

Adoption and Impact of Gamification in Jordanian Higher Education Institutes

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To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v14-i2/20996>

DOI:10.6007/IJARBSS/v14-i2/20996

Published Date: 24 February 2024

Abstract

The current study focused on the adoption and the effect of gamification in the higher education institutes of Jordan. It focuses on the need of the education system to adopt the modern learning environments incorporating gamification. This paper is based on the existing literature about gamification and its implementation in the higher education institutions. The findings revealed that gamification helps in motivating the students to learn in a more fun and interesting environment. The Jordanian education institutes must follow implementation of gamification to enhance the learning experience of the students and to increase their motivation to work alone as well as in groups through provision of an interactive learning environment by gamification.

Keywords: Gamification, Student learning, Jordanian Higher Education.

Introduction

The lack of student's motivation and interest in studying is a major issue that the educational institutions as well as educators frequently deal with. The advancement of technology and the widespread usage of the Internet have had a profound impact on the state of education and the setting for learning. Alternatives for teaching and learning have been made possible by recent advancements in digital technology (Aldahash and Alenezi, 2021; Henderson et al., 2015). Digital technology advancements are also making it possible for learners to access online learning resources and information. In addition, digital technology has quickly expanded to a large geographic area (Szyszka, 2019). Therefore, as recommended by Aldahash and Alenezi (2021), it is imperative that educational institutions transition from traditional to more modern learning environments, including gamification.

Research has shown that because digital games can improve motivation and learning as well as generate socially engaging and productive learning environments, they might be useful instruments for assisting a digital environment (Papadakis, 2014; Chan, 2017). Gamification is

considered to enrich the experiences of learners and enhance their willingness towards learning (Ab Rahman, Ahmad, and Hashim, 2018; An, 2020).

The application of gamification in educational settings lacks extensive study, despite the literature's support for the notion that gamification as well as video game activities can aid in cognitive, social, motivational, as well as emotional development (Chan et al., 2017; Oak and Bae, 2013). This is likewise the case in Jordan, hence a careful analysis of the subject of gamification implementation in Jordan's educational system is required.

Literature Review

Gamification

Gamification is the process of incorporating components of a game into contexts and environments which are not often associated with games (Deterding et al., 2011). Moreover, gamification, according to Sheldon (2012), is the integration of game elements to activities that are not games. According to Zichermann and Cunningham (2011), gamification uses game mechanics to engage learners. Khaleel et al (2016) defined gamification as employing game aspects to increase students' computer involvement for solving issues with the E-applications.

Gamification has apparently shown to be a useful tool, especially for skill development in students (Aldahash and Alenezi, 2021). In accordance with this reasoning, gamification—which has broad practical implications—was generated by popular gaming programs (Yang et al., 2017). In addition to establishing the antecedents and effects of game-based learning, numerous studies have concentrated on elucidating the applications and components of gamification which could be utilized in both education as well as daily life (Ofosu-Ampong, 2020). Thus, gamification can offer educational institutions a plethora of advantages in terms of cost savings and performance enhancement (Teo et al., 2018; Yang et al., 2017; Liu et al., 2017).

Gamification in Education Institutes

Gamification-based education, according to Aldahash and Alenezi (2021), is one of the greatest developments in instructional technology because it pushes students to engage in dynamic interactions with both the course material and other students. Through engagement in a learning environment which fosters creativity and expressiveness, gamification also helps learners strengthen their communication abilities. Research on this subject has shown how gamification could enhance students' freedom of expression within an appealing and socially acceptable framework (Lavoué et al., 2021; Manzano-León et al., 2021).

Points, badges, and game regulations such as a rewarding system are examples of what are referred to as game mechanics (Ibanez et al., 2014; Robson et al., 2015). Furthermore, according to Werbach and Hunter (2015), game mechanics engage students and stimulate them in the learning process.

The cooperative environment is another facet of gamification. Because every task could be completed alone or in groups, this feature encouraged students to collaborate when working in pairs or groups. Additionally, this gamification feature encourages student participation and engagement in the classroom. According to Buckingham (2014), gamification made it easier to create assignments that students could work on together in the classroom. Grant and Betts (2013); Denny (2013) both emphasized how gamification increased students' engagement and participation with their peers. In particular, gamification provides a positive atmosphere that gives encouragement to the students to keep up their own learning and

provide them relevant, limitless activities in an engaging gamified format. Al-Smadi (2015) stressed that gamification along with its components provides the students with opportunities to explore and learn in a group setting.

Gamification challenges in Jordanian Higher Education Institutes

The implementation of gamification as well as e-learning techniques has certain restrictions in Jordan (Alharbi and Rahman, 2023). These constraints are associated with the methods of instruction used in learning and teaching activities, the notion that e-learning lessens the important role that teachers play in the process, and students' and teachers' lack of interest in using such technologies as a result of their poor technological proficiency (Alharbi and Rahman, 2023; Abusa'aleek and Baniabdelrahman, 2020; Alharbi and Rahman, 2021).

According to Alsawaier (2018), gamification is appropriate for giving learners time to compete against one another by earning points as quickly as possible. According to a different study, gamification and its components gave students a chance to learn in an interactive manner and uncover new facts (AL-Smadi, 2015).

Methodology

Qualitative Research

The current paper is based on qualitative research method. The data is gathered through online articles related to gamification, its adoption and effect in the higher education institutions. Themes have been analyzed through the existing literature to focus on gamification.

Discussion

The urgent necessity to investigate various education-related procedures to ascertain their precise influence is heightened by the topic of gamification's growing popularity and the erratic findings of many studies (Hamari et al., 2014).

Jordanian educational institutions use a system of incentives and penalties modeled after a game. Students at educational institutions receive rewards for finishing assignments successfully and face consequences for inadequate performance. Similar to how game levels up, students are likewise advanced to the subsequent class at the conclusion of their final academic examination. These game-like mechanism components, however, fall short of providing the optimal gaming experience needed in the environment of digital learning. According to most recent World Bank research, there are not enough incentives in the existing educational environment to encourage students to actively participate in digital learning activities (Furdu et al., 2017; World Bank, 2020).

In Jordanian educational institutions, the standard learning environment encourages dishonesty, helplessness, disengagement, and eventually dropouts. In contrast, Farmville is played by almost 28 million people (Mashable, 2010). Similarly, five million players spend forty hours actively playing the video game World of Warcraft (Albashtawi and Bataineh, 2020; Albrechtslund, 2011). These figures show that kids are more engaged in gaming than they are in a typical classroom setting. In addition, the majority of students said that classroom activities lacked the essential components of gaming and were boring and uninteresting (Yong, 2017). Thus, students' interest in traditional learning activities is low due to a lack of suitable gamified mechanisms.

It is essential to comprehend the conditions under which gamification techniques promote students' learning behavior. To give the specifics of the gamification process,

a researcher provided a framework of Rules, Play, and Culture (Huotari and Hamari, 2017). This framework dictates that regulations for the school should be written in a way which will engage learners on an emotional as well as social level. But students become emotionally disengaged from the conventional educational setting because of its formal rules (Bracco, 2015; Arruzza and Chau, 2021). The gamification mechanism is anticipated to alter the established regulations, enhance the emotional learning environment, and increase students' social standing inside educational institutions (Kauppinen and Iftikhar Choudhary, 2021).

The mechanics of gamification rely on social roles, feelings, and norms. In this manner, a "Reader" badge shows on the online learning portal after a student finishes a book reading. The "On target" badge is awarded for successfully completing the assignment (Delello et al., 2018). According to Arruzza and Chau (2021) students who actively participate in learning activities on online educational portals are also awarded a greater number of badges. Students have a better knowledge of school-based activities in this way. As per Delello et al. (2018), there exists a mechanism that encourages students to engage in active participation in online learning activities and also aids in enhancing their self-concept.

These gamification concepts are applied in Jordanian educational institutions to varying degrees. While some educators utilize these concepts in their own classes, others employ them more broadly to enhance the educational experience for all students (Arruzza & Chau, 2021). According to earlier research, schools are switching from using traditional grades to experience points for completing homework (Kauppinen and Iftikhar Choudhary, 2021). In this method, the instructor motivates the students to turn in their tasks on time in order to receive the most experience points possible. According to a different study, game designers and instructors collaborate at some educational institutions to create digital learning systems based on game elements that promote students' active engagement (Falah et al., 2021).

Conclusion

In education, gamification is a comparatively recent phenomenon. Utilizing gaming aspects, including points and rewards, is its primary objective (Abusa'aleek and Baniabdelrahman, 2020). An alternate tactic to increase student engagement in the digital learning environment is gamification. Compared to traditional classroom settings, gamified learning may offer superior learning chances. Jordanian Higher Education Institutes should focus on enhancing gamification to enhance students motivation and learning capabilities.

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