

# EFFECTIVENESS OF COMPUTER ASSISTED INSTRUCTION IN LEARNING MATHEMATICS AMONG EIGHTH STANDARD STUDENTS

By

R. PRABHU \*

G. SUBRAMONIAN \*\*

\* Assistant Professor, Sri Ramakrishna Mission Vidyalaya College of Education (Autonomous), Coimbatore, Tamil Nadu, India.

\*\* Associate Professor, Sri Ramakrishna Mission Vidyalaya College of Education (Autonomous), Coimbatore, Tamil Nadu, India.

Date Received: 26/12/2018

Date Revised: 18/02/2019

Date Accepted: 15/03/2019

## ABSTRACT

*The purpose of this study was to investigate the effectiveness of Computer Assisted Instruction (CAI) in teaching mathematics among eighth grade level students. The study dealt with the various facets of CAI and their impact on teaching mathematics. The study produced results showing overall growth of teaching and its desired outcome in learning. By the use of CAI, in a short span of time the voluminous concepts in mathematics could be explained with ease. Also, the concentration of students in learning by the students get highly focused on the subject taught which is not feasible in the classical method of teaching. By framing feedback questions, the teacher could assess the knowledge gained by the students immediately after the teaching session.*

*Keywords: Computer Assisted Instruction-CAI, Audio Visual Aids, Pictorial Representation.*

## INTRODUCTION

In the present world of technological wonders, teaching has developed in manifold dimensions. The result oriented teaching is highly dependent on hi-tech computers. To ease this, CAI is a powerful tool for the betterment of both teachers and students and the community as a whole (Christman & Badgett, 2000; Kay 1990). This study focused on the effectiveness of CAI when teaching mathematics to eighth grade students.

Computer Assisted Instruction (CAI) is a program of instructional material developed using a computer. CAI has been found to be beneficial in other studies and it speculated this is due to the instructional approaches: drill-and-practice, tutorial or simulation activities (Wesley, 1985; Adeleke, Rahman, Muraina, 2011). In a classroom utilizing CAI, students effectively contribute for management and learning. The CAI software effectively guides students through a series of interrelated activities and instruction, addressing a variety of learning styles. This makes ground for self-learning and the learning could be upgraded by elucidating the doubts encountered during learning since CAI could be used as many times as required which cannot be done by the traditional method of teaching.

In CAI, other than computers, Audio Visual Aids such as projectors, visualisers, speakers, microphones etc., are effectively utilized and results in substantial efficacious teaching. Students are very interested in interactions through Audio Visual Aids. The Audio Visual Aids minimize the workload of teachers to a great extent thereby resulting in quality teaching.

The phrase, "One picture expresses the content expressed in thousand words" rightly suits the methodology of teaching. By using pictorial representations in computer environment, majority of the concepts in mathematics could be very easily taught effectively.

## 1. Review of Related Study

Steinberg (1977), summarizes and analyzes his research regarding learner control in computer-assisted instruction as "It was inferred that students had complete control over course flow score as well on achievement tests. However, it was stated that they took longer to complete the course. It was also found that when students were allowed to control one instructional variable, results were equivocal. Motivation and attitude were efficacious and was evident though the improved performance".

Fletcher-Flinn and Gravatt (1995) conducted a detailed