



4.9 TAKING ENGAGEMENT TO THE NEXT LEVEL WITH GAMIFICATION

With gamification you can take what you have already been doing with STREAM inspired hands-on activities and elevate them further by adding game elements and mechanics. For the purposes of this module the term “Gamification” will refer to the concept of using game elements and mechanics as well as game thinking in non-game situations in order to boost engagement. For us that non-game situation is learning environments for youth.

In an effort to cut to the chase and suggest gamification approaches that can aid your STREAMpreneurship journey I will take my cue from Karl Kapp an Instructional Technology Professor at Bloomsburg University and expert in Gamification that suggests two gamification types when the approach we take has to do with how we treat the content/information/knowledge we want to present. These two types are Content Gamification and Structural Gamification.

With these two types the choice comes down to either adding game elements and mechanics to the teaching content itself or the structure of the teaching content. In the first instance that would be Content Gamification and in the second that would be Structural gamification. While they both use game elements and mechanics to engage the learner, they differ in how they are connected to the learning content. To start understanding how they are different, let's start with some basic definitions for the two gamification types.

Content gamification takes, uses and imposes game elements, mechanics and aesthetics on the educational content to alter that content in order for it to become more game-like.

Structural gamification places a game structure around the educational content without changing the content itself. The content itself does not become a game but the presentation of the content becomes more game-like. A layer of game structure is added around the content without changing the native structure of the educational content.

So what we see here is that content gamification is way more invasive towards the educational content and thus can change the structure of the educational content whereas structural gamification does not impose on the content as it is simply an additional layer that is placed on top of the established structure of the educational content. However, while content gamification does make the content more game-like it does not go to the extreme of turning the content into a game. It merely establishes a context and tasks often used in games and adds them to the content being taught which of course in many ways it can change the original, native content structure.

Both gamification types are valuable and can be equally effective in an educational setting as long as they are chosen strategically and intentionally based on specific learning goals and circumstances.

Let's very briefly mention game elements. They are there to drive the learner's engagement and motivation. These include Goals, Rules, Objectives, Storytelling, Experience Points, Badges, Scoring, Leader boards, Rewards & Achievements, Levels, Conflict, Cooperation, Competition, Failure, Replay ability and Feedback.

Perhaps three of the most well-known game elements are Points, Badges, Leader boards.

Points

Points are basic elements found in many games and gamified applications or software. They are usually offered as a reward for successful achievements, and they help the player keep track of their progress throughout the game or gamified experience. They are often called experience points.





Another variation of points can come in the form of coins. One of the most important reasons for the creation of points is to provide continuous and immediate feedback to players by measuring their in-game behaviour and reinforcing good behaviour by rewarding them with points. Points acknowledge efforts and achievements early and often. In the beginning points are usually supposed to be earned easier and faster for the player to be able to progress through the first levels and hook them into the game. After the first levels, the acquisition of points and the levelling up becomes harder and harder. The stakes in higher levels might also be higher as not only will the point acquisition be tougher but they might come across damage points that will knock them down. When used properly in a class, this might also give enough time for the slower players in the classroom to catch up with the ones that have progressed further in the game.

Badges

Badges can be visual representations of achievements such as a scoring streak ; collecting non-essential items throughout the game or acquiring valuable information. Badges symbolise players' achievement and merits and as such they provide certain prestige and social status. As social dynamics are involved with acquiring badges, they can exert social influence on players' and co-players' behaviour enough to lead them to choose specific challenges or routes in order to acquire them. This is especially true for when badges are rare or harder to find or they offer privileges such as handing homework late or giving powers such as eliminating the multiple-choice answers to a question by 50%.

Leader boards

Display players' ranking according to the most earned points or awards. The leader board can offer an overall ranking or can show relative success for a specific mission.

Therefore, they are indicators of a player's progress in relation to other players' performance and progress. Leader boards can be a tricky element to use as in some cases they can act as motivators when players just need a few points to progress to the next level or surpass a competitor and in other cases they can act as demotivators for those who find themselves at the bottom of the leader board. It is mainly seen that leader boards positively impact participation and learning through productive competition when competitors on a leader board are approximately at the same level.

Storyline

One of the elements that is particularly effective at connecting other elements together in a fruitful manner, is that of storytelling. One could say that the story is the glue that provides the context, flow and purpose that gives meaning to the goals, objectives, rewards, points, badges, leader boards, houses and other elements used.

Offer a story that just like an essay has a clear beginning, middle and end. Within that story there needs to be tension, conflict, resolution and a happy ending. The story needs to offer enough details to make the gamified learning experience more immersive. To help with your story making first pick a theme that is easy for you and your youth group to get hooked to. You can borrow theme ideas from real life situations, current affairs, popular culture, books and movies. Examples of themes include Pandemic, Superheroes, Space exploration, Magic, Fantasy and Historic events. Your choice of theme will set the tone for the lesson and gamified experience. It sets the frame for your story and shapes the gamified elements and aesthetics accordingly. Speaking of aesthetics, the look and feel of your setting and environment will be dictated by your theme. The visuals should reflect the kind of background and backdrops you would expect. For example, if your theme has to do with the first Hunger Games movie, you expect that at some point or another the background of a forest will be



presented. If your theme is borrowed from Hogwarts then it is likely that you would see a castle, the great hall, the potion's lab or the quidditch field at some point. Then you need to provide characters related to the theme and setting you choose and ask your youth group to choose their characters and avatars which could be drawn or imagined instead of digitally created. If you do go with a Fantasy theme, your characters could include wizards, fighters, archers, rogues and clerics. I wouldn't suggest you pick specific movie characters as it is likely that the players might "fight" for the protagonists. Offer options of generic characters that have specific attributes and abilities. Those attributes as we will see in our overview of Classcraft shape the badges and privileges they can earn. Those characters can also belong to groups, houses or guilds. You need to also introduce non player characters like extras in a movie such as villagers that will be there to either aid or hinder a player's progress. So you have your theme, setting and characters so it's time to bring in the action and conflict to engage the players. What types of conflict would arise naturally in your story's theme? Well, if your theme is Harry Potter then the conflict could arise from the Death Eaters and Voldemort himself. You can move a step further and Think about the problematic issues you face in your classroom and how you can integrate them in the story, for example lack of teamwork where everyone gets to contribute according to their strengths. As a conflict you can also consider daily tasks that learners need to be further exposed to in order to improve. Such tasks include notetaking and reading comprehension. If you are going to include these kinds of tasks you need to make sure that they are context based and aligned with your theme. For example if your theme is the movie "The imitation game" where Alan Turing the British mathematician joins the cryptography team to decipher the German enigma code in order to decrypt German intelligence messages during the second World War then probably vocabulary words such as "code breaking", "decryption", "encryption" etc should be included.

We won't go more into gamification at the moment. Nevertheless, it is important to mention that gamification is open to all ages, topics and settings , it can be as expensive or inexpensive you would like, and it can involve technology as much or as little as you would like. It has no limitations and is open to all to try, implement and benefit from.

Here are some of the gamification benefits worth mentioning. Gamification can:

- Captivate and motivate learners
- Offer an opportunity to develop life skills like collaboration skills
- Improve instruction effectiveness
- Advance retention and recall
- Allow for individual tailoring
- Provide instant learning feedback to both youth workers and learners so as to provide effective and immediate intervention when needed
- Empower learners to self-evaluate via access to progress tracking
- Enhance learner engagement and productive participation
- Inspire youth to love to learn and thus become life-long learners

To learn more about gamification feel free to contact me via LinkedIn or email so I can provide you with more information.



Let's close this segment with Michael Matera's words

"Success comes when we are intentional about the ways we use gamification in tandem with curriculum standards. What we are essentially doing is an educational mashup of game-based learning, plus other tried and true methods. Sailing forward, remember we are using gamification to enhance what we already do."

