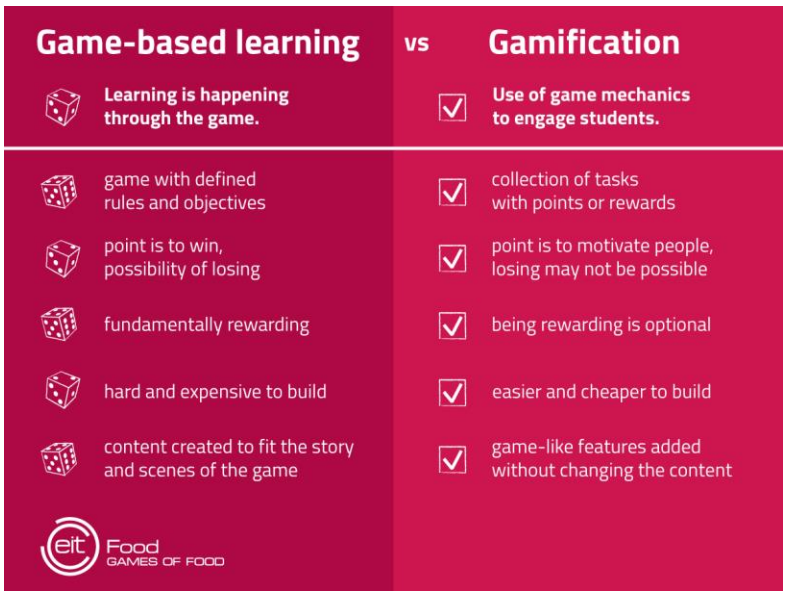
Learning about food through an escape game? The why's and how's of game-based education

Play and playfulness is often used to engage young children. As we grow up the playful element of learning is often left aside. So why would it be beneficial to use more game-based learning for all ages? And how could this help us learn about healthy food habits and good nutrition?

Learning through play can be as simple as connecting numbers on a piece of paper in kindergarten to draw a clown or as adults learning about strategy through a board-game night with friends. However, when talking about playful learning kids are often in the forefront in research and practical implementations (3). But this is changing. The added value game-based learning brings to the teaching experience is used more and more with adults as well. And hey, learning should be fun right!

Game-based learning

So, what does this game-based learning really mean? Firstly, it should not be confused with gamification (see image). Using quizzes or rewards to engage students in the educational material is gamification. Game-based learning is about playing a game that itself is educational.



There are many things one can learn from games, e.g. Monopoly teaches strategy and budgeting, Minecraft creativity and collaboration. Including educational components to games are a really smart way to motivate and engage students. Think about it. If you find a game challenging it only motivates you to keep trying and get better so you can master it (2). However, when it comes to studies you might say (or think) that you are not good at a certain subject, like math or biology, and that's final. There is not the same motivation to do more math to get to more complicated equations.

When play and learning are combined, they create a space of learning where spontaneity, social connections and creativity are added to the experience. People are also more comfortable taking risk when it's part of a game, and this can prepare them for real life situations (5). Educational games could help us improve the sets of skills needed going forward, the so called 21st-century skills.

The 21st-century skills

Today, skills that are intrinsically human are becoming highly valued. These 21st-century skills are for example critical thinking, creativity, flexibility, social skills and leadership (1). Technological advancements are changing how we live, work and learn. We need to adapt to these changes and develop our knowledge to suit the future we are entering. Repetitive tasks are being taken over by computers, making the future job market demands different than those today. Our food systems and food technology is developing with the rest of society and it's important for us to understand how they work.

Educational escape games

In practice, game-based learning could take the form of an escape game. A challenge to find the key to get out of a locked room through solving puzzles and riddles, all with a time limit of 60 minutes. Games of Food is an EIT Food funded project that uses game-based learning to teach about sustainable diets and healthy nutrition. The first developed game is Zombie Attack, set during a zombie apocalypse (4). As you might imagine, calculating the energy content of foods while trying to escape zombies is quite different than reading it in a book! Hundreds of players have already taken part in at least five countries. The preliminary results on the educational impact of Zombie Attack are positive, showing that players are more motivated and encouraged to learn about nutrition after playing the game (4).

The Games of Food project is now developing a second game, Mission Nutrition aimed to educate children about healthy nutrition and behaviors through playing the escape game as space explorers! Stay tuned on gamesoffood.com for updates on the project.

References

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