LEVERAGING GAMIFICATION INTO EFL GRAMMAR CLASS TO BOOST STUDENT ENGAGEMENT

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Abstract

Student engagement is paramount for the success of EFL learning. This paper explores how the leverage of a game-based learning platform, Kahoot!, into EFL grammar learning and teaching boosted student engagement. One grammar lecturer and 22 English-major students participated in this qualitative case study. Data were obtained through observations, reflective journals, and interviews. The results revealed that the platform enhanced student engagement in EFL grammar learning in six ways, namely enabling students to set goals, helping students focus more on the tasks, facilitating students to build enthusiasm and interest in learning, allowing students to experience playful learning activities, facilitating students to collaborate with their friends, and fulfilling students' need of reward and sense of competition. The students were also reported to exhibit behavioral, cognitive, and emotional dimensions of engagement during the implementation of Kahoot!. The findings have important implications for EFL grammar learning and teaching. In addition to the affordances of Kahoot!, teachers are still central to the implementation of the platform to engage the students in EFL grammar learning.

Keywords: student engagement; EFL grammar learning; gamification; Kahoot!

1. Introduction

In terms of successful learning, student engagement is frequently considered paramount. According to Chavan (2015), engaging students in learning processes can lead to transformational and meaningful learning that instigates fundamental changes in students. Engaged students consequently focus more on learning activities and acquire greater knowledge than less-engaged ones (Goss & Sonnemann, 2017). As it involves active and collaborative learning (see Zepke & Leach, 2010), student engagement fosters students' ability to take more responsibility in learning and creating mutually-beneficial learning communities. Students who are engaged in learning eventually perform better and have better desired learning outcomes than those who are not (Martin & Torres, 2016) because they are more likely to finish their tasks (Gebre, Saroyan & Bracewell, 2014).

As regards the significance of student engagement in language learning and teaching, EFL teachers are encouraged to boost student engagement. One of the ways to enhance student engagement is by incorporating technologies into teaching practices. Eady and Lockyer (2013, p. 6) argue that "the important role that technology plays in education allows teachers to design meaningful learning experiences." Fun and interesting technology-enhanced learning environments can hence enhance student engagement levels (Aston, 2016; Pasaribu & Wulandari, 2021; Prasetyawati & Ardi, 2020). In a nutshell, technology plays a prominent role in fostering student engagement levels in classrooms because it is "a powerful contributor to learning if it is used to deepen students' engagement in the meaningful and intellectually authentic curriculum" (Costley, 2014, p. 4).

The recent proliferation of technologies in the field of language learning and teaching is often associated with gamification (Azman & Yunus, 2019; Zhang & Yu, 2021). Gamification-enhanced language learning has proved to empower student motivation and engagement (Reinhardt, 2019; Tan, Ganapathy, & Singh, 2018; Turan & Meral, 2018). Alsawaier (2018, p. 56) defined gamification as "the application of game features, mainly video game elements, into non-game context to promote motivation and engagement in learning." It is worth noting, however, that game-based learning platforms are created for academic purposes. Although they are play-oriented, the platforms include the elements of learning and their outcomes are still in line with the teaching and learning processes. Their prominent principles allow students to experience more engagement and fun during the learning processes (Tan *et al*., 2018)

Among recent popular game-based learning platforms is Kahoot!, a game-based learning platform that provides teachers with tools to make a quiz or exercise using computer devices. Its affordances enable the teachers to create more interesting quizzes. In terms of its ease of use, the tool is so simple that teachers and students can easily use it. The fun aspects of the tool also give positive energy to help students feel engaged and excited (Plump & LaRosa, 2017; Zhang & Yu, 2021). As Kahoot! is growing popular among language teachers and learners, its implementation will provide more leisurely and relaxing learning experiences and build an engaging classroom atmosphere.

Many studies have been devoted to investigating the classroom use of Kahoot! to engage students in learning. Smith and Braurer (2018) found that well-designed quizzes in Kahoot! led to better student engagement, motivation, and learning. The study also revealed that the ability of the instructors to choose appropriate levels of difficulties and to set time limits made the quizzes more engaging. Another study, conducted by Turan and Meral (2018), found that the fun learning atmosphere and competitive environment created by Kahoot!

encouraged students to learn more effectively. The results showed that the group of students using game-based learning achieved a higher level of engagement than the one using non-game learning. Moreover, the game-based learning created a fun learning atmosphere and drew the students' attention. Göksün and Gürsoy (2019) asserted that Kahoot! brought about an engagement-increasing effect, in which Kahoot!-based instructional activities resulted in higher academic achievement and student engagement than non-game-based instructional activities did. Other studies (Azman & Yunus, 2019; Dehghanzadeh, Fardanesh, Hatami, Talaee, & Noroozi, 2021; Ding & Orey, 2018; Hou, 2018; Quiroz, Gutiérrez, Rocha, Valenzuela, & Vilches, 2021; Turan & Meral, 2018; Wang & Tahir, 2020; Zainuddin, Shujahat, Haruna, & Chu, 2020; Zhang & Yu, 2021) also reported that the integration of gamification in learning activities had positive effects on students' motivation, achievement, learning outcomes, and engagement.

Driven by previous studies, the implementation of Kahoot! potentially attracts students and makes them more engaged in EFL grammar learning and teaching in Indonesia. Student engagement has become a crucial issue in the field of grammar learning and teaching in non-English speaking countries, where learning English grammar is considered difficult and boring. Most students tend to be less engaged because "grammar is equated with meaningless and decontextualized forms which were isolated from uses" (Saeedi, 2016, p. 18). Al-Mekhlafi and Nagaratman (2011) even stated that "any mention of grammar causes the students moments of discomfort and sometimes even terror" (p. 69). This paper reports on the findings that shed light on how the implementation of Kahoot! boosted student engagement in EFL grammar learning and teaching in the Indonesian context.

2. Literature review

2.1. Student engagement

Student engagement has played a crucial role in successful language learning. It is generally defined as "the extent of a student's active and productive involvement in a learning activity" (Reeve *et al.,* 2020, p. 5). Student involvement could be identified from their cognitive contributions, active behavioral participations and emotional reactions to their learning (Zepke & Leach, 2010). It also covers students' positive and participative endeavors during the learning process, which indicate their interests and curiosity about learning (Krutka, Carpenter, & Trust, 2016) and encourage them to have a commitment and take responsibility for their

learning (Chavan, 2015). As a result, engaged students are more likely to achieve learning outcomes.

Given the aforementioned, engagement is a multidimensional construct that constitutes interrelated components. The widely accepted model of engagement encompasses the combination of behaviors, cognition, and emotion as intertwined factors to the intended learning outcomes (Fredricks, Blumenfeld, and Paris, 2004; Trowler, 2010). However, the model has not addressed the social cognitive theory, viewing students as agents of their learning, who own and control their learning. For this reason, agency is included as an additional component in the previous model (Oga-Baldwin, 2019; Reeve, Hyeon-Cheon, & Jang, 2020; Wang & Lee, 2021). Students' initiations and contributions to their learning environment and quality of instruction could improve their learning. In this regard, agentic learners tend to be more engaged and invested in their language learning (Larsen-Freeman, Driver, Gao, & Mercer, 2021)

Students' behaviors in the classroom are observable indicators to identify whether they engage or disengage in their learning processes. Behavioral engagement refers to "the involvement in learning and academic tasks and includes behaviors, such as effort, persistence, concentration, attention, asking questions, and contributing to the class discussion" (Fredricks *et al*., 2004, p. 62). This engagement is shown in the classroom when the students participate actively in learning activities, implying that it is also the key to a lively classroom atmosphere. Oga-Baldwin (2019) argued that behavioral engagement serves as a paramount starting point that accelerates the other components of engagement, namely emotion, cognition, and agency.

Learning activities that foster students' behavioral engagement are likely to instigate emotional engagement (Oga-Baldwin, 2019). As the students who are behaviorally engaged in the learning activities express their happiness or enjoyment, emotions can be observed in the classroom. Emotional engagement encompasses all kinds of students' affective involvements in the classroom. Lawson and Lawson (2013) described emotional engagement as social, emotional, and psychological immersions towards any activities in the classroom, which deals with "levels of interest, enjoyment, happiness, boredom, and anxiety during academic activity" (p. 435). It ranges from positive emotions that enhance learning to negative emotions that may frustrate learning (Oga-Baldwin, 2019). The emotional engagement has also to do with students' feelings towards their friends, instructors, and school environments. In a nutshell, it is about how students emotionally perceive anything that happens in school and how they interact with their surroundings (Carpenter & Krutka, 2015).

Even though cognition is hardly observed and measured, it can be seen through what the students produce (Oga-Baldwin, 2019). Cognitive engagement thus deals with students' investment in academic works, which includes material understanding, skill shaping, and knowledge mastery. The quality of students' works can reflect their cognitive engagement as they intentionally put their thoughts into the works. As this engagement focuses on students' pedagogical persistence in schools, it includes students' efforts to accomplish tasks and achieve greater ideas in their learning (Fredricks *et al*., 2004). In this regard, this engagement encompasses students' extra efforts to learn (Lester, 2013). Therefore, if the students are cognitively engaged, they will perform well in the class.

According to Reeve *et al.* (2020), students are behaviorally, emotionally, and cognitively engaged due to their responses to teacher-provided activities. Nevertheless, the students can proactively contribute to the development of their own learning. Such agentic students have a growth mindset and take initiatives to learn (Larsen-Freeman *et al*., 2021). For that reason, an agentic perspective on engagement is included to accommodate the view that students are agents of their own learning. Agentic engagement is defined as "the proactive, constructive, and reciprocal action students initiate to catalyze their academic progress and to create a more supportive learning environment for themselves" (Reeve *et al.*, 2020, p. 7). It has to do with "how learners contribute to the learning environment and the quality of instruction" (Oga-Baldwin, 2019, p. 5). It can be manifested in students' efforts to clarify learning materials, express ideas and opinions, and ask for meaningful inputs. While Oga-Baldwin (2019) viewed behavioral engagement as a central step among the other forms of engagement, Wang and Lee (2021) argued that agentic engagement should be placed at the core of engagement processes. Hence, as agency supports the other three components, "students' emotional, cognitive and behavioral engagement may vary at different agentive levels" (Wang & Lee, 2021, p. 4).

2.2. Technology in language learning

The proliferation of technology has affected EFL learning (Kukulska-Hulme & Shield, 2008). Eady and Lockyer (2013) stated that many teachers have started to integrate technology in their classrooms to facilitate their students to learn a foreign language. One of the reasons why they use technology in foreign language teaching and learning is because it helps learners get connected across time and space and facilitates the development of learner autonomy (Ardi, 2017; Pasaribu, 2020). Sharples and Pea (2014) even explicated that modern technology has

provided people with many sophisticated language learning media, which could help them develop more creative and extraordinary learning experiences.

The implementation of technology in language learning has benefitted both teachers and students. First, technology increases student motivation and interest (Gilakjani, Sabouri, & Zabihniaemran, 2015; Prasetyawati & Ardi, 2020) since learners have access to a wider variety of information on mobile devices rather than in textbooks. Traiserra (2018) stated that "students become more motivated when they work on computers and use modern devices than when they are working with textbooks" (p. 10). Second, technology boosts language learner autonomy (Ardi, 2017; Pasaribu, 2020; Riasati, Allahyar, & Tan, 2012). Trasierra (2018) asserted that "technology offers many (more) opportunities for learning a language than traditional methodologies" (p. 10). Therefore, students are not limited to learn and find the knowledge and information that they need. The use of technology has helped teachers to change their roles from teaching to facilitating the students to learn (Gilakjani *et al*., 2015). Third, adopting technology in the classroom improves students' language skills (Trasierra, 2018). Technology provides people with "a variety of language context-learning opportunities and interactive activities" (p. 10). Therefore, language learners can get unlimited access to improve their skills by using technology (Riasati *et al*., 2012).

Even though the previous studies have indicated that technology influences students' motivation, autonomy, and language skills, it is not technology *per se* that increases those issues. The technological tools should be integrated with the pedagogies of teaching contents. In this regard, teachers' technological pedagogical content knowledge is central to the implementation so as to enormously enhance students' motivation, autonomy, and language skills.

2.3. Gamification in language learning

The rapid development of technology in language learning has been recently associated with gamification. According to Zarzycka-Piskorz (2016, p. 21), gamification is "the use of game elements and game design techniques in non-game contexts." Gamification is used in many different contexts for various purposes, including language learning. Alsawaier (2018, p. 56) argued that "the application of gamification in a pedagogical context provides some remedies for many students who find themselves alienated by traditional methods of instruction." However, prior to the incorporation of gamification, teachers should consider the purpose for using it in the classroom. Without clear pedagogical purposes, the use of gamified educational

tools will be undirected. Hence, the teachers need to understand the principles and elements of gamification and how they help to achieve the intended learning outcomes.

According to Rego (2015), gamification has seven elements that can improve students' language learning experiences. The first element is goals, which means that gamification enables students to set goals. As the main goal of playing games is to become the winner, it can motivate students to get ahead and face challenges. The second element is mechanics, which entails that the games' clear and systematic rules will make students more engaged to work on them. The third one is aesthetics, which includes appropriate and aligned visuals, attention to details, simple contrasts, or colorful backdrops. The great visual designs are of importance in participants' engagement. The next one is game thinking, which refers to "a way to use all available resources to create an engaging experience that motivates the desired behaviors" (Rego, 2015, p. 5). One more element is collaboration, which facilitates collective knowledge building. "Through the exchange of experiences and mutual help among peers, students have the opportunity to become more engaged with the challenge" (Rego, 2015, p. 6). It means that gamification facilitates students to work with peers and experience group discussion. The sixth element is reward and competition. Although the reward is virtual, it can still motivate students to play the game and reach a higher level of achievement. Competition could be exploited through rankings, where players can see their positions to motivate them to get a higher rank. The last element is feedback. Games provide the participants with feedback, which is designed to "evoke the correct behavior, thoughts, or actions" (Rego, 2015, p. 6). Accordingly, the comprehensive understanding of the game elements can help teachers to design playful learning activities that meet the learning objective of the language course.

Several studies have investigated gamification in language learning and teaching. Two systematic reviews conducted by Dehghanzadeh *et al*. (2021) and Zhang and Yu (2021) revealed that gamification positively affected students' learning experiences and outcomes due to enjoyable, engaging, motivating and fun environments. However, the reviews focused only on the positive effects of gamification on learning outcomes so that pitfalls and challenges were not revealed in the studies. Figueroa (2015) found that gamification opened the door for language learners to enhance their language learning experiences and at the same time acquire the skills to solve any task or challenge that the class, unit, or topic presented. Moreover, gamification offered learners an opportunity to interact with one another as if they had played a social game. Indeed, this study sheds light on why gamification is now commonly used in language learning due to its benefits in improving language learners' experiences. Hou (2018) conducted a study on the integration of gamification into three classes of literacy reading-

related courses for one semester. In Hou's (2018) study, Kahoot! was employed to increase students' motivation and reading comprehension since the students experienced difficulties and demotivation in those literacy classes. It was found that the students exhibited a positive reaction to the implementation of the platform. Furthermore, learners' motivation to acquire English was enhanced after the implementation. In this regard, integrating interactive response systems into the learning process could improve students' motivation and lead to more satisfactory learning outcomes.

Gamification has also been incorporated into the teaching of grammar. As grammar instruction in EFL contexts is considered boring and still rooted in the memorization of grammatical rules, the integration of gamification in EFL grammar learning thus creates a playful learning atmosphere. Zarzicka-Piskorz (2016) found that gamification could be effectively used to promote students' motivation and engagement in grammar learning. She argued that "making learning (playing) stimulating and enjoyable are the goals of a game" (p. 21). Therefore, if students enjoy learning (playing), they will experience less anxiety while learning grammar and gain more knowledge. Games allow students to experiment with concepts with no fear of failure (Poole, Clarke-Midura, Sun, & Lam, 2019). Furthermore, game-based grammar learning can increase motivation and engagement because the concept of gamification can bring about persistence and motivation to win and learn. The competitive atmosphere among students can encourage them to learn more grammar in the class. Finally, games provide students with an enjoyable experience of learning grammar. According to Azman and Yunus (2019), the implementation of Kahoot!, as one of the forms of gamification in the grammar class, enabled grammar learning to be more enjoyable and permanent because the games provided learners with a meaningful context for practicing grammar communicatively. The platform encouraged younger learners to grasp the concept of irregular verbs, which is normally achieved through rote learning. This proves that gamification has great potentials to instigate grammar learning. Luo (2017) argued that Kahoot! enabled teachers to identify students' problems by looking at the prompt results of the quiz. He also added that it was effective for grammar learning because teachers did not need to walk around the class to check their students' works one by one.

2.4. Kahoot! and other game-based learning platforms

Kahoot! is one of today's most popular game-based learning platforms, which was released in 2013 (Wang & Tahir, 2020; Zhang & Yu, 2021). It is an online multiplayer real-time quiz game that can be used to reinforce and explore course concepts (Cameron & Bizo, 2019; Smith &

Braurer, 2018; Wang & Tahir, 2020). The platform can be accessed using computers or mobile phones for free at https://kahoot.it. Students can go straight to the website and join the quiz-style games without having to create an account. However, instructors need to first sign up to create the games by accessing https://create.kahoot.it. After registering new accounts, the instructors have free access to a million adaptable public games, or they can create new games. The process of registering a new account is simple and straightforward (Plump & LaRosa, 2017). After the instructor shows the entry-pin on the main screen, the students input the game pin into their mobile devices. Once the instructor creates multiple-choice questions that can be seen on the main screen in the classroom, the students can answer them using their mobile phones.

After all of the registered players finish answering the questions or the time provided is up, students can directly see the correct answers so that the teacher and students can review the answers together. Since this game keeps track of students' answers (Plump & LaRosa, 2017), the teachers can use Kahoot! for student assessment, the data of which are recorded in Ms. Excel and can be downloaded later. The timely feedback provided by Kahoot! could also motivate students to reach further learning goals (Zhang & Yu, 2021).

Considering the positive effects of gamification on students' learning outcomes, in addition to Kahoot!, English teachers have also implemented other similar game-based learning platforms in their teaching and used them for formative assessment tools. Among popular game-based learning tools are Quizizz, Socrative, and Quizlet. First, Quizizz is basically similar to Kahoot! but they are different in the presentation of questions, feedback, progression speed and method of the questions, technical requirements, length of questions, and development of questions and choices (Göksün & Gürsoy, 2019). Second, Socrative shares common characteristics with Kahoot! as it provides "a real-time formative assessment to collect data from the students through forms and offers the game Space Race, where teams of students answer questions to move their rocket as fast as possible across the screen" (Wang & Tahir, 2020, p. 3). Lastly, Quizlet is a collaborative mobile and web game platform that uses digital flashcards (Dizon, 2016). This tool is usually implemented in the classroom to facilitate vocabulary acquisition because it provides the correct spelling and definition of words.

3. Method

3.1. The aim of the study

This study aims to investigate the leverage of Kahoot!, a popular game-based learning platform, to engage students in EFL grammar learning. To guide this research, a research question is formulated as follows: "How does the implementation of Kahoot! in EFL grammar learning boost student engagement?"

3.2. Research design

To answer the research question, the researchers employed the principles of qualitative case study method. Qualitative case study is an empirical study that aims to discover phenomena in real-life contexts, which are then to be analyzed and described intensively (Duff, 2008). It is popular among qualitative researchers because it offers a framework for analysis of the entity and context in which social action occurs (Hood, 2009). In this study, the entity refers to a grammar class, consisting of a lecturer and 22 students. In this regard, case study is appropriate for this research because it aims to investigate a particular case, namely the implementation of Kahoot! in the EFL grammar classroom, which was intended to improve student engagement. Three forms of data collection, namely observation, interview, and reflective journal, were used in this study.

3.3. Participants and context of the study

This study took place in the English Language Education Study Program (ELESP) of Sanata Dharma University, Yogyakarta, Indonesia, in the fall semester of the 2018/2019 academic year, prior to the outbreak of COVID-19. Twenty-two pre-service EFL teachers who enrolled in Grammar III class and one lecturer took part in this study. The students were in the second year of study in the teacher education program. Grammar III was a 2-credit hour course, which aimed to equip them with the knowledge of basic English sentence patterns, phrases, and passive sentences. Kahoot! was incorporated by the lecturer into the classroom as a formative assessment tool to display the exercises related to the topics. Prior to taking the class, the students had taken previous grammar courses in their first year of study, which focused on tenses, gerund, infinitives, modals, and comparison.

3.4. Data collection and analysis

Data were gathered through classroom observations, students' reflective journals, and interviews. First, the observations were carried out during the semester to cater to Kahoot!-assisted classroom activities. One of the researchers took a role as a non-participant observer to gain unbiased data and to minimize the observer's influence on the setting. The observations focused on students' activities in the classroom. The results of the observations were then narrated in a piece of descriptive writing. Second, at the end of the class, the participants (coded as P1, P2, P3….and P22) wrote reflective journals about their experiences of playing Kahoot!, including their feelings, interests, activities, and challenges. According to Hood (2009), students' reflections are needed to understand how they perceive learning experiences from their perspectives. The researchers provided guiding questions for students to reflect on how they felt engaged in grammar learning using Kahoot!. Lastly, semi-structured interviews were carried out with the lecturer and six students (coded as P1, P2, P3, P4, P5, and P6). They aimed to dig into the experiences of the participants and lasted for around 25-30 minutes each. To ensure the trustworthiness, the interview transcripts were returned to the participants.

The data from the observations, reflective journals, and interviews were coded to find emerging categories. After the coding processes, the researchers triangulated the data. According to Hoyo and Allen (2006), triangulation is used to validate and confirm a variety of data from more than one source of which the results support one another. As a result, it enriched the researchers' knowledge about a certain phenomenon from a variety of methods and reduced biases.

4. Findings and discussion

Kahoot! was implemented to engage students in the EFL grammar class. The findings revealed that the leverage of the platform boosted student engagement in grammar learning in six ways, namely enabling students to set goals, helping students to focus more on the task, facilitating students to build enthusiasm and interest in learning, allowing students to experience a playful learning activity, facilitating their collaboration with friends, and fulfilling students' need of reward and sense of competition.

4.1. Enabling students to set goals

The use of Kahoot! encouraged the students to set goals to win each game session in EFL grammar learning. Its technological affordance that provided timely feedback fostered them to reach learning goals (Zhang & Yu, 2021). At the end of each session, the platform displayed

the three best players as the winners, i.e., those who got the highest scores. The students put forth great efforts into winning the game by mastering the material before they played Kahoot!. In this regard, as the students set their own learning goals, they performed cognitive engagement (Rego, 2015). In the interview, two students said:

> To win the game, I studied and asked for my friends' explanations if I didn't understand the materials. Or, if I still had time, I would check the materials first. (P2, Interview)
>
> To be able to answer correctly, I usually did the grammar exercises in the book. Or, I asked the lecturer to explain and listened to his explanation. (P3, Interview)

The excerpts showed that the use of Kahoot! was able to raise students' sense of urgency to understand and master the materials before answering questions. The students exerted more efforts in understanding the materials, mastering the knowledge, and having rehearsal (Fredricks *et al*., 2004; Lester, 2013). They also made efforts to implement the knowledge they gained in the exercises on Kahoot!. Two students admitted in their journals that:

> Before playing Kahoot!, I prepared the materials well, studied the materials that would be discussed/tested in Kahoot!. (P3, Journal)
>
> I reviewed and memorized all the materials before we started playing Kahoot!. (P9, Journal)

Based on the observation, the students also tried so hard to win the game. For example, one female student whose phone was running out of battery even ran to the electric plug so that she did not lose the game. Some of them who did not have an internet connection asked the teacher to give them a tether to continue playing the game. This showed that students who put a lot of effort into finishing the game and becoming the winner had a high cognitive engagement (Lester, 2013; Rego, 2015).

After setting their goals, the students absorbed the knowledge and demonstrated it in the quiz. The students learned the materials first before the quiz, either with the help of the lecturer or by themselves. Based on the observation, the students were able to implement the knowledge about grammar that they had learned before in the quiz. Most of the students got more correct answers. Accordingly, the general results of the Kahoot! quizzes in the class were satisfying. The average score was around eighty. In the interview, the lecturer said:

> In general, when I used Kahoot!, especially the first one in the first mid-semester, their scores were pretty good. I used Kahoot! in the progress test. Their average score was around 84 or 80. It was very nice. Most of them got 80, some got 90. Those who got low scores were, maybe, because they did not focus on the materials. If they had followed the class and played Kahoot! seriously, the scores would have been good. (Lecturer, Interview)

The lecturer's statement indicated that the students exhibited cognitive engagement. Cognitive engagement refers to the students' cognitive investment, which is related to their

work, their skills, and the strategies they employ to master their works (Metallidou & Vlachou, 2007). Fredricks *et al*. (2004) stated that cognitively engaged students are self-regulated, which means they use strategies to maintain their cognition in finishing tasks. Besides, they manage their efforts on tasks by doing rehearsal, memorizing, organizing, and understanding materials.

Based on the observation, the students who successfully won the game expressed happiness, which could be seen in their facial expressions. In the interview section, some of the participants said they felt happy and satisfied if they could win the game. Two students said:

> I always want to win the game because when I win, my name is displayed on the screen and it belongs to the top three. (P1, Interview)
>
> I always try hard to be the winner. It's simply because I want to reach the top three. I want my name to be written at least on the top three best players. I feel so happy and proud. (P6, Interview)

The statements indicated that the students felt satisfied and proud when their names came out as the top three players shown at the end of the game session. This made the students attain more meaningful learning experiences. The students who experienced meaningful learning expressed happiness, which was the manifestation of emotional engagement (Trowler, 2010). Therefore, the desire to be the winner could also promote student emotional engagement because it could make the students feel happy.

4.2. Helping students focus more on tasks

The use of Kahoot! helped students focus more on finishing the tasks because the system is set to reveal one question at a time for every section. As a result, the students could focus more on working on only one question in each section. In this sense, the integration of Kahoot! in EFL grammar learning resulted in students' positive involvement in accomplishing the task. The students who focused on accomplishing the task were cognitively engaged (Fredricks *et al*., 2004).

It is important to note that the maximum time allotment for each section was 90 seconds. Besides having correct answers, the ability to answer quickly could also influence the scores. Thus, if a student had answered the questions correctly and quickly, he/she would have got high points. The students learned to be more careful and not to rush in answering the questions. In the interview, the lecturer said:

> Kahoot! provides scores, based on the time, how fast and precise the students answer the question. They were encouraged to think and answer correctly. They knew that they had to be fast. However, if they answered too quickly, they could sometimes get wrong. They also learned

> to be careful. Therefore, this is one of the things which in my opinion makes them more engaged.

The time limitation for the quiz encouraged the students to manage themselves to do the task quickly but carefully. The implementation of Kahoot! reinforced the students not only to choose the correct answer but also to answer the questions quickly. The time limitation no longer became a distraction because the students were able to suppress the distraction and take it as a challenge (Fredricks *et al*., 2004). The sense of pressure in a positive way could motivate them to accomplish the tasks within a limited time. In the reflective journal, one student said:

> It is fun, because it's like playing a game for me, and it makes me nervous and excited at the same time because the time is limited. (P2, Journal)

Even though gadgets are considered the biggest disruption for students nowadays, the students were not tempted to use gadgets for non-academic purposes. They were able to focus on finishing the game-based quiz. However, the students concentrated and focused on answering one question only for every section because Kahoot!'s system was not set to reveal all the questions at the same moment. The questions were shown one by one on the screen. The lecturer said:

> Kahoot! is an online platform that, in my opinion, can engage students, especially because it can draw students' attention to the main LCD screen. So, it's good to see that the students can focus on the screen.

The students also consistently paid more attention to the lecturer. Based on the observation, the lecturer always explained every answer to each question. When the lecturer explained to the students, they consistently listened attentively to the explanation given by the lecturer. The students who chose the wrong answers were very attentive to get clarifications and further explanations about the answers. In the interview, two participants said:

> I pay more attention to the explanation from the lecturer after playing Kahoot! because the explanation from the lecturer also gives the reason for the correct answer. Well, it must also be considered so that in the future I can be better and I will not repeat the wrong answer. (P1, Interview)

> I pay more attention to the lecturer when he explains the answer to each question in Kahoot! game because we (the students) will be able to recognize our mistakes when we get wrong answers. (P2, Interview)

Based on the observation, the students focused on answering the questions. They concentrated intently on the task and read the questions carefully before answering them. They did not even dare to talk to their friends when they were doing the quiz on Kahoot! because they were afraid of running out of time. They also created a serious atmosphere when they were thinking about the answer. In this regard, the students performed behavioral engagement since

they focused on accomplishing the task with minimum disruption (Ding & Orey, 2018; Fredricks *et al*., 2004; Oga-Baldwin, 2019).

4.3. Facilitating students to build enthusiasm and interest in grammar learning

The use of Kahoot! boosted students' enthusiasm and interest in learning English grammar. As the visual design of the platform was quite appropriate, well-organized, colorful, but simple, the students found it very aesthetic and eye-catching. In the class, they exhibited the body language of having high interest and enthusiasm. In the interview, two students also said:

> For me, the visual is good. It means that it can attract our attention because of the colors and shapes. The lecturer can insert images/videos too. (P3, Interview)
>
> I like the design of Kahoot!, maybe because it's colorful. And the options are not A, B, C but shapes. For me, it's unique. (P4, Interview)

Hence, the statements showed the visual design of Kahoot! could make the students more interested in doing the quiz. They felt more encouraged to do the task because they found the visual design was attractive. As P4 said in his statement, the students also found out that the shapes, such as triangle, square, round, and diamond for the options, instead of using A, B, C, D, were very attractive. For the students, the symbols of the options were unique and appealing. Therefore, the immersive design of Kahoot! could make the students feel satisfied and enthusiastic. This resonates with Trowler's (2010) argument that the students who performed positive behavior and showed affection in the learning process were engaged. When students had high enthusiasm and interest in learning, they had positive reactions and emotions towards the learning process.

The musical background of Kahoot! was one of the important elements of the system to engage the students. The results of the observation showed that the music was quite effective in boosting students' vigor when they were accomplishing the quiz. Students' facial expressions showed that they were energetic and excited to choose the correct answers. In this regard, the students exhibited their positive emotions. In their reflective journals, two students also asserted:

> I feel happy and also excited because of the music of the game. It also makes me want to answer as quickly as possible. (P7, Journal)
>
> I was also excited by the music so that it gave me the spirit of competition to be the first winner. (P10, Journal)

The lecturer admitted:

> The music is very, very challenging for their adrenaline. For some reasons, music really can make our adrenaline run. And in my opinion, they can compete with one another.

As evidenced by the three statements, the students enjoyed the music because it could trigger them to answer the questions as fast as they could. For example, P10 found out that the music could evoke a sense of competition in the class so that the students were encouraged to do their best. Hence, the music was effective in creating a competitive environment that made students perform well while doing the tasks (Trowler, 2010; Zainuddin *et al*., 2020; Zhang & Yu, 2021). In this sense, Kahoot! could influence students' behavioral and emotional engagement while learning grammar because it had a very interesting visual and musical design (Ding & Orey, 2018; Fredricks *et al*., 2004; Oga-Baldwin, 2019).

4.4. Allowing students to experience playful learning activities

The implementation of Kahoot! allowed the students to experience playful EFL grammar learning activities. The integration of Kahoot! brought about a new conceptual way of grammar learning because the platform was able to convert educational experiences into more playful and exciting activities (Dehghanzadeh *et al*., 2021; Hou, 2018; Zhang & Yu, 2021). The students were allowed to play a game while still thinking about the materials. The extraordinary thrill from the game-based learning activities could create an enjoyable atmosphere that increased student engagement. According to Tan *et al*. (2018), the game elements in a game-based learning platform facilitated learners to be totally involved and fully pay attention because of its 'play nature'. Moreover, the students felt that learning grammar using Kahoot! made them more relaxed, which means that the pressure of learning grammar had decreased because of the playful learning activities. In the reflective journal, the students wrote:

> Through Kahoot! in Grammar III class, we can learn while playing. (P1, Journal)
>
> Playing Kahoot! also makes us more relaxed in learning grammar. (P4, Journal)
>
> I feel that the use of Kahoot! in grammar class is quite helpful for me to learn more about grammar because we can play games and it makes learning grammar less tense. (P14, Journal)

Accordingly, the students enjoyed learning when the lecturer implemented Kahoot!. They felt more relaxed because playing was less tense than traditional learning via textbooks or any other way of learning. This echoes Poole *et al*.'s (2019) findings that games allowed the students to experiment with the concept without fear of failure. Based on the observation, some students who happened to choose the correct answer quickly also exhibited a positive reaction. They would shout happily because their names were shown on the main screen. The students were encouraged to be active because those who answered wrong would automatically raise their hands and ask for an explanation from the teachers. They experienced a sense of

enjoyment because of the playful nature, which resulted in high behavioral engagement (Ding & Orey, 2018; Fredricks *et al.,* 2004). In the interview, three students said:

> Kahoot! is very fun. Maybe it's because I like playing games, so Kahoot! is like a game, right? and when we are given exercise, the lecturer gave allotted time and we need to answer questions. So, it's not too tense. (P2, Interview)
>
> I like playing Kahoot! because it's fun, I don't feel that it's like real exercises but yeah, the thrill is like a game. (P3, Interview)
>
> So from Kahoot!, we play, right? I mean, after learning the materials, we play. Those who have difficulties can understand the materials. It's just like rising a spirit of learning difficult materials. So, we know the things we don't understand yet and we can explore more. (P4, Interview)

The excerpts showed that the students admitted that it was fun and exciting to learn grammar using Kahoot!. They became more enthusiastic in learning and brave enough to take the challenge (Fredricks *et al*., 2004). They also felt that the pressure of learning grammar decreased. Moreover, as what P2 said, the students were able to realize that playing Kahoot! was relaxing and they could do the tasks enjoyably. As a result, the students could vigorously finish the tasks and they no longer thought that grammar exercises were boring and tiring. The lecturer added in the interview:

> I feel they are very enthusiastic, more enthusiastic than when just listening to my explanation. And I changed the concept of a scary and serious quiz into something more fun like just a game. This is what I want to bring. Another reason that I might also add is to change the mindset that learning grammar is not that scary. It can be made as fun as this.

In the class, the students followed the lessons with enthusiasm. Some students sometimes over-reacted by screaming whenever they got the right answers, showing they were very excited. In the interview, the lecturer said:

> In my opinion, one form of engagement can also be seen from the words the students say when doing a quiz in Kahoot!. Especially, when they got wrong answers, they would express their disappointment by saying 'oh' or when they got the right answers, they would express their feeling by shouting or saying other things like 'yes'.

Moreover, in their journals, two participants wrote:

> Kahoot! makes me more interested in learning grammar because the learning method is not boring. (P3, Journal)
>
> Yes. So it's not tensed and we learn grammar at another level that we always think grammar is boring. Because of Kahoot!, we have the motivation to learn more than just fulfilling grades. (P12, Journal)

When playing Kahoot!, the students expressed their happiness by showing frequent smiles and laughter. Some students also frequently used a positive sense of humor with their

lecturer and friends, such as putting an artist's surname into their first name (e.g. Susilowati Spears) when they inputted their names on Kahoot!. In the interview, the lecturer explained:

> I saw the participants very happy when they knew their answers were correct. It could be seen from their expressions and that was what I wanted to see in my students.

In the reflective journals, two participants wrote:

> Using Kahoot! in grammar is a new experience for me. I am happy because there are many interesting and not boring ways to learn grammar. (P5, Journal)
>
> I love Kahoot! because for me, it is the best game for learning. (P13, Jurnal).

Based on the statements, the lecturer tangibly wanted to create a new conceptual way of learning English grammar. By implementing Kahoot!, he wanted to change students' mindset about English grammar since it was often associated with meaningless and isolated forms, which resulted in students' learning discomfort (Al-Mekhlafi & Nagaratman, 2011; Saeedi, 2016). Learning grammar could be a fun and exciting experience, which finally led the students and lecturer to build a positive learning atmosphere and create high involvement in the lesson. The students who showed involvement were fully engaged and got a chance to enrich their educational experiences (Trowler, 2010).

4.5. Facilitating students to collaborate with their friends

The affordance of Kahoot! allowed the instructor to choose the game mode. There were two modes, namely single-mode and team mode. The former required the students to work individually while the latter required the students to work in a team. In this regard, the use of Kahoot! facilitated students to collaborate with others by providing a team-mode in the game. In team mode, the students had to collaborate and work together with their friends as a team. According to Fredricks *et al*. (2004), students' positive contribution towards any activities in the classroom, including collaborating with friends, indicated behavioral engagement. They were allowed to discuss the question to get the correct answer. Regarding their preference for single-mode or team-mode, three students shared in the interview:

> The interesting part of team mode is we answer questions in teams, together. And that's where we are trained to give each other arguments and know which answer is correct and which is not. I think the team mode is also helpful in the learning process. (P1, Interview)
>
> I like the team mode more because if I cannot answer the question, someone will help. Also, it will not be too tense because we have friends to discuss. (P2, Interview)
>
> I like team mode better because it's just more fun. You can discuss this with your friends. The single-mode is tenser. If you can't answer, you just surrender. We can collaborate with the team in team mode. Also, friends will help you if you can't answer the questions. (P3, Interview)

In the reflective journal, two students also wrote:

> It's nice to use Kahoot! in groups because if there is something I don't' understand, I can ask (my friends). (P20, Journal)
>
> If something goes wrong, for example, the internet connection is lost, I will ask my friend to tether me or I will join another group. (P19, Journal)

Based on the observation, the students were busy having discussions whenever they were about to answer the questions. This indicated that the students showed behavioral engagement as they got mutual help from their peers when they did not understand or had problems or difficulties answering the questions (see Rego, 2015). Some students even asked for answers from the other groups because they found difficulties. In this regard, the students were so engaged that they created a mutually-beneficial learning community in the classroom (Zepke & Leach, 2010).

Since the lecturer always discussed the answer to each question displayed in Kahoot!, the students also actively participated in the class discussion by asking questions. The students often asked questions related to the exercises discussed. Several students were also brave enough to speak up when they had different ideas or opinions about the answers. The learning experiences resulted in vivid interaction between the students and the lecturer which made the class discussion more dynamic. The findings support Zepke and Leach's (2010) idea that teachers are central to creating an engaging atmosphere in the classroom. In the interview, two students said:

> When we were having a discussion, I sometimes asked the lecturer about the materials/the answers of the quiz that I had not understood yet. (P6, Interview)
>
> Before the lecturer explained, I asked him first because I needed to know immediately the reasonable explanation about (for example) why my answer was incorrect. (P7, Interview)

4.6. Fulfilling students' needs of reward and sense of competition

The use of Kahoot! enabled the students to fulfill the needs for reward and a sense of competition. Like a game in common, Kahoot! provided the players with rewards. The rewards were in the form of points. The students who answered correctly and quickly got high scores and became the winners. At the end of the game, the names of the three players with the highest scores were displayed for all the students to see. The thrill of achieving recognition for the best players could encourage the students to do their best to get the intended outcomes (Rego, 2015; Zhang & Yu, 2021). Since everyone wanted to be the winner, they competed to get the best results. They tried to win by learning and understanding the grammar materials before playing the game. In the interview, the lecturer said:

> The concept of Kahoot! is competition, once again. Uhm..we want to be the best and that's what Kahoot!'s team knew very well! They give scores not only for those who answer correctly but also quickly. And I don't know how their logic uses that score. And, in my opinion, it is very successful in getting students to seriously work on it.

It was also apparent in the observation that the students were competitive. Each student was making a great effort to get the first position. They exhibited the attitude of thinking hard to get the correct answer. As a result, some students succeeded in maintaining their position. Thus, the competitive atmosphere in the classroom encouraged the students to finish the tasks well and seriously. Kahoot! allowed the students to feel the competition which was manifested in simple game elements, such as virtual ranks. Although the reward was virtual, the possibility of winning the game could motivate the players to continue playing and improve their performance (Rego, 2015). It allowed the students to monitor their performance. Self-monitoring activities were considered as the manifestation of cognitive engagement (Ding & Orey, 2018; Fredricks *et al*., 2004; Oga-Baldwin, 2019). Eventually, the students exerted great efforts to get a higher rank. The findings also supported Hew, Huang, Chu, and Chiu (2016), who found that game mechanics acted as powerful incentives in gamification.

Regarding the rewards and competition, the students stated:

> It's good. For example, if it is lost, maybe losing a few important points, how about it? So, if there is a ranking like that (make it), the other ones are more interested, how can I answer quickly and correctly. The competition is more real. (P2, Interview)
>
> I like the ranking system. It makes us more challenged to win the game. (P5, Interview)
>
> It's fun because we can compete with classmates, being able to learn while playing also isn't stressful. (P6, Journal)

Hence, the rewards and a sense of competition offered by Kahoot! fostered the students' desire to study harder (Turan & Meral, 2018; Zhang & Yu, 2021). They competed positively with their friends and ended up being more diligent and willing to learn more to achieve their goals. This is in line with Göksün & Gürsoy (2019) and Zainuddin *et al*. (2020), who revealed that competitions in gamification instigated the improvement in students' achievement.

5. Conclusions and pedagogical implications

This paper reports on how the implementation of *Kahoot!* boosted student engagement in English grammar learning in Indonesia. The results revealed that the platform enhanced student engagement in six ways, namely enabling students to set goals, helping students focus more on tasks, enabling students to build enthusiasm and interest in learning, allowing students to experience playful learning activities, facilitating students' collaboration with their friends, and

fulfilling students' need of reward and sense of competition. Its affordances enabled the students to enjoy learning English grammar. During the implementation of the platform, the students also exhibited behavioral, cognitive, and emotional engagement. The behavioral engagement was shown when students paid attention to the lecturer's explanation, focused on doing the task, followed the lecturer's rules and instructions, showed willingness to accomplish the task, and participated in class discussions. Meanwhile, the cognitive engagement was triggered when the students absorbed and demonstrated the knowledge, they were motivated to take challenges, and showed confidence to finish the task. The emotional dimension was tapped into when the students exhibited interest and enthusiasm, were happy to play the game, and enjoyed the learning very much. However, agentic engagement, encompassing students' initiatives and contribution to the flow of teaching and learning, was not obviously performed by the students. This might be due to the influence of the power structure in the classroom (see Ardi, 2017).

The researchers recommend that English teachers incorporate Kahoot! into grammar instruction to engage EFL students. However, teachers are central to the implementation of the platform. As not all of the materials of English grammar are suitable for the platform, EFL teachers should think about materials that can be delivered using Kahoot!. Moreover, due to the time limitation, questions on Kahoot! must not be too difficult and long; otherwise, the students will get bored and less engaged. To enhance students' collaboration and interaction, setting the platform into a team-mode is indispensable, which requires students to interact and discuss the answers in English with their peers. As a result, students engage in meaningful and communicative exchanges to accomplish the game task (Poole *et al*., 2019).

However, the current study was limited by the nature of case study. Hence, the results of this study cannot be generalized to a larger population. For that reason, future studies may include a greater number of participants and employ mixed-methods to unveil the influence of gamification on student engagement. EFL student engagement inventory also needs to be developed to devise students' involvement in the English classroom. In addition, this study did not mainly focus on the types of student engagement so that they are not thoroughly discussed in the findings. Future researchers are then called to investigate more deeply the types of engagement that the students exhibit during the implementation of gamification and how the engagement influences their learning achievements.

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