


Chapter 10


The Power of Games From Traditional to Digital for the 21st Century Survival Skills: A Case Study

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ABSTRACT

Students and teachers lacking fundamental digital literacy skills constitute a dimension of the digital divide. This study aims to enable teachers to experience the power of game-based pedagogy in a technologically restricted context and to show ways to integrate 21st-century survival skills into teachers' field of expertise. This study has a single-case research design. 26 voluntary teachers of various subject areas participated in a 5-day workshop. The pre-interview form, post-semi-structured interviews, daily field notes, and the daily activities products were the main data sources. The results indicated that participants' self-ratings on ICT usage and integration skills increased after the workshop. However, they still stated they needed time to become proficient in 21st-century skills. The participants learned how to

DOI: 10.4018/979-8-3373-7729-2.ch010

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integrate game-based pedagogy into technologically restricted learning environments. They generated specific ideas within the range of board games through digital ones. Their perspectives on interdisciplinary collaboration varied across subject areas.

INTRODUCTION

The current education paradigm defines new roles for teachers, students, and technology. The teacher facilitates the student's learning experience through the affordances of technology (Reigeluth et al., 2008). Game-based pedagogical approaches have dynamics that can support those new roles because their structure keeps players active. The teacher can sometimes act as a recordkeeper or a game master. The game environment does not always have to be digital; traditional games can be an alternative, especially in technologically restricted environments.

During the 90s, the Internet introduced a new experience of accessing information, and then the spread of uncontrolled information brought about new literacies (Chapman et al., 2019). Skills essential for the 21st century can be classified into four primary categories: “Key Subjects,” encompassing language proficiency, mathematics, science, and economics; “Learning and Innovation,” which includes critical thinking, communication, collaboration, and creativity; “Information, Media, and Technology”; and “Life and Career” (P21, 2019). This study presents a five-week course designed to enhance teachers' digital literacy and, as a secondary outcome, to cultivate students' 21st-century skills.

BACKGROUND

21st-century skills are sometimes referred to as survival skills; however, the digital divide, which refers to limited access and the overuse of technology, still causes inequalities in society (Robinson et al., 2020). These inequalities, primarily arising from socio-economic disparities, increase social injustice in domains such as education, employment access, healthcare, and social interaction (Cheshmehzangi et al., 2023). For example, physical conditions might hinder teachers from conducting activities supporting the development of those skills. In order to contribute to the learning of their pupils, educators employ a wide variety of instructional approaches, methods, and strategies. There are, nevertheless, several technological limitations that teachers must contend with. These limitations include difficulty in gaining access to technological devices, issues with internet connections, reluctance to change on the part of school management, instructors' low level of technological literacy, and students' unequal access to technology (Metin, 2018; Güntepe & Keles, 2022; Van

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