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I was introduced to cultural-historical activity theory (CHAT) at the 2011 Mathematics Education Research Group of Australasia (MERGA) conference in Alice Springs, Australia. I attended a presentation by Associate Professor Mary Coupland (University of Technology Sydney), who shared ways CHAT can be used to examine mathematics teaching practice.

I studied for my PhD at ACU under the lead supervision of Professor Joce Nuttall (awarded in July 2023). I used CHAT to examine how mathematics leadership activity contributed to the sustainability of mathematics teaching reforms initiated through a sector-wide intervention. I also adopted concepts related to *resourceful practice* (Professor Anne Edwards) to

interpret how mathematics leaders drew on professional networks, project tools, and shared knowledge to adapt, extend, and embed the project outcomes into ongoing mathematics teaching practice.

During my PhD candidature, I published and presented findings from my thesis at MERGA conferences in Australia, promoting the explanatory power of CHAT and resourceful practice to make sense of mathematics leadership activity. In 2024, I was awarded the Early Career Researcher Award at the annual conference. I also presented at the 15th International Congress on Mathematics Education (ICME), again highlighting CHAT's potential in understanding how mathematics leadership activity facilitates school-based professional development for in-service teachers.

My post-PhD research plan focuses on using CHAT to investigate how mathematics leadership facilitates practice development in mathematics teaching, focusing on how leaders engage teachers in practices of pedagogical reasoning. I am specifically interested in developing my research practice using developmental work research (DWR) to evidence *mathematics learning-rich leadership* in primary schools as an application of learning-rich leadership in early learning spaces (Nuttall et al., 2024).

Suggested readings:

- Sexton, M. (2024). Mathematics leaders as agents of project sustainability. In J. Visnovska. E. Ross, & S. Getenet (Eds.), Surfing the waves of mathematics education. Proceedings of the 46th annual conference of the Mathematics Education Research Group of Australasia (pp. 487-494). MERGA.
- Sexton, M., & Lamb, J. (2023). Evidencing relational trust within mathematics leadership activity. In B. Reid-O'Connor, E. Prieto-Rodriguez, K. Holmes, & A. Hughes (Eds.), Weaving mathematics education from all perspectives (Proceedings of the 45th annual conference of the Mathematics Education Research Group of Australasia, pp. 459-466). MERGA.
- Sexton, M., & Nuttall, J. (2021). Leadership of strengths-based approaches for early years mathematics education: Using CHAT as a framework for educational leaders' professional learning leadership. In Y. H. Leong, B. Kaur, B. H. Choy, J. B. W. Yeo, & S. L. Chin (Eds.), *Excellence in mathematics education: Foundations and pathways* (Proceedings of the 43rd annual conference of the Mathematics Education Research Group of Australasia, pp. 92-95). MERGA.
- Sexton, M., & Lamb, J. (2017). Using activity theory to understand a mathematics leaders' motivations and use of mathematical knowledge for teaching. In A. Downton, S. Livy, & J. Hall (Eds.), 40 years on: We are still learning! (Proceedings of the 40th annual conference of the Mathematics Education Research Group of Australasia, pp. 466-473). MERGA.