

Grade 6 learners' views on the difficulties they experience with mathematical word problems

South African learners' problem-solving performances are poor in comparison to other countries. To improve learners' problem-solving skills, it is necessary to determine what learners' difficulties are regarding problem-solving, particularly word problems. I conducted 15 problem-solving sessions with a group of Grade 6 learners. A questionnaire, word problem worksheets, class discussions and field notes were used to do a qualitative exploration of learners' views on the difficulties they experience with mathematical word problems. The focus of the word problem worksheets was to explore learners' errors, sources of difficulties and reasons for their enjoyment of word problems, while the focus of the questionnaire was on determining learners' attitudes towards and beliefs about problem-solving. The sixteen (16) word problems used in this study were divided into three clusters, based on the predicted strategies that the problems might bring about. The three clusters are: basic operations, trial-and-error and visual representation. The findings showed that the learners performed best on problems that can be solved by using basic operations and they performed worst on problems that required a trial-and-error strategy. Although the learners identified the reading of problems as a significant source of difficulty, they often seemed unable to select a suitable strategy to solve them. As a result, the most common error was using inappropriate calculations for the numbers in the problem statement while ignoring the context of the problem. The learners reported enjoyment throughout all three clusters of which struggling with challenging problems was the most prevalent reason. The findings further showed that the learners are confident in their problem-solving abilities, despite being unable to effectively judge the correctness of their answers and therefore, relying on external validation. The study contributes to the existing literature on problem-solving by emphasising learners' views and providing teachers with a window to learners' experiences with problem-solving.

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