

The Usefulness of Using Games Learning at the University Setting

Javir Diez-Palomar ^{1*} and Muntasir Taamneh ¹

¹ University of Barcelona, Spain

Article Info	ABSTRACT
Article history: Received 03 November 2025 Revised 2 December 2025 Accepted 14 December 2025	Although educational activities assist students' abilities throughout their education lives. Therefore, this study aims to fill the gap in the gamification literature and its role in enhanced students learning. In total, 115 university students from several education courses participated in this study. The data were collected using a survey technique. According to the results, perceived usefulness was moderate. As a result, the use of gamifications activities in the learning-teaching process should be encouraged as a necessary technique to assist students learning.
Keywords: Gamification students perceived usefulness	
الكلمات المفتاحية: التلعيب الطلبة المنفعة المُدرَك	ملخص على الرغم من أن الأنشطة التعليمية تسهم في تنمية قدرات الطلبة طوال مسيرتهم التعليمية، فإن هذه الدراسة تهدف إلى سد الفجوة القائمة في أدبيات التلعيب ودوره في تعزيز تعلّم الطلبة. شارك في هذه الدراسة ما مجموعه 115 طالبًا جامعيًا من عدة مساقات تعليمية، وتم جمع البيانات باستخدام أسلوب الاستبانة. وأظهرت النتائج أن المنفعة المدركة جاءت بمستوى متوسط. وبناءً على ذلك، توصي الدراسة بضرورة تشجيع توظيف أنشطة التلعيب في عمليتي التعليم والتعلّم بوصفها تقنية أساسية تسهم في دعم تعلّم الطلبة.
* Corresponding Author: Email: mtaamneh@yahoo.com (M. Taamneh)	

1 Introduction

In the field of educational courses, one of the primary issues lies in the negative attitudes of students and their disengagement (Howard, 2017). Such attitudes are compounded by the ineffective education instructions revealed by researchers like (Jeong et al., 2019). At present, there are various learning techniques employed to keep at par with the dynamic changes in society and the developments in technology and science such as gamification (Sojayapan & Khlaisang, 2018; Julieth, Martha, & Mileidy, 2020). In several research types, gamification is a term that has been referred to as the use of game elements to understand non-gaming objects (Jdaitawi, 2022; Nadlifatin, 2020). The learning type is built on the gamification value and its positive influence over the students' learning experience as evidenced in study (Mohamed, 2020). Wichadee and Pattanapichet (2018) supported the influence of gamification on the positive spirit of students, their motivation and their learning results, and (Papp, 2017) revealed that gamification influences the motivation of students, their engagement in the learning environment for both students and teachers. Literature (Adachi & Willoughby, 2013; Andrade, 2020) also supported that video games activities improve a number of skills among individuals such as, problem-solving, leading to better academic grades, leadership, attitude, communication, teamwork, collaboration, creative thinking and motivation.

2 Literature Review

More importantly, the main advantages highlighted in gamification studies are easy access, flexibility, developing critical thinking, and positive outcomes relating to motivation, participation, collaboration and engagement (Vanduhe, V, Nat, M, Hasan, 2020), and all these lead to improved training and learning as evidenced in Stiegler and Zimmerman (2015). According to (Liu, D, Santhanam, R, Webster, 2017), gamification elements lead to enhanced and positive outcomes, facilitate enjoyable experience from monotonous activities and heighten students' engagement in assignments and learning. Other studies in this line supported the significance of gamification education and its role in motivating students and enhancing their engagement (Figuerola-Flores, 2015). However, in some studies of this caliber, negative results were reported concerning the gamification potential in students' learning environment (Andrade, 2020; Landers, Armstrong, 2017; Thornton, Francia, 2014; Al-Rahily, 2018); for instance, (Mese & Dursun, 2020) reported no gamification effects on the instructional outcomes, in a case where there is low attitude was harbored regarding game-based learning. While some others like (Al-Nashiri, 2022) supported optimum performance of students and supporting the positive contribution of gamification towards English language skills development. In sum, performance is an important aspect of motivation and commitment in education (Creswell, 2012), which helps to foster a lifelong participation and social interaction. Research in literature has studied the connection of gamification in educational courses with various variables, but gaps still exist that need to be minimized. However, the study presented in this article focuses on the learning performance of students.

3 Methodology

A quantitative research design was used in this study as recommended by prior studies (Fared, Jdaitawi, Sheta, 2018). As mentioned, the survey is the data collection instrument, of which copies were distributed to university students.

3.1 Participants

There were 115 participants studying in universities located in the Western region of Jordan, from which cross-sectional data was gathered. The sample units were considered based on their use of gamification in their learning process, and they were requested to provide their feedback through self-report in order to identify the influence of gamification usage on their day-to-day learning. Before collecting data, the author obtained verbal permission from the participants for their voluntary participation in the study. The author informed them about the scientific and confidential use of their provide data. From the 115 participants, (52.8%) were male students, while the remaining (47.2%) were female students.

3.2 Measurement

The study's measurements of constructs were adopted from prior related studies, with the items gauged using a 5-point Likert scale. Specifically, perceived usefulness 4 measuring items were adopted from (Ashfaq, M, Yun, J, Yu, S, Loureiro, 2020), with alpha value of 0.80.

Table 1: Cronbach's alpha

Variable	Cronbach's Alpha
Perceived Usefulness	0.80

4 Results

The gathered data was analyzed using SPSS, the study found that the most of the students 81% use games activities frequently, 19% of them were not. The results however indicated games activities were useful as shown in table 2.

Table 2. *Frequency Results.*

Variable	No.	%
Agree	94	81
Not	2	19

5 Discussion:

The proposed model was developed by integrating perceived usefulness of education courses among students. Data was gathered from the students from the Jordanian universities, and the results supported good level of perceived usefulness. In other words, the students perceived gamification technology to be useful in their learning. The usefulness of gamification increases their perception of its importance in achieving learning outcomes and completing assignments. Individuals must possess good technological skills and be familiar with technological tasks, in order to enjoy good health and have the ability to perform educational duties perfectly. Therefore, users perceiving that IT is beneficial to their tasks will have a positive perception of it and be encouraged towards its adoption.

6 Conclusion

This study examined the level of technology perceived usefulness among university students'. Technology adoption studies, particularly focused on gamification have been scarce and as such, this study's findings provide significant support to the proposed study model. There are multiple contributions of this research to the theory concerning gamification, the first of which is the study contributes to the development of gamification applications in light of theory and conceptual framework to investigate its influence over the student's learning. The implications of the results are thus significant for decision-makers, academicians and managers of the higher education institutions who can leverage the proposed models and frameworks to enhance technological adoption in the learning environment.

6.1 Limitations and Suggestions

One of the study's limitations pertains its study sample which comprises of universities students, limiting the generalization of findings to the whole population, therefore, next studies may implement the study design by increasing the study sample through including other universities. Lastly, the study's examined factors are limited and thus, future studies should include additional factors, like personal factors and technology factors to the model to test the direct/indirect relationship to validate the proposed model.

References

- Ali, O., Murray, P., Momin, M., Dwivedi, Y., & Malik, T. (2024). The effects of artificial intelligence applications in educational settings: Challenges and strategies. *Technological Forecasting and Social Change*, 199, 123076. <https://doi.org/10.1016/j.techfore.2023.123076>
- Choi, S., Jang, Y., & Kim, H. (2023). Influence of Pedagogical Beliefs and Perceived Trust on Teachers' Acceptance of Educational Artificial Intelligence Tools. *Int. J. Hum. Comput. Interact*, 39, 910–922.
- Han, M., Mustafa, H., & Kharuddin, S. (2025). AI adoption in accounting education: A UTAUT-based analysis of mediating and moderating mechanisms. *Journal of Pedagogical Research*. Advance online publication. <https://doi.org/10.33902/JPR.202532831>

- Raffaghelli, J., Rodriguez, E., Guerrero-Roldan, A., & Baneres, D. (2022). Applying the UTAUT model to explain the students acceptance of an early warning system in higher education. *Computer & Education*, 182, 104468. <https://doi.org/10.1016/j.compedu.2022.104468>
- Venkatesh, V., Thong, J., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology, *MIS Quarterly*, 36, 157–178, 2012. <https://doi.org/10.2307/41410412>