

# Digital Games-Based Learning: An Innovative Language Learning in EFL Classroom by Utilizing Kahoot!

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p>Received 23/10/2021 Approved 19/12/2021</p> <hr/> <p><b>Keywords:</b></p> <p>Digital Game-Based Learning EFL Classroom Kahoot</p>	<p><b>Abstract:</b> This study aims to explore students' perceptions of utilizing Kahoot! to learn a language in the EFL classroom. Data were gathered through interviews with six students from one of Tasikmalaya's high schools. In this study, a qualitative design by using a descriptive case study was used, and the data were dissected utilizing thematic analysis (Braun &amp; Clarke, 2006). The findings revealed that students' perceptions of utilizing Kahoot in the classroom were positive, towards students agreeing that the utilization of Kahoot in the classroom encouraged them to learn in a fun way rather than by sticking to the books. In addition, Kahoot could be a beneficial and remarkable tool that permitted the student to make classroom situations to be more interesting or to motivate and encourage students' learning, it is also a platform relating to competition style in learning helped the students in sharpening their brain, improving their response time, and enabling them to learn topics that were difficult to understand. As a result, Digital Games-Based Learning by using Kahoot! is one of the innovations in learning a language in the EFL Classroom.</p>

## INTRODUCTION

The use of interactive games as part of a curriculum and their use in educational settings is referred to as DGBL (Van Eck, 2015). It is extremely advantageous for students because it not only promotes learning engagingly by fusing educational material with games and stories, but it also allows students to strategize using higher-order thought (Kickmeier-Rust & Albert, 2012). In terms of encouragement, DGBL encourages players to remain active for extended periods through game features such as points and trophies (Plass, Homer & Kinzer, 2015).

In other countries, the utilization of digital games in education is increasing as well (Bawa, 2018). Reports on district administration, in 2015, 48 percent of teachers said they use games in their lessons. Whereas when compared to Indonesia, using DGBL for language learning in the classroom is rarely used, especially in Tasikmalaya, West Java. On the other hand, based on the data that the researchers got, one of the senior high schools located in the center of Tasikmalaya is well known as one of the schools in Tasikmalaya that has implemented DGBL during the learning process utilizing Kahoot. Kahoot is inherently entertaining as DGBL educational web-based software for learning (Bawa, 2018), which can be played as a learning game conducted in the classroom with the students (Bicen, 2017). Kahoot permits teachers and course architects to coordinate informative substance through a test like, ongoing interaction build (Bawa, 2018).

In line with current technological developments, the use of media in learning methods is increasingly diverse, including Digital Game-Based Learning (DGBL). The digital game is proposed as a compelling method to energize understudies' understanding a direct result of its anxiety on critical thinking move (Boyle, Connolly & Hailey, 2011). Van Eck (2006) stated, "Games promote students' learning and/or reduce time instructional time across multiple disciplines and ages." It means, games are effective to be used in many contexts and allowed for a wide scope of approaches to draw in students.

Other characteristics of games that are commonly mentioned are inspiring and engaging experiences. Games could indeed motivate students to remain involved for extended periods (Plass, Homer & Kinzer, 2015). It occurs as a result of a sense of control, challenge, enthusiasm, and the desire to situate information while playing the game (Lee, Dunbar, Kornelson, Wilson, Ralston, Savic, & Elizondo, 2016). Learners are often provided a 'mistake friendly learning experience through games, which promotes them to explore with their solutions even though they can afford to make mistakes and learn from them (Kriz, 2003).

Dealing with this phenomenon, the researcher felt interested to research Kahoot as innovative learning in EFL classrooms which has been implemented in one of the senior high schools in Tasikmalaya. The researcher would like to obtain students' perceptions of utilizing Kahoot as a means for innovative learning in EFL classrooms, whether positive or negative. In addition, the

result of this research would show how technology, in this case, the use of DGBL can motivate the students' willingness to learn, especially in utilizing Kahoot in EFL Classroom. Many researchers were researching Kahoot, but most of them are conducted by using a quantitative research design. To fill this gap, this research attempts to find how Kahoot utilized based on students' perception as a means for innovative learning by using qualitative research design analysis: a descriptive case study. The objective of the research is to give some useful information about students' perceptions of utilizing Kahoot in the EFL classroom. Hence the present study focuses on investigating students' perception of utilizing Kahoot! in EFL Classroom as Digital Games-Based Learning (DGBL) as an innovative language learning tool. The formulation of the problem in this research is "What are the students' perceptions of utilizing Kahoot in EFL classroom?"

## METHOD

The research design employed in this study was a descriptive case study, which aims to present a detailed, contextualized image of a specific phenomenon without making any alterations. By using a descriptive case study, the study sought to explore students' experiences of using Kahoot as a tool for creative learning in the EFL classroom (Widodo, 2013). The research was conducted in a senior high school located in Tasikmalaya, West Java, Indonesia, based on three considerations. Firstly, Kahoot had been implemented as a teaching medium in English classes since June 2018. Secondly, the students were technologically literate, proficient in using both mobile devices and computers. Lastly, the school provided adequate facilities such as screens and projectors to support the implementation of Kahoot. The participants of this study consisted of six second-grade students, aged either 16 or 17. To ensure diverse perspectives and enrich the research findings, two students from the high score group, two from the middle score group, and two from the low score group were selected. Before collecting data, all participants were approached to review, complete, and sign the informed consent form, which ensured their willingness for data analysis and publication while maintaining their privacy. To facilitate the interview sessions, a mobile phone was used to record the audio, and additional interviews were planned through WhatsApp if needed. Semi-structured interviews (SSIs) were conducted with the participants to collect data, focusing on their perceptions of utilizing Kahoot in the EFL classroom. As Adams (2015) suggests, semi-structured interviews are suitable for projects that require follow-up questions to explore open-ended inquiries. This interview method aligns with the design of the research, which aims to provide detailed insights into the thoughts and feelings of the participants. For data analysis, the researcher employed thematic analysis, following the approach outlined by Braun and Clark (2006). Thematic analysis is a technique used to identify, analyze, and report patterns or themes within the data. It allows for a comprehensive and detailed exploration of the dataset, making it suitable for researchers new to qualitative research. The analysis process involved six phases as proposed by Braun and Clark (2006).

## FINDINGS AND DISCUSSION

To answer a research problem related to what are the students' perceptions of utilizing Kahoot in the EFL classroom, the data were obtained from the interview and were analyzed by using thematic analysis. The result showed that there are three emergent themes: (1) affecting students' emotions, (2) enriching students' learning experiences, (3) Learning and maintenance of information, and (4) internet connection as a barrier in students' Kahoot activities.

### Affecting Students' Emotions

The result showed most of the students draw their feelings on the interview session conducted by the researcher. The students enjoyed and felt entertained learning English by utilizing Kahoot in the classroom. It is proved by these statements:

**Table 1. Student's Interview Results About Enjoyment Using Kahoot!**

Time	Participant (Student)	Statement
02:22	S1	It's easy, simple. <i>I enjoy it, it is entertaining like a game</i>
05:58	S2	<i>It's fun</i> because it can be easily accessed, <i>it's exciting so we don't get boring</i> while learning
03:38	S3	Using Kahoot <i>isn't boring. It's fun.</i>
04:29	S4	<i>It won't be boring</i> while learning.
02:10	S5	<i>I am happy, the learning is exciting. The learning is not boring in class, it's fun.</i>
02:08	S6	It makes me happy. <i>It is also fun</i> using Kahoot.

Based on the data, the students were pleased to learn English in the classroom by using Kahoot. They confirmed that it would not be boring and was entertaining because Kahoot was exciting in the manner of a game. The data presented above is linked to some hypotheses advanced by the researcher in Chapter II about Digital Game-Based Learning (DGBL). According to Granic, Lobel, and Engels (2014), as cited by Edouard (2015), “students should learn academic content while having fun while playing educationally related games.” Through the use of DGBL, Kahoot intrigued the students' interest in learning. It means that Kahoot had an impact on their emotions because they felt pleasant and cheerful while using Kahoot in the EFL classroom. The firm inclination for utilizing Kahoot among members was credited to the Kahoot's features. The students stated that they liked and enjoyed the class because of the music on Kahoot. Student 1 said the animation was also included. It is shown by these followings:

**Table 2. Students' Interview Results on Kahoot's Features Impacting the Enjoyment in the Classroom**

Time	Participant (Student)	Statement
02:31	S1	I feel entertained because of <i>the animation, the choices are triangles, bullets, boxes, so it becomes animated. Kahoot is not tense, there is also music while playing.</i>
03:10	S2	<i>There are songs, or what we called music.</i>
06:28	S3	<i>There are songs, fun. Kahoot makes the class situation not boring, so it's not sleepy.</i>
04:29	S4	<i>There are songs so that it won't be boring while learning</i>
02:08	S6	<i>There is sound like what already happened before</i>

Interesting Kahoot features, especially music as audio components, allowed students to feel comfortable while learning. According to Wang and Lieberoth (2015), the use of audio on Kahoot had the greatest influence in the classroom. “The audio simply increased the energy in the room, allowing for a more immersive environment.” When the audio was turned off, the classroom became silent and low-energy, without any kind of cheering, low response, and no celebration for correct answers.

All of the above perceptions are backed up with one important emotion: fun. Kahoot provides a fun and should not be only associated with something less serious. The aspect of fun while utilizing Kahoot appears to have assisted a few understudies with conquering hindrances that they looked in the learning climate like feeling boring and sleepy. Therefore, Kahoot as an educational platform could be used in language learning because it could attract students to learn English more in a fun way.

### Enriching Students' Learning Experience

Based on the data, the students stated that Kahoot gave them an enriching learning experience. Kahoot made their learning not to be stuck with the books. It is proven as follows:

**Table 3. Students' Interview Results About the Comparison with Textbook-based Learning**

Time	Participant (Student)	Statement
04:03	S1	<i>We will get bored if we are learning by using books, occasionally use the technology, and also the features of Kahoot is like a game, it feels better.</i>
05:06	S2	<i>Our learning is not stuck with the textbooks, worksheets, or something like that. We can play games, but also play the game while learning.</i>
03:08	S3	<i>It is not stuck with books.</i>
04:29	S4	<i>Our learning is not only by seeing from a book anytime.</i>

05:05	S5	The learning <i>doesn't always use paper</i> , sometimes using the gadget is needed, it will be fun too.
04:44	S6	Our learning is mostly monotonous right now, <i>if we learn, it must be related to books or something</i> , but Kahoot now comes in the era of technology, so it can be replaced as an innovative one. It can also reduce the use of paper or books.

Students conceded that Kahoot gave them positive perceptions of the way they learned. Their learning was not stuck to the books, it means their learning is not only by using books or textbooks as a medium because Kahoot was integrated to the use of technology. In line with some of the research results conducted by Kusuma (2016), she reported that most teachers had extremely restricted methodologies and media to help instructing and learning exercises. As the result, most students used books, textbooks, or worksheets suggested by the school or the teacher as the source of all most activities in the classroom. Utilizing Kahoot in the classroom might become a solution to give them an activity to enrich their learning experiences. Student's learning styles became different and did not focus on "chalk and talk" teaching (Wang and Lieberoth, 2016) which are detested by students and initiate fatigue (Cheong et al. 2013; Graham 2015; Roehl et al. 2013; Lincorish et al., 2018).

The students also felt like playing the game while learning. It could be said using gadgets by utilizing Kahoot in the classroom supported their learning experiences in the classroom. This is supported by previous research conducted by Lincorish et.al. (2018), who claimed Kahoot as an exhaustive tool could enrich students' experience while learning in the classroom. "Learning with Kahoot was a remunerating address experience that is enrapturing and attractive. Kahoot offered students the chance to zero in on explicit important substance."

The enrichment in the learning experience was not only exclusively derived from the use of the technology only, but also from the competitive aspect of Kahoot during playing Kahoot in which enable the improvement of students' cognitive function. It is proved in the interview session below:

**Table 4. Students' Interview Results on Improving Cognitive Function using Kahoot**

Time	Participant (Student)	Statement
03:38	S2	Kahoot can train our self-confidence, our speed and <i>sharpening our brain</i> .
04:24	S3	<i>We can sharpen our brains</i> . If we want to answer quickly, we must be the focus.
03:20	S4	<i>Kahoot can sharpen our brain</i> and regulate speed, so it can manage our time quickly and precisely to answer a question.

The students claimed that Kahoot was a valuable learning medium since it reinforced their learning experience. All through the meetings, members expressed gratitude for how Kahoot aided their learning. Kahoot allowed individuals to compete and participate in answering questions and selecting the most correct answer. Each question they answered increased their self-confidence and encouraged them to be more ambitious by answering correctly. Kahoot could also support them sharpen their sights and regulate their response speed. As a consequence, Kahoot encouraged the students to better focusing and managing their time while answering questions. Lincorish et al. (2018) addressed similar findings of the competitive nature of Kahoot. "Many students enjoyed the competitive nature of Kahoot, considering it to be a persuasive factor to take part, reassuring them to think fundamentally, expanding their support energy levels, and making an intriguing study hall dynamic." The opposition was viewed as a "perfect" experience in terms of how students like to "perform" while using Kahoot in the classroom. The desire to win empowered the students to plan ahead of schedule and engage with the subject. "I haven't mastered the material yet, using Kahoot in the classroom needs preparation in material comprehension because I want to be the best and choose the correct answer" (Student 4). Kahoot offered students the opportunity to focus and show their best performance when they utilized Kahoot in the classroom. It could enrich their learning experiences because of the competitive aspects of Kahoot itself.

### Learning and Retention of Knowledge

Kahoot was a valuable learning tool that decidedly affected the members' learning experience, as indicated by the members. Members over and over referenced how Kahoot! supported their picking up during the meetings. They said that utilizing Kahoot during addresses assisted them with recollecting recently covered substance as well as like new viewpoints. They additionally expressed that Kahoot assisted them with finding out additional. Realizing that there would be a Kahoot in class inspired numerous students to get ready and survey material to perform well in the Kahoot. Students partook in the course-related Kahoots, which investigated complex thoughts and gave understanding into hypothesis applications. As key advantages, members examined how Kahoots aided revision, stimulated debate and helped them conserve knowledge.

### *Internet Connection as A Barrier in Students' Kahoot Activities*

Based on the data, the students got challenges when they filled the answer for every question given. They got a problem with the internet connection. It is found in these statements:

**Table 5. Students' Interview Results About Internet Connection Problems**

<b>Time</b>	<b>Participant (Student)</b>	<b>Statement</b>
02:22	S1	Some people don't have smartphones or a <i>quota</i> . Sometimes, <i>the internet connection is slow</i> , too.
03:38	S2	The weakness of Kahoot is when we <i>don't have a quota</i> , battery, or we don't have a smartphone.
06:41	S3	Sometimes <i>the network is slow</i> . <i>There must be WiFi</i> .
03:59	S4	My problems are <i>quota and the network</i> . Kahoot needs a quota and <i>I usually don't have it</i> .
03:16	S5	<i>I don't have a quota</i> . I also use a hotspot from my friend. <i>My friend's network is slow</i> , so <i>I can't maximize it while answering the questions</i> .
02:59	S6	<i>The internet is slow</i> .

Students stated that their problem was with the internet connection. Sometimes, they had no data package to access and play Kahoot in the classroom. An alternative way to face this problem was by using a hotspot from their friends, but the problem of slow connection also might occur to those while playing. Concerning the internet connection problem, WiFi connection was available in this school so that the students who had no access to the internet from their smartphone could use the WiFi facility. Inappropriately, they were not free to use the WiFi because the password was required.

The internet connection problem became the main barrier happened when the students used Kahoot in the classroom. It made the students uncomfortable when played Kahoot. It should be known how frustrating an internet connection problem can be, particularly when it was needed to achieve a smooth connection during playing Kahoot in the classroom. Kahoot is an online platform internet connection needed should be supported by excellent connection, it also coherent with the Ministry of Education and Culture Indonesian's policy led by Muhadjir Effendy who stated that the development of learning activity in the classroom should be integrated into the internet and technology (Rahmawati, 2018).

## **CONCLUSION**

Based on the research results, the researcher found that most of the students had a positive perception of utilizing Kahoot in the EFL classroom. The use of Kahoot was viewed as fun, not bored and giving enjoyment. Kahoot could be a beneficial and remarkable tool that permitted the student to make classroom situations to be more interesting or to motivate and encourage students' learning. With Kahoot, students were able in enriching the learning experience which is not stuck to the books. It made them increasing their motivation. Furthermore, Kahoot! as a platform relating to competition style in learning helped the students in sharpening their brain, improving their response time, and enabling them to learn topics that were difficult to understand. In conclusion, Kahoot! as Digital Games-Based Learning can be used as an innovative medium to enhance learning activity in the English classroom.

Regarding the topic in this study, there are possible suggestions for the next researchers who are interested in conducting the research topic about utilizing Kahoot in the EFL classroom. First, it is suggested for the next researcher to focus on students' perceptions of the questions used as the material to conduct Kahoot and its benefits to the subjects being taught. Second, it will be valuable to inspect the utilization of Kahoot! in an assortment of language skills in English learning as assessment tools. Third, it will be valuable to analyze the impact of focuses and sound on fixation, commitment, happiness, inspiration, and study hall elements utilizing Kahoot! in the classroom.

The researcher also suggests the teacher utilize Kahoot in the EFL classroom. It will be beneficial to make the teaching-learning process better. The teacher can give a variation of the question that related to the material to help the students understand the material more and learn in a fun way.

## REFERENCES

- Adams, W. (2015). Conducting Semi-Structured Interviews. <https://doi.org/10.1002/9781119171386.ch19>
- Bawa, P. (2018). Hey, Want to Play? 'Kahooting' in Win the Learning Game. *The annual*, 57.
- Bawa, P. (2018). Using Kahoot to Inspire. *Journal of Educational Technology Systems*. <https://doi.org/10.1177/0047239518804173>
- Bicen, H. & Kocakoyun S. (2018). Perception of Students for Gamification Approach: Kahoot as A Case Study, *International Journal of Emerging Technologies in Learning*, 13(2), 72-93. <https://doi.org/10.3991/ijet.v13i02.7467>
- Boyle, E., Connolly, T. M., & Hailey, T. (2011). The role of psychology in understanding the impact of computer games. *Entertainment Computing*, 2(2), 69-74.
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <http://dx.doi.org/10.1191/1478088706qp063oa>
- Edouard, G. (2015). Effectiveness of Audio Feedback in Distance Education. *International Journal of Technology and Distance Learning*, 12(4), 41-48.
- Fatimah, A. S., & Santiana. (2017). Teaching in the 21<sup>st</sup> century: Students-Teachers' Perceptions of Technology Use in the Classroom. *Script Journal*, 2(2), 125-135.
- Kickmeier-Rust, M., & Albert, D. (2012). A Domain Model for Smart 21st Century Skills Training in Game-Based Virtual Worlds. In *Proceedings of the 12<sup>th</sup> IEEE International Conference on Advanced Learning Technologies 2012 (ICALT)* (pp. 1-10)
- Kriz, W. C. (2003). Creating effective learning environments and learning organizations through gaming simulation design. *Simulation & Gaming*, 34(4), 495-511.
- Kusuma, I. P. I. (2016). Developing Reading Material for Elementary Students in Tourism Area by Inserting Local Culture. *Journal of English Education and Linguistics Studies (JEELS)*, 3(1), 109-127.
- Lee, Y. H., Dunbar, N., Kornelson, K., Wilson, S. N., Ralston, R., Savic, M. & Elizondo, J. (2016). Digital game-based learning for undergraduate calculus education: Immersion, calculation, and conceptual understanding. *International Journal of Gaming and Computer-Mediated Simulations (IJGCMS)*, 8(1), 13-27.
- Lincorish, S. A, Owen, H. E., Daniel, B., & George, J. L. (2018). Students' perception of Kahoot!'s influence on teaching and learning. *Research and Practice Technology Enhanced Learning*, 13(1),9.
- Marzuki, A. G., Alim, N., & Wekke, I. S. (2018). Improving the reading comprehension through cognitive reading strategies in language class of coastal area in indonesia. In *IOP Conference Series: Earth and Environmental Science*, 156(1), 012050). IOP Publishing.
- Marzuki, A.G. (2016b). Utilizing cooperative learning in islamic college students' classroom, *IJEE (Indonesian Journal of English Education)*, 3(2), 123-139.
- Marzuki, A.G. (2017). Developing speaking skill through oral report in an efl class in indonesia, *Al-Ta'lim Journal*, 24(3), 243-254.
- McCarty S., Sato T., & Obari H. (2017). *Implementing Mobile Language Learning Technologies in Japan*. Singapore: Springer Briefs in Education.
- Plass, J. L., Homer, B. D., & Kinzer, C. K. (2015). Educational Psychologist. *Foundations of Game-Based Learning*, 50(4), 258-283. <http://doi.org/10.1080/00461520.2015.1122533>.
- Rahmawati, Ita. (2018, March 21). *Mendikbud Dukung Penerapan Kelas Berbasis Teknologi*. Retrieved from <https://pendidikan.id/main/forum/diskusi-pendidikan/diskusi-pendidikan-aa/9568-mendikbud-dukung-penerapan-kelas-berbasis-teknologi>.
- Van Eck, R. (2006). Digital game-based learning: It's not just the digital natives who are restless. *EDUCAUSE Review*, 41(2), 16.
- Van Eck, Richard N. (2015, October). *Digital Game-Based Learning: Still Restless, After All These Years*. Retrieved from [er.educause.edu/articles/2015/10/digital-game-based-learning-still-restless-after-all-these-years](http://er.educause.edu/articles/2015/10/digital-game-based-learning-still-restless-after-all-these-years).
- Wang, A. I., & Lieberoth, A. (2016). The effect of points and audio on concentration, engagement, enjoyment, learning, motivation, and classroom dynamics using Kahoot! In *Proceedings from the 10th European Conference on Games Based Learning*, (p. 738). Reading, UK: Academic Conferences International Limited.
- Widodo, H. P. (2013). *Doing Qualitative Research: A Step-by-Step Guide for Undergraduate Students*. The University of Adelaide."