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Wong, Richard Kwok Shing

Do Hong Kong parents engage in learning activities conducive to preschool children's mathematics development?

Phillipson, Sivanes (ed.) et al., Engaging families as children's first mathematics educators. International perspectives. Singapore: Springer (ISBN 978-981-10-2551-8/hbk; 978-981-10-2553-2/ebook). Early Mathematics Learning and Development, 165-178 (2017).

Summary: The success of students from Chinese-heritage cultures in international tests of mathematics has led researchers to examine whether the reasons for these students' success lie in their superior mathematics-related cognitive skills, the school environment or the home. This book chapter contributes to the research literature by focusing on the contribution of parents from Chinese-heritage cultures to their children's success in mathematics. Specifically, I examined the use of interaction strategies fostering counting skills within a sample of 174 families with preschool-aged children from Hong Kong, a city that ranked third in the latest PISA results in mathematics. In addition, I also explored whether parents' interactional behaviour was related to factors such as socioeconomic status (SES), class level of the children, parents' proficiency in and past motivation to learn mathematics. The results showed that the three most frequent strategies were counting forward, using real objects to illustrate mathematics concepts and providing prompt questions. SES was only a significant predictor for the use of prompt questions, while children's class level contributed to the strategies of counting backward and using worksheets. Finally, parents' motivation significantly predicted the use of stories to teach number concepts. Implications for future studies are discussed.

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