

# Chapter 6

## A Global Perspective of Classroom Technology Integration and Use

**Kelly M. Torres**

*The Chicago School of Professional Psychology, USA*

**Aubrey Statti**

*The Chicago School of Professional Psychology, USA*

### ABSTRACT

*Across the globe, technology has become more commonplace in educational settings. Particularly, educators are utilizing technology to positively impact student academic performance and to engage learners throughout classroom activities. Common trends in educational technology incorporate the inclusion of mobile phones and social media activities. However, distinct differences across the world are found in classroom settings in the availability of educational technology resources and the opportunity for educators to receive professional development training.*

### INTRODUCTION

This chapter presents an overview of recent research focused on global perceptions and uses of technology in educational contexts. As technology continues to evolve and becomes more vital to every day functions, the inclusion of it in classroom settings will become even more imperative. Specifically, more emphasis may need to be placed on learners' development of computer technology skills to ensure that they are able to compete on a global scale. Although educational technology has become more commonplace in many academic settings, how it is used and perceived may be diverse and dependent on geographic location (e.g., developed countries vs underdeveloped countries) and government funding. For example, Bulman and Fairlie (2016) reported that American schools, families, and policymakers spend a significant portion of their finances on technology for educational enhancement. Contrastively, educational technology in South Africa is not always available and educators' access to computers is often

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considered to be a barrier to its presence in their classes (Hart & Laher, 2015). Nevertheless, researchers have found that educational technology has many benefits including increasing students' levels of engagement (Terrion & Aceti, 2012), motivation (Hung, Sun, & Tu, 2015), and academic achievement (Pierce & Cleary, 2016). The improvement in these factors have resulted in some countries such as Finland (Linna, Aramo-Immonen, Saari, Turunen, Jussila, Joel-Edgar, & Muhtala, 2015), Slovenia (Autio, Jamsek, Soobik, Thorsteinson, & Olafsson (2017), and the United States (Voogt, Knezek, Christensen, Lai, Pratt, Albion... Slykhuis, 2017) requiring digital literacy skills and/or technological tools as being included as part of their national curriculum.

## **THE DIGITAL AGE OF COMMUNICATION**

Fraillon, Schulz, Friedman, and Gebhardt (2013) contended that “in the digital age, information and communication technology plays a key role in creating and exchanging knowledge, and information around the globe and affects citizen’s everyday life” (p. 3). This impact may be particularly true for younger generations whose constant exposure to technology has been proclaimed to influence how they think and learn, which may be distinct from prior generations (Lai & Hong, 2014). Interestingly, in Lai and Hong’s (2014) study, they found that undergraduate and post-graduate students in New Zealand did not report differences in their usage of academic and social technological tools and applications. Likewise, Irian pre-service teachers in Teo, Yurdakul, and Ursavaş’s (2016) research characterized themselves as digital learners regardless of their age. Further, a study conducted by Wang, Hsu, Campbell, Coster, and Longhurst (2014) revealed that *digital natives*’ use of technology inside and outside of academic settings may be diverse and directly impacted by teachers’ lack of educational technology training.

There are a multitude of reasons why teachers may fail to utilize educational technology in their instruction and classroom activities. For example, research focused on Serbian pre-service teachers attitudes toward the inclusion of educational technology resulted in perceived usefulness, perceived ease of use, and one’s level of technology complexity as all having a direct impact on their perceptions of it (Teo, Milutinović. & Zhou, 2016). Similarly, Ashrafzadeh and Sayadian (2015) discovered that Irian educators lack of educational technology use stemmed from their skill level to integrate technology and their concerns focused on the types of accessibility readily available for student support. Educators in Hong Kong also expressed similar concerns. In a study conducted by Lai, Yeung, and Hu (2015), researchers found in a Hong Kong university that a disconnect existed between university students’ and educators’ perceptions of technology use. Particularly, students in their study reported greater expectations for their teachers to promote autonomy in technology use; whereas, educators overestimated students’ technology abilities and underestimated their ability to provide technology support.

Nevertheless, the role of technology has overall changed the way in which individuals live, work, and learn. As a result, learners growing up in the digital age need to develop vital computer literacy skills that are integral to succeeding in academic contexts and professional workplace settings. The influence of the digital age in student learning results in teachers at all levels of education needing to consider and potentially restructure their curriculum to ensure that their learners develop essential college and career ready technology skills. Interestingly, Spector (2016) indicated that “it is almost impossible to think of education without also thinking of the many different kinds of technology used to support education” (p. 8). The following sections will provide an overview of educational technology and the potential approaches for its integration.

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