

## Chapter 24

# Designing Seamless Learning Using Role–Playing Experiences

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### ABSTRACT

*This chapter examines seamless learning in the context of three case studies that incorporate role-play as a pedagogical approach to integrate contextually aware learning from the formal classroom to informal spaces both face-to-face and online. The research question explored is whether role-playing design in seamless mobile learning can cultivate the learners' intrinsic motivation to engage with the course and collaborate with others. In all three case studies, a variety of technologies, such as web 2.0 and mobile devices, were employed to offer learners a seamless learning experience. The studies revealed that majority of the learners were more invested and engaged in the course experience by participating in technology-mediated role-playing activities. We conclude that role-playing should be part of the seamless learning approach, since role-playing can mediate learners' access to different knowledge areas through various perspectives, just as technology can serve as mediators in the seamless learning paradigm.*

### INTRODUCTION

The boundary between the physical environment and the virtual environment has begun to blur. We have constant connection to the web via handheld devices. Our communication is now primarily via apps. While acronyms and terms such as virtual reality (VR), augmented reality (AR), and the Internet

DOI: 10.4018/978-1-7998-1757-4.ch024

of Things (IoT) are being introduced to the general public, these tools are not being introduced into the classroom to “encompass physical and digital worlds” and “provide for learning across time and locations” (Wong, 2012). The affordances of these recent technology advances are being constrained by educators, and by administrators’ beliefs that these advances cannot be seamlessly integrated into the learning environment. Other pedagogical approaches such as game-based learning and role-playing are also eschewed due to concerns of seamless integration and the holy grail of single sign-on. As suggested by Sharples (2015) “careful orchestration of the learning is required.” but is achievable. The mission of this chapter is to provide readers with case studies examples of how a group of educators implemented technologies such as social media, alternative reality games, and geo-location mobile apps seamlessly into their curriculums using role-playing pedagogically. These three projects were funded by internal awards from the Colorado Community College System and complied with Section 508 of the United States’ Americans with Disabilities Act (ADA) of 1990.

## **THE ROLE-PLAYING GENRE IN DIGITAL MEDIUM DESIGN**

Role-playing is a genre of play that has been popular in both K-12 and higher education pedagogical practices, and the recent rise of technology-mediated role-playing that occurs in various platforms (such as a digital game) has particular significance for the seamless learning approach, which calls for the use of technology to mediate learning.

Researchers from various fields have found that the activity of role-playing can enhance the quality of education by supporting different types of learners. For developmental education, Test, Fowler, Brewer, Woodand and Eddy (2005) and Wehmeyer (2007) suggest that incorporating role-play in instruction can help cultivate the leadership, self-determination, and self-advocacy skills of students with developmental disabilities (p. 62). For instructional design, Dickey (2007) finds that massively open online role-playing games can foster the players’ “intrinsic motivation while requiring players to think, plan, and act critically and strategically,” and recommends designing role-playing environments, which allow for individuation and collaboration, to support different types of learning modes and learners (p. 269). For early childhood education, Rogers and Evans (2008) argue that young children benefit from role-playing by developing several skills, such as developing representational thinking, learning how to problem solve, negotiate, and taking turns, distinguishing between reality and fantasy roles, managing the complexity of working with other playmates in different time and space, self-generating themes, using and interpreting complex environmental cues, and recognizing social structures and relationships (p. 38). For college education, Liu (2010) conducts a role-playing English acquisition study to test whether goal oriented role-playing activities can enhance college students’ motivation to learn, and discovers that college students who role-played became more motivated to speak English than those who did not role-play (p.7). Furthermore, Burenkova, Arkhipova, Semenov, and Samarenkina (2015) conclude, based on their study of incorporating role-playing in college foreign language instruction, that role-playing can raise college students’ “level of motivation development in education, proficiency, and ability to set and achieve goals” (p. 214). The aforementioned research studies demonstrate that role-playing can support different types of learners by cultivating the learners’ intrinsic motivation and skills in self-advocacy, critical thinking, problem solving, and more.

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