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THE IMPLEMENTATION OF GAMIFICATION CONCECPT INSIDE ONLINE CLASSROOM ACTIVITIES TO PROMOTE STUDENTS' ENGAGEMENT

Feryan Christ Jonathan and Michael Recard
Pelita Harapan University, Indonesia
fj70021@student.uph.edu; michael.recard@uph.edu
*correspondence: fj70021@student.uph.edu
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Abstract
Online learning has made massive development nowadays. Due to the spread of Covid-19, the government made a policy to prohibit physical meetings in schools. However, this new policy caused a problem of engagement in online learning. During the lesson, students are giving slow and minimum responses to the teacher's instruction. This happens in most of the school that operates online learning. Therefore, a solution to improve engagement in online classroom is needed. The implementation of the gamification concept is one of the great alternatives. The implementation of this concept has reaped positive results from various fields, including education. With the right application, this method can be a powerful tool to teach in online learning.

Keywords: covid-19, engagement, gamification, online classroom, quarantine

Introduction

Interaction between teacher and students is important inside teaching and learning activities. It could determine whether the learning objectives in each meeting in the classroom can be achieved or not (Eisenring & Margana, 2019). The interaction between teachers and students can bring actual impacts to the way students engage in the classroom. According to a research done in a K-6 and K-9 classroom by Harvard school of education college students, only by changing the teacher's way of interaction with communicating just like parents, can increase students' participation rates by 15%, increase the odds that students completed their homework by 40%, and decrease instances in which teachers had to redirect students' attention to the task at hand by 25% (Melorose, Perroy, & Careas, 2015). With this data, it can be seen that the interaction between teachers and students is quite impactful.

However, there are lots of challenges that appeared in online learning since all classrooms' activities must be done online through virtual platforms. Because of the pandemic condition, the proliferation of online learning has become mandatory for schools to continue teaching-learning activities through online learning so it can help to cut the chain of pandemic (Haerudin et al., 2020). This

situation has made teachers have more difficulties in interacting with their students because the physics of the students are only shown virtually through an online meeting. Teachers cannot directly monitor students' presence just like in a real classroom. This issue is getting worse when teachers cannot make the class engaging and tend to be boring which will make the students not giving full attention to the materials.

The implementation of gamification proved to be effective in increasing students' engagement in online classroom. According to Yu-kai Chou (2016), everything that we do are driven by 8 core drives within the octalysis framework. This framework has been applied in various industries and professions. Education is not exceptional. Learning by playing is highly effective for children since children like to play and they relax through playing which then will cause them to also like learning (Zosh et al., 2017). That is why applying this concept inside the online classroom can give lots of breakthroughs in education.

Through playing while learning, students can learn various attitudes and positive characters such as competitive, sportive, cooperative, creative, and can respect their classmates (Zosh et al., 2017). These characters may not be provided by the school with casual methods. This method will also give impact to school atmosphere and improve the quality of learning. The writer hopes that with this research paper, teachers can have more options to make their online classroom more engaging. The sub focuses of this paper will be the problem of engagement in online learning, gamification concept, and gamification concept in online classroom.

The Problem of Engagement In Online Learning

Engagement is important in teaching and learning activities. In terms of education, engagement is defined as the students' willingness to actively participate in the learning process, as well as demonstrating sustained involvement and positive emotional tone toward learning experiences (Miller et al., 2011). Students can learn better in a learning environment full of engagement. There are three types of engagement, which are cognitive, behavioral, and emotional engagement (Ishak & Amjah, 2015). In this paper, the type of engagement that will be discussed is emotional and behavioral engagement. According to Jones (2009), there are 5 signs of students' engagement which consist of positive body language, consistent focus, verbal participation, confidence, and excitement. These are the characteristics that the teacher needs to keep in mind while checking students' engagement.

Engagement plays an important part in making a classroom effective. According to Eyesenck (2018), effective teaching and learning process will have to promote active learning, collaborative learning, responsibility in learning, and promoting learning about learning. Furthermore, Rossetti and Fox (Rossetti & Fox, 2009) stated the factors that indicate successful teaching is the promotion of learning, teachers as learners, teacher's presence, and enthusiasm. The similarities between Eyesenck's and Rossetti's findings are active learning, collaborative learning, teacher's presence, and enthusiasm which are correlated closely to classroom engagement.

The condition of the pandemic has changed the education process. According to Watnaya (2020), the impact of Covid-19 has proliferated online learning. This

policy is also stated by other countries that fight Covid-19. With this adjustment, online learning plays a vital role in teaching and learning activities during the quarantine. Online classrooms have a lot of differences compared to the traditional classroom. According to Nguyen (2015), online learning is a form of learning that take can be done virtually through online media.

Online learning viewed as less in quality than the traditional classroom. According to Ahn (2017), student enrollment in online classroom is not as effective as in the traditional classroom. The same findings also found by Hart et al., (2019) that stated online classroom is not effective for K-12 students in America. Besides, a survey that had been done by Syalwa (2020) shows that Indonesia's students dislike online learning and view it not as good as traditional learning. Furthermore, research done in Telkom University in Indonesia implicates that 90% of 35 students prefer traditional classrooms rather than the online classroom (Watnaya et al., 2020). The fact that students prefer traditional classrooms instead of the online classroom should be analyzed thoroughly.

One of the stereotype paradigms towards online learning is it is viewed as less engaging than traditional learning. This skepticism was also mentioned by Allen et al., (in Riggs, Linder, & State, 2016) that instructors or teachers engage the students more actively in a face-to-face environment. Quoting the statement from Rossetti and Fox, it can be mainly because students are lacking of enthusiasm (Rossetti & Fox, 2009). This can happen due to the inequity adjustment between online and traditional classrooms.

With that in mind, Euginia Mora-Flores (in USC Rossier School of Education, 2020) also points out that there should be a moderation within an online classroom. The differences between online classrooms and traditional classrooms are severe. For example, in the school settings, the teacher can give a two-hour session non-stop in the classroom. Meanwhile at home, the same duration of teaching was applied, and hope the students can follow it just like when they do it in school. Euginia said that the presence of peers and engagement are important as it can help students to reflect and explore (USC Rossier School of Education, 2020). At home, students can be demanded to enroll in an online class for 2 hours, but without the presence of peers, students will easily get exhausted. There are some moderation that has been made by modified the duration in minimum. However, it should be sustained with quality learning. This situation raises an important topic in online learning, which is engagement.

The Gamification Concept

Game is related closely to the verb play. Game is a system in which players engage in an artificial (man-made) conflict and are defined by rules (Salen & Zimmerman, 2003). Another definition is a game is a physical or mental contest played according to specific rules, with the goal of amusing or rewarding the participant (Noemí & Máximo, 2014). A system inside a game sustained with various elements (such as rules, players, goals, role, decision making, and any other elements) that connected organically to possess an overall function (Tanimoto, 2015). Meanwhile playing is free movements within a more rigid structure (Salen & Zimmerman, 2003). The terms for 'rigid structure' are rules that limit the players within the game itself.

There is a vital difference between playing and working. According to Chou (Chou, 2016) the factor that filled the gap, is the fun factor. The simplest example of fun factor in playing a game is, people can satisfy themselves with doing things they cannot do in the reality, or which can be inferred as zero risks/consequences in the real world (Adams, Little, & Ryan, 2017; Boyle, Connolly, & Hainey, 2017; Chou, 2016). In short, people can do anything they want through games, especially through video games which offer greater experience. A video game is played with a computer or any other device that can visualize video-formed games (such as console, smartphone, or computer game) (Noemí & Máximo, 2014).
Each type of game is made within a path. Yu-kai Chou (2016) found that there is a framework that sustained the engagement factors of the game called octalysis. Based on octalysis theory, each game (whether it is action, adventure, role-playing, and other types) has key elements or core drives to make their game successful (Chou, 2016). These key elements are represented within the octalysis framework, which has 8 different types of core drives within it. The core drives are Epic meaning and calling, development and accomplishment, empowerment for creativity and feedback, ownership and possession, social influence and relatedness, scarcity and impatience, unpredictability and curiosity, the last is loss and avoidance (Chou, 2016). These core drives are the things that drive the players to engage and play the game with high levels of relatedness towards the game. The more related the game towards the players' feeling, the more highly also the game will be successful and played by the players over time (Adams et al., 2017; Boyle et al., 2017; Chou, 2016; Noemí & Máximo, 2014; Tanimoto, 2015; Wu, Li, & Rao, 2008). Game developers that can cultivate these core drives in their games, proven to have a successful game.

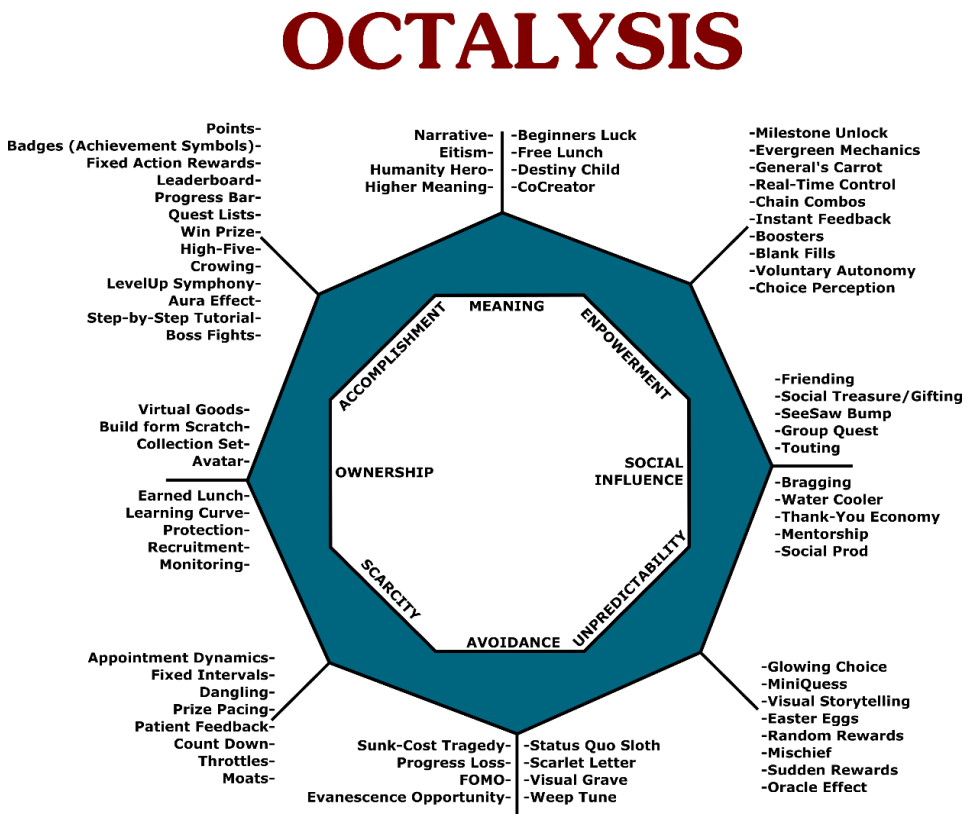

Figure 1. Octalysis Fremawork (Chou, 2016)

Gamification in Online Classroom

One of the problems of online classroom is there is only a little engagement between students and teachers. Thus, school along with teachers have to find a way to create activities that can bring engagement and enthusiasm in learning. With the help of the gamification concept, this problem can be fixed. There are three main reasons why this is the right solution.

The first reason is learning by playing games is better than plain studying. According to Koster Raph (2004), playing can enhance learning with more impacts than people could imagine. Schatz and Loschiavo (in Kirkland & O'Riordan, 2008) added that playing can lighten the mood and facilitates greater creativity and boost morale interest. Sometimes, the teacher distinguishes these two aspects between playing and learning, into two contradictory aspects.

The second reason is, people will feel challenged instead of feeling pressured when they playing a game. Even though some games are more complex than learning the school's subject, players are not feel pressured when facing a difficult situation. In an online game called Mobile Legends: Bang Bang, for example, the players have to memorize thousands of items, map rotation, player's role, apply good positioning and plan a complex strategy so they can defeat their enemy. The objective of the game is to destroy the core base owned by the enemy. Each team will consist of 5 members with their unique roles. With all of these complexities, there are still lots of players of this game that came up from various age, gender, and background which most of them are students (Iskandar, Hidayat, & Ganda, n.d.; Yogatama, Kharisma, & Fanani, 2019). The level of the cognitive domain in online game, Mobile Legends has already reached the level of synthesis, which occupied the second position in the pyramid of Bloom's taxonomy (B., Mesia, & Krathwohl, 1964). It is really in contrast with subjects like Biology, which most of the time only have to remember things. In Bloom's taxonomy, remember occupied the lowest position (B. et al., 1964). But the players (which mostly are students) can keep up with it and some of them even reach the highest rank in the game.

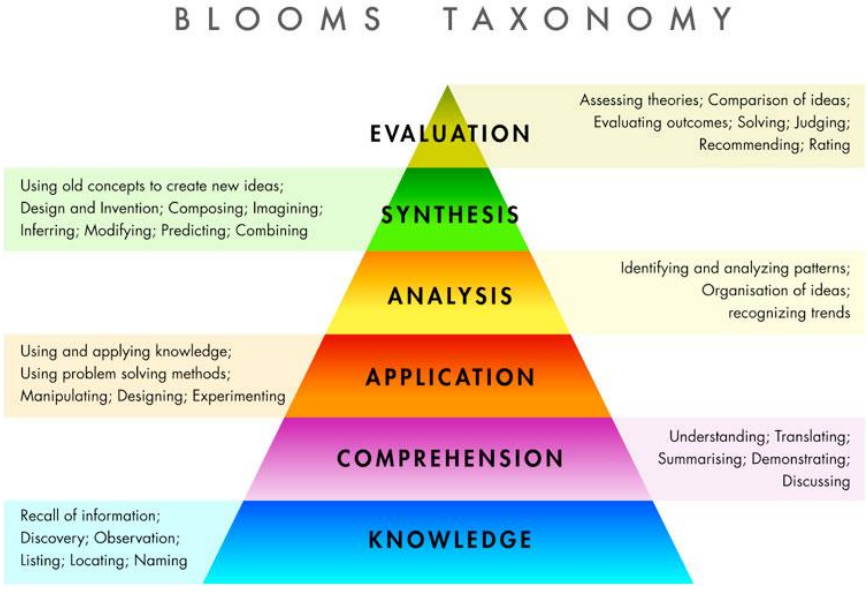

Figure 2. Bloom's Taxonomy (B., Mesia, & Krathwohl, 1964)

The third reason is, gamification has been proven over various researches in a different field to promote engagement, including education. Game is a powerful tool for learning, which is why it should be applied in the classroom. Some researches result in the improvement of students' engagement in learning (Kirkland & O'Riordan, 2008; Özhan & Kocadere, 2020). Furthermore, there are also positive results from various types of fields such as engineering and military as has been noted before (Markopoulos et al., 2015; R. Smith, 2010). The gamification concept inside it, make weather engineering students or training soldiers practice better. Game can even solve a puzzle that confused scientists for a decade within only ten days, which a proof that there are gamers who smart enough to tackle scientist's level of problem (A. Boyle, 2011). With those reasons above, it is a wise decision to apply the gamification concept in the online classroom.

Findings and Discussion

The researcher has applied gamification concept in an English language classroom. In July until September, the researcher had an opportunity to teach in SK Erenos in Tangerang. At the beginning, the researcher tried to teach with casual direct method. The researcher explain the concept plain, without any specific method, while sometimes asking questions to check student's understanding. However, the participation in the class is not engaging. Students are not respond enthusiastically towards the materials.

The researcher tried to evaluate and reflect towards this problem. Then came up with a suggestion to elaborate gamification concept in class activities. The researcher made a lesson plan to elaborate simple past tense materials in a gamified classroom activity. After the game was played, the researcher received positive feedback regarding the game. It results into a more engaging environment in the learning activities.

Figure 3. Simple Past Game

The researcher managed to make these outlines to simplify the gamification process in classroom's activities. These outlines were made after collaborating gamification concepts from Sugar (1998), Giessen (2015), Iida (2018), Deterding et al., (2011) and Chou (2016):

Decide learning goals as the game goals

Teacher can make their learning goal into game goal first. For example, the learning goal is the students are able to introduce themselves to others. This should be also the game goal.

Decide how to play the game

This can be done easily with implement octalysis core drives inside activities. For example, students who can introduce themselves correctly, will get a badge. This is an example of accomplishment core drive. Another example is, after students finished introduce themselves, the students can choose their friend freely. This is an example of unpredictability core drive.

Add more variations, but keep it simple

More variation of core drives, will opens up new possibilities and amusement for the students. However, each game should be kept simple and playable. If this conditions are not met, then the students cannot enjoy the game fully. For example, teacher should not ask the students to bring any difficult items to the class. This will result classroom's disappointment.

Teacher should aims for the purpose of the game

After the game was ended, teacher needs to check their students' understanding. This step is require to clarify the game's purpose.

Have fun

The game has to generate the feeling of fun for either the teachers or the students. This is important, since gamification concept is all about fun factor. If the students are feel pressured than challenged, then it is wise to evaluate the game.

Conclusion

Online classroom is a challenge to the educational world. It opens up problems different from the traditional classroom. One of the core problems experienced by teachers in online classroom is the lack of engagement by the students. Without any solution, this problem can generate a more negative impact. One of the profound solutions is to promote the gamification concept inside online classroom's activities. This concept has been proven to promote students' engagement in online learning. The problem of engagement also occurred in a school where the researcher did his field practicum. After some suggestions, the researcher tried to elaborate a serious game inside classrooms' activities and receive an improvement in students' engagement, after designing the game with the octalysis framework.

The writer give a suggestion for other researchers to study about other engaging methods to improve engagement in online learning. Or also, can widen

the findings about the impact of gamification for students' achievement inside online classroom. Besides that, school may provide professional development for their teachers to share about this knowledge.

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