

What's what PSPM

EISSN: 2756-7729 MAC 2024/ VOL 1























A GAMIFICATION TOOL IN TEACHING AND LEARNING

Norul Fadhilah Ismail, Mahfuzah Mahayadin

Pengajian Sains Matematik Kolej Pengajian Pengkomputeran, Informatik dan Matematik, Universiti Teknologi MARA (UiTM), Cawangan Negeri Sembilan, Kampus Kuala Pilah, 72000, Negeri Sembilan Darul Khusus, Malaysia. norulfadhilah@uitm.edu.my

Gamification in education has gained significant traction as a strategy to enhance student engagement, motivation, and learning outcomes due to the development of digital technology and mobile applications. The term "gamification of education" refers to a growing strategy for raising students' motivation and engagement by introducing game design features in classroom settings (Dichev & Dcheva, 2017). Incorporating game elements and learning activities into gamified learning can heighten students' inherent motivation, transforming educational tasks into enjoyable and fulfilling experiences (Koivisto & Hamari, 2019). Apart from that, gamification can boost cognitive load and achievement levels, and students generally have positive thoughts regarding gamification strategies. However, when gamification is applied, the cognitive load factor must be considered, and certain precautions must be taken to maximise effectiveness. (Turan et al., 2016).

In addition, gamified platforms can offer personalised learning experiences by allowing students to choose their learning paths, explore topics at their own pace, and receive tailored feedback based on their performance. This individualised approach accommodates a range of learning styles and preferences. Besides, it promotes the development of various skills, including critical thinking, communication, problem-solving, collaboration, and decision-making (Kuo-Wei Lee, 2023). Students improve their style through quests, simulations, and interactive challenges by practicing and applying knowledge in real-world scenarios.

The use of gamification strategies in the form of points, badges, and leaderboards can boost student engagement with instructional content by giving them instant feedback and creating a sense of accomplishment. Activities that feel like games generally elicit higher participation and time commitment from students. Gamification encourages students to strive towards objectives and persevere in their learning endeavours by integrating components such as rewards and progression systems. Students may be motivated to overcome hurdles and remain dedicated to their studies by the sense of accomplishment they receive from earning points or completing challenges.

Overall, the use of gamification in education holds promise for transforming learning experiences, making them more engaging, motivating, and effective for students across various educational settings and disciplines. It has become a valuable resource for educators seeking to leverage technology to assess student understanding, monitor progress, and facilitate meaningful learning experiences.

The technology of gamification software now offers many tools to offer a game-based learning experience with various templates that allow educators to make lessons more interactive. Here are some of the tools as depicted in Figure 1 that can benefit educators in making learning environments interesting and fun for the students, as well as allowing the educators to design their lesson plans or assessments.

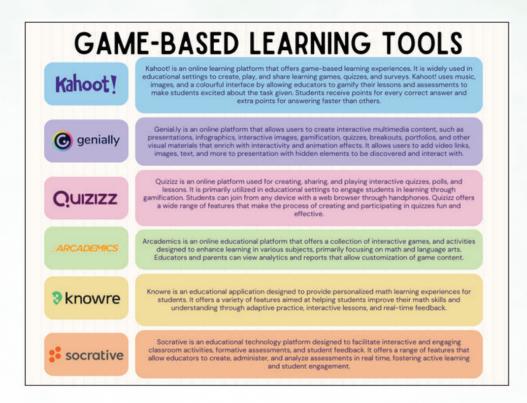


Figure 1: List of Gamification Tools in Teaching and Learning

In conclusion, gamification tools like Kahoot!, Genial.ly, Quizizz, Arcademics, Knowre, and Socrative offer an engaging and interactive approach to teaching and learning. By incorporating these tools into educational practices, educators can enhance student engagement, promote active participation, and facilitate effective knowledge retention. Similarly, students benefit from a more enjoyable and stimulating learning experience, which fosters motivation and deeper comprehension. Embracing gamification in education holds immense potential for transforming traditional teaching methods into dynamic, interactive, and effective learning environments for both educators and students alike.

REFERENCES:

- [1] Dichev, C. & Dcheva, D. (2017). Gamifying Education: What Is Known, What Is Believed and What Is Remains Uncertain: A Critical Review. *International Journal of Educational Technology in Higher Education*, 14(9). https://doi.org/10.1186/s41239-017-0042-5
- [2] Koivisto, J. & Hamari, J. (2019). The Rise of Motivational Information Systems: A Review Of Gamification Research. *International Journal of Information Management*, 45(191-210). https://doi.org/10.1016/j.ijinfomgt.2018.10.013
- [3] Turan, Z., Avinc, Z. & Kara, K. (2016). Gamification and Education: Achievements, Cognitive Loads, and View of Students. *International Journal of Emerging Technologies in Learning*, 11(7). https://doi.org/10.3991/ijet.v11i07.5455
- [4] Kuo-Wei Lee (2023). Effectiveness of Gamification and Selection of Appropriate Teaching Methods of Creativity: Student's Perspective. *Heliyon*, 9(9). https://doi.org/10.1016/j.heliyon.2023.e20420