



Mathematics & Mathematics Education Seminar

Date: 28 September
2023

Time: 1330 – 1430

Venue: MME Journal
Room

Using Problem Solving and Games to Facilitate the Development of Conceptual Understanding in Pre-Service Mathematics Content Courses

Abstract:

Too many pre-service elementary and middle school teachers in the United States believe that learning to teach mathematics is simply a matter of mastering computational procedures and being able to clearly explain those procedures to their future students. Some even have a strong belief that their own K-12 schooling has adequately prepared them for all of the mathematics they will teach and think the content courses they take in college are unnecessary. Finding ways to convince these novice educators that they still have much to learn, and that a deeper understanding of the “basic” content they will teach is absolutely essential for their careers can be a difficult task for mathematics teacher educators. One approach that has been found to be particularly effective has been to incorporate interesting problem-solving activities and number games to facilitate development of students’ conceptual understanding of fundamental mathematics concepts. I will share examples of some of these activities and discuss how student perceptions shifted as a result

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