

Mathematics Homework: The Importance of Pitch

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Defined as any “school-prescribed tasks undertaken by children and usually under the supervision of an adult”, homework, once the labour of older children, is now emerging as a regular and somewhat expected activity for younger children (Farrell and Danby, 2015, p. 250). Homework is a longstanding and widely used instructional practice (Murillo and Martinez-Garrido, 2017) and is also one of the few visible and explicit overlaps between home and school practices. Yet, for some children and their families, homework experiences are, as discussed by O’Keeffe et al. (2023), sites of intergenerational negativity.

In their study, O’Keeffe et al. (2023) shared examples of families struggling to help their children with mathematics homework, some of whom were already falling behind their peers. Issues for the families emerged when the adult helping with homework found they did not fully understand the mathematical concept or the particular strategies and approaches their child was working with. The parents/guardians in the study felt they were in the position of having to try and teach their children mathematical concepts that their child didn’t fully grasp from their classwork where they had the advantage of being guided by a teacher. This suggests that the homework may not have been well aligned with the children’s current capabilities.

In this presentation, we focus on the importance of the purpose and pitch of mathematics homework. Drawing on a set of problem-solving activities, we raise questions about the potential for some homework to unfairly predispose children to negative experiences with mathematics. Our initial analysis of the problem-solving activities highlights a fundamental issue of inequity. Children with access to mathematical support and resources are more likely to benefit from engaging in mathematics homework that extends and enhances their mathematical learning experiences, thereby bolstering their confidence in their mathematical abilities. In contrast, children who lack appropriate support at home may struggle with mathematical tasks that are confusing and thus convey a sense that mathematics is too hard. When this occurs these children are prevented from accessing the ‘extra’ learning opportunities available to their peers. Such disparity underscores the crucial role of accessible and appropriately pitched mathematics homework in fostering positive mathematical learning experiences for all children.

References

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(2024). In J. Višňovská, 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. 588). Gold Coast: MERGA.