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Advanced gamification: innovative techniques to gamify eLearning

Advanced gamification techniques are useful tools for involving and orienting students in eLearning and improving performance. Let's find out how to implement them.

Training and instructing is a delicate task. To maximize the concepts conveyed, the key word is attention. As long as students are involved and attentive, any knowledge can be spread. Complexity is not a problem in itself: more complex topics can first be broken down into simple parts, and then taken up in their entirety. Gamification techniques are one of the useful tools to maintain a high level of student involvement.

Gamification uses the psychology of learning to motivate students, encouraging involvement and commitment through typical game elements, such as scores, levels, challenges and rewards. The core of techniques is their ability to respond to a variety of human needs: the desire to achieve goals, the need for feedback and recognition, and the drive for competition and collaboration. Through gamification, educational content becomes not only more interesting but also more memorable, as students are actively involved in the learning process.

While useful, gamification is not a one-size-fits-all solution. Instruction Designers, the course designers, also have **alternative techniques available, such as storytelling**. Later in the article, we will also illustrate when and why it might be preferable to opt for different approaches.

Gamification techniques in eLearning

Gamification in eLearning is an approach that uses a series of techniques designed to **increase student interactivity and engagement**. These techniques are inspired by the mechanisms of games and can transform a traditional educational experience into a dynamic and motivating learning path. These are some of the main elements of gamification:

- the proposal of Objectives and Challenges
- the division into Levels for students
- the attribution of a score and the ranking of the students
- the presentation of Badges and the attribution of Rewards

Goals provide students with a sense of direction and purpose. Challenges, both individual and group, can be based on knowledge, skill or behavior goals. These elements promote active learning and allow students to monitor their progress.

The **levels** act as stages in the learning journey. As students progress, the levels become more complex, offering constant stimulation and a sense of accomplishment.

Scores, awarded for each positive action, and rankings, which create a sense of healthy competition, are powerful motivators. These elements can be used to encourage commitment and persistence.

Badges recognize student accomplishments, while reward systems offer tangible incentives. These elements increase motivation and provide visible recognition of achievements.

As you can see, these are elements often presented in video game screens. The idea is that the student, especially the younger ones, finds themselves in this "vision of the game".

On a broader level, gamification techniques include:

- the Narrative
- Personalization of the learning path
- Simulations and Actions in groups or in pairs

Incorporating a story or narrative context can make learning more engaging. Narrative helps contextualize information and stimulates student interest.

Giving students the ability to **personalize their learning journey** makes them more engaged. This can include choices about activities, personalized feedback, and opportunities to interact with other students.

Simulations offer hands-on experiences, while group or pair activities promote collaboration and problem solving.

These techniques, if well integrated, can transform an eLearning course from a simple transmission of information to a deeply engaging and memorable educational experience. Each technique may best suit some different learning styles.

Advantages and disadvantages of gamification techniques

It is good to consider that gamification has advantages and disadvantages that must be carefully considered by Instruction Designers and educators. Each technique has an area of ??utility that must be understood to derive the greatest benefit from it.

Among the advantages we can mention: increasing student motivation and engagement, improving memory and understanding, developing transversal skills, continuous feedback and measuring progress.

Gamification techniques stimulate student interest and maintain **high levels of engagement**, making learning more fun and interesting. Playful elements help consolidate knowledge, as students tend to **remember information better** when positive emotions are involved. In particular, **transversal activities** can be encouraged by proposing tasks and actions that connect notions and skills from different fields. Through group challenges and activities, students develop key skills such as problem solving, teamwork and leadership. Finally, gamification provides **immediate and visible feedback on student performance**, allowing them to monitor and regulate their learning path.

As regards the disadvantages, the following can be mentioned: the risk of distraction, the greater commitment of the IDs in designing the course, the harmony with learning styles.

If not balanced properly, game elements can **distract attention from educational goals**, especially if students focus more on competing than learning. Designing a gamified eLearning course requires time, resources and specific skills. Poor design can lead to an ineffective learning experience. A good ID should consider time and resources available before incorporating gamification into the course.

This is also because not all **learning styles** can appreciate these techniques. Some students may not respond well to game elements, preferring more traditional approaches. The point is that gamification is intended to engage, motivate and aid retention. For already motivated and engaged students who have no difficulty automatically memorizing complex concepts, these techniques may be distracting. The risk is that of introducing too many elements extraneous to the notions, which could lead to overload, especially for students who prefer a more direct and less frenetic approach.

In conclusion, while gamification offers numerous advantages in improving the learning experience, careful balance and thoughtful design is essential to avoid potential disadvantages. The key is to adapt the use of gamification techniques to the specific context and needs of students, thus ensuring effective and engaging learning.

Alternative techniques to gamification in eLearning

While gamification is an effective approach, there are some alternative techniques that can be used in eLearning. These methodologies offer diversified approaches and can be particularly useful in contexts where gamification is not the most suitable option.

As already mentioned, a first technique is that of narration, or **storytelling**. Beyond the playful elements, story telling is a powerful educational tool. Storytelling can be used to make content more compelling, facilitating emotional connection and retention.

A second category is that of **project-based learning** and that which stimulates collaboration and peer learning. Taking part in projects, even in groups, involves students in real and meaningful tasks, promoting the practical application of knowledge and the development of transversal skills. Peer learning and collaboration encourages students to teach and learn from each other and promotes a collaborative and supportive learning environment, as well as strengthens understanding of concepts.

A third category is that of **metacognition** and personal reflection: teaching students to reflect on their own learning process helps them become more autonomous and aware learners. In this case, the focus is not on individual practical or theoretical skills, but rather on the stimulus to their critical use.

A more complex level of learning is also that of problem-based learning (PBL) and that of **flipped classrooms**. Problem Based Learning is a method that focuses learning around the solution of realistic problems, stimulating critical thinking and decision-making skills. The flipped classroom stimulates students to present the concepts learned in class: students study the teaching material before the lesson and then use the time in the classroom for in-depth analysis, discussions and practical applications.

Microlearning goes in the opposite direction, which presents lessons of reduced size and duration. In this way, the units can be followed easily, in spare time and in the most disparate places.

Each of these alternative techniques offers unique benefits and can be effectively integrated into an eLearning program to diversify the learning experience. The choice between gamification and these alternatives will depend on the specific objectives of the course, student preferences, and the learning context.

Application of gamification techniques in eLearning

The effective application of gamification techniques in eLearning requires careful planning and design. Instruction Designers and Subject Matter Experts can implement these techniques to maximize the impact on learning by following some precautions.

Before implementing any gamification technique, it is essential to define clear **learning objectives**. These objectives will guide the choice of the most suitable techniques and ensure that gamification supports educational purposes. Not all gamification techniques are suitable for every context. It is important to select the ones that best suit the audience, content and objectives of the course.

Gamification techniques should be **integrated naturally** with the course content, reinforcing and not distracting attention from the learning objectives. Gamified activities must offer a stimulating but achievable challenge, avoiding discouraging students with overly difficult or overly simple tasks. Feedback is a crucial element in gamification. It must be timely, relevant and constructive to guide and motivate students in their learning journey.

It is essential to be able to monitor the effectiveness of gamification techniques, to be ready to make adjustments based on student feedback and learning outcomes. ID and SME need to recognize that students have different learning styles and adapt the gamification approach accordingly, offering variety and options.

By implementing these guidelines, Instruction Designers and Subject Matter Experts can create eLearning experiences that are not only engaging and motivating, but also profoundly effective in promoting learning.