

EDUGAME

1ST INTERNSHIP VALENCIA 2024

SUCCESSFUL IMPLEMENTATION OF SERIOUS GAMES AND GAMIFICATION
IN HIGHER EDUCATION

1. Successful cases of Gamification

Gamification, when well implemented, it improves outcomes

- **Gamification** applies strategic game mechanics (points, rewards, leaderboards) to increase engagement and motivate behavior on campus or in the classroom.
- Friendly competition, goal-setting, and storytelling can all be used in higher education to make learning more fun and to help make the tough subject matter easier to digest.
- While the term "gamification" may be new(ish) to you, the mechanisms and principles likely are not. Most notably, video games and modern apps that are meant to train you to be consistent in your efforts to learn or engage with activities, almost always utilize some form of points, levels, rewards, or a combination of all of them to keep you moving from one phase to the next.

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- **In learning**, gamification can be used to award achievements for studying, test-taking, engagement with the materials, and more. You can also make it easy for everyone who is in your class to compete in a friendly way with one another with regard to work completion processes. Offering a story that needs to be told through the completion of specific goals can also make learning much more fun.
- If you have ever played a story-based game, you know how motivating it can be to complete tasks to find out what happens next. And this storytelling process is even more exciting if you also win little awards for completion.

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- **On campus**, you can help incentive students to explore, learn, and interact more by providing small rewards for participating in various activities across campus or for repeated interaction in individual activities.
- **In the classroom**, teachers need to keep things fun to keep boredom from creeping in. Using gamification strategies can significantly help your students to feel engaged and happy about working hard toward their goals. Research even shows that gamification creates dopamine in your brain, which makes learning more pleasurable and enjoyable, as well as rewarding.
- Gamifying tough processes can make them much easier to digest and engage with. The training aspect of gamification helps the brain to look at learning as rewarding rather than hard and frustrating, which motivates continued success and engagement in the process.

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Gamification, when well implemented, it improves outcomes

- The application of gamification and serious games in **higher education** has shown significant positive impacts on student engagement, motivation, and learning outcomes across various disciplines.
- In Europe, technical universities, in particular, have been at the forefront of incorporating these innovative teaching methods to attract a more diverse student body and enhance the learning experience.

2. Examples

Many possibilities

- "A Web-Based Augmented Reality System"
 - A very good survey: <https://researchonline.ljmu.ac.uk/id/eprint/22916/> that discusses the integration of web-based augmented reality with interactive games or gamification experiences, including location-based gaming and scavenger hunts .
- "BRANDY, a Game Developed by 10 European Universities to Teach Branding: Measuring Marketing and Intercultural Learning Outcomes"
 - <https://library.iated.org/view/EMAD2024BRA> discusses a collaborative project among European universities to create a game focused on teaching branding and marketing
- "A Gamified Course for Teachers to Gamify Their Teaching"
 - <https://library.iated.org/view/ARKUNKOCADERE2024AGA> Presents a course designed to help teachers understand and apply gamification in their teaching practices: <https://gatetogamify.eu/>

3. Why Use Gamification in Higher Education?

Many possibilities

- Reward-seeking behavior connected to learning
- Learning feels fun and engaging
- Sets education habits that are positive and committed
- Creates earn-as-you-go motivation to keep going through tough subject matter
- Helps offer chances for teamwork opportunities and team support
- Helps tap into dopamine responses which encourage improved mood and improved performance while learning
- Keeping teams and students connected with the material on a regular basis
- Creates a sense of autonomy that helps make learning feel personal and relevant
- Increases feelings of competence and success

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Examples of Gamification in Higher Education

1. Campus "Bucks"

One of the most basic ways to use gamification for school processes is to award **completion of specific tasks** with points, tickets, or online "bucks". Empowering students to get their own chosen awards at an online store or through another process can give them the push they need to reward themselves for hard work and to keep chipping away at learning materials.

2. Reward Daily Habits

When you need to teach **things that are fundamentally repetitive**, such as math or science concepts, you can use challenges that are actually gamified to make memorization and practice more engaging. Think about your favorite daily habits app or something like Duolingo. The fun game-style practice that these kinds of tools offer can help your students to learn skills with ease.

3. Why Use Gamification in Higher Education?

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3. Gamify Studying

Make some of your gamification about building **study habits or daily logged-in study time with this tool**. You can easily award badges, points, or whatever other kind of prize you think is appropriate just for participation. This makes it easy to encourage engagement, and this is often half the battle with learning the tough subject matter.

4. Friendly Student Competitions

So long as everyone is being supportive and nice about it, **competition can be a great motivator for your students**. You can easily leverage a leaderboard, team games, and interactive work to help make your students more engaged in the learning process. Rewarding those who participate the most in class can be a big benefit to competitive encouragement, but you need to be careful about being fair in your rewards for this kind of gamification structure.

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5. Incentivize Discussion in the Classroom

Think about Reddit and other online forums that **offer people badges and “points” for engaging in discussion**. This can be a great way to gamify your own teaching and you can give the same rewards to those who take the time to chat on message boards, participate in group study sessions, and more.

6. Extra Credit Points

Everyone remembers how helpful extra credit was when you were in school, and you were struggling with the subject matter or the completion of a class. You can offer this kind of benefit to your higher education students along with some added gratifying bonuses, such as **making the extra credit a team game event** or something else that can be done that is fun as well as educational.

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7. Use Storyboarding in the Classroom

If you want to encourage a way to make your tough subject matter more relatable, **you can make your entire class structure part of a story arc.** You might want to use a story of your own creation, or you can borrow the storytelling benefits of a tool or app to help make your teaching link up with a story that you think will be relevant to your class. Even though this sounds like it might appeal more to young children, adults love storytelling too, and this kind of game process can help cement concepts and encourage engagement with class work.

8. Gamify Tried-and-True Learning Tools

While it might seem like this is an old method that does not work well anymore, **flashcards are actually still a really effective means of creating engagement and gamified fun.** You will be able to tap into this by-rote learning tool to help with memorization as well. Making the flashcard activity part of a group game session or part of an award-based structure can also help make this tool really useful.

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9. Earn as You Learn

There are many ways that you can help your students to earn rewards as they go through class materials. You can make this points-based, or use any other system that you wish, with the understanding that there will be a total sum award that is offered at the end of the class.

10. Incentivize Teamwork

If you have a classroom that is struggling with team effort and with working collaboratively, **you can offer added credit or added bonuses for work that is done in teams**. This can be self-selected, or it can be part of the normal curriculum, but you can help encourage the engagement of your students in teamwork efforts by rewarding them through games and points, and badges for this choice.

4. Some interesting platforms

Many possibilities

Scavify (Campus Orientation, Student Engagement, Team Building)

Scavify takes the concept of a **scavenger hunt to create fun programs to help students become acclimated with campus and subject matter**. Using "challenges", points, rewards, leaderboards, and more, Scavify turns your campus into an interactive scavenger hunt. It can also be used for smaller team building activities and events.

<https://www.scavify.com/>

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Arcademics (Fun Games and Quizzes)

This is a great choice if you want to use **multiplayer games for education**. This is targeted at K-8 students, but you can use Arcademics for side games and quizzes as well as fun activities that keep things fresh and new, even in higher education.

<https://www.arcademics.com/>

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Bookwidgets (Interactive Exercises and Assignments)

This is a really useful software tool that is made for all levels of education. BookWidgets can be used **to create exercises and activities based on premade templates**, and you will be able to create a grading system of your own. This is also a great option for virtual learning as this site works really well on all kinds of devices.

<https://www.bookwidgets.com/>

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BreakoutEdu (Games and Quizzes)

This cool gamification tool allows you to access core subjects of all kinds through templates and set up reviews, games, quizzes, and more. This is a really fun way to have fun learning, and your teams will be able to solve puzzles, review topics, and use team-building tools as well while they are rewarded for their efforts to keep their knowledge fresh for your class.

<https://www.brainscape.com/>

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