

Speaker:

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Position: PhD student

Title: Engaging with Mathematics: Supporting children's mathematical understanding through interaction and inclusion

Intended Audience: Elementary

Type of Presentation

Preferred: Long Presentation (60 minutes)

Language(s) of

Presentation: English

Description:

Engaging with Mathematics: Supporting children's mathematical understanding through interaction and inclusion

The relationship between student engagement and learning has been at the forefront of educational research in recent years. There is a large body of research suggesting a direct correlation between students' level of engagement and their learning. Such evidence stipulates a learning environment that is conducive to a deeper level of engagement on the parts of the learners. One of the key components of a highly engaging environment is that it is sensitive to, and inclusive of, students' different learning styles. In this way, learning becomes differentiated and accessible to all learners. Another equally important element of such an environment is that it incorporates activities and processes that make learning enjoyable. In an inclusive and fun environment learning becomes a conscious process in which learners are self-aware of the growth of their understanding. As such, assessment becomes a visible and dynamic process shared between teachers and students.

This workshop will explore the key facets of an engaging environment that help foster the growth of mathematical understanding in young learners. It will examine two different research projects conducted in different elementary classrooms. In both cases the growth of elementary mathematical understanding is at the core of the enquiry. The first research explores the growth of mathematical understanding as children play a math-based board game. This research examines the interactions and relationships that support children's understanding as they play. The second case is a collaborative project on using language, music, and hands-on material to help children memorize their multiplication facts. This project focuses on the importance of applying differentiated techniques in garnering children's engagement and helping their mastery of the multiplication table.

The goal of this workshop is to further emphasize the importance of children's engagement in mathematics classrooms. It aims at offering two very different examples of teacher-created environments, which are centered on engagement. Photos and/or videos will be shared for both cases and opportunities for engaging with both cases will be provided for those attending the workshop.