

USING GRAPHING CALCULATOR IN PROBLEM SOLVING TASKS

Kwan Eu Leong
rkleong@um.edu.my
University of Malaya
Mary Ann Serdina Parrot
maryannserdina@siswa.um.edu.my

Abstract

Problem solving has been the focus of mathematics curriculum in recent times. Today, problem solving is no longer a separate skill that should be acquired but it has become an integral part in the process of teaching and learning mathematics. Problem solving has now played an important role in school mathematics to enhance mathematical understanding in concepts. Furthermore, students are able to develop their mathematical reasoning and sense making by engaging in problem solving tasks. This study applies Polya's problem solving process such as understanding the problem, devising the strategy, carrying out the strategy and checking the solutions. The objective of this study is to investigate the impact of graphing calculator on students' problem solving process in solving linear equation problem. Students are able to apply various strategies in solving algebra problems through the usage of graphing calculator. In this study the research design used was the quasi-experimental non-equivalent control and treatment groups. Six tasks were developed for this study to measure the students' performance in solving the problems using the graphing calculator. In addition, students were required to provide detailed explanation how they solved the tasks by using the problem solving phases. This study is pertinent as it investigates a different approach in teaching linear equation through problem solving tasks by integrating the latest graphing calculator technology in the lessons.

Keywords: Problem Solving, Problem Solving Phases, Graphing Calculator, Linear Equation