Gamification and Game-Based Learning
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Overview and Definition
Gamification uses game design elements in non-game contexts, such as within education or libraries. The goal of gamification is to add fun and motivation to increase learning outcomes. It is not a new concept. In the 1960’s, Mary Poppins presented it to children to get the job done. However, gamification does evolve as game design and technology options expand. Game design elements can include quests, badges, leader boards, points, timed-activities, escape rooms, etc. Libraries can use these to boost engagement, information literacy skills, and library knowledge to engage students with fun and learning (Huang et al. 2020). It can also be used internally within libraries for employee engagement in training activities (Hanshew and Alley 2021).

Why Do You Need to Know?
Gamification and game-based learning are slightly different. Gamification uses game elements to reward participants, while game-based learning uses game elements to increase learning motivation (Ross 2020). Tips & Trends first visited game-based learning in Spring 2015, focusing on digital badges and scavenger hunts. But with technology constantly evolving and the explosion of online learning, there is a renewed interest in the topic. Pre-pandemic, escape rooms became widely popular in libraries and elsewhere. Since then, there has been more educational research that supports the use of game-based learning in education to improve learning and learning motivation. However, educators must apply the techniques correctly to have the desired effect, and some designs are more effective than others (Huang et al. 2020). When using gamification for learning, instructors must be mindful of what they are using, why they are using it, and if the two align for the desired effect.

Current Applications in Libraries and Higher Education

There are many ways game-based learning and gamification exist in higher education and libraries today. Today, we will examine two: escape rooms and bridging digital content in a physical world.

Escape Rooms
Previous trends in gamification and game-based learning still exist, but they have also expanded. For instance, the scavenger hunt is a true staple in game-based education in libraries and library learning. However, some have evolved into escape rooms. Escape rooms are similar to scavenger hunts, but they add a storytelling element to the material (Ross, 2020). To define the story, they can also draw from existing stories such as literature, film, or popular culture (Haasio, Madge, and Harviainen 2021). In the context of learning, this adds storytelling and gamification to become game-based learning. When executed well, the learner's motivation to continue the activity will increase because of these added elements.

Because of their popularity outside of libraries, librarians started to explore how they could use...
escape rooms in the classroom. Spraetz and Gardner (2019) used them to engage students in learning about mis- and disinformation. Their presentation highlights students learning throughout the library with materials such as a decoder sheet. During the pandemic, many libraries pivoted to virtual escape rooms. Public libraries used them for patron engagement, such as Sydney Krawiec’s Harry Potter-themed escape using Google Forms (Ross 2020). Formal learning environments, such as academic libraries, can also use these virtual escape rooms just as they were used pre-pandemic.

Potential Hurdles
There are two primary considerations that educators should consider when looking to include gamification or game-based learning. The first is the time commitment. It is not easy to implement. Giving yourself time is the first recommendation from Spraetz and Gardner for implementing an escape room. Librarians can use that time to have a thoughtful plan, talk with others, and test run your “game” (Spraetz and Gardner 2019). This time will ensure the best experience for learners. The second is to ensure the correct selection of gamification or game-based learning. When approaching gamification, consider the learning outcomes and if the gamified element will help students reach them. For instance, leaderboards will frequently undermine the overall intent due to the learner motivation being misplaced (Huang et al. 2020). However, if you implement the appropriate elements, your learners will likely benefit and enjoy the experience in a formal setting.

Conclusion
Gamification and game-based learning allow educators to improve student learning by including game elements such as play, competition, and interactivity. While the concept has long been around, educational research continues to evolve and show its relevance. Implementation methods are also changing and evolving with the times, and they will likely continue to do so. Today libraries are using these strategies to create escape rooms and connect digital and physical spaces. Educators took escape rooms, a popular culture favorite, and brought it into the classroom to connect digital and physical spaces, which is even more critical in a hyflex world. To implement gamification and game-based learning, we must ensure we have the time to commit and select our gamified elements carefully to support student learning. Then, students and educators are likely to enjoy and learn from the journey.

Digital Bridge
While we spend most of our time in online modalities, even more so during a global pandemic, we are still physical beings. Most of our libraries also still have physical locations with physical materials. Gamification and game-based learning can help bridge these divides by merging our desire for fun/motivation, connection to online worlds, and physical presence in space. This can be considered a hybrid model game where digital interaction occurs through a phone (computer/tablet) and a QR code, but participants find answers through physical materials or services (Haasio, Madge, and Harviainen 2021). Libraries could potentially use this strategy as an orientation tool, which can be a formal learning opportunity or a marketing tool. For instance, libraries can use gamification on library web pages to encourage further exploration of the collection and services (Haasio, Madge, and Harviainen 2021).

Gamification can also be more straightforward, using interactive quizzes and class response systems such as Kahoot! or Top Hat. These provide interactive opportunities in the classroom with point-earning motivation to engage learners beyond the classroom space (Ross 2020). The key is to use these game-based opportunities and gamified elements to meld our digital and physical worlds.
Tools Discussed

- Google Forms
- Kahoot!
- Top Hat

References


Further Readings

- Gamification and Game-Based Learning by University of Waterloo Centre for Teaching Excellence
- How to Build a Digital Escape Room Using Google Forms