

## Talking Maths: Analysing Classroom Discourse and Student Talk

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We report on initial stages of the pilot phase of our Australian Research Council funded project: Talking Maths: Bridging the gap through talk in Early Years mathematics. The study aims to address the gap in mathematical performance in Australia in relation to socioeconomic status (SES) by focusing on language and learning in mathematics. We report on our early work with teachers in designing and evaluating an intervention intended to support students win engaging in productive talk in small group work.

We will share some initial analysis of student talk based on students' linguistic choices when engaging in mathematical tasks with their peers and in levels of communication during individual interviews with researchers. Our early analysis suggests a wide range of language and literacy skills and we consider the implications for young students' access to the discourse in mathematics classrooms, including responding to questions such as why and how.

Initial reflections by teachers on their professional development, based on Clarke and Hollingsworth's (2002) interconnected model will be explored, alongside task design. We will also share methodological experiences of using the Cambridge Dialogue Analysis Scheme for teacher-student classroom discourse (Hennessy et al., 2020).

### References

- Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and Teacher Education, 18*(8), 947–967.
- Hennessy, S., Howe, C., Mercer, N., & Vrikki, M. (2020). Coding classroom dialogue: Methodological considerations for researchers. *Learning, Culture and Social Interaction, 25*, 100404

(2023). In B. Reid-O'Connor, E. Prieto-Rodriguez, K. Holmes, & A. Hughes (Eds.), *Weaving mathematics education research from all perspectives. Proceedings of the 45th annual conference of the Mathematics Education Research Group of Australasia* (p. 593). Newcastle: MERGA.