

## Chapter 2

# Expanding Learning Horizons: Investigating the Potential of Serious Games for Student Engagement and Skill Development in Higher Education at Hassan II University

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### **ABSTRACT**

*The purpose of this study is to investigate the impact of serious games on student learning outcomes at University Hassan II. To participate in the study, a group of students from various disciplines was chosen. The primary goal was to evaluate the efficacy of serious games in improving knowledge acquisition, skill development, and engagement among university students. The study took a mixed-methods approach, collecting data using both quantitative and qualitative methods. Participants were divided into two groups: one that used serious games as part of their learning experience and one that used traditional instructional methods. Pre- and post-tests were used to assess knowledge gain, and surveys were used to assess student engagement and learning experience perceptions. These findings highlight the potential of serious games as effective educational tools. Incorporating serious games into the curriculum can boost student engagement, promote active learning, and create a more immersive and interactive learning environment.*

DOI: 10.4018/979-8-3693-1034-2.ch002

## **REVIEW OF LITERATURE**

The potential of serious games to improve student engagement and skill development in higher education is examined in the essay “Expanding Learning Horizons: Investigating the Potential of Serious Games for Student Engagement and Skill Development in Higher Education”. The use of serious games as an inventive instructional tool has received a lot of attention in the field of education, and there has been much discussion of it in scholarly publications.

### **Serious Games in Education**

Serious games are instructional and interactive digital games created with a particular learning objective in mind. They have been identified as a viable method of getting students involved in the learning process. The research demonstrates how they might improve both the effectiveness and enjoyment of learning (Gee, 2003).

Serious games are a dynamic and cutting-edge method of teaching and learning. They are often referred to as instructional or educational games. These interactive online games are painstakingly created with certain learning goals in mind. Because of their capacity to captivate and inspire students, they have attracted a great deal of interest in educational research and practice. Studies have indicated that the successful incorporation of serious games into the curriculum may greatly improve the efficiency and enjoyment of the educational process (Hamari, Koivisto, & Sarsa, 2014).

They provide a special fusion of experiential learning, intrinsic motivation, and interaction, which makes them an invaluable resource for instructors and instructional designers. Studies like “Does Gamification Work? — A Literature Review of Empirical Studies on Gamification” by Hamari, Koivisto, and Sarsa (2014) and “What Video Games Have to Teach Us About Learning and Literacy” by Gee (2003), for example, highlight the implications of gamification and serious games in education by emphasizing how they can enhance motivation, skill development, and knowledge acquisition, ultimately leading to more successful and pleasurable learning experiences.

### **Active Learning and Engagement**

The fundamental component of serious games’ educational value is active learning. With the use of technology, these games offer an improved learning experience that actively engages students in making decisions, solving problems, and applying their knowledge. Serious games foster critical thinking abilities in addition to increasing student motivation and knowledge retention by delivering an immersive and interactive learning environment. In order to promote a deeper grasp of difficult subjects and better prepare students for issues they will face in the real world, this technology-enabled approach to active learning makes sure that students are active participants in their educational journey rather than passive users of knowledge. (Wouters, van Nimwegen, van Oostendorp, & van Der Spek, 2013). Because serious games are interactive, they can be customized and adapted to meet the unique learning needs of each player, which increases engagement and improves skill development.

It is impossible to overestimate the importance of serious games and active learning. These games act as a link between more conventional teaching strategies and interactive, tech-enhanced learning. Serious games provide new life to the classroom by actively involving students in problem-solving, decision-making, and experiential learning. They maintain students’ engagement and commitment to

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