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Learning through language: Implications in a mathematics class

A thesis presented in partial fulfillment
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ABSTRACT

Mathematics is a subject that can be said to be have a language all of its own. The language of mathematics, the language of teaching and the language of the students all impact on the mathematics classroom. With the ever-increasing numbers of ESOL and NESB students in our classrooms there is a need for an awareness of the benefits when we use language activities particularly in the mathematics classroom. The New Zealand Mathematics Curriculum has mathematical processes as a central focus. Communicating mathematical ideas is a sub-strand of mathematical processes. With these two thoughts as background stimulus this research examines the effect that *learning through language* activities used in a mathematics classroom have on student understanding and communication. *Learning through language* is active learning strategies for the classroom and is based on the philosophy that all teachers need an understanding of language processes. They can then build language-based interactive strategies into the teaching of their subject. *Learning through language* aims to help teachers cater for the language and learning needs of their students especially those from Non-English speaking backgrounds. The research findings indicate that the use of *learning through language* activities in the mathematics classroom has a positive effect on the willingness of students' to communicate in mathematics. There is also an indication that the quality of this communication has improved. Student understanding has not been affected by the use of these strategies, but it was difficult to draw any major conclusions based on evidence collected.

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