

Chapter 4

Cracking the Code: Creating an Immersive Learning Environment Through a Digital Escape Room Adventure

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ABSTRACT

Escape rooms are a cutting-edge method of evaluating student learning because they give them a scenario in which they must solve issues and solve puzzles using numerous clues and contextual suggestions. The chapter intends to explore a discussion and reflection on the potential of immersive learning environments for formative assessments (escape room as a quiz) in enhancing students' learning experiences. The theoretical framework, the idea of an escape room, and how it might improve the learning process will be covered at the beginning of the chapter. This study employed a quasi-experimental design to investigate the effects of quiz format (digital quiz vs. digital escape room) on academic performance. Finally, the chapter discusses the potential challenges and limitations of escape room games in education. The chapter concludes by highlighting the insights, practical guidance, and future directions for educators interested in implementing escape room games in their teaching.

INTRODUCTION

Gamification in all its manifestations, including game-based learning, is rising in popularity within the educational system. One of the reasons is that playing educational games allows students to feel playfulness, which inspires them. The social aspect of games, which encourages student cooperation, is

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another factor. One such game in game-based learning is the escape room. Over the past few years, the phenomenon of escape rooms has skyrocketed in popularity.

Escape rooms were first created as a type of physical adventure game, but they have since expanded into many other areas. In educational settings, these games have the potential to have an enormous influence (Vidergor, 2021). When employed in an educational setting, they can be used right there in the classroom, transforming it into an escape room where students are exposed to a timely narrative that must be resolved in groups within a set amount of time. The students are faced with a hurdle because they must find codes and unlock boxes in order to crack the case. Another difficult scenario is when the escape room game is made available to students digitally online and asks them to work together from home to solve a case involving a subject they have covered in class, depending on an internet connection, and restricting face-to-face interaction. Escape rooms are a cutting-edge method of evaluating student learning because they give them a scenario in which they must solve issues and solve puzzles using numerous clues and contextual suggestions (LaPaglia, 2020). Escape games are a fantastic way to encourage student engagement and learning since they place a strong emphasis on problem-solving, critical thinking, and teamwork.

This chapter will examine the benefits and challenges of using escape games in education, as well as practical considerations for implementation. In higher education, management and marketing modules are significant because they give students a thorough understanding of key business concepts, such as management theories, decision-making, and marketing tactics. Innovation and originality are now essential to the success of any business organization due to the increased competition and the necessity to keep ahead of the competitors in the market. As a result, combining cutting-edge teaching methods can help students achieve a competitive edge. This chapter investigates the use of escape rooms as a test in higher education management module.

Due to the novelty of the escape room concept, there is a dearth of research studying the usage of escape rooms in educational settings. Recently published research on escape rooms frequently discusses design or logistics (Clarke et al., 2017; Duggins, 2019; Karageorgiou, Mavrommati, & Fotaris, 2019; Merx, Veldkamp, & van Winden, 2020); and focus on higher education in general (Fotaris & Mstoras, 2019). In the higher education sector, educational escape rooms have been used with success in the subjects of nursing (Adams et al., 2018; Gómez-Urquiza et al., 2019), pharmacy (Cain, 2019), chemistry (Dietrich, 2018), computer networks (Borrego, Fernández, Blanes, & Robles, 2017), and computer programming (Lopez-Pernas et al., 2019), computer education (Borrego et al., 2017), engineering (Queiruga-Dios et al., 2020), and medicine (Jambhekar, Pahls, & Deloney, 2020).

With the sole purpose of exercising soft skills like teamwork, leadership, and communication, some instructors have also run escape rooms that are strictly for fun (their puzzles don't have any educational content). However, earlier study has not adequately addressed students' perspectives of the use of educational escape rooms for teaching management module. The objective of the current study was to fill in knowledge gaps regarding educational escape rooms and their effects on management students. It concentrated on the impact of using a digital escape room for learning in higher education and tried to comprehend the effects on the gaming experience, student collaboration, and student motivation, as well as their influence by grade. Researchers and educators interested in the effects of virtual escape rooms and how they may be used as teaching aids in online learning environments may find this study to be insightful.

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