

A Study of the Attitude, Self-efficacy, Effort, and Behavior toward Mathematics Problem Solving among Chilean Primary School Students

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Abstract: The present research aims to study the relationship between Chilean students' attitude towards mathematics Problem Solving (PS), self-efficacy, effort and problem solving behavior. Self-administered questionnaire was chosen as the primary data collection method. A sample of 332 students (grade 2-8) from primary schools in Ranquil, Chile were invited to complete the survey. The structural equation modeling (SEM) technique was employed to explain the relationship among the variables. The result showed that self-efficacy could significantly affect two variables related to mathematics problem solving attitude; believes about PS and value of PS. Moreover, these three variables could significantly predict students' effort in solving problem. Finally, the model showed the effort has a large significant impact on students' problem solving behavior. Specifically, this correlation demonstrates that students who put more effort in solving problem have strong awareness of the technical approach and the need to evaluate their solution. To conclude, in the present study, effort could be regarded as a direct factor in bridging the relationship between attitude (value and belief), self-efficacy and problem solving behavior.