

COMPUTER –ASSISTED INSTRUCTION IN TEACHING MATHEMATICS

ELIZABETH V. BACAY¹, ROSANA M. ABAGON²

ORCID No. 0000-0003-1829-517X

elizabeth.bacay@yahoo.com

University of Antique

Sibalom, Antique, Philippines

ABSTRACT

Over the past several decades, students learned by traditional teaching methods. As innovations in teaching have been developed due to changes in mathematics instruction in terms of content, lesson design, and assessment. The K-12 curriculum has been modified to include technology use in order to address the current state of students' mathematics performance. Technology helps to provide the students with the motivation they need to learn. Perhaps, students may have a greater opportunity to study mathematics more deeply with the use of technology. Quite several teachers use computers as their aid in teaching. These can be powerful aids in mathematics teaching and learning. This quasi-experimental study aimed to ascertain the effectiveness of computer-assisted instruction in improving the mathematics performance of Grade 11 Science, Technology, Engineering and Mathematics (STEM) students. Two groups of 30 students each for the experimental group that received computer-assisted instruction for seven weeks. For the control or comparison group that did not receive the treatment, but continued to learn through the traditional teacher-led classroom instruction were involved. Using a mathematics achievement test consisting of fifty (50) multiple-choice questions, results revealed a fairly satisfactory performance of students in the pretest, while a very satisfactory to outstanding performance was noted in the posttest. A highly significant difference existed in the mathematics performance of students taught using the traditional teaching method and using computer-assisted instruction. The use of an inter-active computer-assisted learning tool increases the mathematics performance of the students.

Keywords: mathematics performance, technology, computer-assisted instruction, Philippines