GAMIFICATION IN EDUCATION: WHAT IS IT & HOW CAN YOU USE IT?

GAMIFICATION CONCEPT

GOAL · LEARNING · SKILL · ACHIEVEMENT

CHALLENGE · REWARD · COMPETITION · USER ENGAGEMENT

What is gamification?

Gamification is the use of game design elements and game principles in situations outside of the gaming context. The goal is to maximize teaching and engagement by capturing student interest and inspiring them to continue learning.

Gaming utilizes natural psychological needs in humans: competitive instinct, desire to succeed, the hype of status, ability of altruistic cooperation, satisfaction of completing tasks and self-realization needs.

Using gamification techniques can help increase participation, increase excitement, motivate problem-solving, as well as empower and enhance learning.

The methods in the field of gaming are many. Here are some of the most common methods:

- Use of progress indicators, such as points and scores
- Top score boards
- Awards for significant achievements
- Linking tasks with storytelling
- Immediate feedback
- Competition
- Different levels with progressively increasing difficulty
- Illustrations of percentage of task performed
- Instant feedback
- Cooperation

Gamification is used in a number of different areas, including marketing, recruitment and physical training.

GAMIFICATION THEORY IN EDUCATION

The gamification theory in education is that learners learn best when they are also having fun. Not only this – they also learn best when they have goals, targets and achievements to reach for, of course in a way the learner still perceives as fun.

Because of the addictive features of video games that intrigue children (and adults) and get them hooked, it's only natural that we see similar engagement results when these game-based elements are applied to learning materials.

Gamification in learning involves using game-based elements such as point scoring, peer competition, team work, score tables to drive engagement, help students assimilate new information and test their knowledge. It can apply to school-based subjects, but is also used widely in self-teaching apps and courses, showing that the effects of gamification do not stop when we are adults.

Technology permeates a lot of our day-to-day lives – having changed the way we live, shop, work, play, eat, meet people and socialise. Policy-makers are starting to explore the potential benefits of using technology to streamline teacher workload in earnest. We've also already known for some time that taking something many children love – games – and using some of the features to support learning has great benefits.

GAMIFICATION EXAMPLES

Though many schools already utilise apps and educational games via computers and tablets, it doesn't all have to be about technology.

Unlike game-based learning, which involves students making their own games or playing commercially-made video games, gamification is simply bringing game-based elements that make these platforms popular, and integrating them into other activities within the (home) classroom.

Some examples of game elements that can be used to engage and motivate learners include:

- Narrative
- Immediate feedback

- Fun
- "Scaffolded learning" with challenges that increase
- Mastery (for example, in the form of levelling up)
- Progress indicators (for example, through points/badges/leaderboards, also called PBLs)
- Social connection
- Player control.

A classroom that contains some or all of these elements can be considered a "gamified" classroom.

The best combination are the ones that create sustained engagement, consider the unique needs of the learners and do more than just use points and levels to motivate players. The most effective gamification systems make use of other elements such as narrative and connection with fellow players/learners to really capture the learner's interest.

Teachers can implement gamification via the following examples:

1. GIVING POINTS FOR MEETING ACADEMIC OBJECTIVES

Inspire students to see simple sets of questions in a whole new light. Correct or well-structured answers operate on a points system, with students moving up through the ranks.

Do students need to be citing details from the text and evidence for conclusions in class discussions? Answers without evidence can be worth 1 point, a correct answer with 1 piece of evidence worth 2 points, and a correct answer + 2 pieces of evidence

= 3 points.

2. GIVING POINTS FOR MEETING PROCEDURAL/NON-ACADEMIC OBJECTIVES

Points systems can also work well for non-academic tasks as well, such as tidyinf the classroom, putting on coats and hats, lining up in register order or in their correct houses etc.

E.g. Need to shorten the time it takes to check homework? All students who have their homework out ready to be checked before being prompted by the teacher now receive 2 points.

3. CREATING PLAYFUL BARRIERS

One of the primary tenets of gamification is the use of encouragement mechanics through presenting playful barriers–challenges, for example. Playful barriers can be academic or behavioural, social or private, creative or logistical.

4. CREATING COMPETITION WITHIN THE CLASSROOM

Competition with classmates, other classes or even with the teacher is a surefire game-based element that works.

For example: students must follow a rule that the teacher sets, and anytime a student follows the rule, the class gets a point. Anytime a student does not follow a rule, the teacher gets a point. This is particularly great for introducing procedures and new behavioural expectations. If the class wins, the teacher can use a sustainable reward, such as a 1-minute dance party, extended break time, or fewer homework tasks.

5. COMPARING AND REFLECTING ON PERSONALISED PERFORMANCE

Some video games offer a personalised breakdown of the player's performance at the end of each level – detailing enormous data such as achievements, points, strengths, weaknesses and ways to reflect on their performance and compare with others.

For example, one game might offer statistics of which objectives were met and how, assign a 'badge' based on that particular performance 'style,' then track every detail around that performance such as total number of jumps, number of enemies alerted, number of different ways a specific problem was solved, etc.

Teachers can do a similar thing – whilst students are levelling up, collecting points and competing with one another, they can be collecting data, tracking progress and tailoring rules, rewards and quests to motivate students further. If doing this manually sounds too much, then look at data tools within your schools' LMS or learning apps you might already use.

6. USING LEVELS, CHECKPOINTS, AND OTHER METHODS OF 'PROGRESSION'

As well as tracking points, teachers can use various 'checkpoints', 'levels' or other symbols of progression to give learners focus (and proportionate bragging rights when they achieve it).

Track points over multiple classes for example, then when students reach an important milestone such as 100 points let them 'level up'. As they progress further give out sustainable milestone rewards, such as extra reading or playtime; a session on the computer or the chance to be class captain for the day.

7. GIVING LEARNING BADGES INSTEAD OF POINTS OR GRADES.

Sometimes something tangible and symbolic can mean more than receiving points. When students reach certain checkpoints or 'levels', you may wish to present them with a marker of their success, such as learning badges or stickers.

8. HELPING STUDENTS ASSUME SPECIFIC PERSPECTIVES IN LEARNING

This element of fantasy role-play is a big draw of video games. Allow students the chance to take on different roles as learners such as as a judge, designer, father, doctor, etc. and see how they rise to the occasion using their imaginations.

BENEFITS OF GAMIFICATION IN THE CLASSROOM

- There are many proven benefits to using gamification in the classroom, such as:
- Students feel like they have ownership over their learning
- A more relaxed atmosphere in regards to failure, since learners can simply try again
- More fun in the classroom
- Learning becomes visible through progress indicators
- Students may uncover an intrinsic motivation for learning
- Students can explore different identities through different avatars or characters
- Students often are more comfortable in gaming environments, so are more proactive and open to making mistakes
- Higher engagement and concentration levels amongst students
- The opportunity to think outside of the box. Tasks are no longer just about filling in a worksheet – what are the wider, 'gamified' consequences?

IS GAMIFICATION EFFECTIVE?

- **Gamification** has been shown to be tremendously effective, both in educational settings, e-learning settings and even for corporate companies using it to train employees.
- **Gamification** works for the following reasons:
- **Games** play into basic needs (autonomy, value, competence etc.)

- **Games** can be social (games may have leaderboards, for example, or places where high-scorers are displayed so players can feel validated when they do well. Players may be able to challenge their friends or invite others to play)
- **Games** encourage ongoing engagement (gamification helps retain users by encouraging them to keep playing and gain more points, rewards, or simply discover more information)
- It gives players (learners) control (they feel like they are in charge of their own learning journey, going from point A to point B).
- **Gamification** works because it triggers real, powerful human emotions such as happiness, intrigue, excitement and accomplishment. All around the world, companies, institutions and household brands are using gamification, with marvellous results.

Gamification in training

Since players voluntarily spend countless hours on gaming and problem solving, researchers, teachers, and instructors have explored ways to leverage the video game's power of motivation and are now beginning to utilise it in the classroom.

Games in various forms increase motivation through involvement, and if involvement is important somewhere, then it is in the learning setting.

Gamification of teaching operates under the assumption that the same type of excitement that players experience when playing games can be translated into an educational context and used to facilitate learning and influence student behavior in a positive way.

It is important to note that games cannot replace education, but it can be used to improve the overall learning experience.

Benefits of gamification in training

Gamification in training can offer a number of benefits, including:

- The students feel ownership of their learning

- More relaxed atmosphere when it comes to making mistakes, since students are able to try repeatedly until they manage
- More fun in the classroom
- Learning becomes visible through progress indicators
- Students get a sense of goal achievement and mastery
- Students can discover their own motivation for learning
- Students can explore different identities through different roles in role play
- Students are often more comfortable in game environments

How can I use gamification in the classroom?

There are a number of different ways to introduce gamification to the classroom and to your course and training participants. In this section we will present some methods that we hope will give you some ideas of how to introduce gamification yourself.

1. Alter the language

Instead of referring to professional requirements with the typical associated academic terms, you can use game-like names and phrases.

Example: Creating a presentation is referred to as "starting a mission" and writing an exam may be "defeating a fight". Completing a task can be classified as "completing a mission," and performing higher-difficulty tasks may be " levelling up".

2. Give out rewards

Reward your participants with points, badges, completion certificates, training certificates or prizes, both during the training and after the training has been completed. Give out rewards for new skills, completed training, and accomplished professional skills to motivate students to engage and work hard to reach the ultimate goal.

Example:

Participants receive a new badge when they "level up", i.e. when they have completed enough tasks. When the training is completed and passed, the participants receive a completion certificate. For significant achievements, you can present merit awards.

3. Create a narrative

Incorporating a structural narrative into teaching can also act as a strong motivator and as a reinforcement of the learning material, especially if the narrative suits the learning content. The learning environment can be structured to provide an overall narrative that serves as a context for all learning activities.

The structure of a course can be customized in different ways to bring in elements of gamification. These adaptations can affect the student's role, the role of teacher and the role of the learning environment.

A student's role in a gamified environment may be to take on a role and a game name that they use in learning. Students can be organized in teams or clans and be invited to embark on various missions or treasure hunts with their team members. They can be encouraged to help other teammates, as well as players on other teams if they have mastered a learning task before the other teams.

Example:

A training group learning about world geography is divided into groups of explorers, each of whom is assigned a country to explore and report on.

4. Bring out the competitive instinct in learning

When I studied at BI, there was one thing that made the students really eager in the classroom. It was when the lecturer asked us to bring out our mobile phones and prepare for a Kahoot!

Kahoot! is a free game-based learning platform, with multiple-choice tasks that the instructor/teacher sets up. Players answer the questions from their own devices. The tasks, answer key and top five players with the highest scores appear on the split screen in front of the group. Everyone wants to be among the top five players and eagerly press what they think is the right answer to the tasks.
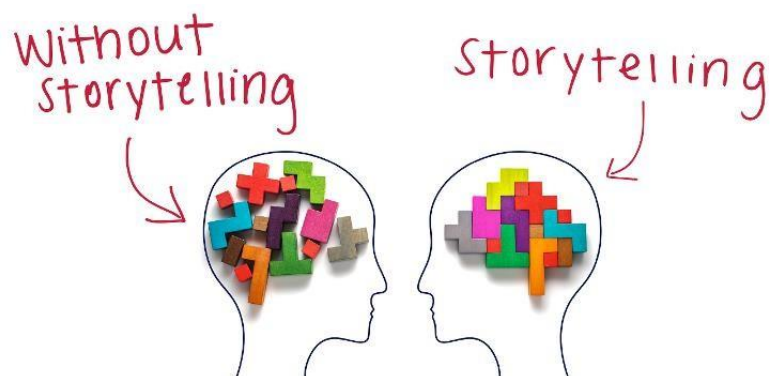
Kahoot! is based on research that shows what works and does not work in the classroom. Surveys and indications show that the use of Kahoot! contributes to learning through increased social and performance motivation.

Choose the techniques that work for your audience

If you are already using or considering using gamification, be sure to consider the unique needs of your students and do more than just use points and levels to motivate the players.

The best gamification systems utilize other elements, such as storytelling and collaboration between students to truly capture students' interest. This creates sustained engagement and good learning.

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