International Journal of Game-Based Learning
Volume 9 • Issue 2 • April-June 2019

Students' Acceptance of Gamification in Higher Education

Chih-Hung Chung, Tamkang University, New Taipei City, Taiwan
Chunyi Shen, Tamkang University, New Taipei City, Taiwan
Yu-Zhen Qiu, Tamkang University, New Taipei City, Taiwan

ABSTRACT

Gamification provides a practical approach to improving learning processes, especially the learner's motivation. However, little research has been conducted on student intentions to use gamification in higher education. Therefore, this study explored the gamification in higher educational courses by collecting surveys and discusses the factors influencing the acceptance of gamification in higher education. Based on the PLS-SEM results, students should take initial game-based learning content to be more familiar with gamification; furthermore, they could have a positive experience so that they would increase their intention. Performance expectancy is the most important factors influencing a student to accept gamification. Other factors, such as effort expectancy, social influence, facilitating conditions, involvement, skill, and control, are also important factors. With the results of this study, the instructor designer could have substantial help in planning the course content and enhance its efficiency and effectiveness.

KEYWORDS

Flow Theory, Gamification, IPMA, PLS-SEM, UTAUT

DOI: 10.4018/IJGBL.2019040101

1. INTRODUCTION

With technological developments, gamification has become a significant trend in the educational arena (Wu, Hsiao, Wu, Lin, & Huang, 2012). In the human resource development field, adopting serious games or game-based teaching materials is continual increases by trainers because games' competitions and a fun training environment improve learners' learning performance (Nunohiro, Matsushita, Mackin, & Ohshiro, 2012). Since 2008, the term "Gamification" was introduced, but it was adopted in late 2010 for curriculum design (Wood & Reiners, 2012). Deterding, Dixon, Khaled, and Nacke (2011) definition of gamification is "The use of game design elements in non-game contexts" (p.10). Current online applications have been developed, such as Ubi-Ask (graphical social search) and EcoIsland (CO2 decline by social influences) (Liu, Alexandrova, & Nakajima, 2011). Gamification motivates, inspires, and engages learners in helping them improve their learning performance (Edmonds, 2011; Bozkurt, & Durak, 2018). Currently, a new generation of people desires a more diverse learning environment and gamification provides a fun and motivational learning environment for them (O'Connor & Menaker, 2008). A growing number of educators have suggested that online game-based learning replace traditional textbooks in schools (Cohen, 2011). In the association for talent development (ATD, formerly ASTD) training programs, they also offer several training workshops utilizing game-based learning and game design issues. As a result, gamification will become another significant trend in the training and development field. A growing number of studies have been shedding some light on gamification. However, to date, there has been relatively little research conducted on gamification design. Therefore, the purpose of this study is to explore gamification in higher education and discuss the major factors influencing the use of gamification in higher education. Furthermore, the result of this study could be a guide helping the instructional designer or educator design better gamification training programs on higher education.

Examining how major factors can affect the user's perception of gamification, this study adopted the model of the unified theory of acceptance and use of technology (UTAUT) and flowed theory as a theoretical framework. The results of this study proposed a conceptual model to provide researchers with a better understanding of the gamification consideration for higher education.

2. LITERATURE REVIEW

2.1. Gamification

The definition of Gamification is to use "game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems (Kapp, 2012, p10). " Gamification has become a favorite technique which is applied into a variety of training or educational activities to motivate people to improve their performance (Baker, 2014; Cheong, Filippou, & Cheong, 2014; Landers, 2015). Since gamification grows popularity, the issue of exploring the specific processes

Technological

Badrul Khan (2005). *E-Learning QUICK Checklist (pp. 71-85).*
www.igi-global.com/chapter/technological/9138?camid=4v1a