Chapter 9

Building a Digital Learning Culture by Rethinking Pedagogies for the 21st Century

Ismail Guven
Ankara University, Turkey

Yasemin Gulbahar
Ankara University, Turkey

ABSTRACT

The new digital learning culture requires teachers to evolve with a learner-centred mindset and to become digital teaching designers, mentors, facilitators, and evaluators who effectively integrate technology into the educational context. Moreover, the digital learning culture has also led to a change in the roles of teachers as digital classroom managers as well as computational-thinking designers. This chapter discusses the effective integration of technology in building a new digital learning culture by considering existing and emerging pedagogies, teaching methods, and learning activities. The discussion centres on how to effectively integrate technology and create a new digital learning culture framed according to the 2017 ISTE Standards for Educators, where teachers are expected to model learner, leader, citizen, collaborator, designer, facilitator, and analyst roles throughout their profession.

INTRODUCTION

Digital learning has fundamentally altered teaching methods and activities in today’s classroom. In fact, digital learning has brought about wholesale changes to educational system infrastructure as well as to the means and methods of instruction at all levels of education. Transferring and incorporating technological changes quickly, ubiquitously, and subconsciously in education is profoundly difficult unless teachers themselves are willing to embrace the changes. Technology integration reaches far beyond the addition of technology for teaching purposes; requiring teachers to become key players as digital facilitators. The new digital learning culture requires teachers to evolve from a traditional teacher-centered mindset.
to become digital teaching designers, mentors, facilitators, and evaluators. The digital learning culture has also led to a change in the roles of teachers as digital classroom managers and also computational-thinking designers. The purpose of this chapter is therefore to discuss the effective integration of technology in building a new digital learning culture by considering existing and emerging pedagogies, teaching methods and learning activities, including suggestions put forward for stakeholders in the form of a roadmap. The discussion centers on how to effectively integrate technology and create a new digital learning culture framed according to the 2017 ISTE Standards for Educators (International Society for Technology in Education, n.d.a), where teachers are expected to model Learner, Leader, Citizen, Collaborator, Designer, Facilitator, and Analyst roles throughout their profession.

Teachers as Learners

Today, educational context is facing constant change. Although, it is difficult to follow each innovation or experience every emerging technology, educators need to constantly work at keeping abreast of the latest up-to-date information about innovative processes and products, as well as newly published academic research findings in order to make informed decisions as to their own teaching and learning processes. One simple way to achieve this goal is by reading… and that includes continuously following research-based subject-related and trusted sources of information such as reports, journal articles, news sites and academic blogs. Another way is through the sharing of experiences with teaching colleagues in order to understand the pros and cons of different pedagogical implementations and technological innovations through conferences, workshops and similar academic activities. In this way, both preservice and inservice teachers have the opportunity to explore ‘proven and promising practices that leverage technology to improve student learning’ (International Society for Technology in Education, n.d.a, n.p.) as the ISTE standard requires.

Relying on external information sources can provide significant benefit, but sometimes it has to be adapted due to differences in circumstance or cultural aspects of the educational context. Therefore, another form of being a learner for the inservice teacher is through action research in the form of self-developed implementations. Reflecting on the effectiveness of implementations in this way provides experience and insight, whilst thinking about how to improve student learning outcomes. Thanks to today’s technology, both of these learning processes for teachers, as outside and inside knowledge, can be supported through technology. Thus, becoming a member of local and global social networks can help to build a future vision and thereby make it easier to follow the latest changes, innovations and research findings in order to support continuous professional self-development (Hockly & Dudeney, 2018).

In this knowledge era, Information and Communication Technologies (ICTs) provide new ways and approaches to access and disseminate knowledge by transforming pedagogy to engage teachers and students in this new digital learning culture. Building a digital learning culture starts with the effective integration of technology into teaching and learning processes, which is why teachers have to be fundamentally aware of the latest models of technology integration. Experienced teachers orchestrate the design and delivery of subject matter in harmony with appropriate pedagogical approaches and the latest educational technologies. This combination was the leading intention behind the emergence of the Technological Pedagogical Content Knowledge (TPACK) framework, since meaningful pedagogical applications of technology necessitate the development of a situated form of knowledge (Mishra & Koehler, 2006). TPACK argues that the expertise needed to effectively manage content, pedagogy, and technology varies in nature according to the subject field. In other words, the approaches to teaching