

An Investigation on Ict Application in Learning Mathematics among Engineering Technology Students

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Abstract: Mathematics teaching and learning is an important factor that leads to the success of the students' achievement. Since mathematics is one of the important subjects at Malaysian Institute of Information Technology (MIIT), Universiti Kuala Lumpur, this study aims to investigate on ICT application in learning mathematics among engineering technology students. The use of e learning and internet resources including social networking medium is integrated in traditional approach teaching mathematics. Ten bachelor students from Networking System program were selected to be the research participants. Semi-structured interviews and documents analysis were used to gather the information on their experience in learning mathematics using the ICT. The research findings revealed that the ICT could assist students in their understanding of the mathematics concept and were able to solve problem solving. This research also draws conclusion and recommendations to improve lecturers' style of teaching by using ICT equipment as a tool to make the teaching and learning environment more meaningful and interesting.

Key words: Engineering technology • Mathematics • ICT • E-learning • Application

INTRODUCTION

Since some students are gifted and there are still many students have to struggle in learning mathematics, [1], using ICT in teaching and learning is essential as it would improve students understanding of basic concept of mathematics and improves the way mathematics should be taught [2]. MIIT is an Information Technology faculty of Universiti Kuala Lumpur, majority of the lecturers used the ICT as a tool to teach not only in mathematics but also in other subjects. ICT promotes more interaction between lecturers and students as less time is being used to write on the white board. It gives more space to the students to think and understand the subject more without copying from the white board. Technology gives students access to new ways of exploring detailed concepts and it saves plenty of time. Students' motivation to learn mathematics can be increased as youngsters are more interested and exposed in using ICT equipments in their daily lives [3]. The integration of ICT into classroom can be infused through various students' learning styles [4].

The scenario in mathematics education has shown a new perspective in mathematics teaching from traditional approach to teaching with ICT. Enabling ICT in mathematics will help students to be exposed with exploration of new ways of learning mathematics and enhance their concentration in mathematics classroom [5]. However, some issues and challenges in integrating ICT in mathematics classroom should be considered as what has been raised by [6] which include the effectiveness of ICT in mathematics teaching, the educators' role when using ICT in mathematics classroom, the suitability of the chosen ICT, knowledge on how to use ICT and their competency. This has become the gap that should be explored in this study.

The main objective of this study is to investigate students' experience in learning mathematics using the ICT such as interaction and communication to discuss problem solving using the Facebook, the advantages and disadvantages of using the ICT such as the use Microsoft Powerpoint, the e learning system which is known as E-Citie, adequate facilities that support and provide