

NT Preschool Maths Games: Impact and Connection

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Acknowledging Frank Niklas, The University of Melbourne



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Acknowledgement of Country

The Northern Territory Department of Education respectfully acknowledges the Aboriginal people as the traditional custodians of the land on which we meet today.



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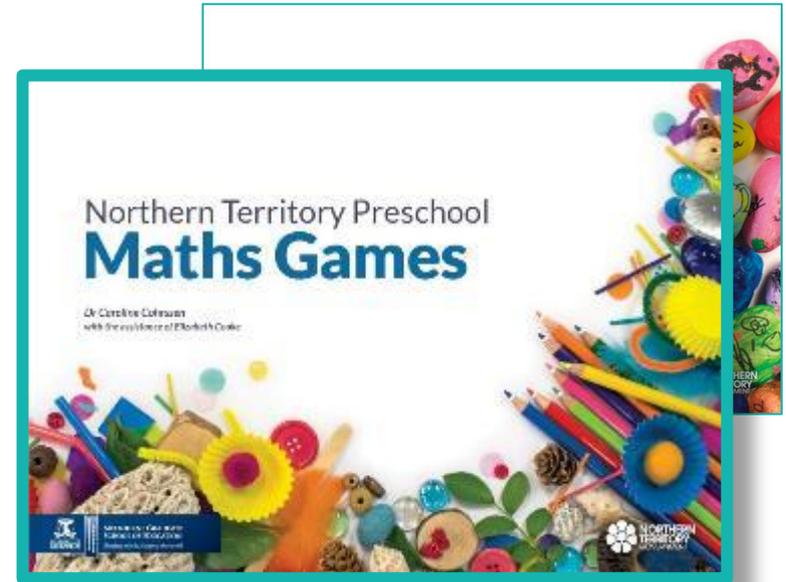
Connection: Response to calls for support

- *Northern Territory Preschool Curriculum* developed to increase quality and consistency of teaching and learning in NT preschools.
- Underpinned by the EYLF (DEEWR, 2009).
- Sets clear learning targets.
- Early childhood educators seek support in using play as a vehicle for mathematical thinking (e.g. Cohrssen et al. 2013; Opperman, Anders, & Hachfeld 2016; Warren & Quine, 2013).

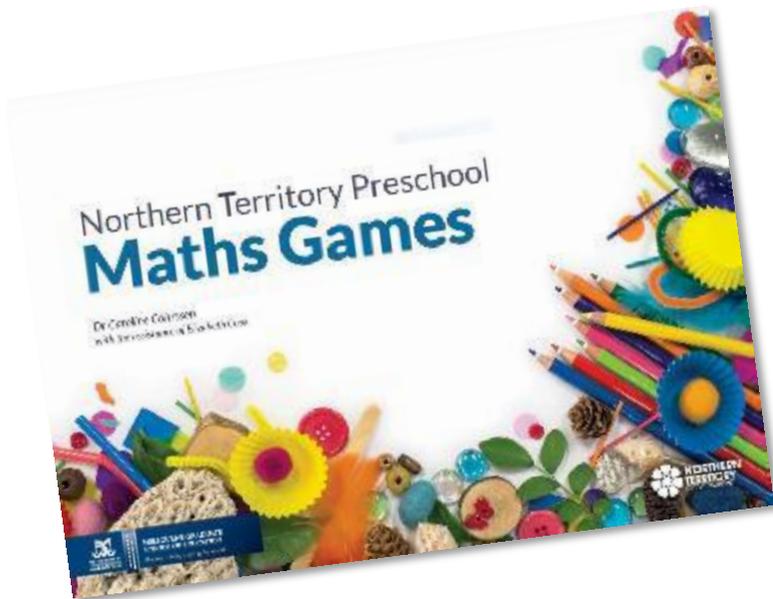


The NT Preschool Maths Games: Evolution

- Families as First Teachers (FaFT)
- Abecedarian Approach Australia (3a)
- Indigenous Education Review
- NT Preschool Curriculum
- NT Preschool Maths Games



A closer look at the games...



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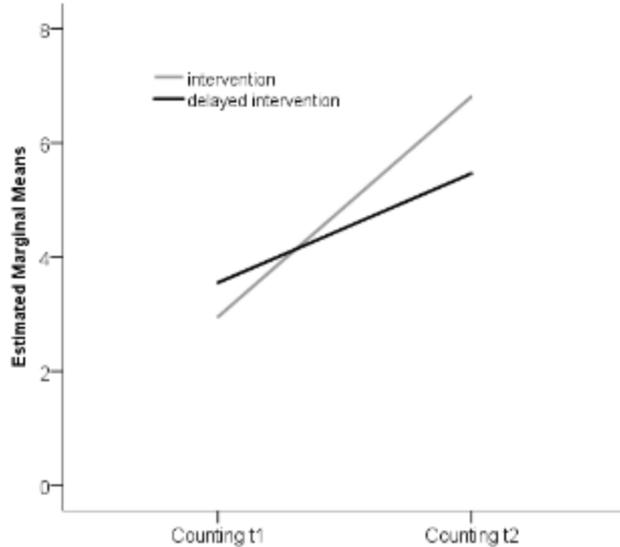
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The NT Preschool Maths Games: Impact

- Study conducted in four preschool classrooms
- Intervention and delayed intervention groups
- Workshops with teachers prior to the intervention
- Data collected from children at three points – here we report on the data gathered at t1 and t2 in three classrooms



Impact



Development of **counting abilities** at t1 and t2 for intervention (grey) and delayed intervention group (black), controlled for child age and sex

Cohrssen, C., & Niklas, F. (Under review.) Using mathematics games in preschool settings to support the development of children's numeracy skills.



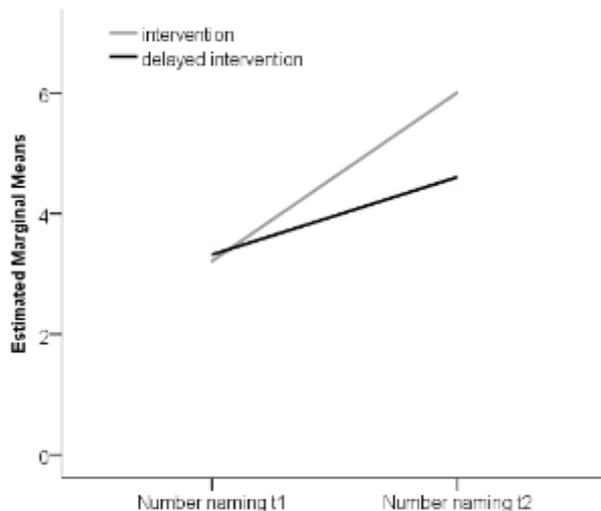
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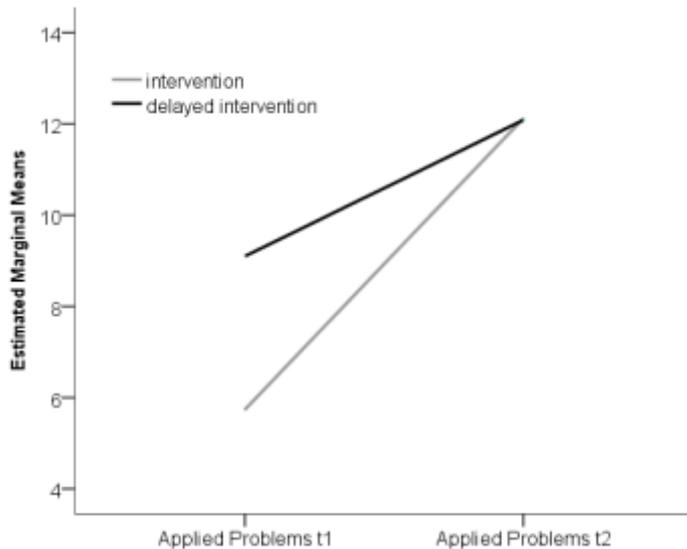
Impact



Development of **number naming** at t1 and t2 for intervention (grey) and delayed intervention group (black), controlled for child age and sex



Impact



Development of **Applied Problems** at t1 and t2 for intervention (grey) and delayed intervention group (black), controlled for child age and sex



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Thoughts about using the games



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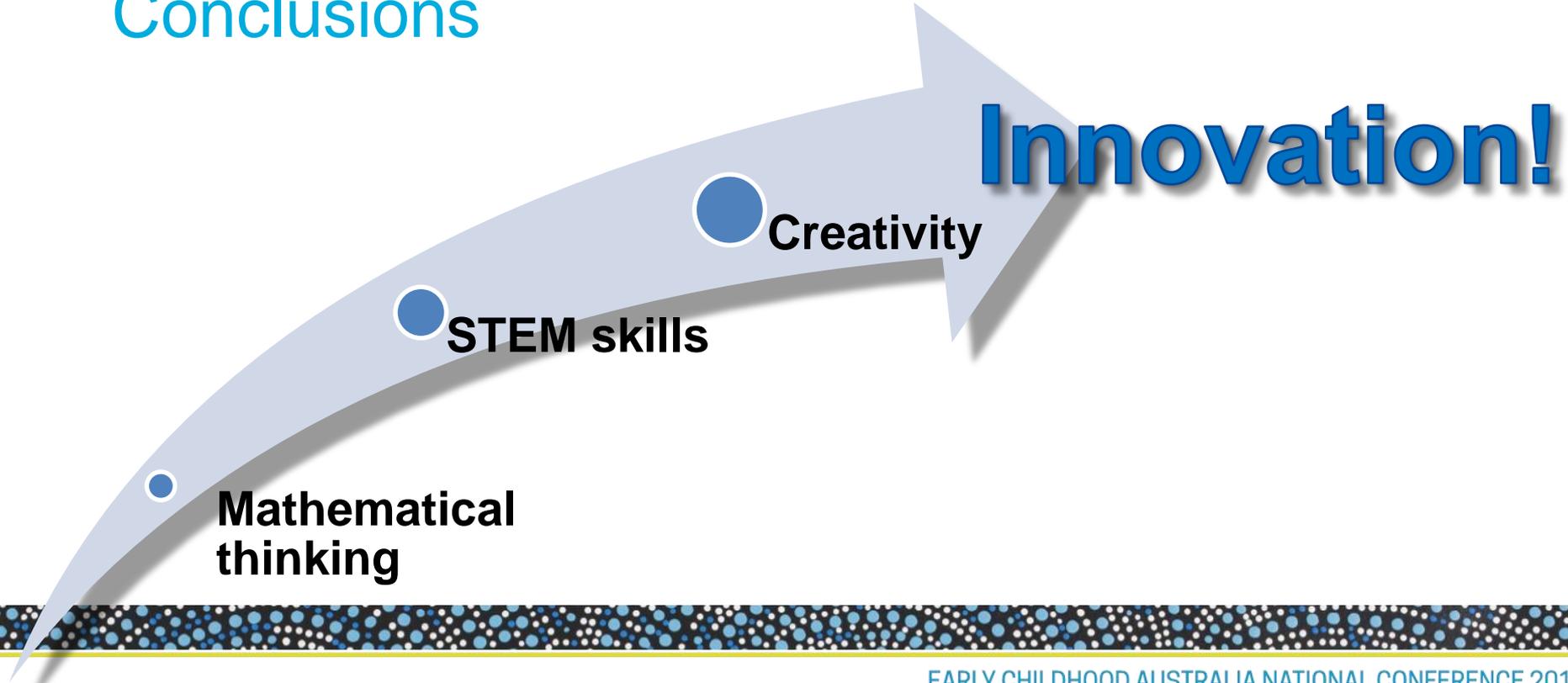
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Conclusions



Thank you for your interest.

Cohrssen, C., A. Church, K. Ishimine, & Tayler, C. (2013). Playing with Maths: Facilitating the Learning in Play-Based Learning. *Australasian Journal of Early Childhood* 38(1): 95-99.

Opperman, E., Y. Anders, & Hachfeld, A. (2016). 'The Influence of Preschool Teachers' content Knowledge and Mathematical Ability Beliefs on their Sensitivity to Mathematics in Children's Play.' *Teaching and Teacher Education* 58: 174-184.

Warren, E. & Quine, J. (2013). Enhancing teacher professional development for early years mathematics teachers working in disadvantaged contexts. In '*Reconceptualizing early mathematics learning*' Eds L. D. English and J. T. Mulligan. Heidelberg: Springer.