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Mathematical problem-solving using real-world problems.

Cho, Young Hoan (ed.) et al., Authentic problem solving and learning in the 21st century. Perspectives from Singapore and beyond. Singapore: Springer (ISBN 978-981-287-520-4/hbk; 978-981-287-521-1/ebook). Education Innovation Series, 57-71 (2015).

Summary: According to the Singapore primary mathematics curriculum, it is important that students tackle a variety of mathematical problems, including real-world problems, as they apply their mathematical problem-solving skills. This paper examines the challenges and affordances of using real-world problems with young children in a primary school in Singapore. Using the laboratory class cycle, the teachers in the study planned, observed and critiqued a mathematics lesson using real-world problems for primary two children. Data in this study includes the teachers' conversations during the laboratory cycle and the students' responses during the observed mathematics lessons using real-world problems. Our findings show that the real-world problem used in this study generated rich mathematical classroom discussion. The teachers' learning from using real-world problems through the laboratory cycle and the challenges they faced were discussed in this study.

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