# Kahoot! as a digital game based learning strategy:
# A literature review

**Aditya Sahrul Akbar**

Magister Pendidikan Bahasa Inggris, Universitas Sarjanawiyata Tamansiswa.
Jl. Kusumanegara No.157, Yogyakarta 55165, Indonesia
Corresponding Author. Email: Williamaditya52@gmail.com

**Abstract**: The aim of this article is to explain the benefits of using Kahoot! in digital game-based learning. This article is a literature review of based on previous studies related to the use of Kahoot! as a digital game-based learning strategy. Based on previous research studies, it was found that game-based learning strategy in language learning, students showed enjoyment, motivation and concentration when using this strategy. Thus, the use of Kahoot! Especially in digital game-based learning increases students' engagement and several benefits in learning sessions. In general, Kahoot! can be accessed using email, then you can design the questions and activities you want to use. In the terms of benefit, Kahoot! provides a positive influence on student achievement, motivation, attitudes and perceptions in the teaching and learning process.

**Keywords**: Kahoot!, Digital Game Based Learning, Learning Strategy

## INTRODUCTION

In an era marked by rapid technological advancement and an ever-increasing demand for innovative educational approaches, the integration of technology into teaching practices has become a part of teaching and learning sessions and the uses are highly needed in almost every activity. The rapid development of technology in the field of technology has a good role if applied in English language learning. However, the use of advanced technology is only 0.9% in the field of education (Agencia de Calidad de la Educación, 2017). The principle of applying technology in learning is not only limited to the learning activities, but also to the impact and benefits of using technology. In the term of students' pronunciation, it can be improved by providing technology in a classroom (Seferoglu, 2005), or developing skills of the them (Nomass, 2013).

The substantial influence of technology in education is now widely recognized, with researchers asserting that significant learning achievements can only be realized through the integration of both teachers and also technology (Sharma, 2009). However, the implementation of technology in a classroom, must be considered related to the pros and cons of applying itself (Tafani, 2009). In addition, it necessarily to consider what kind of appropriate teaching strategy to combine with technology in order to engage the learner.

It is important for teacher how to engage the students in learning session. It's commonly used by teacher for playing games to maintain students' focus and attention. Game Based Learning is a learning strategy that has correlation with several tasks such games and activities thus it's commonly used and believed to improve their enjoyment, motivation, and concentration (Prensky, 2005; Rachman et.al., 2020), and it consists of two types: (1) Digital Game Based Learning (DGBL) and (2) Non-Digital Game Based Learning (NDGBL) (Naik, 2015, p. 2). It is no doubt that the result of the development of technology make DGBL is more

popular and commonly used than NDGBL (Naik, 2015, p. 2). Kahoot! represents just one of several game-based apps employed in the field of education. This particular application places its emphasis on a game-based student response system with the goal of converting the conventional classroom into an interactive quiz-style experience (Boden & Hart, 2018).

Utilizing Kahoot! software as an educational tool can enhance students' enthusiasm and motivation to learn English, thereby simplifying the comprehension of challenging material, which is often perceived as difficult and uninteresting (Pahamzah et al., 2022).  In the terms of features, Kahoot! operates on multiple platforms, through personal computers or mobile devices. Kahoot! has the flexibility to create questions and polls on the application. Additionally, there is a collection of pre-made quizzes available for educators to choose from and customize according to their specific learning goals. However, based on the previous studies, there are no explanation related to application access or how it can be access. In addition, this literature review is not only describing the benefits and features on Kahoot! But also, how or the way to access the application.

In line with those theories and backgrounds, this paper aims to identifying the benefits of Kahoot! in Digital Based Learning Strategy especially in Language Teaching. A literature review method was used in this paper. Thus, it is expected that the outcome will be beneficial both for students and teachers.

## RESULTS AND DISCUSSION

### *Digital Based Learning Strategy*

Digital game-based learning is an educational strategy where students engage in a fun-filled atmosphere, fostering their motivation and enabling them to learn with undivided attention and active involvement. By embracing playful challenges, Digital Game Based Learning Strategy enhances students' capacity to explore, innovate, communicate, and visualize effectively (Haruna et al., 2018). However, it also requires activities related to the games, and learners could contribute their selves. Educational digital games empower learners to take on a central role in their learning process, thereby simplifying the learning experience, enhancing enjoyment, and improving efficiency. In the term of true benefit of this strategy, it provides individuals with the opportunity to reinvent themselves in the realms of learning (Von Wangenheim and Shull, 2009). Based on Bakhsh Khuda et al, (2022), it illustrates the distinctions between traditional learning and digital game-based learning strategies such as Digital Gamme Based is more highly engangging, better active participation of the students, and also easy for learners to shift their learning to a real-world enviroment than Traditional strategies.

It is no doubt that researchers agreed that the implementation of game-based learning strategy is really enjoyable and immersive activity in which objectives are achieved according to the defines rules (Stenros, 2017). In order to improve upon constructivist skills of students, the use of digital-based learning strategy can be considered to be implemented in a classroom (Biffi et al., 2016; Pinder, 2013, 2008; Sawyer, 2004; Su & Cheng, 2013). In previous research entitled with "Perceptions of Pre-service Teachers Regarding Game-Based Learning Scenarios in Primary Reading and Writing Instruction Courses." By Karadag (2015), it was known that the result showed 75%-96% of the teachers agreed that; (1) game-based learning can be used in any phase of primary teaching, (2) game-based learning practices should be increased in primary teaching, and (3) game-based learning is an effective tool, which can help to assess or to evaluate primary school students' skill sets.

Although game-based learning has been widely used in the field of education. It is important for teachers to know the need for students to develop the following cognitive skills

through game-based learning; (1) concept/content understanding, (2) high ordered thinking skills, and (3) memory and thinking skill/recall (Karadag, 2015). Another finding by Kirikkaya, Iseri, and Vurkaya (2010) indicated that teachers believed the game-based activity contributed to enhanced student motivation, and the students themselves were found to derive enjoyment from the use of games. In the terms of game-based learning strategy, Kahoot! is one of the applications than can be implemented in the classroom (Husin & Azmuddin, 2022). Thus, Kahoot offers an engaging and interactive learning experience, making education more enjoyable and effective for students of all ages (Wang, 2015, p. 218).

### *Kahoot!*

According to Wang (2015, p. 218), Kahoot! is described as a game-based student response system that transforms the classroom environment into a more enjoyable and engaging setting, akin to a temporary game show. The use of Kahoot! is anticipated to have a positive influence on students' achievement, motivation, attitudes, and perceptions within the teaching and learning process. Moreover, Kahoot! is an actual interactive and engaging learning platform that allows educators to create and conduct quizzes, surveys, and games in the classroom. It's widely used to assess learning, reinforce concepts, and boost student engagement, making it a valuable tool for educators across various subjects and age groups. The implementation of Kahoot! in a classroom can increase students' engagement with its colourful graphic and audio (Wang, 2015, p. 218). It means that the audio and vibrant graphics in Kahoot! have the potential to inspire and motivate students while they engage in the game. Kahoot! offers a range of user-friendly features, making it highly accessible and easy to use for all. It also provides four distinct mode options: teacher, student, workplace, and social. Each mode is tailored to meet specific needs and features unique structures (Husin & Azmuddin, 2022).

Nonetheless, Gündüz and Akkoyunlu (2020, p. 481) outlined several advantages of using the Kahoot! game in the learning environment: (1) Designing enjoyable games centered around specific topics that engage players, (2) Offering a user-friendly platform for easily creating tests and quizzes using various Kahoot! game formats, (3) Facilitating easy access through digital devices, (4) Providing a wealth of audio and visual resources that align with a gamified approach to learning, and (5) Generating output data on participants' performance that can be analysed for assessment and improvement purposes. A study by Wang & Tahir (2020) showed that the implementation Kahoot! in a classroom has the potential to enhance students' responses, improve their academic achievement, and create a positive experience for teachers.

A study by Pahamzah et al. (2022) in their research "The effects of EFL course enriched with Kahoot on students' vocabulary mastery and reading comprehension skills" showed that when examining the learning activities conducted by both teachers and students, it illustrates a noticeable upward trend in student engagement. Specifically, student learning activities increased progressively from the first cycle to the second cycle and further to the third cycle. In the initial cycle, student learning activities were recorded at a level of 72, which then rose to 77 in the second cycle, and finally reached 82 in the third cycle. Concurrently, teacher involvement in learning activities also displayed growth. Teacher learning activities began at 76 in the first cycle, slightly increased to 77 in the second cycle, and notably peaked at 84 in the last cycle.

It can be concluded that the average percentage of the use of Software Kahoot! media in improving reading comprehension and vocabulary skills has growth. It means that the implementation of Kahoot! has made progress based on the data that it increased due to the

involvement of several learning activities used by the teachers. Thus, this study not only showed and highlights the utilization of Kahoot software for skill improvement but also underscores how the researchers extended the use of Kahoot to enhance students' vocabulary and reading skills. Regarding how to access the application, here is how to access the Kahoot! application.
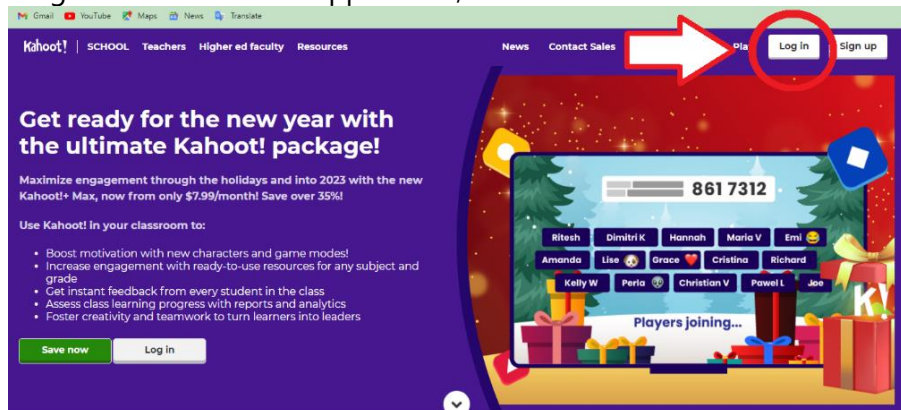


**Figure 1.** The Dashboard of Kahoot!

The first step is logging in with an existing account, or sign up for creating the new one. It is an easy registering phase; teachers can follow the instruction when the application will guide the teachers to create a new Kahoot! Account.
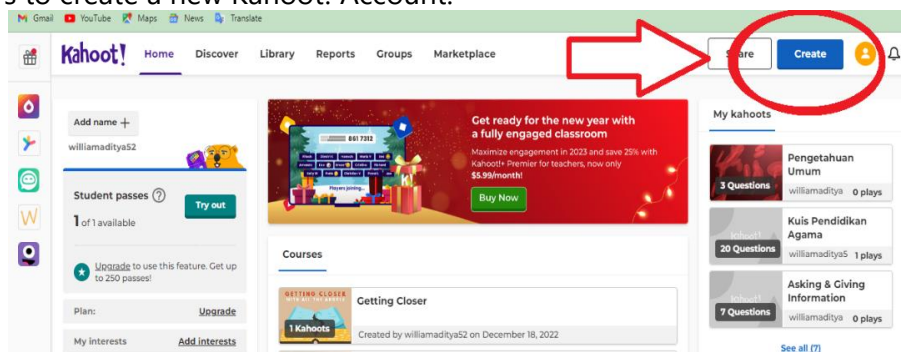


**Figure 2.** Creating a Classroom Game!

The next step is designing or creating the virtual game classroom. After the screen is launched by the application after the login or sign-up session, click "*Create*" button at the top of the page. Then choose a template or create a new game form.
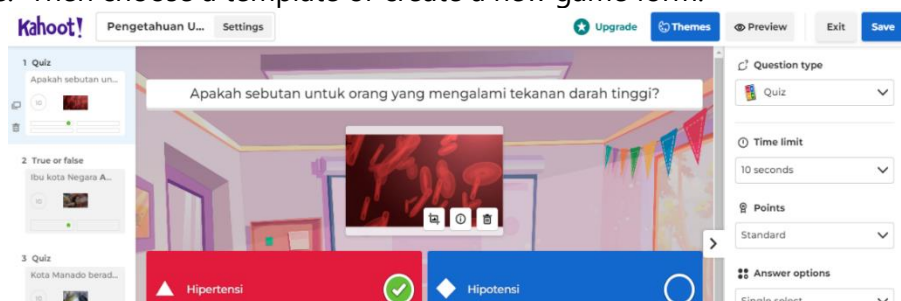


**Figure 3.** Design and Create Questions

In this phase only the quiz and true-false options are free. Due to all other question types need a Kahoot! Premier account or subscription. To add a question text, it can be access with *"Click to Start Typing Question"*. Then add the answers, and select the correct or appropriate answer. It is possible to give some elements by clicking *"Find and Insert Media"*.
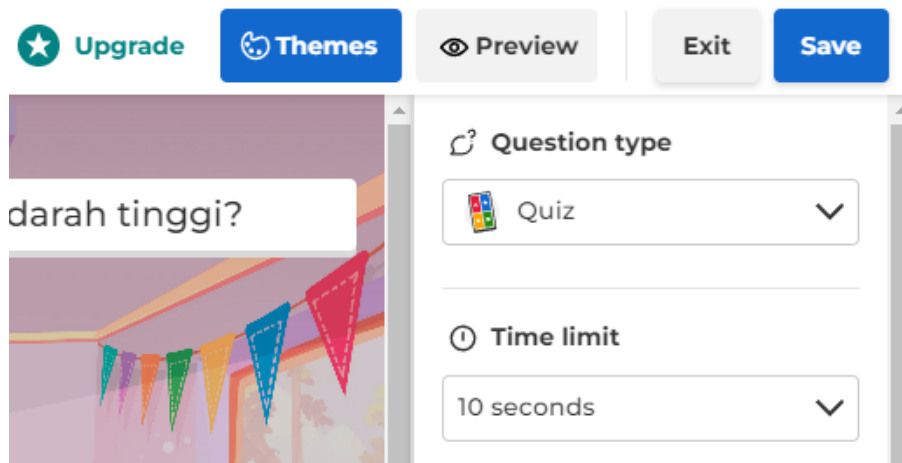
**Figure 4.** Saving The Progress

This phase is about how to save the progress and start the activity. In the upper right corner of the page, there is "*Save*" button to save the progress. However, it can be previewed by clicking "*Preview*" to see the game activity.
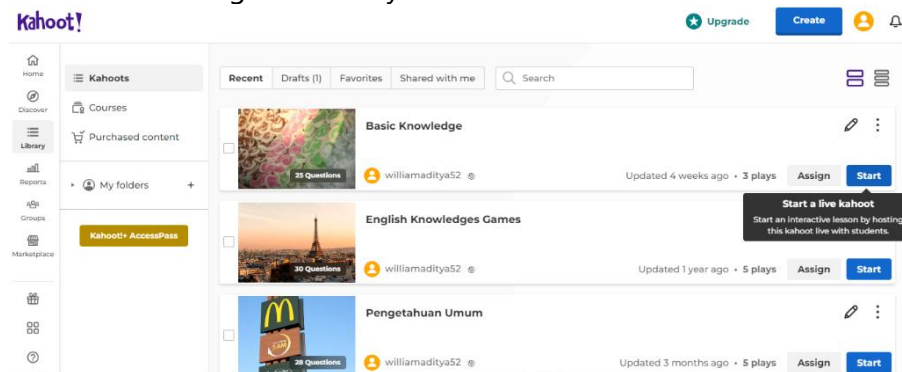


**Figure 5.** Starting The Activity

This phase is the last phase and related to how to start the activity in Kahoot! application. To start the activity, first go to library in the dashboard. Then click "Start" button on the existing activity to start it. It can be access with existing game (previously created) or click "Discover" button on the left of the page, to explore a selection of games and find one to play.

## CONCLUSION

Kahoot has been emerged as a dynamic and versatile tool for modern classrooms, and also offering a host of benefits to both educators and students. Its gamified approach transforms learning into an engaging and interactive experience, promoting active participation, knowledge retention, and motivation among students. Teachers appreciate its adaptability, enabling them to tailor quizzes and activities to their specific educational goals. In the term of how to use Kahoot! teacher can access it, then login with existing account, and design the question based on their needs. The platform's accessibility, real-time feedback, and data analysis capabilities empower educators to enhance their teaching strategy and adapt to student needs effectively. Kahoot not only enriches the educational experience but also instils a sense of enjoyment and enthusiasm for learning, making it a valuable asset in the contemporary classroom.

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