

Mental Representation and Critical Thinking in Problem Solving

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ABSTRACT

Problem solving is the act of defining a problem, identifying the cause of the problem, determining, categorizing, and choosing options for a solution, and applying a solution. Word problems tend to be complex in part due to their illustrative language. Students usually do not recognize what exactly they are being asked, mostly when the problem includes abstract ideas. As a response, this investigation aims to seek the relationship between mental representation and critical thinking in problem solving. The study utilized descriptive and correlational design and focused on describing the assessed extent of Grade VIII students in critical thinking and the perceived extent of students in mental representation. In determining the relationship of mental representation to critical thinking skills of 40 grade VIII students of Cristobal S. Conducto Memorial Integrated National High School in solving word problems. The study applied survey questionnaires and examinations as instruments. The ramification of the study shows that there is a significant relationship among text-based mental representation and critical thinking skills in problem solving, surface components and the two components in critical thinking which is evaluation and inference, and lastly only inference has a significant relationship in situation model. Thus, this study recommends to seek on how mental representation affects critical thinking of one's student in solving mathematical word problem.

Keywords: Mental Model, Reading Comprehension, Numerical Word Problems, Grade 8 students