Teachers Left Behind: Acceptance and Use of Technology in Lebanese Public High Schools

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ABSTRACT

Nowadays, the use of computers in education is increasing worldwide. Information technology is deemed essential for the digital generation’s classrooms. However, the adoption of technology in teaching and learning largely depends on the culture and social context. The aim of this research study is to evaluate the acceptance and use of technology of 12th grade teachers in public high schools in Lebanon. The theoretical framework is drawn from the Unified Theory of Acceptance and Use of Technology (UTAUT) to investigate teachers’ intentions regarding the use and acceptance of technology in their daily teaching tasks. The participants were 161 teachers in Lebanese public high schools who completed a questionnaire that reflects the UTAUT. Social influence, experience and voluntariness of use appeared to have the strongest effect on teachers’ attitudes regarding the use of technology, while effort expectancy and facilitating conditions had the lowest effect. These findings suggest that public schools should implement training in technology for teachers to support their teaching tasks in the context of this current digital generation of students. The study offers a discussion of the results and recommendations for policy and practice.

Keywords: Lebanon, Public High School, Teachers, Technology Acceptance, UTAUT

INTRODUCTION

Several studies have demonstrated that successful implementation of technology in education depends on the attitudes of teachers towards the use of computers in teaching and learning (Mueller, Wood, Willoughby, Ross, & Specht, 2008; Sang, Valcke, Braak, & Tondeur, 2010). The acceptance and use of technology is influenced by several factors that may interact with one another, such as computer experience (Hermans, Tondeur, van Braak, & Valcke, 2008; Kadijevich & Haapasalo, 2008), computer anxiety and confidence (Hermans, Tondeur, van Braak, & Valcke, 2008), gender (Sadik, 2006), self-efficacy (Sang, Valcke, Braak, & Tondeur, 2010), training, access to ICT resources and ongoing ICT-related support (van Braak, Tondeur, & Valcke, 2004) and equipment resources and support from school administrators (Kadijevich & Haapasalo, 2008; Smarkola, 2008).

Nowadays, teachers should adapt to new technologies and refine their skills to match the needs of the current digital generation of students. Because of their essential role in integrating technology in the classroom,
teachers are responsible for shaping students’ attitudes towards technology. As such, Anderson and Maninger (2007) observed statistically significant changes in students’ perceived abilities, self-efficacy beliefs, value beliefs and intentions to use software in classrooms after teachers’ implementation of technology in classrooms. One important factor that plays a role in technology adoption is the cultural and social context in which it is employed. Rogers (2003) indicated through his Theory of the Diffusion of Innovations that the culture and local environment in which a technology is introduced should be understood in order to promote its adoption effectively.

Although several research studies explored the impact of teachers’ and students’ attitudes towards the use of technology, very few have investigated this phenomenon in the Arab world. The objective of this research study is to investigate the attitudes of 12th grade teachers at Lebanese public high schools towards the acceptance and use of technology in teaching and learning.

THE USE OF INFORMATION TECHNOLOGY IN EDUCATION IN THE ARAB WORLD

Very few studies have investigated the use and acceptance of technology in schools in the Arab world during the last decade. Al-Ammari (2004) examined the correlation between Qatari female teachers’ perceptions and computer training and computer lab use. In this study, teachers revealed that using computers as an educational tool is useful for both teachers and students. However, teachers encountered many barriers, including a lack of manuals, a limited number of labs and the high cost of hardware and software. Other barriers were related to personal lack of knowledge and confidence.

Using a mixed method design, Albirini (2006) explored 326 Syrian English language teachers’ attitudes towards information technology. Teachers reflected positive attitudes towards technology in education and reported low levels of computer competencies with limited training. However, teachers showed neutral perceptions regarding the cultural relevance of technology to Syrian society and schools. They were also concerned about the improper materials found on the internet.

Al-Asmari (2005), who also used a mixed design, examined English language teachers’ use of the internet in four Saudi Arabian colleges. The findings indicated that teachers mainly used the internet for personal purposes (rather than instructional purposes). Despite their positive perceptions of the value of internet use as an educational tool, they demonstrated low levels of competency in computer skills.

Samak (2006) studied 363 Jordanian English language teachers’ perceptions regarding the use of technology. The results revealed that these teachers had positive attitudes towards technology; age and teaching experience had a negative correlation with attitudes, whereas qualification had a positive correlation with attitudes. Gender, teaching methods and grade level were found not to be significantly correlated with attitudes towards technology.

In Egypt, Sadik (2006) investigated 443 public schools teachers’ attitudes regarding the use of computers. Gender and computer experience were found to be significantly related to the teachers’ attitudes regarding the use of computers; male teachers demonstrated more positive attitudes than females, and teachers with more computer experience showed more positive attitudes towards computers compared to their counterparts with less computer experience.

CONTEXT OF THE STUDY

The Lebanese educational system is divided into the following two sectors: private schools with predefined tuition and public schools that are almost free of charge. Although the tuition in private schools is relatively high, the number of private schools is more than double the number of public schools. In fact, there are 528 private high schools and 256 public high schools; over