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Sources of Difficulty in Comprehending and Solving Mathematical Word Problems

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ABSTRACT The study reported in this article sought to explore Grade 11 learners' perceptions of the sources of difficulty in comprehending mathematical word problem solving. Issues of using mathematical language, in particular the use of vocabulary knowledge in word problem solving were investigated in relation to learners' academic performances. The study discussed in this article followed a mixed-methods design. Data collection strategies included a test and a questionnaire with structured and open-ended questions. Analysis of data revealed that learners struggled with defining algebraic terms used in the word problem statements as well as in instructional vocabulary. The learner's perceptions of the sources of difficulty in comprehending and solving the mathematical word problems revealed that mathematical language impose difficult challenges to academic achievement. A correlation coefficient of r = 0.53 between vocabulary knowledge and performance in word problems suggested that knowledge of vocabulary influences success in word problem solving. In brief, the findings of the study reported here indicated that mathematical language appeared to influence learners' comprehension when solving mathematical word problems.