

**AN ACTION RESEARCH TO IMPROVE THE KNOWLEDGE OF  
TECHNICAL TERMS RELATING TO MATHEMATICS OF  
BILINGUAL STUDENTS IN GRADE 7**

W.M.K.K. Wickramasinghe

<sup>1</sup>Department of Education, University of Peradeniya, Sri Lanka

*wkaushani2@gmail.com*

Terminology in mathematics is often complex and the words used therein are endowed with meanings, which in most cases are completely different from their everyday usage. For instance, the words: root, similar, power, or and odd have a different sense from the usual meanings when used in mathematics. If students have a lack of understanding of the technical terms in mathematics, it will weaken their ability to solve multi-step problems. As the researcher observed, the students in the seventh-grade classroom struggle with solving sentence-based problems. The aim of the study was to help students to develop abilities to solve sentence-based problems. The action research methodology was adopted in this study. The specific objectives of the research were, to identify the current knowledge of technical terms relating to mathematics, to identify the methods that can be implemented to improve the knowledge of technical terms and to plan and implement strategies for improving the knowledge of technical terms related to mathematics. All the students in grade 7 bilingual class (English- Sinhala) of a type 1AB girls' school in Kandy district were selected as purposive research sample and three interventions were done in order to improve their knowledge regarding the technical terms of mathematics. Reflective journal, interviews, pre tests, post-tests and direct observations were utilized for data collection. Qualitative data were analyzed using themes while quantitative data were analyzed using descriptive statistics and graphs. It was revealed from the findings that more than 85% of the students were capable of providing the definite and the appropriate answers to the sentence based problems when they are empowered with the technical terms related to mathematics. And also students were confident to provide answers accurately to the mathematics related problems with the knowledge of the technical terms than before. In addition to the impact of learning vocabulary in problem solving, the research showed that the learning of vocabulary improve students communication and expression in mathematics and expanded their answers and reasoning for problem solving. It can be suggested from this research that, an action research methodology which is a qualitative approach, was a very good way to develop students abilities in word problem solving and to improve classroom practices.

**Keywords:** Bilingual, Mathematics, Technical terms

*I wish to acknowledge Dr.E.K.S.K. Embekke for her guidance and supervision*