



## ENHANCING CLASSROOM ENGAGEMENT USING ONLINE GAMES

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**Abstract:** *In recent years, technology has become increasingly integrated into educational settings. As technology continues to evolve, educators will need to stay abreast of new developments and find innovative ways to integrate technology into the learning experience. One example of technological integration into learning activities is the utilization of online games. This study aimed to give an overview of the most commonly used online educational games and their impact on enhancing classroom engagement. This research was descriptive-qualitative, applying both theoretical and empirical approaches. A literature review was conducted to study and interpret the available research papers on the topic. To be more comprehensive, questionnaires were distributed to find out the overview of online games commonly used in the classroom and the students' engagement with this teaching method. The results of this study confirmed that there is a positive correlation between the use of online games and classroom engagement. This study recommends online games be applied in order to enrich the practice of English language teaching (ELT). Further study on the characteristics, strengths, and weaknesses of these games is still required to help educators choose the best game that meets the learning objectives and students' needs.*

**Keywords:** *classroom engagement, online games, ELT*

**Abstract:** *Dalam beberapa tahun terakhir, teknologi semakin terintegrasi ke dalam pendidikan. Karena teknologi terus berkembang, pendidik perlu mengikuti perkembangan dan menemukan cara inovatif untuk mengintegrasikan teknologi ke dalam pembelajaran. Salah satu contoh integrasi teknologi ke dalam kegiatan pembelajaran adalah pemanfaatan game online. Penelitian ini bertujuan untuk memberikan gambaran tentang game edukasi online yang paling umum digunakan dan dampaknya terhadap peningkatan keterlibatan kelas. Penelitian ini bersifat deskriptif-kualitatif, dengan menggunakan pendekatan teoretis dan empiris. Tinjauan literatur dilakukan untuk mempelajari dan menginterpretasikan makalah penelitian yang ada tentang topik tersebut. Agar lebih komprehensif, kuesioner dibagikan untuk mengetahui gambaran tentang game online yang umum digunakan di kelas dan tingkat keterlibatan siswa dengan metode pengajaran ini. Hasil penelitian ini menegaskan bahwa ada korelasi positif antara penggunaan game online dan keterlibatan kelas. Penelitian ini merekomendasikan penerapan game online untuk memperkaya praktik pengajaran bahasa Inggris (ELT). Kajian lebih lanjut tentang karakteristik, kelebihan, dan kelemahan game online ini masih diperlukan untuk membantu pendidik memilih aktivitas terbaik yang sesuai dengan tujuan pembelajaran dan kebutuhan siswa.*

**Keywords:** *keterlibatan kelas, game online, pengajaran Bahasa Inggris*



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## INTRODUCTION

In recent years, technology has become increasingly integrated into educational settings (Nikmah, 2020; Yu & Gao, 2020). Technology plays a critical role in modern education, providing students with access to information, personalized learning experiences, collaborative opportunities, and interactive learning experiences. Moreover, it supports the learning process in this digital era since it helps students become autonomous learners (Nikmah, 2020). As technology continues to evolve, educators will need to stay abreast of new developments and find innovative ways to integrate technology into the learning experience.

One example of technological integration into learning activities is the utilization of online games. Games are described as interactive activities accomplished by competitive and cooperative individuals as the decision-makers in the said activities, seeking to achieve their objectives within a set of rules (Mee et al., 2022). Online games are games that can be accessed using an internet connection. Then, the application of game elements into non-game contexts such as education is called gamification (Iaromenko, 2017; Khaleel et al., 2020).

Many researchers and practitioners believe that games have great educational value by offering students a fun and stress-free learning environment (Iaromenko, 2017; Licorish et al., 2017; Nikmah, 2020; Yu & Gao, 2020). Games never fail, no matter if they are for teaching adults or young learners. An ideal game can potentially attract learners' attention toward the game context itself, resulting in a need to complete the game's objective (Mee et al., 2022). The use of games in classrooms that include increased accuracy and speed for calculations improves communication skills, resourcefulness, and adaptability (Barr, 2017). The integration of games in lessons focuses not only on the fun element but also on sharpening language skills. I-jung in Iaromenko (2017) claims that games promote communicative competence and encourage creative and spontaneous use of language.

Meanwhile, online games are beneficial for learning as they are more flexible, accessible, and personal. It can be accessed anytime and anywhere, and it enables the learners to adjust their learning style and pace. It also motivates the learners to finish the game since it provides immediate results and feedback and makes them focus on learning (Licorish et al., 2017; Nikmah, 2020). The learners' motivation and attention to learning reflect their engagement with the learning process.

Learning engagement is a crucial element since it indicates the success of the learning process (Dixson, 2015; Hew, 2016). It can be defined as how much time, commitment, and effort are devoted to the learning process (Kahn et al., 2017; Khaleel et al., 2020; Ma et al., 2015). Miller in Jonathan and Recard (2021) state that engagement is the students' willingness to actively participate in the learning process, as well as demonstrating sustained involvement and a positive emotional tone toward learning experiences.

Learning engagement is influenced by several factors inside and outside the classroom. The influencing factors are structural influences, psychosocial influences, students' engagement, proximal consequences, and distal consequences. Structural influences include university's culture, policies, curriculum, assessment and discipline; and student's background, support, family and life load. Psychosocial influences external factors such as teacher, teaching method, learning support, and workload, and internal factors such as students' motivation, skills, identity, and self-efficacy.

Students' engagement as the core of learning engagement consists of affective, cognition, and behavior engagement. Proximal consequences are short-term impact which are related to learning achievement, satisfaction and well being. Meanwhile, distal consequences are long-term impacts of the learning engagement. They are academic retention, work success, lifelong learning, citizenship, and personal growth (Kahu, 2013). Student's engagement in learning includes three elements: behavioral engagement, emotional engagement, and cognitive engagement. Behavioral engagement includes students' active participation in the

learning process, such as accessing the material, doing assignments, and so on. Emotional engagement is defined as students' affective attitudes towards lecturers, classmates, and the class itself. Cognitive engagement is about how students relate the knowledge gained to prior understanding and how they feel they need the material (Buelow et al., 2018; Pellas, 2014). Learners with these three engagement elements tend to have higher achievement than those undergoing learning only for graduation requirements.

In order to assess the students' engagement, the elements of student engagement should be specified into more observable and measurable indicators. Behavioral engagement can be measured from student' participation, interaction, and peer learning. Emotional engagement can be seen from student's enjoyment, confidence, attitude, interest, motivation, and enthusiasm. Cognitive engagement can be assessed from student's achievement, deep learning, and self-regulation (Zhao et al., 2023). See the following table for more detail.

Table 1. The Student Engagement Indicators

No.	Engagement Element	Indicator
1	Behavioral engagement	Participation, interaction, involvement Positive interaction with teachers and peers Learning from peers
2	Emotional Engagement	Enjoyment Confidence Positive attitude about learning Interest Motivation Enthusiasm
3	Cognitive Engagement	Achievement Deep learning Self-regulation

Engagement is positively correlated with motivation, i.e., higher motivation tends to lead to higher engagement and vice versa (Yu & Gao, 2020). Numerous studies have reported the essential role of game-based learning in engaging learners (Inayati & Waloyo, 2022; Jonathan & Recard, 2021; Nikmah, 2020; Nuci et al., 2021). Jonathan and Recard (2021) mention that there are at least three reasons why gamification is effective in improving learning engagement. First, learning by playing games is

better than just studying. Second, people will feel challenged instead of pressured when they are playing a game. Third, gamification has been proven through various research studies in different fields to promote engagement, including education. On the other hand, Inayati and Waloyo (2022) explain that students are excited to learn English and accomplish the exercise when the materials are presented through a game-like approach. It means that the use of games may attract the students' attention, which is the initial stage of engagement.

As technology advances rapidly and traditional teaching methods are no longer compatible in this digital era and tend to lead to boredom, unmotivating, and disengagement (Mee et al., 2022), an innovative teaching method needs to be cultivated. Although online educational games are not brand new, it is still necessary to elaborate and give an overview of the best online educational games to enrich classroom engagement. Additionally, the learners' perspective toward the implementation of online games in learning needs to be given attention. Therefore, this study aimed to answer the questions of what the most-applied online educational games are and how it gives impact in enhancing classroom engagement.

## **METHOD**

This research was descriptive-qualitative, applying both theoretical and empirical approaches. The descriptive qualitative method is considered appropriate for this study since it naturally describes a phenomenon from the context in which it is observed (Inayati & Waloyo, 2022; Licorish et al., 2017). The theoretical approach involves the development of models, frameworks, and theories based on existing knowledge, logic, and intuition. Meanwhile, an empirical approach involves collecting and analyzing data to test theories and models. This kind of approach is often conducted at the observational or experimental level and is based on direct or indirect observation of the world (Team, 2023).

A literature review was conducted to study and interpret the available research papers on the topic and identify the nature of the basic concept and actual information about the correlation between online games and classroom engagement (Iaremenco, 2017). To be more comprehensive, some questionnaires were distributed and interview was conducted to find out an overview of online games commonly used in the classroom and the student's engagement with this teaching method.

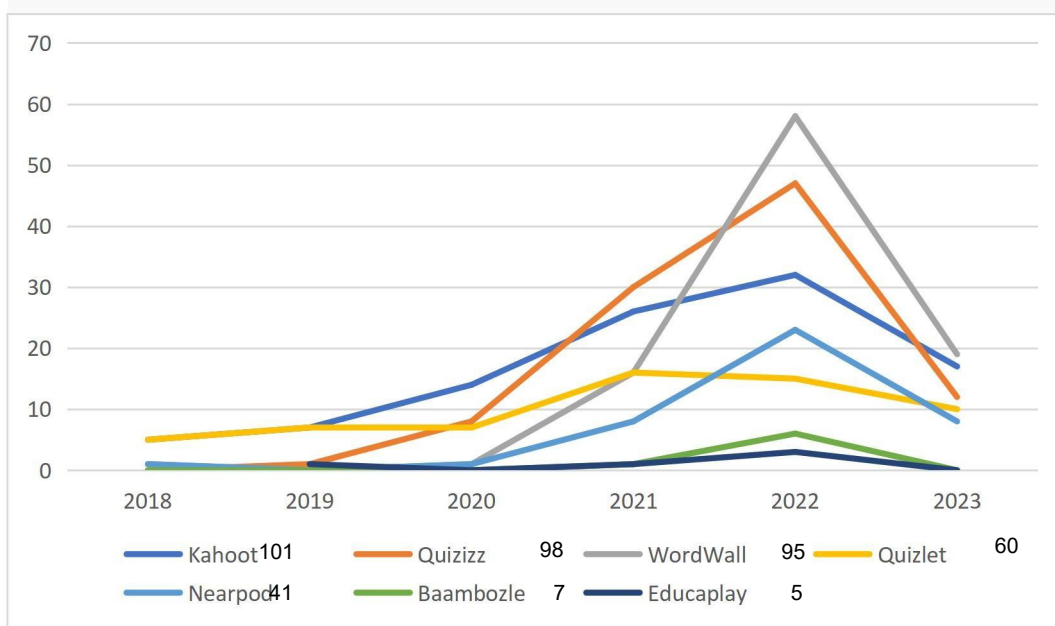
In this research, the students' engagement was measured by using some indicators proposed by Zhao, et.al (2023). Those indicators include participation/ interaction/ involvement, positive interaction with teachers and peers, learning from peers, enjoyment, confidence, positive attitude about learning, interest, motivation, enthusiasm, achievement, deep learning and self-regulation. These indicators were outlined into statements, and the respondents were required to give their feedback in the form of Likert scale.

This study involved six lecturers and 17 students from the English Education Department of Harapan Bangsa University. This study was established in the even semester of the academic year 2022-2023. The participants were chosen by purposive sampling, with their experience using online games in the classroom included.

The data obtained from the questionnaire and interview was carefully transcribed, filtered, classified, and interpreted to get an ideographic conclusion, which means the conclusion was specific and related to the research objectives (Pujiani et al., 2022). Then, the result of the questionnaire and interview was compared with the result of the literature review to find similarities and differences. The combination of these research methods was applied to obtain a deeper understanding of the topic being investigated, which is the implementation of online games to increase classroom engagement.

## RESULTS

Based on the results of the literature review, the most common games studied are Kahoot, Quizizz, WordWall, Quizlet, Nearpod, Baamboozle, and Educaplay. The following is the distribution of articles focusing on online games in the last five years.



**Figure 1.** The Distribution of Articles about Online Games

The figure above shows the increase in research concerning online games in 2020–2021, and it reaches its peak in 2022. There has been a slight decrease in 2023 since this study was conducted at the beginning of this year, and it seems to keep increasing until the end of this year due to the popularity of online games as an effective way to improve the quality of education.

Based on the chart on figure 1, it can be seen that the most popular online game is Kahoot proven by the number of articles discussing this game that is the highest of all and it increased constantly from 2019 to 2022. On the second place, the most popular online game is Quizizz. The same as Kahoot, Quizizz' popularity leveled up steadily since 2019. But in 2020 to 2022 the increase was quite sharp. However, in 2022, the most popular one is WordWall. WordWall is a quite new online game since the

oldest articles that concerns on this game was found in 2020 and it rose dramatically until 2022. Overall, this game takes the third place of the most popular game based on the research. On the fourth place, there is Quizlet with the total number of articles are 60. Actually, Quizlet has been existed in educational context for a long time but this research only focused on the last 5 years research articles. So, based on the literature review, the popularity of this game since 2018 to 2022 grew slightly but steady. On the fifth place, it is Nearpod. The articles about this game were found in 2018, although the number is not really significant. The application of this game increased gently since 2020 to 2022. On the sixth and seventh place, there are Baambozle and Educaplay. Actually, the fame of this game is not notable but the respondents of this study mentioned that they played this game in the classroom several time. Thus, they are included in this data.

In order to get more empirical data on the correlation between the use of online games and classroom engagement. The questionnaires were distributed to six lecturers and 17 students of English Education Department of Harapan Bangsa University. This questionnaire aimed at measuring the students' engagement indicated by some indicators namely participation/ interaction/ involvement, positive interaction with teachers and peers, learning from peers, enjoyment, confidence, positive attitude about learning, interest, motivation, enthusiasm, achievement, deep learning and self-regulation (Zhao et al., 2023). The following table exposes the summary of the questionnaire feedback.

Table 2. The Summary of Questionnaire Result

No	Indicators	Feedback (%)				
		1	2	3	4	5
1	Participation, interaction, involvement	0	0	22	48	30
2	Positive interaction with teachers and peers	0	0	35	43	22
3	Learning from peers	0	0	48	35	17
4	Enjoyment	0	0	0	39	61
5	Confidence	0	0	0	48	52
6	Positive attitude about learning	0	0	35	52	13
7	Interest	0	0	22	30	48
8	Motivation	0	0	22	43	35
9	Enthusiasm	0	0	13	48	39



10	Achievement	0	0	39	43	17
11	Deep learning	0	0	39	48	13
12	Self-regulation	0	0	43	43	13
13	Overall engagement	0	0	17	52	30

Note: 1 = strongly disagree, 2 = disagree, 3 = moderately agree, 4 = agree, 5 = strongly agree

Based on the table above, it can be seen that all respondents gave positive responses toward the indicators of students' engagement. Most of the respondents (48%) stated that the students actively participate during the learning activities. The students also had positive interaction with teachers and peers (43%). However, most of the respondents moderately agreed that the online games enabled them to learn from peers. About the enjoyment and confidence, the students strongly agreed that online games made them felt confident (52%) and enjoyed the class (61%). Then, the majority of the students performed positive attitude about learning (52%). The students mostly showed high interest toward the learning (48%). Regarding the emotional engagement, 43% of the respondents agreed that online games increased their learning motivation, and 48% of them stated that they were more enthusiastic when taught using online learning. Meanwhile, 43% of the respondents agreed that online games improved their achievement, 48% mentioned that the use of online learning stimulated deep learning, it also enabled them to be more flexible by having self-regulation (43%). Overall, most of the respondents (54%) agreed that online games increase learning engagement, and even more, as many as 31% strongly agreed with that statement. Meanwhile, 15% of them moderately agreed.

This result gave significant evidences that the use of online games effectively improved the students' engagement toward the learning process. The detailed explanation will be discussed in the discussion section.

## **DISCUSSION**

This research aimed to give an overview of the online games mostly used in educational contexts and their correlation with classroom engagement based on educators' and students' perspectives. Therefore, two approaches were applied: the theoretical approach and the empirical approach.

The theoretical approach was applied by reviewing articles focusing on the use of online games for learning. Besides, to support the data, the researcher collected empirical evidence by distributing questionnaires to the respondents. From the data obtained, it is known that the most popular online games were Kahoot, Quizizz, WordWall, Quizlet, Nearpod, Baamboozle, and Educaplay. These games were chosen because of their practicability, usability, interactivity, and ability to cover the learning objectives (Fauzi, 2023; Hidayad et al., 2023). Most educators chose the game that easy to access, easy to modify, and easy to apply. Moreover, it could stimulate competitiveness to challenge the learner, and the progress or result could be monitored easily.

From the chart, it can be interpreted that the use of online games increased sharply in 2020 until 2022 and all online games reached its highest level in 2022. There are several factors that may be the causes. The first is the pandemic of covid-19. The outbreak of this pandemic occurred in 2019, it reached the peak in 2020 – 2021, it started to decrease in the beginning of 2022, and finally the government announced the end of this pandemic in 2022. This pandemic has greatly impacted the education practice. Educators were required to immediately find an alternative way to conduct the teaching and learning process, and the online learning was the best solution. Online games are one of the implementation techniques of the online learning. Because of this pandemic, educators were forced to be aware of the paradigm change of education that learning must be integrated with the technology to meet the demands of current digital era. Although the pandemic was over, the innovation found during the disruptive time are kept maintained. Online

games currently can be used in online learning or in the classroom. Thus, the study about online games kept increasing dramatically in 2022.

Among all the most used online games, Kahoot is the most popular one. The lecturers said that they used Kahoot because it can be accessed for free. Users can register as teacher or student. As a teacher, the lecturers may design their own learning by making course or quiz. In free tier, there are some limitations like the types of quiz and the number of participants. However, it still worthy to be used. This game is very interesting and challenging since the players can see the scoring board showing the top 5 players, and there is also a winner podium at the end of the game.

Sometimes, the lecturers used Quizizz as the alternative game. This game provides different but challenging types of game. This game can be played individually so that players can adjust their learning pace and it can be used as self-learning media.

Besides Kahoot and Quizizz, the most used online game is WordWall. Wordwall is an online application that can be used as learning media, learning resources or assessment tools. One of the advantages of this application are having a lot of templates that can be modified by the teacher. This app is free for the Basic option with 5 options templates. The games that have been made can be shared via link to WhatsApp, Google Classroom or email.

The other online games such as Quizlet, Nearpod, Baamboozle and Educaplay are also worthy to be played for learning. They provide different interactive activities that can be alternatives to vary and enrich the classroom practice.

Researchers studied the effectiveness of this game-based technique not only on its academic achievement but also on non-academic aspects such as motivation, engagement, creativity, satisfaction, and so on. Most of the articles explain the positive impact of the use of online games for education (Hidayad et al., 2023). It has been proven effective in increasing the quality of education, both academically and non-

academically. Academically, the use of online games enhances the student's knowledge and understanding, as evidenced by the improvement in their learning achievement (Fauzi, 2023; Hidayad et al., 2023). Non-academically, it can promote many affective aspects of learning, such as motivation, engagement, interest, satisfaction, interaction, collaboration, creativity, HOTS, and a competitive environment (Fauzi, 2023; Rojabi et al., 2022; Salfadilah et al., 2023).

Affective aspects play a crucial role in the success of learning. One of them is motivation. There are two types of motivation: intrinsic and extrinsic (Pujiani & Krisbiantoro, 2019). Intrinsic motivation refers to the internal drive or desire to engage in an activity because it is enjoyable, interesting, or satisfying in and of itself. People who are intrinsically motivated typically find personal satisfaction in the process of pursuing a goal, regardless of external rewards or incentives. Extrinsic motivation, on the other hand, refers to the drive to engage in an activity to receive external rewards or avoid negative consequences (Rojabi et al., 2022). Besides giving rewards, another way to stimulate motivation is by designing an interesting learning process. Attracting the students' attention or stimulating their interest will increase their motivation to be involved in the learning process. The students' involvement shows their engagement in the learning process. The engagement will optimize the achievement of the learning outcomes. Therefore, the affective aspects or mental condition of the learners are correlated and need to be paid attention to ensure the success of teaching and learning.

This research focuses on classroom engagement since it is at the core of the learning process. The engagement reflects the students' motivation and interest in the classroom activities. If there is engagement, there will be active participation. Active participation enables interaction, collaboration, creative thinking, HOTS, and finally the student's satisfaction with the learning process. As mentioned by Zhao (2023) the indicators of engagement are participation/ interaction/ involvement, positive interaction with teachers and peers, learning from peers, enjoyment, confidence,

positive attitude about learning, interest, motivation, enthusiasm, achievement, deep learning and self-regulation.

To analyze classroom engagement when online games are applied in the learning process, an empirical study was conducted by distributing questionnaires to teachers and students. The result of the questionnaire shows a positive response toward the use of online games in the classroom. Overall, most of the respondents (54%) agreed that online games increase learning engagement, and even more, as many as 31% strongly agreed with that statement. Meanwhile, 15% of them moderately agreed.

This result supports the previous study by Yu et.al (2020) stating that gamified learning improved the students' performance and engagement better than traditional instruction. Moreover, by using facial emotion detection technique, it was revealed that the use of games is emotionally engaging. Additionally, Jonathan and Recard (2021) explain that the concept of learning by playing is highly effective for learners especially young learners since they like to play and they relax through playing which then will cause them to also like learning. There are three main reasons why the use of online games is engaging. First, learning by playing is better than plain studying. Second, people will feel challenged instead of feeling pressured when they playing a game. Third, gamification has been proven over various researches in a different field to promote engagement, including education.

Referring to the interview result, the teachers mentioned that the use of online games promoted the ICT mastery of the students. Additionally, online games can easily attract students' interest, and the competitive atmosphere pushes the students to be active. This is in line with the statements of Mee (2022) and Licorish (2017) that online games attract students' attention and motivate them to finish the game and win it.

From the student's perspective, they felt more challenged when they played the games. The class became less boring and more fun. They enjoyed the class and felt motivated to learn more and more because

there was a desire to win the game. (Hidayad et al., 2023; Jasmansyah, 2021; Rojabi et al., 2022).

The result of this study confirmed that there is a positive correlation between online games and classroom engagement. It supported the previous research by Melisa et al. (2023) and Putu (2022) stating that online games promote dynamic engagement in the learning process, which, in turn, motivates students to participate eagerly.

## **CONCLUSION**

In conclusion, classroom engagement is the core of learning. It links to some important outcomes such as grades, persistence, course completion, mental health. Thus, educators are required to apply many strategies to get the learning engagement. The use of online games is proven effective to promote classroom engagement, both from the teachers and the students' perspectives. The most studied online games used for education are Kahoot, Quizizz, WordWall, Quizlet, Nearpod, Baamboozle, and Educaplay. These games are recommended to be applied to enrich the practice of English language teaching (ELT). Further study on the characteristics, strengths, and weaknesses of these games is still required to help educators choose the best game that meets the learning objectives and the student's needs.

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