

Departmental Seminar

Understanding Mathematical Difficulties and Enhancing Early Numeracy

4:30 p.m. – 5:30 p.m. | May 24, 2019 (Friday)

Rm 813, 8/F, The Jockey Club Tower | Centennial Campus | The University of Hong Kong



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Abstract

With a goal to enhance children's mathematical learning, my research focuses on children's difficulties in learning math as well as strategies to support their math development from an early age. In this talk, I will share the findings from my recent studies which try to address these two areas. Children struggle with mathematics because of various reasons (e.g., lack of practice, lack of motivation). Some of them may suffer from cognitive deficits which deter them from acquiring certain math skills. These children are described as having mathematical difficulties (MD). In a large-scale study among local elementary school students, we discovered five distinctive subtypes of MD: the number sense deficit subtype, the numerosity coding deficit subtype, the symbolic deficit subtype, the working memory subtype, and a mild difficulty group. These subtypes showed moderate stability across the first two years of elementary school. In another intervention study, we found a child-friendly way to support young children's early numeracy. Our data suggested that reading number stories can be useful to enhance kindergarteners' mapping between numbers and quantities. These findings offer some insights into the identification of mathematical difficulties as well as early training for numeracy.

~All are Welcome~

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