In-service Teachers' Perceptions of Problems in Mathematics Instruction using a Problem-Based Learning Model

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Abstract

Problem-based learning is an active learning method based on the use of unstructured problems as a stimulus for learning. However, there are different teacher perceptions of the problem, which affect students' learning process. This study investigates in-service teachers' perceptions of problems in mathematics classrooms using the PBL model. The research focuses on the analysis of lesson modules developed by the teachers and observation of the teachers during the lesson. The results show that there were three types of problems in their PBL-based lessons: conventional exercises (simple problems), algorithmic problems (pseudo problems) and contextual problems (real problems). These variations reflect different levels of problem complexity and student engagement in the learning process. The study highlights the need for professional development and support to optimise the implementation of PBL in mathematics. The findings provide valuable insights for educators and policy makers in improving mathematics education through problem-based approaches.