in February 2023; a review of key studies and relevant policy documents; and survey responses from expert stakeholder research participants. Preliminary prototype items and considerations pertaining to the purpose, principles, content and design of the Tool will be presented. Findings highlight complexities in operationalising the scope of what ECTs do, and creating new shared understandings about quality early childhood teaching/teachers, and how these constructs can and ought to be assessed. We will also discuss how the TEE tool could be used to support ECT professional development and policy that seeks to improve the quality of early childhood education services through the employment of ECTs.



### Discussion questions

- Assessing teacher quality in early education is contentious. What are the benefits and challenges of assessing the quality of ECTs relative to the context in which they are working?
- Operationalising the scope of what ECTs do—in order to assess the quality of their practice—is complex. Is there anything that surprises you about the proposed Purpose, Principles, Content & Design of the TEE tool?
- Assessment tools need to be robust, practical, acceptable to the field, and manageable. To achieve this, we're using implementation science and co-design approach. Are there other approaches that might support the TEE Tool's development?

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## **Teacher–educators as researchers: Crossing boundaries. Developing bicultural habits of mind**

**Authors: Yo Heta-Lensen, Helen Wrightson, Sarah Probine, Jo Perry, Rachael Burke, Joanne Alderson, Fi McAlevey**

**Presenters: Yo Heta-Lensen, Helen Wrightson, Sarah Probine, Rachael Burke**

*The inquiry-based project learning research team was formed in early 2021. All members currently work as initial early childhood teacher educators across a range of tertiary institutes in Aotearoa, New Zealand. The team's diverse range of research interests include inquiry-based project learning in early childhood education; ethnography; cross-cultural education; visual arts pedagogy; practicum; mātauranga Māori approaches to teaching and learning; and educational technologies and teaching in the 21st century.*

### **Abstract**

Recent research by Smith and Assunção-Flores (2021) argued that specialised professional development for teacher–educators rarely occurs. Therefore, teacher–educators' professional knowledge is mainly acquired through experience. This presentation reports on our experiences and the knowledge we are acquiring working as a cross-cultural research team in diverse early childhood education settings.

In the words of Karen Barad (2003), 'We are not outside observers of the world. Nor are we simply located at particular places in the world; rather, we are part of the world in its ongoing intra-activity' (p. 29). Similarly, as teacher–educators we remain located within the context of early childhood education. Not only are we researching within the bicultural context of the early childhood education curriculum *Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum* (Ministry of Education New Zealand, 2017), we are maintaining professional relationships with teams of teachers who are allies in initial teacher education preparation and potentially fostering wider community relationships between centres and whānau. As early childhood education teachers, it is our experience that we draw on to understand the complexities of the research terrain.

This qualitative study employs an interpretivist paradigm underpinned by bioecological and sociocultural theories, including Kaupapa Māori theory. These theories recognise that knowledge is constructed and is influenced by a complex web of contextual influences including relationships and interactions, cultural values, and beliefs and history.

The methodological framework for this study included narrative inquiry to seek the stories of early childhood teachers and communities and their experiences with inquiry-based work with children. Narrative inquiry was selected for its potential to support understanding of how peoples' experiences are shaped by and within the social, cultural, familial, linguistic and institutional narratives surrounding them (Clandinin & Connelly, 2014).

To gather data, various methods including observations, interviews and focus groups have been employed in centres. During the analysis of the data, a team of seven early childhood education

teacher educators-as-researchers met to wānanga, reflect on, discuss and interpret their observations of the data gathered.

Leavy (2015) argued that the process of storying and re-storying can ‘reveal multidimensional meanings and present an authentic and compelling rendering of the data’ (p. 46). In this project, storying and re-storying occurs through the wānanga process. As teacher–educators, we have found that this research is engaging us more deeply in the Māori concepts contained within *Te Whāriki* as we work to rethink our initial assumptions and interpretations of our observations. The bicultural context of *Te Whāriki* is creating opportunities to develop bicultural habits of mind within our research team, which we are interested in exploring further.

### Discussion questions

- What are bicultural habits of mind?
- How can teachers and researchers ensure they are integrating te ao Māori in the curriculum without colonising Māori knowledge?
- In what ways can IBPL approaches support teachers to research their practice as active inquirers alongside their students?
- What professional learning opportunities emerge when teacher educators—as researchers and teachers—as researchers collaborate and who benefits?

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## Understanding knowledge construction between mentor teachers and pre-service teachers within ‘co-design’ education research methodology

Authors: Edith Nicolas, Parian Madanipour, Jane Page

**Presenters: Edith Nicolas and Jane Page**

*Edith Nicolas is a linguist, early childhood specialist and Lecturer in the Faculty of Education at the University of Melbourne. Edith’s areas of research are language development, literacy, and bilingualism, as well as mentoring and leadership, in early childhood education.*

*Jane Page OAM is an Associate Professor in the Faculty of Education at the University of Melbourne and Associate Director, Pedagogy and Leadership Research, in the REEaCh Hub. Jane has worked in the early childhood field for over thirty years both as a director and teacher in early childhood services, as well as teaching and researching in the University sector. Jane’s research interests include teacher effectiveness, coaching, professional learning, educational leadership and the application of human rights principles in early childhood settings.*

### Abstract

This presentation draws on research from the Early Childhood Professional Practice Partnership (ECPPP) project, which involved an academic team working in close collaboration with mentor teachers and pre-service teachers to understand mentoring needs and develop meaningful and effective tools and processes to support placement experience.

The ECPPP project was guided by a co-design approach. ‘Co-design’ is used to refer to the inclusion of participants in research; however, this approach covers a variety of levels of participations that have not been fully conceptualised. ‘Co-design’ sits on a continuum framed by two major research methodologies. At one end, ‘classic’ research entails academics identifying gaps in teacher practice, engaging in the process of answering these questions, and providing findings for teachers to apply in their practice. In this case, it is considered that participants are not actively involved in the research. At the other end, (Participatory) Action Research positions teachers as initiating and leading the research, based on questions arising from their situated practice, with the ultimate aim to challenge political, social and economic injustices (Brydon-Miller & Maguire, 2009).

Along this participation continuum, we argue that there are three parameters, namely power (top–down vs distributed), expertise (academic vs practitioner) and relevance/fit-for-purpose (theoretical vs practical), that vary in relation to the types of participants’ involvement. We propose that these three interrelated parameters permit a more explicit understanding of the level of collaboration between the parties involved in co-design. The three parameters are like the entwined threads of a rope: they are intrinsically linked but, when pulled apart, can refine the understanding of the research process.

Ultimately, what emerges when considering the relationship between researchers and practitioners is the process of knowledge construction that occurs through the co-design process. Our approach allows us to pinpoint the degrees of variation in the nature of learning that occurs in mentoring. It varies from the unidirectional transmission of knowledge linked to the idea of the empty vessel to be

filled, to the distribution of leadership, where all participants' expertise has equal status and knowledge is co-constructed.

The research approach in the ECPPP project underwent a shift over time in power relationship and expertise. Resources designed by the academic team, based on the initial interviews, were trialled by mentors and pre-service teachers, and reviewed several times by the academic team following iterative feedback processes. This built a sense of expertise as mentors and pre-service teachers' voice was validated through changes made to the resources developed. These resources have been fit for their intended purpose, proving highly effective in supporting mentor and pre-service teachers' understanding of effective feedback strategies. These resources also go towards improving placement processes, including enhancement of the mentor–mentee relationship through effective communication.

Conceptualising co-design sheds light on power relationships and recognises how expertise is situated to better evaluate the outcomes of research. Whether working with children, families, educators, pre-service teachers and/or other industry stakeholders, it provides an effective lens to evaluate how participants' worldviews and lived experiences genuinely inform and shape research and the production of knowledge.

#### Discussion questions

- What challenges might arise when adopting a co-design approach in pre-service education, and how can these challenges be addressed?
- To what extent do the three factors mentioned (power, expertise, and relevance/fit-for-purpose) resonate with your own experiences in collaborative research projects?
- The main focus of the collaboration in the ECPPP project has been with mentor teachers. How could pre-service teachers be further empowered through their studies in order to better support their capacity to remain in the workforce?

#### Reference

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## Day 1: Thursday 8 February 2024/Room 6/11.50 am–1.50 pm/Roundtable presentations

### How can generating stories about culture and place ground and mobilise leadership in ECE?

Authors: Kiri Gould, Maria Cooper

**Presenters: Kiri Gould, Maria Cooper**

*Kiri Gould is a Lecturer at the Faculty of Education and Social Work at the University of Auckland. She is Programme Director for the Bachelor of Early Childhood Studies. Through her scholarship and teaching Kiri is committed to supporting the wellbeing and sustainability of an equitable ECE sector. Her work examines problematic discourses of professionalism, ECE teacher and leader identities, and educational policies, and seeks to re-envision alternative ways of being and doing in ECE.*

*Maria Cooper is co-Associate Dean Pacific and a Senior Lecturer at the Faculty of Education and Social Work at the University of Auckland. Her research and teaching interests include teachers' collective leadership, infant-toddler pedagogies and cultural diversity as curriculum. Maria is a fully registered teacher and an experienced mentor of newly qualified teachers.*

#### Abstract

One perpetual problem in the educational literature is that dominant ideas about leadership are often decontextualised and based on western ideals and norms. This situation underplays broader thinking about leadership and obscures contextual and cultural dimensions. In the New Zealand early childhood education (ECE) curriculum *Te Whāriki* (Ministry of Education, 2017) an emphasis on culturally responsive curriculum rooted in place-based practices underscores the vital importance of culturally grounded leadership. However, despite the evident diversity in ECE settings, there has been little focus on how experiences of culture and place can be accessed and leveraged to inform ideas about leadership identity and practice.

Given the rich diversity within and between ECE settings and our geographical place in the South Pacific, we suggest that oral storytelling as part of a narrative methodology is a meaningful way to explore culturally diverse leadership values, beliefs, knowledge and understanding. Indigenous cultures globally utilise stories to connect to ancestral wisdom, producing images of the past and present to frame various dimensions and values (Lilomaiaava-Doktor, 2020). Stories can, therefore, offer fresh insights and perspectives into ECE leadership, linking leadership purpose and practice to community, culture and place. Our project, 'Storytelling for Leadership Learning' utilised narrative methodology, recognising the oral traditions of telling, sharing and teaching through story as a universal human activity to convey knowledge and experience. This emphasises storytelling as a key means through which meaning is ascribed and lived experience is honoured as 'an important way of knowing and understanding' (Clandinin, 2013, p. 217).

We collaborated with six ECE leaders of Māori, Samoan, Cook Island, Fijian and New Zealand European heritage from one ECE centre in Auckland. Our aim was to uncover leadership narratives

and cultural meanings generated through collective storytelling. Over a year, six focus group sessions were held, each emphasising a distinct leadership-related question. This process enabled stories to unfold, connect and deepen over time. Findings highlighted the integral role of storytelling and cultural identity in shaping ECE leadership responsive to culture, place and community. We argue that an expansive, holistic view of ECE leadership is grounded in and mobilises three dimensions: individual and collective identity, leadership motivations and intentions, and place-based considerations. This presentation primarily explores the latter, inquiring into the significance of culture and place in leadership learning, understanding and practices. Implications call for more expansive, holistic perspectives of ECE leadership for inclusive practice.

### Discussion questions

- In what ways can oral storytelling be integrated into leadership frameworks for a deeper understanding of diverse leadership values and practices?
- How can leaders respond to the unique cultural identities, place, and histories of their ECE communities while navigating the challenges of leadership in changing landscape?

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## Leading early childhood education through crises and complex times

**Author: Leanne Gibbs**

**Presenters: Leanne Gibbs**

*Leanne Gibbs is a Senior Lecturer in the School of Education at Charles Sturt University. She teaches in the Bachelor of Education (Birth to 5), Bachelor of Education (Early Childhood and Primary) and Master of Education programs. Leanne's research interests include student engagement and retention, workforce development, the emergence and practices of leading within early childhood education organisations.*

### **Abstract**

Over 1.5 million children, from birth to five years of age, attend an early childhood education setting every day in Australia. Throughout 2020 and 2021, children's attendance was disrupted and sometimes prevented by natural disasters, devastating bushfires and a global pandemic. Over this time, early childhood education settings provided care and education for the children of essential workers, online support for children and families, and integral community support during recovery from the pandemic and climate disasters.

However, key policymakers, members of government and the community frequently overlooked early childhood education and care (ECEC). Although education plays a critical role in children's developmental trajectories and uplifting and supporting communities in times of change (Heckman, 2011), early childhood education was often excluded from political narratives and the communication on funding and operational changes. Unprecedented demands created personal and professional challenges, but leaders continued to perform and thrive in their roles.

This paper describes a qualitative study exploring perspectives and the enactment of leadership in early childhood education settings in challenging times. The study investigated the dispositions (made up of knowledge, skills and values) of 15 Australian early childhood education leaders who led the workforce, policy implementation and practice throughout times of crisis.

The Dialogic Café method used for the study created a dynamic, emergent environment for sharing knowledge and experiences. The method is by nature participatory and reveals innovative ideas and questions for analysis and in-depth exploration of research questions. In the Dialogic Café, participants pose their own questions, following a provocation, that form the basis for critical dialogue (Gibbs et al., 2020). Complex adaptive systems and complexity leadership theory (Uhl-Bien & Arena, 2017), characterised by emergence, interdependence, disruption and the nature of unexpected outcomes, provided an ontological foundation and interpretive lens for the study.

The findings illuminate the challenges for leaders in ECEC and identify the skills, knowledge and fundamental values that enable services to continue to operate in critical circumstances. The findings of the study are instructive for policymakers and political decision-makers. The dialogic method enabled co-design of the research and the opportunity to deeply listen to the experience of ECEC leaders revealing innovations and guidance, particularly for policy decision-making and implementation, and leadership practice.



The paper calls for more significant consideration of the complexity of early childhood education and respect for how those who lead services support communities' resilience and the wellbeing of Australian children and families. The depth of emotional labour performed by ECEC leaders in times of crisis was an important finding in this study and must be a prime consideration for the sustainability and wellbeing of ECEC leaders.

### Discussion questions

- How can we enable sustainable leadership practice in complex times?
- How can we share the story of complexity of everyday leading in ECE settings?

### References

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## Day 1: Thursday 8 February 2024/Room 1/2.20 pm–3.20 pm/Roundtable presentations

### Early childhood educators' wellbeing and views on mathematics

Authors: Katherine Canobi, Halina McNally, Jane Page

**Presenters: Katherine Canobi, Halina McNally, Jane Page**

**Katherine Canobi** is a research fellow in the REEaCh (Research in Effective Education in Early Childhood) Centre at Melbourne University. She has worked as a lecturer in cognitive and developmental psychology and supervised PhD students in Australia and the UK. Katherine was also awarded an Australian Research Council (ARC) Discovery Projects grant to explore cognitive development in early arithmetic as sole chief investigator and ARC postdoctoral fellow at Melbourne University. Her research has been published in leading international journals in cognitive science, developmental psychology and educational psychology. She is currently researching early numeracy along with ways to understand, measure and enhance educator wellbeing and mathematical learning in early childhood.

**Halina McNally** is an early childhood educator and researcher. With a background in early childhood education and intervention, she has been a Parent-Child Mother Goose Trainer since 2018. Halina has worked in a variety of early childhood settings including standalone kindergarten, long day care, primary school, early childhood intervention, community health, and as a professional learning consultant. Much of her career has been as a keyworker at The Royal Children's Hospital Early Childhood Intervention Service. She is currently Project Officer on the Educational and Developmental Gains in Early Childhood (EDGE) project in the REEaCh Centre. Halina holds a Bachelor of Education from RMIT University and is currently enrolled in a Graduate Certificate in Education Research from Melbourne University.

**Jane Page** is Associate Professor and Associate Director, Pedagogy and Leadership Research, REEaCh Centre. She has been a teacher of young children and a university academic for over 38 years. Jane has researched with children, teachers and educators, educational leaders, service providers and families across Australia, and with the federal and state governments on a range of projects that build understandings of the impact of educational leadership, coaching, teaching and assessment practices on children's learning and development in the years prior to school. Through her research partnerships, Jane aims to generate new knowledge on the factors and processes that drive high-quality early childhood education to ensure equitable learning outcomes and pathways for young children.

#### Abstract

In light of growing evidence for the crucial role of early childhood education and care (ECEC) educators in supporting children's numeracy development, it is vital to gain a better understanding of educators' views on mathematics. This is especially important given indications that some ECEC educators experience mathematics anxiety. Moreover, recent findings that ECEC educators' psychological wellbeing is associated with children's mathematics achievements underscore the potential significance of relations between key aspects of educators' professional wellbeing and their views on mathematics (e.g. Jeon et al., 2021).

We designed this study to explore educators' reports of ECEC mathematical experiences, their mathematics anxiety and three key aspects of their attitudes and beliefs toward mathematics

teaching and learning (perceptions of comfort, benefits and challenges) and three important professional wellbeing factors (sense of community belonging, safety and security, and professional identity in the workplace.)

Eighty-five Australian ECEC educators completed a 15-minute online survey of their professional wellbeing and views on mathematics. The survey included established scales of professional wellbeing among ECEC educators, mathematics anxiety and attitudes and beliefs towards teaching and learning mathematics in ECEC, along with open-ended questions. We also invited survey respondents to participate in focus groups.

We conducted separate regression analyses of three key factors in ECEC educators' views of mathematics teaching and learning (i.e. their comfort, the benefits to children, and the challenges involved). The results indicated that educators' mathematics anxiety and professional identity predict the extent to which they view ECEC mathematics teaching and learning as beneficial along with their degree of comfort with mathematics teaching and learning in ECEC. In addition, educators' mathematics anxiety and sense of community and belonging in the workplace predict the extent to which they view ECEC mathematics teaching and learning as challenging.

We identified four important themes in ECEC educators' qualitative survey responses and focus group discussions. First, many educators specified the mathematical concepts underlying children's activities (e.g. measurement, spatial reasoning and counting principles) and some wanted further support in working with such concepts. Second, educators described innovative ways of embedding, extending, supporting and planning children's mathematical learning involving a range of experiences such as cooking, singing and taking obstacle courses. A third theme related to where play-based mathematical learning occurred (e.g. hopping in numbers outdoors and working with blocks indoors). A fourth theme centred on the training, resources, materials and networking needs of educators, including working together in a teaching team, pedagogical leaders providing practical examples, and access to sample lesson plans.

The findings highlight the rich and varied practices and methodologies of ECEC educators in designing and facilitating opportunities for young children to recognise and explore mathematical concepts in the world. They also provide insights into important ways to empower educators in their support of children's numeracy development.

### **Discussion questions**

- How can we support teaching and learning mathematics in early childhood settings and promote positive attitudes towards mathematics?
- What are the key issues for early childhood teachers and educators in developing a sense of community belonging in the workplace and a strong professional identity?

## Reference

Jeon, S., Jeon, L., Lang, S., & Newell, K. (2021). Teacher depressive symptoms and child math achievement in head start: The roles of family–teacher relationships and approaches to learning. *Child Development*, 92(6), 2478–2495.

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## **A scoping review of the role of multimodal resources for inclusive STEM participation in early childhood education**

**Authors: Sarika Kewalramani, George Aranda, Gerarda Richards, Jiqing Sun, Lihua Xu, Kylie Smith, Bridgette Van Leuven, Linda Hobbs, Jan van Driel, Victoria Millar, Belinda Dealy**

**Presenters: Sarika Kewalramani, George Aranda, Gerarda Richards**

*Sarika Kewalramani is a Senior Lecturer in STEM Education at Swinburne University of Technology and the Course Director of the Bachelor of Education Early Childhood and Primary course. Sarika is the Solutions Lead for the Inclusive STEM Hub for early childhood, a multi-university project funded by the Invergowrie Foundation. She leads a strategic program of research that integrates STEM and robotics play teaching and learning practices, codigned with teachers, parents and communities, for children's STEM engagement. Sarika is the founder of the evidence-based program, 'Improving Child Social and Emotional Development with Robotics Play', funded by the Victorian Department of Education.*

*George Aranda is a Senior Lecturer at the School of Education, Deakin University. His research interests revolve around how science, technology and STEM are taught in early childhood contexts. He is interested in how digital technologies, concepts and skills can be taught effectively with and without computers.*

*Gerarda Richards is currently a Lecturer, Early Years at Swinburne University of Technology. She is passionate about the significance of quality initial teacher education and the impact this has on children's learning. Gerarda is also the Course Director for the Graduate Diploma of Early Childhood Teaching (Grad Dip ECT). As the Graduate Teacher Performance Assessment Academic Lead, Gerarda collaborates with a consortium of higher education institutes to support the delivery of the final ready to teach assessment. Gerarda also has an interest in the research areas of initial teacher education, early childhood education, STEM, teacher professional development, and family/community partnerships.*

### **Abstract**

This paper presents the findings from a scoping review analysis of 21 websites and 13 frameworks that provide STEM educational resources for parents, educators and children (birth to eight years old). The research aimed to examine the role of multimodal learning resources that promote STEM participation for 'all' children. Given that STEM education is a national priority, it is important to gain insight into the value that existing digital and multimodal educational resources in early childhood provide to STEM education and those that address inclusivity for STEM participation.

Multimodal playspaces allow children to manoeuvre and manipulate artefacts available to them within both digital and physical spaces, make interconnections, and rationalise choices about which modality communicates their message most effectively (Aranda et al., 2022; Arnott & Yelland, 2020). Technology-mediated tools allow children to take advantage of new learning platforms and effectively reach new scientific knowledge (Kewalramani & Veresov, 2022) and maths learning (Lowrie & Larkin, 2020) through activities related to their immediate interests and real-life scenarios.

Our theoretical approach is rooted within a social semiotic perspective, where Kress and van Leeuwen (2001) have indicated that multimodality enables children to use different types of expression to communicate a message, share an idea—and thus, make their different perspectives visible to the adults and peers in their learning environment.

Using PRISMA methodology and narrative document analysis approach, themes included how the content and resources available on the website addressed whether multimodality supports STEM participation in an inclusive manner. Findings revealed there were few multimodal resources that engage children with fun, interactive and meaningful opportunities to be autonomous learners (e.g. children have agency) (n=5 out of 21), moving between the digital and hands-on physical spaces (n=3 out of 21; e.g. Early Learning STEM Australia), gamification for deep learning (n=4 out of 21), piquing children's imagination, inquiry and creativity and links to everyday STEM scenarios (n=6 out of 21).

Implications lie in addressing inclusive STEM participation by considering children's learning abilities and agency, parents/educators' sociocultural backgrounds, confidence in STEM awareness, functional accessibility, and multiple avenues for communicating STEM learning and inquiry. Connecting the role of parent and educator to children's multimodal activities is also significant for inclusive STEM participation.

### Discussion questions

- How can we consider Multimodality as a way for 'empowering and innovating' in early childhood STEM education?
- What is the space for Multimodal play to enable inclusive STEM practices?

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## Day 1: Thursday 8 February 2024/Room 2/2.20 pm–3.20 pm/Roundtable presentations

### Missing boats, railroads and a camel's back: Pandemic transition to school experiences of Australian families

Author: Kathryn Hopps

**Presenter: Kathryn Hopps**

*Kathryn Hopps is an Adjunct Research Associate at Charles Sturt University and a Be You Consultant with Early Childhood Australia. Kathryn has a background as an early childhood and primary teacher, teacher-educator and researcher, and has worked in a diverse range of education settings including schools, school age care and early learning services. Her research expertise is in transitions, with her PhD study focused on communication between preschool and school educators during times of transition to school. Through her private consultancy, Kathryn has worked with organisations including the New South Wales Department of Education, Queensland Curriculum and Assessment Authority, and Emerging Minds to develop transitions resources for educators and families. In her current role as a Be You Consultant, Kathryn combines her research expertise in transitions with a mental health lens to support early learning services to create wellbeing-focused transitions and supportive relationships with families.*

#### Abstract

In 2010, Australian and international researchers met with educators, leaders and policymakers in Albury, New South Wales to write a position statement on transition to primary school. This aspirational document drew on over 25 years of research to espouse the importance of this particular educational transition. It called on educators in early learning services and schools, education systems, and communities to plan for, resource and attend to positive transitions for children and their families.

Strong partnerships between educators and families were highlighted in the position statement and are widely regarded as a vital support for children. A decade on from the writing of the position statement, a global pandemic hit, affecting the transition to school experiences of thousands of Australian children and their families in their very first few weeks of school. Despite the myriad of research evidence published about the impact of the pandemic on children and families, their stories of pandemic-impacted transitions to school have not drawn research attention.

This presentation reports on the results of a small-scale qualitative study of how three pillars of transitions—expectations, aspirations and entitlements—encapsulated in the *Transition to School Position Statement* (Educational Transitions and Change Research Group, 2011) were experienced by parents of children who started school in 2020. Interviewed two years on, parents' recollections of their experiences highlighted changes to their expectations and aspirations, as well as entitlements that were compromised. Idioms frequently used by parents in their interviews painted a vivid picture of their experiences of transition to school in the pandemic context. Parents identified supportive actions of individual educators, schools and education systems that enabled the realisation of their expectations, aspirations and entitlements. For parents whose educators worked in partnership with them during the extraordinary conditions of the pandemic, this helped to set the tone for their

ongoing positive relationships with their child's school. For others, their unmet expectations, aspirations and entitlements resulted in strained home-school relationships and decisions to move their child to another school.

The results of this study have important implications for transition practices and family engagement in the early years of school, both in future times of crisis as well as in the new normal times. The study gained ethics approval from Charles Sturt University's Human Research Ethics Committee (HREC).

#### Discussion questions

- What do you think families' entitlements are during times of transition to school, regardless of pandemic or non-pandemic circumstances?
- The results demonstrate an ongoing significant gap between transition to school research, policy and practice. What can be done to advocate the importance of investing time and resources in relationships with families during times of transition to school?

#### Reference

Educational Transitions and Change Research Group. (2011). *Transition to school position statement*. Research Institute for Professional Practice, Learning and Education, Charles Sturt University.



## Co-creating affirmative transitions for children with refugee and asylum-seeker backgrounds

**Authors: Eseta Tualaulelei, Kerry Taylor-Leech, Diana Homer**

**Presenters: Eseta Tualaulelei, Kerry Taylor-Leech, Diana Homer**

*Eseta Tualaulelei is a Senior Lecturer in the School of Education at the University of Southern Queensland. She specialises in intercultural education and the professional development of teachers, and she teaches literacy education and intercultural communication to early years pre-service teachers. Eseta has also published in the areas of open educational practice and equitable education for culturally and linguistically diverse learners. Her research is informed by Bourdieu, indigenous Pacific Islands' approaches and critical education theories.*

*Kerry Taylor-Leech is an applied sociolinguist attached to Griffith University Institute for Educational Research. She is interested in the relationship between language, identity, and educational opportunity. Kerry's research explores language policy and planning, identity, language, and literacies in linguistically diverse communities. She worked with Eseta Tualaulelei and Diana Homer on the research project they are reporting on with refugee and asylum seeker families and their perceptions and experiences of early childhood education and care.*

*Diana Homer is the Principal Advisor for Wellbeing and Inclusion for Creche and Kindergarten Association (C&K). Her career started with an Associate Diploma in Early Childhood (BCAE), Bachelor of Teaching (QUT) and a Masters in Inclusive Education (Charles Sturt). Her current role focuses on Inclusive Education, Funding, and Early Childhood supports for Culturally Diverse children and their families. She has 40 years' experience in the sector and 12 years working in Remote First Nations Peoples communities. At the time of this research Diana managed the Refugee and Asylum Seeker Early Childhood Pilot, (RASEC), with MA and ACCESS and the QLD Department of Education. Diana has also had years of experience in QCOSS and TAFE coaching and mentoring Early Childhood students.*

### Abstract

Children experience various ecological transitions throughout childhood, and for some children, going to school for the first time represents a major transition. This presentation reports on a research project, funded and supported by the Queensland Department of Education and the Creche and Kindergarten Association, which explored how children could be positively supported with early years transitions into school. Using a qualitative, ethnographic approach, the study followed ten children and their families who had refugee and asylum-seeker backgrounds as they transitioned from two kindergartens to seven different primary schools in Southeast Queensland. We gathered data through interviewing families and educators, collecting teaching and learning artefacts, and observing children and educators between October 2021 and July 2022. Data were analysed using reflexive thematic analysis, and preliminary findings were shared with key stakeholders (children, families, educators, principals and organisational representatives) before a final report was completed in February 2023. Of interest to early years educators, leaders and policymakers, the presentation offers practical strategies for co-creating affirmative environments for refugee and asylum-seeking children and families. The presentation affirms the transformative potential of early

years education and discusses the nuanced shift of educators' practices and approaches from being 'trauma-informed' to 'healing-centred'.

### **Discussion questions**

- What are some barriers you find when supporting culturally linguistic families in engaging with early childhood education and care (ECEC) and transitioning to school?
- What experiences you have had with interpreters and bicultural support workers?
- When observing current practices, and a family enters your centre for enrolment, what strategies would you and your team use to connect, build cultural safety and build trust with the child and family?
- Do you feel your ECEC team would benefit from learning how to work with interpreters and why?
- In what ways would your team support healing and trauma informed practices within your centre?
- How do you think the sector can better support culturally linguistic families to understand education pathways and what would need to change to ensure we include complex needs?
- How do educators start their engagement with community to build on knowledge to ensure their families stay engaged, feel safe and included at the centre?

## Day 1: Thursday 8 February 2024/Room 3/2.20 pm–3.20 pm/Roundtable presentations

### **‘What a melodious sound!’: Children learning through the arts in a bush kinder program**

**Authors: Jennifer Stevens-Ballenger, Emily Wilson**

**Presenters: Jennifer Stevens-Ballenger, Emily Wilson**

*Jennifer Stevens-Ballenger is an academic with a sustained history of championing the rights of children to a holistic education, including access to the arts and nature play. She is currently employed as a Lecturer in Early Childhood Education at La Trobe University. Prior to this appointment, Jennifer held the position of Director of The University of Melbourne Early Learning Centre. She has also previously worked as a Lecturer in arts education, as a lead kindergarten teacher and as a teaching artist. She draws on this body of experience, along with knowledge of current research and seminal theories, to inform her teaching of pre-service early childhood teachers. Jennifer’s current research is focused on arts integration in early childhood settings, including bush kinder learning environments.*

*Emily Wilson is a senior lecturer and head of music education at the Melbourne Graduate School of Education at the University of Melbourne. She graduated from the PhD in 2019, her thesis is titled ‘It’s music and we came to play instruments’: Teaching for engagement in classroom music. Emily lectures in music education and teacher education at undergraduate and postgraduate level and for Early Childhood, Primary and Secondary pre-service teachers. She maintains a close relationship with primary and secondary schools and early childhood settings. She has over 15 years’ experience as a music educator. As a school teacher, Emily has taught classroom and instrumental music at primary and secondary schools in Australia and the UK, including Head of Department posts at secondary schools in the UK. Her research interests include student engagement, engaging teacher practices, decolonising music education, formal and informal learning in music education which she has published in national and international journals and presented at national and international conferences.*

#### **Abstract**

This paper presents data and early findings from research undertaken in a bush kinder setting in rural Victoria, Australia. The case study explores how the arts can be embedded within, and integrated across, an early childhood curriculum. The research took place within a community long day care centre for children aged birth to five. A total of 13 children chose to participate in the study, all of whom were enrolled in the centre’s integrated kindergarten for children aged three, and all of whom attended the centre’s bush kinder program. The lead kindergarten teacher, who facilitated the bush kinder program, also chose to participate. Data was collected over an eight-week period, with the researcher visiting and engaging in the program one day each week.

The study was undertaken to showcase and interrogate the ways in which early childhood teachers integrate the arts in early childhood programs. With so few hours dedicated to arts education in pre-service early childhood teacher education courses, a range of detailed illustrations of current practices and pedagogies is greatly needed. With the growing inclusion of bush kinder and learning-

in-nature programs in Australian early childhood contexts, understanding the role of the arts within such programs adds currency to the conversation. To imagine new possibilities, pre-service teachers require opportunities to critically analyse a wide range of examples of arts-based teaching and learning. This case provides one such example.

A broad range of data was collected, including photographic artefacts, interviews, video recordings, audio recordings, teacher documentation, children's work samples and research reflections. Children were positioned as co-researchers, becoming involved in the making, recording and selection of data. Thematic and deductive analysis methods were used. The researcher also engaged with arts-based educational research (ABER) analytic strategies by composing a song using the data collected. This song, which was built directly from annotations of children's ideas, was shared with children and the teacher at the conclusion of the research.

Early findings suggest that enriching arts experiences were embedded within, and integrated across, the bush kinder program. Strong curriculum connections were evident across the arts, Education for Sustainability (EforS) and Indigenous perspectives. Children were provided with opportunities to learn about Country through music, two-dimensional visual art (drawing and painting), three-dimensional visual art (clay) and dramatic play. The bush kinder environment inspired children's artmaking, enriched learning, and further strengthened curriculum connections. Four vignettes will be presented to illustrate the emergence of these findings, and suggestions for further integration of the arts across the curriculum will be offered.

#### **Discussion questions**

- Do arts-based educational research (ABER) methodologies deepen understandings of research data or distract from the trustworthiness of the findings?
- What 'impact' potential does ethnographic research have and how can this best be communicated?
- How might sharing exemplary examples of arts-centred curricula affect pre-service early childhood teachers' self-efficacy in the arts?

## Young children's understandings of sustainability

Author: Mia Christensen

**Presenter: Mia Christensen**

*Mia Christensen is a registered teacher, early childhood researcher and professional facilitating and leading innovations and partnerships in the early childhood education and care sector. She has been a teacher for 30 years, working in early childhood, primary, secondary, and tertiary contexts in remote, regional and urban settings in Queensland, the Northern Territory and Western Australia. For the past 15 years she has worked as an academic at Queensland University of Technology (QUT). In her teaching and research, she focuses on exploring early childhood education for sustainability, STEAM interdisciplinary capability build, and accessing and elevating young children's voices. Mia currently works as Education Innovation and Partnerships Manager at G8 Education, the second-largest provider of early childhood education and care centres in Australia.*

### Abstract

This research discusses children's understandings of sustainability-related topics and issues, within the context of affording children the right to engage in complex discussions around topics that are important to them. This work is drawn from recently completed doctoral studies that explored and described the varying ways a group of six- to eight-year-old children understood sustainability-related topics and issues, and supports educators and teachers to embed the additional sustainability principle in the updated *Early Years Learning Framework (EYLF V2.0)* (AGDE, 2022).

Previous research has shown young children are competent and capable research participants (James & Prout, 1997; Jenks, 2005) who have the capability to engage in complex discussions about global issues. However, they are rarely invited to participate in sustainability research, and when they are involved, the research has often been limited to eliciting their narrow conceptions of the natural environment rather than broader contemporary notions of sustainability. Young children's voices have rarely been included in the past and in this presentation, we explore how to capture their voices and what their voices revealed.

It has been acknowledged the concept of sustainability is diverse and still evolving, and as such children need to be provided with appropriate access to these complex concepts. Children have the right to contribute to and be actively involved in conversation, decision-making and problem-solving around topics that are important to them. Children were situated as the 'expert' in the room through the use of the grand tour question: 'If you were the boss of the world, what choices would you make to help the world become a better place for every living thing forever?' Children's understandings were gathered using the 'drawing-telling' approach (Wright, 2007) with drawings and semi-structured individual interviews (n=17). The understandings of the children echoed the competent and capable nature of children to be engaged in complex, higher-order thinking processes. These findings contributed to advancing knowledge on approaches with young children in early childhood education for sustainability (ECEfS).

I add important in-depth perspectives to the body of literature on enabling young children access to discussions around complex concepts such as sustainability by detailing the pedagogical potential for

enhancing young children's access and engagement in ECEFS. This work has the potential to shift the ways teachers and educators think about the competence and capability of young children to be involved in addressing complex and multifaceted issues that are relevant to their lived world. The importance of sustainability for the future of the planet is indisputable. The challenge is to not only provide young children with the opportunities to participate in the conversation, but to act upon their voices. However, to act we need to first reveal, which is what this research provides support around.

### Discussion questions

- Why is it important to invite children's views about sustainability?
- What next, how do we act upon their voices in authentic ways?
- How can we support others to engage children in complex discussions around the broad concept of sustainability?
- How can the understandings of children about sustainability inform the implementation of the updated sustainability principle in the Early Years Learning Framework?

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## Day 1: Thursday 8 February 2024/Room 4/2.20 pm–3.20 pm/Roundtable presentations

### Assessment at play: Championing the capacities of children and empowering the mathematical pedagogue.

**Authors: Jo Grimmond, Cathrine Neilsen-Hewett, Steven Howard**

**Presenter: Jo Grimmond**

*Jo Grimmond's career in the early childhood sector spans 30 years as a teacher, director, lecturer, researcher and community engagement coordinator. She has developed and led professional learning programs that have reached audiences both nationally and internationally. Her PhD research focuses on the development of a play-based mathematics assessment tool for early childhood educators to use to inform their pedagogy and practice. Jo has been a lecturer at the University of Wollongong, and has been involved in large research projects, including the FEEL study, Case Studies for Effective Practice and the PRSIST validation study.*

#### Abstract

The early childhood pedagogue plays a critical role in shaping and optimising children's learning and development. In recent times, there has been growing recognition of the importance of mathematics learning in early childhood education and care (ECEC). In fact, clear evidence demonstrates the relationship between a strong mathematical foundation in the early years—in particular, understanding the domains of patterning, symmetry and number sense—and mathematical success at school and beyond (Ngyuen et al., 2016). Yet many educators report their lack of knowledge, skills, confidence, and mathematical dispositions to use mathematics in their environments, often reporting feelings of fear and anxiety towards mathematical pedagogy (Grimmond et al., 2022).

The role of assessment in providing the pedagogue with high-quality information of the child's capacities is beneficial, if not critical, to quality practice and intentionality that responds appropriately to each individual child. Yet misunderstanding surrounding assessment use, and a lack of tools to support assessment in play-based environments, means many educators find it difficult to reconcile within philosophies of child-centred pedagogy. Assessment that provides opportunities for educators to recalibrate their assumptions and expectations of children by showcasing their true capabilities and represent their thinking in important domains of mathematics is needed. When educators are empowered to develop a more attuned lens through quality assessment practice, they can identify children's true mathematical capabilities and capacities, develop a deeper knowledge of content and skills, and exhibit a strengthened ability to thoughtfully plan to enhance the child's learning and development within ecologies of play-based learning (Grimmond et al., 2022).

This presentation draws from research findings when a newly developed play-based numeracy assessment, the Numeracy and Mathematics Block-Based Assessment (NUMBBA), was introduced to 16 educators to use with children. The measure aims to embed formative assessment practice within multiple pedagogies for play and learning. This was part of a larger mixed-methods PhD program of

research that involved the development and evaluation of NUMBBA. Findings revealed shifts in educators' knowledge of mathematics, perceptions of children's abilities, attitudes towards mathematics and assessment, and approaches to pedagogy and practice. Educators identified key components conducive to embedding assessment effectively into ECEC contexts. NUMBBA challenged educators' perceptions of children's abilities and showcased children's capacities in patterning, symmetry and number sense. As a result, educators prioritised mathematical explorations with children, noticed more opportunities for deep exploration in their intentional pedagogy, held higher expectations and moved children beyond basic numbers and counting.

### Discussion questions

- What components of assessment are needed to be 'fit for purpose' within ECEC environments?
- How can we empower educators to build their confidence in assessment and responsive mathematical pedagogy?

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## **Inclusive STEAM pedagogy in early childhood settings in Qingdao, China: A teacher's perspective**

**Authors: Jahirul Mullick, Qiusu Wang**

**Presenters: Jahirul Mullick, Qiusu Wang**

*Jahirul Mullick is an Assistant Professor of Educational Leadership at the College of Education and also serves as Director of the LEAD Research Institute at Wenzhou-Kean University, China. With nearly two decades of experience, Jahirul has made significant contributions to the field of education through teaching and research studies in Australia, Bangladesh and China. His primary areas of expertise include educational leadership and management, inclusive education, behavior analysis, positive behavior support and teacher development in K–12. Currently, Jahirul is engaged in international studies focusing on inclusive school leadership, distributed leadership practices, parental perspectives on educating children with additional needs, and inclusive STEAM pedagogy in early childhood education.*

*Qiusu Wang is a full-time EdD research assistant at the LEAD Institute, Wenzhou-Kean University. Her research focuses on inclusive education and leadership. She holds a Bachelor of Science in Economics and Statistics, as well as a Master of Science in Applied Economics and Predictive Analysis from Southern Methodist University in the United States; and a Master of Science in Education from John Hopkins University, United States. Prior to beginning her EdD studies, she gained experience teaching mathematics in a primary school in the United States.*

### **Abstract**

Children with diverse needs and abilities now attend early childhood facilities worldwide, including in China, in response to Sustainable Development Goal 4.2 (UN, 2015). This goal aims to ensure that by 2030, all children have access to quality early childhood education and care, thereby preparing them for primary education (Boeren, 2019).

The goal of nurturing children's development in multidisciplinary subjects such as science, technology, engineering, arts and mathematics (STEAM) presents both challenges and opportunities. In China, while there is a growing interest in STEAM education within early childhood settings, limited research has explored how STEAM subjects and approaches can be effectively integrated into existing early childhood settings (Peng, 2020).

This qualitative research aims to investigate teachers' perceptions and practices regarding four key themes of inclusive STEAM pedagogy: intentional teaching plans; play-based practices; students' learning outcomes; and pedagogical reflection in STEAM (Sikder et al., 2023). To conduct this study, eight kindergartens in Qingdao city were selected. These included six public and two private kindergartens, with a total of 14 teachers who serve as frontline educators. Frontline educators are teachers who directly interact with students, engage in teaching activities, and significantly impact students' learning and growth, playing a crucial role in the educational process. Qualitative data were collected from each participant using a semi-structured interview protocol, and a general deductive thematic analysis approach (Azungah, 2018) was employed to analyse the interview data.

The findings suggest that STEAM education is a comprehensive system that requires various instructional methods to address children's diverse learning needs. However, teachers were often ill-equipped to implement inclusive STEAM pedagogy and frequently relied on traditional classroom approaches to cover textbook content. The interdisciplinary integration of subject matter through play-based pedagogy was not commonly practised. Additionally, teachers acknowledged the diverse needs of students but were unsure how to implement research-backed strategies to address them. These findings have implications for advancing inclusive STEAM education at the policy level and for the professional development of kindergarten teachers at the implementation level.

### Discussion questions

- What is the level of knowledge and understanding that kindergarten teachers possess regarding inclusive STEAM pedagogy?
- How do teachers address the diverse needs of all students when implementing inclusive STEAM pedagogy?

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## Day 1: Thursday 8 February 2024/Room 5/2.20 pm–3.20 pm/Roundtable presentations

### Leading for change: Developing a culture of curiosity

Authors: Claire Philp-Clark, Belinda Quinn, Sue Grieshaber

**Presenter: Claire Philp-Clark**

*Claire Philp-Clark is a lecturer in the School of Education La Trobe University. Her previous teaching roles enabled extensive experience in early childhood, primary and secondary contexts for learning. Claire's research is focused on the dynamic ways in which educators use teacher critical reflection to inform practice and improve learner engagement and success. Claire draws on her knowledge as a teacher–educator to guide pre-service teacher development and preparation for the diverse contexts in which they will work.*

#### Abstract

Our research created knowledge through purposeful methodology and was successful as the result of our relationships. We share our experience of our collaborative teacher–research project, driven by a centre director of a large regional early childhood hub. We focus firstly on shifting culture through leading for change in response to a need to motivate and connect staff within a busy and complex early childhood setting, and secondly on what we can learn from the teacher–research project to inform a model of teacher critical reflection. Shared inquiry became a conduit for collaboration between educators and integral in growing a culture of shared practice. The teacher-focused research question developed to create new knowledge was: How do I as a leader encourage educators to display courage and curiosity in collaborating, interpreting, understanding and actioning our philosophy?

We engaged in teacher research facilitated through Critical Participatory Action Research (CPAR) (Kemmis et al., 2014). The Theory of Practice Architectures (TPA) guided thinking (Kemmis, 2019, Kemmis, 2022) and afforded insights into authentic teacher critical reflection and a focus on transforming practice (Philp-Clark & Grieshaber, 2023). We share the way we considered a common thread to connect staff and families and the centre philosophy. Reconnecting with the centre philosophy became a platform for discussing practice within the setting, facilitated the process of developing a record of staff curiosity and engendered a safe space for curious thinking.

The centre director led engagement with staff through provocations to invite curiosity in collaborative thinking. Data was collected via email, conversations and responses to the provocations. The data was analysed alongside the key beliefs and values within the original philosophy. The results of the analysis informed the redesign of the centre philosophy. Responses to the provocations and engaging in reflective thinking provided opportunities to explore ideas, practice, language, understanding and beliefs. Data analysis offered a considered record of 'staff voice', a progression of six months of engagement in curious thinking to update the centre philosophy. Data analysis drew from the courage of staff to share and their curiosity in collaborating, interpreting, understanding and actioning philosophy.

The key outcomes include a record of staff curiosity, a revised collaborative centre philosophy, illustrations of practice that showcase the philosophy in action, and an action plan for a continual cycle of engagement and connection with the centre philosophy and sharing practice.

#### Discussion questions

- How did this research afford voice, collaboration and strengthen practice?
- When considering the importance of listening and co-creating in early childhood what does CPAR as a methodology, supported by the TPA offer research teams?
- How does this research position educators as researchers and recognise their expertise?

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## **Antecedents to developing trust in collaborative partnerships: A poststructural case study utilising participatory Situational Analysis methods**

**Authors: Kathryn Mason**

**Presenters: Kathryn Mason**

*Kathryn Mason is a final-year PhD candidate with special interests in early childhood education and poststructural research methodologies. Her research focuses on collaborative partnerships between educators and families, offering unique opportunities to celebrate participant voice through collaborative mapping using Situational Analysis methods.*

### **Abstract**

Collaborative partnerships between families and educators in early childhood education and care (ECEC) are internationally endorsed as a testament to service quality and correlate to positive outcomes for children, with the OECD listing the engagement of families as equally important as low ratios, educator qualifications and curriculum. It has been extensively evidenced in literature that a key component to collaborative partnerships is trust. However, while this factor is identified as an essential foundation for the success of stakeholder relationships, many in the ECEC sector seek clarity and guidance to translate research on the topic into everyday practice.

This paper reports on findings from a qualitative case study that explored the enactment of collaborative partnerships in three Queensland-based ECEC services rated Exceeding *National Quality Standard* (NQS). The focus was on obtaining a deep understanding of practice which afforded for successful collaborative partnerships for both educators and families. Data was obtained from and with participants using observation, interviews and collaborative relational mapping. Insights from the study offer four antecedents understood to be key factors in building trusting relationships in collaborative partnerships.

Three research questions guided the investigation:

- How do educators and families describe their experiences of collaborative partnerships?
- How do educators and families interact in ways that evidence collaborative partnerships?
- What are the key components and inclusions that reflect exceeding collaborative partnerships?

This study adopted a poststructural case study approach to investigating the research questions, seeking to draw out the multiple truths of participants. In a unique contribution to the field, the study utilised Situational Analysis (SA) to simultaneously collect and analyse data, where researcher and participants co-constructed maps through this cartographic approach. This study answers the existing research gap of observational studies (Almendingen et al., 2022; Vuorinen, 2021) that champion the voice of stakeholders (Kambouri et al., 2022; Sheridan et al., 2020; Vuorinen, 2021).

**Discussion questions**

- How do these antecedents to trust translate into strategies that practitioners in ECEC can engage in to support the development of trust?
- What is the value-add gained through collaborative and participatory methodologies between stakeholder participants and researcher in this style of research?

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## Day 1: Thursday 8 February 2024/Room 6/2.20 pm–3.20 pm/Provocations

### An intentional approach to meaningful teacher–child musical interactions

**Author: Lynn Lee-Pang**

**Presenter: Lynn Lee-Pang**

*Lynn Lee-Pang is a Research Fellow at the Research in Effective Education in Early Childhood (REEaCh) Centre at the University of Melbourne. Her research focuses on enhancing the quality of teacher–child interactions through musical meaning expression and promoting social and emotional wellbeing in the early years. Her doctoral research investigated meanings embedded within infants’ and toddlers’ musical interactions with early childhood educators, and the application of music’s ontological meanings of expression and interconnection to pedagogy. Lynn has taught previously in early childhood university courses and also worked directly with children across multiple age groups, both as a schoolteacher as well as an early years music educator. In her current research projects, Lynn explores ways of supporting early childhood teachers in musical meaning expression, examining conceptualisations of child wellbeing, family engagement and effective partnerships between early childhood services and families.*

#### **Abstract**

For young children growing up in today’s complex and challenging world, learning that promotes the development and wellbeing of the whole child, where there is a balance between the cognitive and the non-cognitive (Hatt, 2005), is becoming increasingly important. Van Manen (1991) posits pedagogical love and the pedagogical relationship as the basis for influence over the child and foundational to the growth and maturation of the child. Teacher–child interactions that are undergirded by pedagogical love—which precedes child wellbeing and achievement—require intentionality, appropriateness and responsibility towards the child’s being and becoming (Hatt, 2005; O’Connor et al., 2020). However, requirements for accountability leave little time for teachers to ponder the purposes and significance of their pedagogical relationships (Van Manen, 1991). This is exacerbated in the early childhood education and care sector by teacher shortages despite wider recognition of the need for quality early education (Cohrssen et al., 2023).

This presentation reports on a pilot research project exploring a novel approach towards enhancing the quality of teacher–child interactions by supporting in-service early childhood teachers and educators in adopting an intentional approach towards purposeful meaning expression through music. Early childhood teachers and educators attended two music training workshops, and data was collected through focus groups, surveys and follow-up interviews. Drawing on Grounded Theory, data was analysed to develop theory and understandings on how intentional consideration of musical meaning expression in teacher-child interactions influences pedagogical enactment and child outcomes. Findings on how early childhood teachers and educators were supported, as well as the impact of such an approach on young children’s learning, development and wellbeing will be shared.

### Discussion questions

- What are the challenges for early childhood teachers and educators in being intentional and purposeful in their interactions with young children?
- What are current perceptions of music in relation to early childhood teaching?
- Which modes of professional learning are most effective in supporting early childhood teachers and educators in engaging in high-quality musical interactions?

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## Responding to children's voices: A new frontier in education policy reform

**Authors: Amelia Ruscoe**

**Presenters: Amelia Ruscoe**

*Amelia Ruscoe is a Lecturer in Early Childhood Studies and has a background in early childhood teaching and children's rights advocacy. She was the recipient of the ECA Doctoral Thesis award in 2022. Her research interests are education discourse, multiplicity of perspectives and affordances in early childhood education, and methodological innovation for emancipating children's voices.*

### Abstract

More than 30 years on from the United Nations *Convention on the Rights of the Child* (UN, 1989) honouring a child's right to be heard (Article 12) has unlocked a new frontier in ethical research. In education, children have demonstrated their competence to contribute with insight to recent policy development in Australia.

This provocation stems from research that provides further evidence of the critical role children stand to play in education reform. A post-structural perspective is adopted and underpinned with Foucauldian theory of discursive power in the context of what schools afford young children. Participants in this provocation are invited to consider the power of using visual and dialogic qualitative methods as a pedagogical practice to elicit insights into school-based childhood, especially during their transition to full-time school. The three power discourses of early childhood— inclusion, achievement and play—provide a backdrop to consider whether there is disparity between adult and child expectations of school, how adults may influence children's perceptions of school, and the power of children as agents of change to sustain or disrupt a discourse through dis/engagement.

The provocation poses an urgent need for systematic consult with children on issues relevant to them and calls for a public platform for amplifying their unique views to policymakers for response.

### Discussion questions

- Is qualitative evidence from children's perspectives 'enough' to raise government and policy-makers' response? Why?
- Who is holding the power in early childhood education and who might hold it in another five years?
- Do you see any reasons why there might be resistance to listening to children's perspectives about their engagement at school?

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## Care in the curriculum for three-year-old children: A qualitative case study

**Author: Sarah Louise Gandolfo**

**Presenter: Sarah Louise Gandolfo**

*Sarah Louise Gandolfo is a Naarm (Melbourne) based mum of two, career early childhood teacher and Master of Educational Leadership graduate. She has recently completed a Graduate Certificate in Educational Research and is hoping to pursue a PhD in the near future with a focus on the unique experiences of care and professional love of kindergarten children in formal education spaces in Victoria. Sarah Louise is a loud and passionate advocate for children's rights, social justice and ethical leadership, joining networks, groups and panels, and contributing to responses and submissions to government proposals wherever possible. She brings to her work a strengths-based approach that values and encourages a kind and courageous style of leadership and management.*

*Sarah Louise is currently the co-convener of the Early Childhood Australia Victoria Committee Anti-Bias Special Interest Group, where she is joined by early childhood professionals across the country to discuss and reflect on the social justice and anti-bias issues affecting the sector. She is also a General Member of the ECA Victoria Branch Committee, a Board Member of the Social Justice in Early Childhood Foundation, and an Editorial Board Member of the journal Australian Educational Leader.*

*Sarah Louise's career highlights have included presenting her research and practice at early childhood conferences across Australia; being a finalist for the Outstanding Leadership Awards 2020: Future Leader category; writing for Australian publications; and being the recipient of the ACEL New Voice in Early Childhood Scholarship for 2020.*

### **Abstract**

The early childhood education and care sector (ECEC) has seen persistent and complex reform since the early 2000s. Changes to curriculum frameworks, regulatory bodies and qualification and ratio requirements have all impacted on how care has been situated within the education and care dichotomy. As a practice, care and theories of care have been heavily researched all over the world in relation to children aged under three years old. However, little to no research currently exists exploring the ways in which children aged over three years in formal ECEC settings experience care or how care is planned for in these settings.

Recent Victorian reforms have seen the welcome introduction of 15 hours per week of funded kindergarten for both three- and four-year-old children, with the result being an increase in the number of children aged three who are now accessing funded kindergarten programs. With these reforms come questions of the impact on the way care is both understood and enacted with three-year-old children in standalone kindergarten environments, as well as the decisions early childhood teachers working in these programs make about the inclusion of care in their curriculums.

The objective of my case study was to understand the elements of care that are considered in the curriculum decision-making of an early childhood teacher (ECT) working with three-year-old children in a Victorian standalone kindergarten. Through a semi-structured interview with an ECT currently teaching three-year-old children, and a content analysis of key documents, I explored their thinking and theorising about care practices.

### **Discussion questions**

- The historical care/education dichotomy is widely discussed. Is there still a place for it, or is it time to reimagine pedagogy as encompassing of both?
- Literature suggests that care presents in ECEC curriculums as four elements: as love, through relationships, in practice, and by the material elements of the classroom. Where do you see the connection (or disconnect) between the four elements in your own practice?
- What can you take from the findings of this small-scale research project that might inform your future thinking or practice around care in curriculum for kindergarten children?

## Listening-with-care to educators' and children's cultural needs in a multicultural centre in Victoria, Australia

Authors: Gloria Quinones, Vanessa Field

**Presenters: Gloria Quinones, Vanessa Field**

*Gloria Quinones is an Associate Professor in the School of Educational Psychology and Counselling, Faculty of Education, Monash University. Gloria's research interest focuses on conceptualising infant–toddler affective and play pedagogies and everyday grief and grieving. She is co-author of Affective Early Childhood Pedagogy for Infant-Toddlers, published in 2021. In her current research, she focuses on wellbeing, care and compassionate pedagogies in early childhood education and care.*

*Vanessa Field is a centre director of Springvale Service for Children. Her passion for working with children can be illustrated through the diversity of her 30 years' experience as practitioner, teacher and researcher. She has a strong commitment to use her education, training and experience to represent the rights of children in education.*

### Abstract

Is there a place for care in early childhood education?

While care has been a complex construct in early childhood education, a focus on care can provide us with an understanding of the value of care in our everyday lives. Drawing upon case study data from a larger project exploring the affective worlds of infants and toddlers, we focus on how care has a ripple effect that involves leaders that care about the lifeworlds of both infant–toddlers and their educators.

The dynamic methodology focused on collaborative dialogue in video discussions about the relationship between toddler Ruby and her educator June; and the nine-year professional relationship between June and Vanessa, the centre director. Tronto's (1993) feminist theory of care is used as a frame of analysis, specifically looking at elements of care such as attentiveness, responsibility, competence and responsiveness, and how these elements provide a theory for developing further a discussion of listening-with-care. As discussed by Tronto, the practice of receiving and giving care makes us become better citizens.

In this presentation, we focus on matters of care that require deep listening, attention and a balance of care-giving and care-receiving. The findings focused on the relationships between Ruby, June and Vanessa. Our research critically engages with how listening-with-care involves an acknowledgement of emotions and cultural needs specific to the cultural context in which the centre is situated.

### Discussion questions

- How can listening-with-care provide conditions for educator's flourishing?
- The Early Childhood profession pays attention to the flourishing of children, what about the flourishing of educators, how is this met with care?

Day 1: Thursday 8 February 2024/Room 6/2.20 pm–3.20 pm/Roundtable presentations

## Reference

Tronto, J.C. (1993). *Moral Boundaries A Political Argument for an Ethical of Care*. Abingdon: Routledge.

## On being certain of uncertainty

**Author: Kerrie O'Neill**

**Presenter: Kerrie O'Neill**

*Kerrie O'Neill has worked in the early childhood sector for over 35 years as a kindergarten teacher, early childhood trainer and assessor, authorised officer and senior policy officer. Most recently, she has worked as an early childhood consultant, inspiring educators across the country to think beyond dominant discourses to make their practice meaningful and effective in supporting young children's learning. She is currently enrolled in a PhD at Curtin University, reading, reading and rereading. She will begin to collect data for her research in 2024.*

### Abstract

Conventional humanist qualitative methodology (Giamminuti, 2021) is structured in its design and provides clarity and accessibility to the reader (St. Pierre, 2017). However, while this methodology might be described as 'emergent', it has become so formalised, systemised and positivist that it can be interpreted as predictable and controlling (Moss, 2016; St. Pierre, 2017). Critics argue these methodologies are inevitably empirical and human-centred (Taguchi, 2017). Ingold (2018) adds, 'the prescriptions of methodology treat the researcher's own presence not as an essential prerequisite for learning from what the world has to offer but as a source of observer bias to be reduced at all costs' (p. 218).

This presentation will explore a post-qualitative inquiry approach. The essence of post-qualitative inquiry is a process of reading and re-reading 'as many primary and secondary sources about the theory or theorist as possible until one becomes Foucauldian, becomes Deleuzian, becomes Derridean and has those analyses in one's bones' (St. Pierre, 2017, p. 2). This research requires lengthy preparation, yet there are no rules or recipes (Deleuze & Parnet, 2002, p.8). The lengthy preparation is reading, thinking, writing, and living with theory. In the Deleuzian context, learning or research is always incomplete; it is not sequential or linear or formulaic and could be considered rhizomatic (Moss, 2006, p. 7). Of course, deviating from traditional structures that define humanist qualitative methodology might be risky and could justifiably spark pushback from scientific-based research (Lather, 2013). However, this choice has been made to address a knowledge gap, 'create spaces for new conversations about early childhood education' (Parnell & Iorio, 2016, p. 20) and produce new knowledge.

### Discussion questions

- How might the techniques of a post-qualitative inquiry approach challenge formulaic approaches to educators' pedagogical practices?
- How might this research technique influence educators' perspectives on pedagogical documentation?

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Moss, P. (2016). Why can't we get beyond quality? *Contemporary Issues in Early Childhood*, 17(1), 8-15. <https://doi.org/10.1177/1463949115627895>

Parnell, W., Iorio, J.M. (2016). *Disrupting Early Childhood Education Research: Imagining New Possibilities*. Routledge.

St Pierre, E.A. (2017). *Writing Post Qualitative Inquiry: sagepub.com/journalsPermissions.nav DOI: 10.1177/1077800417734567https://doi.org/10.1177/1077800417734567 journals.sagepub.com/home/qix*

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## Day 2: Friday 9 February 2024/Room 1/11.40 am–1.40 pm/Roundtable presentations

### Empowering placement experiences through professional partnerships

Authors: Natalie Robertson, Katherine Bussey

**Presenters: Natalie Robertson and Katherine Bussey**

**Natalie Robertson** is a Senior Lecturer in Early Childhood Education at Deakin University. She is a former early childhood teacher with a strong research interest in early childhood workforce issues, including the attraction, preparation and retention of teachers. Her work in this area is visible in her current projects with the Victorian Department of Education that deliver the Early Childhood Professional Practice Partnerships (ECPPP) project and the Innovative ITE program: Accelerated Bachelor of Early Childhood Education.

**Katherine Bussey** is a Research Fellow at Deakin University. She is a former early childhood teacher and specialist in infant and toddler pedagogies. Katherine also has a strong interest in early childhood workforce issues, contributing to the delivery of Deakin's Early Childhood Professional Practice Partnerships (ECPPP) project and the Innovative ITE program: Accelerated Bachelor of Early Childhood Education.

#### Abstract

Placement experiences are important and central components of early childhood teaching degrees, providing pre-service teachers (PSTs) with authentic in-classroom encounters to practise and develop their teaching capabilities. During placement experiences, PSTs apply their theoretical knowledge to real-life contexts; observe the practices of qualified teachers; come to understand how children learn; and strengthen their own practice through ongoing cycles of assessment, teaching and reflection (Boyd, 2020). In addition to these opportunities, placement experiences allow PSTs to develop teacher identity and build important connections within professional networks (Nolan & Rouse, 2013). Positive placement experiences support PSTs to build strong belonging with the profession, encouraging careers to be pursued in the field after graduation. In the context of current workforce shortages, the provision of positive placement experiences is vital.

This roundtable discussion showcases a partnership between Deakin University and an early years management (EYM) group in Victoria to deliver the Early Childhood Professional Practice Partnership (ECPPP) project. The ECPPP aims to transform placement experiences to inspire and encourage pre-service teachers to pursue a career in early childhood education. The ECPPP has been ongoing since 2019 with 180 placements delivered over ten project iterations. Over 150 PSTs and approximately 60 mentor teachers have participated. In our discussion we will present data collected during focus groups and individual interviews with PST and mentor teacher participants to highlight how university and EYM partnerships can strengthen placement experiences.

The ECPPP adopts a Research by Design methodology (Cotton et al., 2019), which affords researchers the opportunity to design interventions that advance knowledge and work through solutions to complex problems (Plomp, 2013). As an iterative methodology, Research by Design enabled the project to be purposefully altered based on requirements of the University–EYM



partnership, and the PST and mentor teacher participants. In this roundtable we will discuss the interventions that were co-designed, delivered and adapted over the ten iterations of the ECPPP project. Furthermore, we will discuss the opportunities Research by Design methodology provides for partnership-based research.

Overall, ECPPP placements have provided more positive placement experiences for PSTs and mentor teachers. We will discuss how the ECPPP has enabled the professionalism of early childhood teachers to become more visible to PSTs. This increased visibility has encouraged many who initially wanted to become primary school teachers to instead pursue careers in early childhood teaching. Moreover, we will discuss how mentor teachers have become professionally empowered through guided professional conversations, allowing them to showcase their practice with PSTs and gain confidence in their mentoring capabilities. We will discuss the implications strong partnerships between universities and EYMs have for the design of placement experiences and empowerment of key stakeholders involved.

### Discussion questions

- How can Universities design placement experiences that create opportunities for influencing teacher identity of PSTs, that contributes to their decision to pursue a career in early childhood education?
- What are the opportunities for strengthening early childhood teacher retention through partnerships between Universities and EYM groups?
- How can strong partnerships between universities and EYM groups be sustained when resources are limited?

### Reference

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Cotton, W., Lockyer, L., & Brickell, G.J. (2009). A journey through a design-based research project. In G. Siemens & C. Fulford (eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications* (pp.1364–1371). Association for the Advancement of Computing in Education.

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## **EDGE Study: Early childhood teachers' experiences working with other professionals to support three-year-old children's learning and development**

**Authors: Jane Page, Laura McFarland, Halina McNally, Sarah Young, Tricia Eadie, Penny Levickis**

**Presenters: Jane Page, Laura McFarland, Halina McNally**

***Jane Page** is Associate Professor and Associate Director, Pedagogy and Leadership Research, REEaCh Centre (Research in Effective Education in Early Childhood) in the Faculty of Education at the University of Melbourne. She has been a teacher of young children and a university academic for over 38 years. Jane has researched with children, teachers and educators, educational leaders, service providers and families across Australia, and with the federal and state governments on a range of projects that build understandings of the impact of educational leadership, coaching, teaching and assessment practices on children's early learning and development. Through her research partnerships, Jane aims to generate new knowledge on factors and processes that drive high-quality early childhood education to ensure equitable learning outcomes and pathways for children.*

***Laura McFarland** is a Senior Research Fellow in the REEaCh Centre at the University of Melbourne. Laura's research focuses on supporting the wellbeing of children, families and educators in the early childhood education context. In 2000, Laura was awarded a PhD in human development and family sciences at the University of Texas, Austin, USA. Laura's current research focuses on supporting quality relationships among children, families and educators to provide the best outcomes for children. Prior to commencing in an academic role, Laura worked as an early childhood educator for ten years.*

***Halina McNally** is an early childhood educator and researcher. With a background in early childhood education and intervention, she has worked in a variety of early childhood settings including stand-alone kindergarten, long day care, primary school, early childhood intervention, community health, and as a professional learning consultant. Much of her career has been as a keyworker at The Royal Children's Hospital Early Childhood Intervention Service. Her current role is at the University of Melbourne as a Project Officer on the Educational and Developmental Gains in Early Childhood (EDGE) study within the Research in Effective Education in Early Childhood (REEaCh) Centre. Halina holds a Bachelor of Education from RMIT University and is currently enrolled in a Graduate Certificate in Education Research from the University of Melbourne.*

### **Abstract**

Recognising the benefits of children starting earlier in quality early childhood education services, Victoria is the first Australian state or territory to offer universal funded three-year-old kindergarten. From 2020, the Victorian government has implemented a staggered rollout of universal provision of funded three-year-old kindergarten in addition to the existing universal four-year-old kindergarten program. The Educational and Developmental Gains in Early Childhood (EDGE) study, an independent evaluation of the statewide rollout of funded three-year-old kindergarten, is running over three years, from 2022 to 2024. The EDGE study aims to examine the impact of two years of kindergarten on children's learning and development, particularly those from disadvantaged backgrounds, as well as understand the experiences of services and teachers who are delivering three- and four-year-old kinder programs.

EDGE's Professional Practice and Learning Experiences (PPE) domain aims to describe the programs, practices and learning experiences which encompass three-year-old kindergarten programs across Australia. With the rollout of three-year-old kindergarten, children can now access more supports from other professionals, such as preschool field officers and allied health professionals. One of the areas explored in the PPE domain was how teachers accessed and worked with other professionals. This presentation focuses on the experiences of Victorian early childhood teachers (ECTs) from three-year-old programs who are working with other professionals to support children and families. Eleven ECTs from a variety of locations within Victoria (rural, regional and metro Melbourne) participated in semi-structured online interviews. Participants were asked a range of questions including how they had been working with other professionals to support three-year-old children's learning, development and transitions within the kindergarten setting.

Thematic analysis was used to identify key experiences reported by ECTs. These ECTs sought to build close relationships with other professionals to support the families, children and educators. ECTs reported an openness to learning new skills from other professionals, particularly around supporting three-year-old children's development, having difficult conversations with families, and accessing referral pathways.

Overall, the data highlights that ECTs are aware of the external support from other professionals which can be sustained throughout the two years of funded kindergarten, and they can refer families to support services at any point during this time. ECTs now have more time with children to support their learning and development and, in consultation with families and other professionals, can be responsive to specific needs.

#### **Discussion questions**

- How do we continue to build collaborative relationships with ECTs and other professionals?
- How can systems support ECTs to foster collaboration with families over two years of funded kindergarten?

## Partnership as method: Creating ecologies of reciprocity

**Authors:** Sue Grieshaber, Elise Hunkin, Kelly Walsh

**Presenters:** *Sue Grieshaber and Kelly Walsh*

*Sue Grieshaber is Professor of Early Childhood Education in the School of Education at La Trobe University. Her research interests are informed by a range of critical, feminist and post theories that address social justice and equity, and include early childhood curriculum, policy, pedagogies and families, and women in higher education.*

*Kelly Walsh is the site director for La Trobe University's Early Childhood Professional Practice Partnership program. With 25 years of extensive kindergarten teaching experience, including roles as nominated supervisor and educational leader, Kelly is passionate about continuous learning, fostering communities of practice, promoting children's agency, embracing place-based pedagogy and connecting theory with practice.*

### Abstract

This research is nested in a two-year Early Childhood Professional Practice Partnerships grant funded by the Victoria (Australia) Department of Education (DE). The project forms part of DE initiatives concerning workforce training, attraction and retention, part of which is establishing strong relationships between DE, universities, service providers and initial teacher education (ITE) students through the development of effective partnership models. There are several aims of the project, and here we report on methods related to two of the aims: (1) develop relationships for establishing strong and sustainable partnerships to deliver quality placement experiences for students, and (2) increased support for services to provide effective and high-quality placements. The project is led by the research team and a site director, who is involved with project partners and students daily. During semesters in which placement occurs, the project involves enhanced on-campus experiences for students; mentoring for students and mentor teachers; professional learning for mentor teachers and service leaders working with students; high quality placement experiences; and strengthening partnerships among DE, the University, partner services and the ECE sector.

Here we share some of our initial thinking about partnership as a method (Bang & Vossoughi, 2016) to create what we are calling ecologies of reciprocity. Ecologies of reciprocity are characterised by the idea of building strong, mutual and sustainable relationships to create shared learning and knowledge. We connect ecologies of reciprocity to creativity ecologies as conceptualised in creativity education (de Bruin & Harris, 2017), because ecologies of reciprocity are about the 'interconnections between, place, space, and practices' (p. 30). The focus of our interest is the 'relational dynamics [that] shape processes of partnering and the possible forms of learning that emerge in and through them' (Bang & Vossoughi, 2016, p. 174). We explore relational dynamics through the work of the site director, investigating and explaining processes of partnering that involve careful and intentional relationship-building, and identifying learning that has emerged. Ecologies of reciprocity are forms of relational activity that may be dismissed or overlooked in some educational research. Exploring relational dynamics in this way opens possibilities for recasting established understandings of social relations and forms of learning and knowledge development that can characterise student

placement, and can contribute to the scholarly lives and wellbeing of students, mentor teachers and service managers.

### Discussion questions

- We're interested in hearing about other examples that might be considered partnership as method.
- How important is reciprocity in relationships among universities, pre-service teachers, mentor teachers, services, and education departments; and what might that look like?

### Reference

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## Day 2: Friday 9 February 2024/Room 2/11.40 am–1.40 pm/Roundtable presentations

### Transitioning to university via a VET pathway: Challenges and opportunities

Authors: Mandy Cooke, Nicole Downes, Fiona Phillips

**Presenters: Mandy Cooke, Nicole Downes, Fiona Phillips**

**Mandy Cooke** is a lecturer in Early Childhood Education (ECE) and the current course director for the suite of undergraduate ECE courses in the School of Education at Deakin University. Mandy had a diverse career in primary and ECE settings before starting her academic career in 2017. She draws on over 20 years of practical experience when teaching and researching pedagogical practices in ECE and initial teacher education. She is currently engaged in research exploring diploma pathway students' experiences in early childhood initial teacher education, innovative initial teacher education practices, and educators' perceptions of health promotion and risk-taking in ECE settings. Risk-taking practices in ECE and the theory of practice architectures are a key focus in Mandy's research.

**Nicole Downes** had 10 years of practical teaching experience as an early childhood educator and preschool teacher before joining the ECE team in the School of Education at Deakin University in 2012. Nicole teaches and researches in the areas of child safety and wellbeing, teacher wellbeing, trauma and initial teacher education. She is currently involved in several research projects focusing on trauma-responsive education, innovating teacher education and the ongoing development of teacher identity and professional practice. She actively advocates for children's rights, both in the university and the wider community. Nicole practices and promotes Deakin's commitment to innovation, excellence and integrity in all roles.

**Fiona Phillips** is a member of the School of Education at Deakin University. Her research and scholarship focus on the ongoing practices of exploring new pedagogies to inform and facilitate change in arts education (music) within located, cloud-based and virtual teaching and learning environments. Fiona continues to work at decolonising her practice, advancing understandings of contemporary music teaching and learning practices; innovative pedagogical approaches to music education and exploring music/literacy and music/mathematics nexus; and ways in which educational stakeholders might improve students' participation in sustained music experiences, both formal and informal, throughout all levels of early childhood and primary education.

#### Abstract

Articulation into university through vocational education and training (VET) pathways has long been supported by governments and universities as a way of providing access for equity groups traditionally under-represented in higher education. In early childhood education, entering university via a 'diploma pathway' offers diploma-qualified educators—who are often culturally and linguistically diverse, first-in-family, low socioeconomic status and/or from rural and regional areas—the opportunity to upskill to a bachelor-qualified early childhood teacher.

Although diploma pathways into early childhood education are not new, significant workforce shortages and government financial incentives in recent years have seen the number of diploma pathway students increase. While diploma pathways provide a valuable opportunity for under-represented groups to access higher education, and help address workforce shortages, people

within these groups tend to experience greater challenges with university study. To support the success of access and equity policies and pathways, it is important that higher education courses provide appropriate support for VET articulation students, particularly in their transition to university.

This presentation will report on a project aimed at understanding the experiences of diploma pathway students in early childhood education courses at one Victorian university. The challenges faced by diploma pathway students will be unpacked through mixed methods data. We will describe the process and outcome of using this data, along with input from key stakeholders, to design an innovative targeted transition support program, known as the 'Transition to University Program' (TUP). We will explain how the TUP is vital in empowering diploma pathway students, and supporting their retention and first trimester success. We propose that targeted transition supports, such as TUP, are crucial in the success of VET to university pathways that aim to support equity and access.

#### **Discussion questions**

- What are the experiences at other universities with Diploma pathway students transitioning to university?
- What strategies/programs have you used to support Diploma pathway students' transition? Are these different to what you provide to other students?
- How have you resourced supports for Diploma pathway students?

## **A framework for online learning environments supporting student engagement and retention in initial early childhood teacher education programs**

**Authors: Leanne Gibbs, Jo Grimmond**

**Presenters: Leanne Gibbs, Jo Grimmond**

*Leanne Gibbs is a Senior Lecturer with the School of Education in the Faculty of Arts and Education at Charles Sturt University. She teaches in the Bachelor of Education (Birth to Five), Bachelor of Education (Early Childhood and Primary) and Master of Education programs. Leanne's research interests include workforce development, the emergence and practices of leading within early childhood education organisations, and the scholarship of teaching and learning in higher education.*

*Jo Grimmond's career in the early childhood sector spans 30 years as a teacher, director, lecturer, researcher and community engagement coordinator. She has developed and led professional learning programs which have reached audiences both nationally and internationally. Her PhD research focuses on the development of a play-based mathematics assessment tool for early childhood educators to use to inform their pedagogy and practice. Jo has been a lecturer at the University of Wollongong, and has been involved in large research projects including the FEEL study, Case Studies for Effective Practice, and the PRSIST validation study.*

### **Abstract**

Student engagement and retention for initial early childhood teacher programs in the online learning environment is of growing importance. Undergraduate students and institutions are prioritising online or hybrid learning in response to a need for study flexibility and the increasing demand for early childhood teacher (ECT) graduates (Gibbs, et al., 2023). However, engagement in online learning and the subsequent efficacy of early childhood education qualifications is an under-researched area requiring further empirical investigation.

A common theme within the existing research on undergraduate online learning is the importance of belonging to a community of learners. Establishing strong social networks and building social capital within a student cohort fulfils the function of meeting affective and social needs and is integral to student retention and success. According to du Plessis et al. (2008), social learning opportunities include establishing teacher and student relationships and student relationships via online technologies. Additionally, these social experiences enhance student learning opportunities.

This paper presents the findings of a continuing mixed-methods study on initial early childhood teacher education courses in the online and hybrid environment, specifically through the lens of an online learning framework. The study involves the analysis of student experience surveys (n=1186) and qualitative interviews with 10 undergraduate students following the first semester of study. The interviews and analysis are framed around an online learning engagement framework that embodies practices in social, cognitive, behavioural, collaborative and emotional student engagement (Redmond et al., 2018).

The interviews, based on three primary questions, explore undergraduate ECTs' perspectives on the critical elements of online learning, how an online learning framework can enhance engagement and



retention and how an online learning framework can enhance learning. The research identified enablers of learning within social, cognitive, behavioural, collaborative and emotional domains and illuminates quality higher education teaching practices that enhance engagement and retention. Additionally, investigating the enablers of engagement through an online learning framework will contribute to the body of research and knowledge on what makes students stay in university courses and how they perceive improvements to their practice. By unpacking higher education teaching practices in the online learning environment, it may be possible to identify and elevate the presence and effectiveness of academics working in the online and hybrid space. It is anticipated that empirical evidence will provide generative resources for those teaching in initial early childhood teacher education.

#### Discussion questions

- How can higher education academics create the conditions for high quality initial early childhood teacher education programs in online and hybrid learning environments?
- What are the recent barriers to retention of early childhood teacher undergraduates?

#### References

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## Forming a Community of Practice to improve food environments in early childhood education and care: ‘How to’ for system change

**Authors: Ros Sambell, Rebecca Byrne, Penny Love**

**Presenters: Ros Sambell, Rebecca Byrne, Penny Love**

*Ros Sambell, Rebecca Byrne and Penny Love are founding members of the National Nutrition Network—Early Childhood Education and Care. The Network’s mission is to promote healthy, sustainable food environments within early childhood education and care (ECEC) settings in order to positively impact developmental and health outcomes for children.*

*Ros is an experienced public health nutritionist, Nutrition Discipline Lead, and Lecturer in Public Health and Community Nutrition at Edith Cowan University. She currently chairs the National Nutrition Network—Early Childhood Education and Care, and is an associate member of the Centre of Excellence for the Digital Child; core member of Nutrition and Health Innovation and Research Institute; and a member of the Centre for People, Place and Planet. Her research interests focus on a whole-of-service approach to quality food provision in ECEC.*

*Rebecca is an Accredited Practising Dietitian and ARC DECRA Fellow at Queensland University of Technology. Her research focuses on what and how young children are fed; improving the measurement of dietary intake and other health behaviours in early childhood; and the promotion of responsive feeding practices which support children’s autonomy, development of healthy food preferences and optimal growth.*

*Penny is an Advanced Accredited Practising Dietitian and Senior Lecturer for Public Health and Community Nutrition at Deakin University. As a research fellow within the Institute for Physical Activity and Nutrition, her research focuses on the translation, implementation and sustainability of early childhood prevention at scale to inform the identification of key leverage points within existing service delivery systems.*

### Abstract

The ECEC food environment is a vital conduit to optimise children’s health, wellbeing, learning, developmental and cultural needs. People assume that children are receiving adequate nutrition in an appropriate way in ECEC, however evidence shows this is not the case. There is an urgent need for a coordinated approach across Australian jurisdictions to improve food environments.

‘Authentic collaboration’ to effect change and foster research translation is a foundational element to improving population health. This roundtable presentation will describe the formation of the National Nutrition Network—Early Childhood Education and Care (NNN–ECEC), which brings together researchers, practice agents and policymakers from all Australian states and territories with a common vision to optimise the food and nutrition environment for children aged birth to five attending ECEC.

This presentation will:

- share learnings from the evolution of the NNN–ECEC, including how to establish a network; sourcing motivated and strategic members; optimising knowledge exchange in meetings; forging and strengthening important partnerships to effect change; building credibility as a knowledge hub; fostering collaborative projects; and recognising and planning for a ‘win-

win' for members to facilitate impactful change across jurisdictional boundaries, thereby supporting a coordinated national approach.

- describe mapping exercises undertaken by the NNN–ECEC, revealing barriers to implementing a coordinated approach to improve food environments.

Currently, only three jurisdictions within Australia provide free government-supported statewide healthy eating programs for ECEC settings (NSW, Victoria and Tasmania) (National Nutrition Network, 2022). Consequently, there is a lack of equity in the provision and accessibility of support initiatives, programs, training and resources for ECEC services to enable safe and healthy food environments and support assessment and rating of the food environment. Children, families, and services most in need of support tend to have the least access to sustainable and long-term initiatives, programs and resources (Elliott et al., 2023; Spence et al., 2020). Children living in disadvantaged communities where food insecurity is higher are least likely to have meals provided by their ECEC service (Elliott et al., 2023).

Method of food provision varies across ECEC services, as do quality. There are no Australian best practice guidelines for food provision in ECEC and no consensus across jurisdictions on how to interpret and translate the Australian Dietary Guidelines.

The NNN–ECEC is an example of how authentic collaboration can facilitate enhanced nutritional and developmental outcomes for young children and achieve health and education policy objectives.

#### Discussion questions

- How does your work impact (or could impact) the food environment in ECEC?
- What information/expertise/support/resources/linkages do you need in your unique setting to foster developmental and health outcomes through the ECEC food environment?

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<https://www.nationalnutritionnetwork.com.au/>

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## Day 2: Friday 9 February 2024/Room 3/11.40 am–1.40 pm/Roundtable presentations

### Talking the talk: Enriching language interactions with infants and toddlers

Authors: Tracy Redman, Sheila Degotardi, Linda J. Harrison

**Presenter: Tracy Redman**

*Tracy Redman has over three decades' experience in the early childhood sector, including as owner/teaching director of a long day care service for 16 years, overlapping with over 20 years teaching early childhood students from certificate III to master's degree levels. Tracy is a graduate research student member of the Centre for Research in Early Childhood Education (CRECE) and is the Project Manager of the ARC LP project, 'Observe, Reflect, Improve: a tool to enrich Children's Learning' (ORICL). Her special research interest is in supporting educators to enrich their language interactions with infants and toddlers through targeted professional development. With three master's degrees, Tracy has now completed her doctoral studies at Macquarie University.*

#### Abstract

Children's language development in the first three years is critical to their later learning and academic achievement. In Australia, increasing numbers of infants and toddlers attend early childhood education and care (ECEC) settings, yet my recent study (Redman, 2019) revealed that upon graduation a high percentage of educators feel ill-prepared to support language-learning with infants and toddlers. While professional development (PD) opportunities therefore play a pivotal role in upskilling educators, PD research literature reports varying degrees of success, and many studies fail to report the systematic steps and ongoing benefits to practice.

To address these gaps, this study designed, implemented and evaluated an evidence-based PD program to enrich the language interactions of infant/toddler educators. Workshop content was underpinned by the social interactionist approach to language development, emphasising the importance of reciprocal, contextually meaningful language interactions. The design and delivery of this PD program was informed by the theoretical frameworks of implementation science, which provided a systematic approach to plan, deliver and evaluate the program's process; and practitioner enquiry, used to implement a participant-driven, research-informed program. This study also sought to ascertain if potentially enhanced language interactions resulting from engagement with PD would be sustained over time.

A total of 16 infant/toddler educators with diverse qualifications and ECEC experience from three centres located around Sydney participated in this study. Data was generated via three-hour audio recordings of educators interacting with infants and toddlers during their normal daily activities. Recordings were gathered across three time points: at the commencement of the study to provide a baseline measure of educator's language interactions; three months after educators had engaged with the PD workshops; and in month 10 of the study, to ascertain if enhanced language practices had been sustained. Extracts from recordings were transcribed verbatim, coded and quantitatively analysed to track change for six measures of language input derived from the linguistic, conceptual

and interactive dimensions of language. Questionnaires and interviews throughout the project provided qualitative data about educators' perceptions of the PD program which were analysed to identify the motivation for patterns of change, and the enabling or constraining components of the PD.

Findings revealed that the educators who engaged with the PD workshops embedded new language-rich practices and strategies into their pedagogy and environments. Overall, improvements were sustained and, in some areas, continued to improve after the PD sessions had concluded. In particular, educators' conversational turns and conceptual language use significantly increased over time. Accordingly, this study has important implications for the design and delivery of PD, demonstrating that educators of any qualification or experience level can be guided to enhance their language interactions to contribute to the language and conceptual development of young children during their critical years.

#### Discussion questions

- Were differences in patterns of change observed between different qualification levels?
- Did any particular element of the PD contribute more than others to its success?

#### Reference

Redman, T. (2019). *Early childhood educators' training and their preparedness and ability to support the language learning of infants and toddlers* [Unpublished master's thesis]. Macquarie University.

## How are children and their adults participating in a bicultural context through inquiry-based project learning in Aotearoa, New Zealand?

**Authors: Sarah Probine, Jo Perry, Yo Heta-Lensen, Rachael Burke, Fi McAlevey, Joanne Alderson, Helen Wrightson**

**Presenters: Sarah Probine, Jo Perry, Fi McAlevey, Joanne Alderson**

*The inquiry-based project learning research team was formed in early 2021. All members currently work as initial early childhood teacher educators across a range of tertiary institutes in Aotearoa, New Zealand. The team's diverse range of research interests includes inquiry-based project learning in early childhood education; ethnography; cross-cultural education; visual arts pedagogy; practicum; mātauranga Māori approaches to teaching and learning; and educational technologies and teaching in the 21st century.*

### Abstract

This roundtable presentation draws from an ongoing research project examining how inquiry-based project learning has been interpreted and enacted by early childhood teachers in Aotearoa, New Zealand. The research is positioned within an interpretivist paradigm, underpinned by sociocultural and bioecological theories, and strongly informed by narrative inquiry approaches.

This presentation will build on a conversation we began at AJEC in 2023 where we introduced an emergent finding from this research. We had discovered that all of our six participating early childhood settings had chosen to utilise inquiry-based project learning as a means of connecting children to their local place. Place was interpreted differently at each setting, for example, as outdoor spaces, the local community and the ngahere (forest). We realised that inquiring together in these spaces supported children to develop a connection to their own place and identity. In 2023, we were beginning to make sense of how this could impact children's learning, development, health and wellbeing.

One year on, we have critically examined this finding and theorise that inquiry-based project learning, when centred around place, offers an authentic pathway for early childhood teachers to enact bicultural curriculum. This is significant because although the New Zealand early childhood curriculum *Te Whāriki: He Whāriki Mātauranga mō ngā Mokopuna o Aotearoa: Early Childhood Curriculum* (Ministry of Education New Zealand, 2017) requires all teachers to recognise and integrate Māori language and culture into the curriculum, many early childhood settings continue to struggle to enact this commitment, tending to privilege Euro-centric philosophies and approaches (Alcock & Ritchie, 2018; Heta-Lensen, 2022; Ritchie, 2018).

In contrast, we found the participating settings in our research have localised their inquiry approaches and pedagogy according to the values, priorities and aspirations of their unique settings. A key value held by all six settings is a deep commitment to bicultural practice, demonstrated through their intentional choice to use inquiry-based project learning to support children's connection to their place.

These innovative practices resulted in children learning about the histories of the whenua (land), helping them build a sense of belonging within their local communities and to foster the value of kaitiakitanga (a sense of guardianship). Children were empowered to take on leadership roles as they made discoveries; they were supported to ask and investigate their own questions and to conceptualise and realise creative projects to further explore ideas related to place.

This presentation will unpack the pedagogical conditions that support these place-based inquiry practices. Additionally, it will explore some of the tensions and challenges of enacting authentic, bicultural curriculum through inquiry-based project learning. We will conclude the session with a set of questions focused on the authenticity of the bicultural partnerships inherent in Aotearoa and how inquiry-based project learning can support these.

### Discussion questions

- How can ECE guard against interactions that ‘reproduce an imagined partnership between Māori and Pākehā’ where ‘teachers and students enact a bicultural narrative that maintains lop-sided notions of partnership to advance Pākehā group interests’? (MacDonald, 2022, p. 55).
- What role can inquiry based project learning play in upholding bicultural expectations and the commitment held by *Te Whāriki*?

### References

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## Promoting equity for multilingual children

**Authors: Bridget Healey, Luke Collier**

**Presenters: Bridget Healey, Luke Collier**

***Bridget Healey** is a Senior Researcher at the Australian Education Research Organisation, interested in how system-level policy can provide the conditions for educators, children and families to thrive. She served as a researcher at the National Center for Children and Families (USA), studying high-performing early childhood systems in The Early Advantage international comparative study, and the social stratification of classroom quality in the New York City Pre-K for All initiative. Bridget also worked with Head Start programs across New York City providing classroom quality assessment. Prior to this, she worked for a decade in the Victorian Government, designing programs with and for early childhood professionals to embed the Victorian Early Years Learning and Development Framework in practice.*

*Bridget holds a Master of Arts in Education Policy (specialising in early childhood) from Columbia University Teachers College, a Bachelor of Music (Victorian College of the Arts), and a Bachelor of Arts (University of Melbourne).*

***Luke Collier** is a Senior Researcher at the Australian Education Research Organisation (AERO), with interests in how high-quality research and policy can improve learning and development outcomes, particularly for vulnerable and disadvantaged children. Prior to his work at AERO, Luke held research roles at SAHMRI and the Telethon Kids Institute, with much of his work utilising large-scale linked data to investigate the relationships between learning and development outcomes, socio-economic inequality, early childhood education and care and social-emotional wellbeing.*

*Luke holds a Master of Public Health, a Graduate Certificate in Biostatistics and a Bachelor of Psychological Science from the University of Adelaide.*

### Abstract

Early childhood education and care (ECEC) settings are increasingly linguistically diverse; around a quarter of all children and one in five First Nations children speak a language other than English at home (DESE, 2022). Multilingualism is a strength that can confer lifelong benefits well beyond linguistic outcomes (Byrd, 2012; Fox et al., 2019), especially when proficiency across their multiple languages is balanced (Pliatsikas et al., 2020). In Australia, most multilingual children are thriving according to the AEDC (DESE, 2022), but emerging multilinguals—children not yet proficient in English in their first year of school—experience developmental vulnerability at disproportionately high rates (DESE, 2022). Greater understanding of the enablers of learning and development for this cohort could assist with providing the support they need to thrive.

AERO's study used linked national early childhood datasets to explore which experiences—in and out of ECEC—facilitate better outcomes for emerging multilingual children, when compared with other children who spoke a language other than English at home. We analysed data from the Person-Level Integrated Data Asset: First Five Years project using domains from the 2018 Australian Early Development Census (AEDC) as our outcomes measure linked to ECEC participation data from 2013 to 2017. Findings show correlation, not causation.

The study found emerging multilingual children face a range of challenges both related and unrelated to language. They are more likely than other multilingual children to be first generation



migrants, live in regional or remote areas, and/or live in families with low-socio-economic status. Emerging multilingual children participated in ECEC at lower rates than other multilingual children, but appear to benefit from an earlier start. Those who had more than one year of ECEC prior to starting school had better outcomes on AEDC domains than their peers who had one year only. Finally, we examined the ECEC setting types that children most often attended in their early years (birth to age three) and in the year before formal schooling. For emerging multilingual children, an early start in family day care followed by four-year-old preschool/kindergarten appeared to benefit children's outcomes to a greater extent than other participation pathways when compared with multilingual children with no ECEC. We hypothesise—but look to future research to test—that these findings relate to the composition of the FDC workforce and the home-based environment. Finally, we propose six opportunities for system decision-makers to target strategies for improving outcomes for multilingual children through ECEC.

### Discussion questions

- What are other possible drivers of the positive relationship between the FDC–preschool pathway and AEDC outcomes?
- How could insights from large-scale linked data contribute to decision-making about policy and provision alongside other types of research?

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## Day 2: Friday 9 February 2024/Room 4/11.40 am–1.40 pm/Roundtable presentations

### Drawing thought: Young children's representational approaches to meaning making in science

Author: Rachael Hedger

**Presenter: Rachael Hedger**

*Rachael Hedger is a Senior Lecturer in Early Childhood Education and Care, and Course Coordinator for the Early Childhood Initial Teacher Education degrees at Flinders University, South Australia. She is a PhD candidate at Deakin University. Her PhD explores how arts-based practices can support children's science learning. Her research interests focus on how drawing can be used as a vehicle for exploring science concepts, focusing on process and exploration. She is a supporter of learning through play pedagogies and encouraging pre-service teachers to be advocates for young children's learning.*

#### Abstract

When young children draw, there is a tendency to focus on and celebrate the finished product and children's final accomplishments. Often, little attention is paid to what children are doing during the drawing process. Beliefs about children's communicative capacities demonstrate very little recognition of their artistic and independent creative capabilities. Science curriculum documents in Australia emphasise the use of abstractions in science representations, such as arrows, however these expectations delimit children's exploratory and creative ways of representing their experience of phenomena, such as force and motion, in ways that are meaningful to them.

The philosophies of Reggio Emilia celebrate the many languages and methods that children use to communicate, acknowledging that a range of meaning-making practices enable children to make sense of their world. Such approaches recognise that as children draw, they use symbols, schemas and talk to co-construct knowledge.

This research study investigates how the process of drawing supports children to make sense of the scientific concept of force, and how they represent air as force through drawing. The study engages a design-based research methodology and a constructivist and sociocultural lens. Drawing and video data was collected with 20 five-year-old children in their first year of school. The teacher encouraged the children to consider creative ways to depict movement in their drawings and engaged their thinking about air as force through picture story books. Children were supported to focus on the process of drawing.

Preliminary results show that children took a creative approach to representing movement. They included signs and symbols; drew forces of different strengths, using lines of different shape, length, thickness, quantity; and spontaneously used arrows of different sizes. The children's interest in drawing during the science learning experiences, and during child-initiated play opportunities, increased across the term as a result of this research.

### **Discussion questions**

- How do you define meaning-making, and do you see it as a valuable learning opportunity for children's science exploration?
- What are your thoughts on focuses on the process of drawing as a learning tool in science?
- Is there anything else that I should be considering as part of this study?
- Do you think the increased interest in drawing as a result of the research sessions is worth exploring or emphasising here?
- What are your thoughts on the nexus between science and art within this study?

## Capturing the voice of young children in evaluation

**Authors: Claire Blewitt, Alexandra Fraser, Yihan Sun, Helen Skouteris**

**Presenters: Claire Blewitt, Julia Cornelius**

*Claire Blewitt is a Research Fellow in the Health and Social Care Unit in the School of Public Health and Preventive Medicine at Monash University. Her background in developmental psychology and, prior to that, engineering and sustainability, has led to an interest in transdisciplinary research. Claire works across education, social care and health to co-design, implement and evaluate approaches that aim to strengthen children's development and positive mental health. Her current research focuses on early childhood social and emotional learning and trauma-informed practice.*

*Julia Cornelius has 35 years' experience in the education and care sector, she has worked in three states of Australia in both the government and non-government school sector and the early years sector. In 2014 Julia started working as Educational Leader for the 0-3 years old program at Doveton College Early Learning Centre's Light House site. She also mentored a large multicultural team of educators in a disadvantaged community.*

*During 2017/18 Julia piloted the first version of Baby College at Doveton College in Partnership with Our Place and the Queen Elizabeth Centre (QEC). Baby College aims to improve the educational outcomes for disadvantaged infants by engaging and supporting vulnerable families from the prenatal period.*

*In 2019 Julia joined Our Place as their Senior Advisor Early Years. Our Place is a Philanthropic organisation who believes that 'education is the key to transforming the life chances of children and creating the conditions for families and communities to flourish.'*

*Our Place brings together the resources children and families need to thrive – integrating high quality early learning, effective schooling, health and community services, and adult education, training and employment support in ways that meet the needs and help fulfil the aspirations of the community.*

### Abstract

Our Place is a holistic place-based approach to supporting the education, health and development of children and families living in communities experiencing disadvantage through the universal platform of school. This initiative is a unique concept within Australia, and its impact on children and families is being examined through the Our Place Outcomes Framework. Increasing attention on the rights of children and children's active participation in society from a sociology of childhood perspective, and greater understanding of child development and child-centred pedagogy in early childhood education and care (ECEC) have cemented the importance of listening to children. However their voice is not often recognised in monitoring and evaluation frameworks.

Our Place and Monash University have partnered to capture the perspectives of young children who attend Early Learning Centres (ELCs) on Our Place sites to better understand the impact of the approach on child outcomes. A systematic literature review including 58 studies explored how children's voices have been captured in research in ECEC settings and how issues such as inclusivity, rapport-building and power imbalances have been addressed (Sun et al., 2023). The review findings guided the initial planning for this research, which was tailored for each ELC in consultation with the educators who held vital knowledge of children's preferences and interests.

Ninety-nine children in the three- and four-year-old kindergarten rooms across eight ELCs took part in this study. Parental consent and child assent was sought for all participants, and the research team and educators worked together to ensure time for rapport-building and ongoing assent, and to address the power imbalances that can exist in research between adults and children. Children were invited to take part in child-centred research methods to understand their perspectives about their early learning environment; their self-identity; the extent to which they felt happy, healthy and well; and their expectations for the future. Discussions were audio-recorded and later transcribed into text. Transcripts were analysed using inductive thematic analysis to identify key themes and subthemes within and across ELCs. The voices of children with additional needs were also captured through a similar child-centred approach, with emphasis on allowing additional time to build rapport, understanding how children were interacting and experiencing the early learning program, and researcher reflections on what was observed. Children demonstrated their capacity and capability to express themselves through verbal dialogue, non-verbal communication and play. Eleven broad themes and 24 subthemes were evident from the analysis. The alignment between these themes and subthemes and the outcomes and indicators from the Our Place Outcomes Framework were then mapped.

This presentation will showcase our approach to capture young children's voices in ELCs within communities experiencing disadvantage, how the knowledge shared by young children has contributed important understanding of the impact of the Our Place approach, and our methodological and ethical learnings and reflections.

#### Discussion questions

- How can we support early childhood organisations and services to capture child voice?
- How can these perspectives and experiences inform planning and decision-making?

#### References

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## Children's voices in policy: How considered study design is vital in balancing rigour and authenticity

**Authors: Chris Mason, Daniel Hannington-Pinto, Dan Leach-McGill**

**Presenters: Chris Mason, Daniel Hannington-Pinto, Dan Leach-McGill**

*Chris Mason leads the Impact Foundry at The Front Project. With a background in organisation and policy studies, Chris has worked with governments and agencies, university, philanthropy, not-for-profits, and corporate partners. Chris has been driving change in the social economy for over 20 years and believes in the power of working across traditional sector boundaries to nurture ideas and practices to transform how we think and work. His projects have created new thinking in areas such as social enterprise, social housing, homelessness and health equity, and he places great importance on listening to the voices of practitioners and stakeholders to support the growth of a vibrant, innovative and successful early years sector to benefit all children.*

*Daniel Hannington-Pinto, Research and Evaluation Officer, works across The Front Project's diverse research projects. Dan has over a decade's worth of experience in academic, NGO and government-based contexts, including time spent in the education sector. Dan has previously worked in policy and research roles at the United Workers Union, Industry Super Australia, the Federal Department of Social Services, and the Department of Families, Housing, Community Services and Indigenous Affairs.*

*Dan Leach-McGill is Manager, Research and Evaluation at The Front Project. He has worked in early childhood and community services for more than 20 years and has extensive experience in service innovation, policy and practice development, and advocacy with an emphasis on improving outcomes for children and families. Dan has held several project-based and collaborative roles, led service development and the implementation of evidence-based programs across early childhood, community and statutory service settings. He has undertaken PhD research focusing on policy, professional identity and integrated service delivery in early childhood education and care settings.*

### Abstract

This paper will discuss some of the methodological considerations and impacts of including the voices of children in policymaking aimed at improving systems and structures directly impacting children. The paper will draw on work undertaken by The Front Project, commissioned by government agencies, to run consultations with children to inform key inquiries and the development of national strategies. The paper surfaces some of the ongoing ethical considerations arising in response to government interest in including children's voices in policymaking processes.

The project is methodologically positioned within research approaches that seek to amplify children's agency and their authentic voices, reflecting a broader shift away from a traditional theory of development which minimises or downplays children's experiences. Such theories view children as 'human becomings, rather than as human beings' (Qvortrup, 1994, p. 18), effectively conceptualising children as simply sitting part-way on a spectrum towards adulthood, rather than acknowledging children's experiences. Our position is that by acknowledging children's experiences in and of themselves, they are every bit as complex and meaningful as those of adults.

The research design team were committed to an ethical responsibility to ensure that children were granted full agency and freedom to share their perspectives and views in all stages of the research. This responsibility was balanced with a commitment to research rigour (including how data would be generated and analysed). The research methods adopted key tenets of adaptability, open-endedness and variability. This enabled early childhood education and care (ECEC) services and staff to inform the approach to respond to what engaged children in their local context, while the overarching methodological structure supported data analysis in line with protocols developed and in response to the research questions guiding the project.

This conceptual scaffolding, however, merely acted as a series of ‘openings’. For example, a ‘community painting/artwork’ activity was presented to children as a way of portraying the people that meant the most to them, while a ‘loose materials landscape creation’ activity ostensibly sought to capture portrayals of children’s most treasured ‘place or environment’. Children ultimately portrayed people and creatures in their landscape creations, and places or environments in their paintings. A deliberate aspect of our study design was to encourage local cultural approaches and the use of local resources, tools or materials to leverage the existing relationships that children had with place, as well as with their regular educators (who supported delivery of the activities) and to safeguard against imposing researchers’ expectations on children.

The paper will also explore some of the implications of seeking to represent children’s perspectives in policymaking. These comprise the role of intermediaries in consultation processes, such as The Front Project, in extending the responsibilities and tensions raised above into broader policy and systems work (when direct influence or controls fade). Of particular interest to The Front Project is ensuring that the expectations of consultations are aligned with methods that support high confidence in the work and children’s participation right and adults’ responsibilities to them.

### Discussion questions

- What principles do you apply when seeking the views of children?
- What are the risks and opportunities involved with consulting with children for the development of policy?
- Are there examples of powerful practices and methods that you’ve adopted or engaged with that support children’s voices?
- How are ethical and practical considerations balanced with stakeholder/commissioning body interests in consultation with children?

### References

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## Day 2: Friday 9 February 2024/Room 5/11.40 am–1.40 pm/Roundtable presentations

### Assessment as learning in the app generation

Authors: Qiyue Wang, Tina Stratigos

**Presenters: Qiyue Wang, Tina Stratigos**

*Qiyue Wang is a fourth-year student studying for a Bachelor of Education (Early Childhood) in the Sydney School of Education and Social Work at the University of Sydney. She is particularly interested in children's participation in the assessment and documentation processes. She undertook this study as an Honours research project under the supervision of Dr Tina Stratigos.*

*Tina Stratigos is a Lecturer in Early Childhood Education in the Sydney School of Education and Social Work at the University of Sydney. During completion of her doctoral studies as part of the Infants' Lives in Childcare project at Charles Stuart University, she developed an interest in innovative research methods to gain understandings about young children's perspectives on their experiences in early childhood education. Her teaching and research interests cover infants and toddlers in early childhood education, professional experience as a part of initial teacher education, and the impact of digital documentation platforms on the experiences of educators, families and children.*

#### Abstract

The *Early Years Learning Framework V2.0* (EYLF V2.0) identifies assessment as a key planning cycle practice. In the revised EYLF, assessment for learning has been supplemented with assessment of children's learning, and assessment as learning (AaL) which emphasises children's voices, contributions and appreciation of their own learning. Despite the new emphasis, there is limited research exploring AaL practices in Australian early childhood education services.

The documentation and communication of children's assessment information in early childhood education settings is increasingly performed digitally using apps such as Storypark or Kinderloop, however there is limited research on the impact of digital documentation on educators' practices, and less that examines children's experiences and perspectives, despite being positioned as rights-holders and experts in their own lives.

In recognition of these issues, this study aimed to listen to children's voices to develop understandings about their experiences with AaL in the context of both digital and paper-based documentation. Participants included seven educators and nine children from six Sydney-based early childhood education services. All services used digital documentation and half supplemented this with paper-based documentation. This qualitative study adopted the Mosaic approach to explore the opportunities for children to contribute to and revisit their assessment documentation. The approach aims to explore and listen to young children's views by bringing together multiple methods and data sources to address the complexities of children's lived experiences. In addition to interviewing educators about their AaL practices, children were invited to give the researcher a child-led tour of their assessment documentation, during which the researcher learned from both spoken words and the subtle choices children made as they directed the tour.



Findings revealed that while educators reported opportunities for children to contribute to their assessment documentation, many children offered an alternative perspective, with only three of the nine child participants identifying and describing a contribution. In relation to opportunities for children to revisit documentation, a relationship was seen between educator-provided access and children's experiences. In the three services that exclusively used digital apps, there was no evidence of children's ability to independently access assessment information. In some cases, children's access to paper-based documentation was also limited.

Enablers and constraints of AaL practices were identified, including individual educators' documentation practices, documentation format, and educators' misunderstandings of AaL. Overall, findings highlight the importance of educator knowledge and intentionality in supporting and promoting AaL with children, regardless of the format utilised.

### **Discussion questions**

- The impact of digital documentation in early childhood education is currently not well understood. What contributions might research make? And why do children's perspectives matter?
- Child participants were at least four years of age. How might research seek to understand the perspectives of younger children in relation to AaL?
- Many educators in the study seemed unclear about the meaning and practice of AaL. How might educators be better supported in this area and what contribution might research make?

## Understanding young children's lived experiences in the post-digital through alternative theoretical frameworks

**Author: Honor Mackley**

**Presenter: Honor Mackley**

*Honor Mackley is a research assistant on the ARC Linkage Project 'Young children in digital society: Building an online tool for service provision'. Honor holds a Bachelor of Education, a Master of Arts, a Master Education (Research) and more recently a PhD, where her research examined the relationship between tinkering makerspaces and digital technologies in an ECEC setting. Honor is passionate about play-based learning in digital contexts and her research aims to pioneer how practitioners think about and navigate some of the challenges that continue to problematise the use of digital technologies in the early years. Honor's research interests also extend to developing school-aged children's health and physical wellbeing outcomes motivated by her extensive experience as a primary and secondary Health and Physical Education teacher.*

### Abstract

This paper reports on a research study which used Actor–Network Theory (ANT) (Latour, 2005) as the informing theoretical framework to understand how the post-digital manifests in an early childhood education and care (ECEC) setting. ANT is a philosophical perspective that considers the mutual influence of humans and technologies as agential actants or actors in knowledge production and social processes. Originating from the field of Science and Technology Studies (STS), ANT is a form of social constructivism that situates material, non-material and human actants as ontologically level, thereby affording all actants with equal potential to generate agency. In this study, ANT was used to conceptualise the notion of the post-digital as representing contemporary social practices that are now so interlaced with digital technologies that it is challenging to recognise human and everyday life as distinct and separate from the digital. Within ECEC, the post-digital signals that digital technologies are transforming children's play in profound ways (Pettersen et al., 2022), blurring physical and virtual domains.

The aim of this study was to examine how young children's experiences in the post-digital manifested in educator-identified learning outcomes as per Australian national and state curriculums following participation in tinkering (a form of play-based learning) with unplugged technologies (non-working digital artefacts). Through a methodology of co-design incorporating semi-structured and focus group interviews, the findings from this study showed that educators identified two key learning outcomes derived from tinkering with unplugged technologies. Informed by ANT, each identified learning outcome was mapped to a network of associated material, non-material and human actants (13 in total). Material actants were physical in nature (e.g. unplugged technologies, playdough). Non-material actants were abstract without physical form (e.g. learning outcomes, funds of knowledge). Human actants were participants in the study (e.g. educators, children and researcher).

In ANT terms actants were conceptualised as performing within the tinkering network of activity as mediators or intermediaries engaged in dynamic processes of translation to co-constitute manifestations of children's lived experiences in the post-digital. Manifestations were represented

by children self-creating their own versions of technologies in the form of ‘tablet’, ‘computer’ and ‘gamer’. Mediators or intermediaries were further examined to see how they influenced the flow of the network, with some mediators emerging as more significant than others. Two such influential mediators were play-based learning and children’s funds of knowledge relative to their lived experiences in the post-digital.

Using ANT as a theoretical framework can advance understandings of the post-digital in ECEC as part of children’s lived day-to-day experiences. As suggested by this study, tinkering with unplugged technologies as a form of play-based learning can provide adults with a pedagogically useful way to listen to and build onto young children’s interests, which are often post-digital in nature.

### Discussion questions

Young children are growing up in a post-digital age with the relative ease of those who has known nothing else. Yet, this can be constrained “by the boundaries of binaries imposed by others, who have known the (pre)digital age” (Hood & Tesar, 2019, p. 309).

- In what ways can this research challenge our thinking around the use of digital technologies in early childhood education?
- How can practitioners be further supported to provide meaningful opportunities for play-based learning that replicate children’s lived experiences in the post-digital within and beyond early years settings?

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## AI and the ethics of early childhood research: Unpacking the impact of generative tools

**Authors:** Kate Highfield, Jo Bird, Holly Tootell

**Presenters:** *Kate Highfield, Jo Bird, Holly Tootell*

***Kate Highfield** is an experienced teacher and researcher working as an Associate Professor at the University of Canberra. Her research explores the use of technology in play, learning and engagement. Kate has strong curriculum understandings in STEM and STEAM and an interest in how we innovate in ECEC.*

***Jo Bird** is a Senior Lecturer, Course Coordinator and researcher in early childhood at the University of New England, researching digital technologies in children's play and through scaffolding educators' skills for digital programming and streamlining their documentation. Skilled in delivering professional learning, Jo is repeatedly invited to present at conferences and professional learning sessions.*

***Holly Tootell** is a Senior Lecturer at the University of Canberra's STEM Education Research Centre. She has over two decades of higher education expertise. Holly's research focuses on technology's social influence in early childhood education and care, and she is a dedicated advocate for women in STEM as a Science and Technology Australia Superstar of STEM.*

### Abstract

As researchers in early childhood we reflect on and use multiple modes of ethical thinking. These include codes we choose to abide by, such as Early Childhood Australia's *Code of Ethics* and the *National Statement on Ethical Conduct in Human Research*, and tools that support ethical engagement, including university policies and Early Childhood Australia's *Ethics in Action*. The advent of new technologies, or in this case increased use of technologies, reminds us of the need for ethical engagement.

Artificial Intelligence is not new (Woolf et al. 2013), but since 2022 generative AI, such as Chat GTP, Petal, Chat PDF and LoveHeartTM have become increasingly common. Generative AI tools are of specific interest as they use key information (taken mostly from the web) to generate 'new content'. In academic writing, these tools could be used to summarise a research paper; in early childhood education and care (ECEC) services, they could be used to generate documentation or lesson plans. These resources can be highly personalised, responding to your 'tone', integrating your pedagogical preferences or connecting with documents you cite; essentially the technology 'learns' your preferences, and the content generated responds to this. These tools raise specific ethical concerns, particularly in academic writing and for our sector.

The current project explores AI in academic writing, focusing on AI tools for literature reviews. Using a blinded methodology, the researchers reviewed a set of 20 papers analysing key themes, keywords and implications for practice. Simultaneous analysis of half of these papers identified the 'conditional' responses of AI, with the responses given becoming increasingly similar. This work raises ethical provocations, including questions of authorship and duplication, concerns of bias and a lack of transparency of how AI tools generate content.

This paper presents key data from this analysis and begins to explore the ethics of AI in early childhood research, including a discussion of the UNESCO (2021) *Recommendation on the Ethics of Artificial Intelligence*, the role of empathy (Kurian, 2023) and considerations of anthropomorphism (Festerling & Siraj, 2022). It shares current data and explores the risks and benefits of generative AI in ECEC research and practice.

### Discussion questions

- What are the potential benefits and concerns of AI use in early childhood research and practice?
- What are some key ethical considerations for researchers to integrate into their practice when using AI?

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## Day 2: Friday 9 February 2024/Room 6/11.40 am–1.40 pm/Symposium presentations

### Scientific literacy in the early years: Understanding through a cultural-historical lens

**Authors:** Goutam Roy, Shukla Sikder, Lena Danaia

**Presenters:** Goutam Roy, Shukla Sikder, Lena Danaia

*Goutam Roy is a PhD student and sessional staff member in the School of Education at Charles Sturt University. In the PhD study, Mr Roy investigates developing scientific literacy among children in the early years in Australia using the cultural-historical lens. Mr Roy is also a faculty member at the Institute of Education and Research, University of Rajshahi, Rajshahi, Bangladesh. He has been involved in educational research for more than 18 years. His research interests include scientific literacy, early childhood education, STEM education, and online learning. He has published several peer-reviewed journal articles and book chapters in education.*

*Shukla Sikder is a leading expert in science, technology, and play-based pedagogy for young children. She is a senior lecturer and researcher at Charles Sturt University and has over 14 years of teaching and research experience in early childhood, primary, and higher education across different countries.*

*Lena Danaia is an Associate Professor in the Faculty of Arts and Education at Charles Sturt University. She has been recognised nationally for her outstanding contributions to learning and teaching where she was awarded an Australian Learning and Teaching Council (ALTC) Teaching Excellence Award. Her research interests include student engagement in science, teachers' confidence and competence in teaching investigative science, STEM and Astronomy education.*

#### Abstract

The concept of scientific literacy encompasses gaining scientific knowledge, establishing scientific knowledge in a specific context, and applying knowledge to a real-life situation. Play is considered a leading activity of children, and children transform the meaning of objects during play, which creates a new sense for them to understand the world (Vygotsky, 1967). Children develop their complex understanding of small scientific concepts through play with the support of others and apply their learning in their regular play context (Sikder & Fler, 2018), eventually developing their scientific literacy.

Developing scientific literacy among children is a complex process because their learning is influenced by educational institutions, educators, parents, and their social and cultural environment, which need to be studied holistically. The cultural–historical theory explores how social and cultural–historical contexts influence the individual's mind holistically (Levitin, 1982). Additionally, play activities create a Zone of Proximal Development (Vygotsky, 1978), which helps children develop their conscious realisations of science concepts and scientific literacy through play with the support of adults. The context of children's play evolves the nature of concept formation, which can be ensured by developing everyday and scientific concepts, and Vygotsky discussed this as a dialectical process (Vygotsky, 1987).

However, developing scientific literacy among children in early years in play-based activities using the cultural–historical lens is an undiscovered area, and this study aims to begin to address this gap. The *Early Years Learning Framework V2.0* (EYLF V2.0) advocates providing a balance between child-led and adult-initiated and guided play (AGDE, 2022), and this research also aims to minimise the gap. A scientific literacy model has been developed based on a model by Fleer (2022). This paper analyses the scientific literacy model using the lens of cultural–historical theory and intentional teaching aspects of the EYLF V2.0. The scientific literacy model will provide specific pedagogical understanding for educators to implement scientific literacy in the early years.

### Discussion questions

- How could the development of scientific literacy be understood through the cultural–historical lens?
- How could scientific literacy be developed through play in early years?

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## Transformative inclusion in early years: Using the lens of cultural–historical theory

Authors: Arifa Rahman, Shukla Sikder, Lucia Zundans-Fraser

**Presenters: Arifa Rahman**

*Arifa Rahman is a graduate researcher and sessional academic at Charles Sturt University. She holds two master degrees in education, specialising in inclusive education and educational psychology. Since 2010, she has been working as a research and training professional in the education sector. Her primary research interests are inclusive education and development, educational technology, STEAM education, and inclusion and play.*

### Abstract

Transformative inclusion is a new term providing a clear definition of inclusion, eliminating diverse interpretations, which was recommended to be adopted in early years settings worldwide.

*Transformative inclusion refers to a continuous process of including, accepting and valuing diverse individuals holistically in terms of academic, social, psychological, and cultural inclusion and regardless of age, gender, disability, race, culture, origin, ethnicity, diversity, abilities, backgrounds, or socio-economic status ensuring equity for all within and beyond the learning environment (Rahman et al., 2023, p.16).*

Ensuring transformative inclusion in the early years requires a theoretical lens that provides a holistic approach. The lens of cultural–historical theory creates a holistic opportunity for children’s learning and development—individually, socially and institutionally (Hedegaard & Flear, 2008).

Vygotsky’s (1978) theory emphasises the role of social interaction in a child’s learning and play, particularly with more knowledgeable individuals, where play is a developmental activity depending on their needs, interests, and desires regardless of any differences (Vygotsky, 1967). Vygotsky (1993) says that ‘a child whose development is impeded by a defect is not simply a child less developed than his peers but is a child who has developed differently’ (p. 30). Additionally, a child’s environment changes with age and its role varies accordingly, contributing to development (Vygotsky, 1994). Moreover, development seems to be driven by a particular mode of social interaction (neoformation) rather than age only (Vygotsky, 1998).

Vygotsky (1993) incorporates individuals from diverse backgrounds into mainstream society through mediation, using culturally specific methods (cultural tools) to cultivate the potential of the whole person. Further investigation is needed on how a system of concepts from cultural–historical theory could support transformative inclusion. This study presents a transformative inclusion pedagogical model based on play-based learning (AGDE, 2022), highlighting the importance of the holistic development of children.



### Discussion questions

- How can educators facilitate transformative inclusion using play-based pedagogy for diverse children?
- How can policymakers ensure transformative inclusion in culturally diverse learning environments?

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## Storycrafting enhances children’s imagination and creativity in the early years of Bangladesh: A cultural-historical view

Authors: Jagazziban Biswas, Jahirul Mullick, Shukla Sikder

**Presenters: Jagazziban Biswas, Jahirul Mullick**

*Jagazziban Biswas is a dedicated education professional with 20 years’ experience working in teaching and learning materials development in Bangladesh, Japan and the United Kingdom. After completing his bachelor degree in education, he started his career as an education professional. He earned a diploma in early childhood education in Japan and completed a master degree in education in the United Kingdom. His focused areas of expertise are teacher professional development, curriculum dissemination, child development, the education management system in Bangladesh, and teaching and learning materials development.*

*Jahirul Mullick is an Assistant Professor of Educational Leadership and Director of the LEAD Research Institute at Wenzhou-Kean University, China. He has over 19 years’ experience in the education sector, focusing on critical issues in educational leadership and management, inclusive education, behavior analysis, positive behavior support, and teacher development (K–12 level). He is currently involved in international studies on inclusive school leadership, distributed leadership practices, parental views on educating children with additional needs, and inclusive STEAM pedagogy in early childhood.*

### Abstract

In Bangladeshi pre-primary education, ‘creativity and aesthetics’ are prioritised as key subject areas, and storytelling is a major part of the curriculum (NCTB, 2011). Since the pre-primary education program is a relatively new intervention, research on pre-primary education in Bangladesh is not grounded in pedagogical methodologies (Aboud & Hossain, 2011). Storycrafting is a method that supports children to tell their anticipatory stories while teachers write down the exact words as they speak (Karlsson, 2013).

In this study, drawing was added to the storycrafting method. Storycrafting creates opportunities for children to be imaginative as they create and draw their own stories. Vygotsky (2004) defined imagination as the basis of all creative activity and children’s storytelling and drawing can produce an external image of an evidence-based creative process. However, little is known about the storycrafting process combined with drawing activity.

This study’s objective is to investigate how storycrafting works as a pedagogical strategy to foster children’s creativity in the pre-primary education setting in Bangladesh. The storycrafting method in the form of anticipatory stories and drawings was used in the case study to capture the voices of ten children. The data was analysed with a preset framework of compulsory, optional and free elements to identify the creative reflections (Aerila & Ronkko, 2015). Practising creative storytelling is an inherent culture of children in Bangladesh. During storytelling, the internal aspect of children’s imagination leads to developing creation, and creation is always based on a lack of adaptation which gives rise to needs, motives and desires, though it depends on an individual’s abilities and on cultural traditions (Vygotsky, 2004). Through telling the anticipatory stories, children showed their creativity in many ways, such as various verbal expressions, dialogues, creating new plots and characters for

the story and presenting a meaningful story with a beginning, middle and ending. In addition, drawing presents a visual story of their imaginative process of storytelling.

In line with this inherent culture of storytelling, storycrafting combined with drawing is an effective pedagogical approach for pre-primary educators. This study revealed the situation of storytelling practice in the pre-primary setting that will help the policymakers and teachers to rethink the approach to improve children's imagination and creativity.

### Discussion questions

- How does storycrafting support children's cultural traditions?
- What are the impacts of storycrafting on children's learning process?

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