

UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN MATHEMATICS LEARNING

Farzaneh Saadati¹, Rohani Ahmad Tarmizi^{1,2}, Ahmad Fauzi Mohd Ayub^{1,2}

¹ Institute for Mathematics Research, INSPEM, Universiti Putra Malaysia, Serdang 43400, Selangor Darul Ehsan, Malaysia

² Department of Science and Technical Education, Faculty of Educational Studies, Universiti Putra Malaysia, Serdang 43400, Selangor Darul Ehsan, Malaysia
e-mail: farzaneh.saadati@gmail.com

Abstract

Attention to integrate technology in teaching and learning has provided a major transformation in the landscape of education. Therefore, many innovations in teaching and learning have been technology-driven. The study attempted to examine what is engineering students' perception regarding the use of Information and Communication Technologies (ICT) in mathematics learning as well as investigate their opinion about how ICT can be integrated to improve teaching and learning processes. The subjects were Iranian engineering students from two universities. The finding showed they are fully aware of importance of ICT in teaching and learning mathematics. Whilst, they were feeling comfortable and confident with technology, they do not have more experience of using technology in mathematics classes before. The findings supported the other studies, which indicated the potentials of ICT to facilitate students' learning, improve teaching, and enhance institutional administration as established in the literature.

Keywords: Technology, Mathematics Learning, Facebook, Attitude Toward ICT

Abstrak

Perhatian untuk mengintegrasikan teknologi dalam proses belajar mengajar telah memberikan transformasi besar dalam dunia pendidikan. Oleh karena itu, banyak inovasi dalam proses belajar mengajar yang telah berbasis teknologi. Penelitian ini berusaha untuk melihat bagaimana persepsi mahasiswa teknik tentang penggunaan Teknologi Informasi dan Komunikasi (TIK) dalam pembelajaran matematika serta menyelidiki pendapat mereka tentang bagaimana TIK dapat diintegrasikan untuk meningkatkan proses belajar mengajar. Subyek dalam penelitian ini adalah mahasiswa teknik asal Iran yang berasal dari dua universitas. Temuan ini menunjukkan bahwa mereka sepenuhnya menyadari pentingnya TIK dalam proses belajar mengajar matematika. Selain itu, mereka juga merasa nyaman dan percaya diri dengan teknologi, mereka tidak memiliki pengalaman yang lebih dalam penggunaan teknologi di kelas matematika sebelumnya. Temuan ini mendukung penelitian lain yang menunjukkan potensi TIK dalam memfasilitasi belajar siswa, meningkatkan pengajaran, dan administrasi kelembagaan sebagaimana yang ditetapkan dalam literatur.

Kata Kunci: Teknologi, Pembelajaran Matematika, *Facebook*, Sikap Terhadap ICT

In this decade the use of computers and technology have grown tremendously in all aspects of our life specially in education. For the past decades, attention to integrate computer and technology has increased, especially in the education system. Although, finding appropriate pedagogical methods are required to cope with these new challenges in educational institutions (Hakkarainen et al., 2000). Since, the new information and communication technologies (ICT) have being properly skilled and used, they could performance an principal tools for improving students' skills specially by collaborating and working productively with knowledge. In general, these tools have effective role on