

Inclusive Mathematics Education: Supporting Students who are Hard of Hearing or Deaf/deaf

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An aim of the Australian Mathematics Curriculum is for students to be “confident, proficient and effective users and communicators of mathematics” (Australian Curriculum, Assessment and Reporting Authority (ACARA), 2022, Aim). One crucial aspect of communication in mathematics is the ability to articulate ideas, strategies, and solutions. This requires students to be able to communicate coherently and fluently, often in spoken form. In this way, students are engaging in the act of oracy. Research suggests, children who are hard of hearing or D/deaf (HH/D/d) face unseen challenges in their education, including difficulty in communicating (Hyde et al., 2003) and keeping up with the demands of school (Antia et al., 2009), particularly in mathematics.

Numerous studies have reported on the achievement gap that exists between students who are HH/D/d and their peers who are hearing (Antia et al., 2009; Chen & Wang, 2021; Hyde et al., 2003). This matters because Hyde et al. (2003) report that 83% of students who are HH/D/d attend inclusive education settings rely on spoken language to communicate. Thus, students who are HH/D/d are reported to have “delayed language acquisition” which ultimately impacts on students’ mathematical understanding and problem-solving skills (Hyde et al., 2003, p.56).

Similarly, Bakker et al. (2021) raises the concern that some teaching practices in mathematics “perpetuate inequality” (p. 10). Our aim for this roundtable is to elicit participants’ perspectives of inclusive mathematics education practices, inviting participants to share models for inclusion and how these practices may influence the teaching and learning of mathematics, particularly oracy which would support students who are HH/D/d. These models will help frame the next stage of our research, examining the physical, linguistic, cognitive, social, and emotional skills of oracy from a mathematics education perspective, that better support the teaching and learning of children who are HH/D/d.

References

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(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. 563). Newcastle: MERGA.