

Kahoot Analysis as a Game Media-Based Learning in Early Childhood Education

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis penggunaan Kahoot sebagai media pembelajaran berbasis permainan pada Pendidikan Anak Usia Dini (PAUD). Kahoot merupakan platform kuis interaktif yang menggabungkan unsur edukasi dan hiburan sehingga sesuai dengan karakteristik belajar anak usia dini. Metode penelitian yang digunakan adalah studi literatur dengan mengkaji berbagai artikel ilmiah, buku, dan penelitian terkait pemanfaatan media digital, pembelajaran berbasis permainan, dan karakteristik anak usia dini. Hasil kajian menunjukkan bahwa Kahoot memiliki sejumlah kelebihan, antara lain meningkatkan motivasi belajar, keterlibatan, dan konsentrasi anak melalui tampilan visual yang menarik, suara, animasi, serta suasana kompetitif yang sehat. Kahoot juga mempermudah guru menyampaikan materi dengan cara yang menyenangkan dan mendorong partisipasi aktif anak, bahkan bagi anak yang biasanya pasif. Namun demikian, penerapan Kahoot di PAUD menghadapi beberapa tantangan, seperti keterbatasan literasi dan motorik anak, kebutuhan pendampingan intensif dari guru dan orang tua, serta keterbatasan sarana teknologi di beberapa lembaga PAUD. Untuk mengatasi tantangan tersebut, guru disarankan menyusun soal berbasis gambar dan suara, melibatkan orang tua, serta melaksanakan kegiatan dalam kelompok kecil dengan durasi yang disesuaikan dengan rentang perhatian anak. Dengan perencanaan yang tepat, Kahoot terbukti berpotensi sebagai media pembelajaran yang menyenangkan, interaktif, dan efektif untuk memperkenalkan konsep dasar bagi anak usia dini.

Kata kunci: Kahoot; media pembelajaran; game-based learning; PAUD

ABSTRACT

This study aims to analyze the use of Kahoot as a game-based learning medium in Early Childhood Education (PAUD). Kahoot is an interactive quiz platform that combines elements of education and entertainment so that it suits the characteristics of early childhood learning. The research method used is a literature study by reviewing various scientific articles, books, and research related to the use of digital media, game-based learning, and early childhood characteristics. The results of the study show that Kahoot has a number of advantages, including increasing children's learning motivation, engagement, and concentration through attractive visual displays, sounds, animations, and a healthy competitive atmosphere. Kahoot also makes it easier for teachers to deliver material in a fun way and encourages active participation of children, even for children who are usually passive. However, the implementation of Kahoot in PAUD faces several challenges, such as limitations in children's literacy and motor skills, the need for intensive assistance from teachers and parents, and the limited technological facilities in several PAUD institutions. To overcome these challenges, teachers are advised to formulate questions based on images and sounds, involve parents, and carry out activities in small groups with a duration adjusted to the child's attention span. With proper planning, Kahoot has proven to have the potential to be a fun, interactive, and effective learning medium for introducing basic concepts to early childhood.

Keywords: Kahoot; learning media; game-based learning; Early Childhood Education

INTRODUCTION

Early childhood education (PAUD) is a very crucial early stage in forming the foundation of children's cognitive, social, emotional, and motor development. During this time, children tend to learn through hands-on experiences, play, and fun interactions. Therefore, a game-based learning approach is highly recommended in teaching and learning activities in PAUD, because it has been proven to increase children's motivation and involvement in the learning process (Isjoni 2016). Along with the development of digital technology, the world of education has begun to integrate various interactive media as a means of learning. One of the media that caught the attention of educators was Kahoot!, a game-based learning quiz platform that can be accessed online. This media provides an interactive and competitive learning atmosphere in a healthy manner, so it is suitable to be used to arouse children's enthusiasm for learning, including at the PAUD level (Wang 2016).

In the context of early learning, the use of Kahoot can be categorized as an edutainment approach, combining elements of education and entertainment. Learning like this is able to reduce boredom while developing children's cognitive and social aspects through active participation. Game-based learning has been proven to improve information retention and concept comprehension, even in children who are still in the early stages of development (Zarzycka-Piskorz 2016). Although Kahoot is widely used in primary and secondary education, recent research shows that this application can also be adapted for learning activities in early childhood education. Through age-appropriate modification of visual and audio content, Kahoot is able to be an effective medium for cultivating basic skills such as color, number, and letter recognition. In addition, this media also supports the thematic learning approach used in the PAUD curriculum (Licorish et al 2018).

Against this background, it is important to analyze the effectiveness of using Kahoot as a game-based learning medium in PAUD. This study aims to explore the extent to which Kahoot can improve learning motivation, active engagement, and understanding of early childhood material. This study is also expected to contribute to the development of interactive digital learning models that are in accordance with the characteristics of early childhood learning (Plump, C. M., & LaRosa 2017).

METHOD

This research is a qualitative research with a literature study approach (*Library Research*). The focus of the research is directed at the analysis of the use of the Kahoot application as a game-based learning medium in Early Childhood Education (PAUD). According to (Sigh, 2019) Literature Studies is the theoretical study and other references related to values, cultures and norms that develop in the social situation being studied. In this study, the author chose literature studies or literature studies by collecting references to scientific articles, and books that are relevant to the topic of game-based learning, digital media, and characteristics of early childhood learning.

RESULT

The media is stunned! It can be used to attract the attention of students to be more directed and focus on the subject matter being discussed. (Wang and Tahir 2020) shows that Kahoot, through its interactive display, bright colors, and game elements, can direct students' attention to concentrate on the subject matter being studied. Media Wow! can be used to attract the attention of students so that they are more focused and directed to the material being studied (Perdana, Indra 2020). In addition, the use of Kahoot! It can also foster a sense of challenge in students as they compete with their peers through the rankings displayed, thus motivating them to achieve higher rankings. Based on observations, the application of Kahoot! Based Game-based learning in the experimental class produced better cognitive competence compared to the control class that used conventional learning (Kudri and Maisharoh 2021).

Advantages and Challenges of Using Kahoot

The results of the literature review show that Kahoot has a number of advantages that support its use as a game-based learning medium in Early Childhood Education (PAUD). First, Kahoot has been proven to be able to increase children's learning motivation through a fun, competitive, and interactive learning atmosphere. (Licorish et al 2018) found that students showed higher enthusiasm when learning with Kahoot compared to conventional methods because of the interesting game elements. Second, the advantage of using kahoot as a learning medium is that the learning process becomes more interesting, can be accessed for free, and can be accessed remotely (online) (Rocmah, L. Sholihah 2020).

Third, Kahoot helps to actively engage all participants. (Wang and Tahir 2020) shows that Kahoot is effective in encouraging student participation, even in children who are usually passive. This is supported by a colorful visual display, background music, animations, and other game elements that perfectly suit the characteristics of early childhood who love visual and audio stimulation. The use of this application makes it easier for teachers to deliver material through interesting quizzes that make students participate in a platform that has been provided by the teacher at the time of learning (Salsabila and Riasmoro 2023). This is in line with the principle of learning while playing which is recommended in early childhood education.

However, the implementation of Kahoot in PAUD also has certain challenges that need to be considered. One of the main obstacles is the limitation of early childhood literacy skills. Therefore, teachers need to design questions based on images or sounds that are more accessible to children (Lo and Wang 2024). In addition, children's motor skills that are still developing are also a challenge in itself. Children often have difficulty operating digital devices such as tablets or computers independently, so they need intensive assistance from teachers or parents. The role and assistance of parents is very important for children, especially early childhood who interact directly with digital technology (Nur Wasi'ah 2023). The next challenge is related to the availability of facilities. Many PAUD schools in Indonesia do not have adequate digital devices or stable internet connections to support the optimal use of Kahoot.

Teachers are also required to be creative in designing questions that are in accordance with the child's developmental stage, simple but still interesting, and ensure that all children can participate in activities well. Without careful planning, the use of Kahoot runs the risk of becoming ineffective. Thus, although Kahoot has many advantages as a fun and interactive game-based learning medium, its use in PAUD requires adaptation to children's abilities and is supported by adequate infrastructure and good assistance from teachers.

Example of game-based Kahoot implementation in PAUD

Based on the results of the literature review, Kahoot can be implemented in learning in PAUD by paying attention to the characteristics of early childhood who learn through play, visuals, and fun activities. Teachers can take advantage of Kahoot's features to compile simple quizzes based on images, sounds, and colors that are relevant to the learning materials in PAUD. Kahoot is one of the online game-based learning applications. The app is easily accessible to anyone and can be used anywhere. Simply by using a *smartphone*, both teachers and students can access and take quizzes through their respective devices. Moreover, the use of this app does not require the user to download it first; teachers and students only need to open a browser such as Google Chrome and access [the https://kahoot.com/](https://kahoot.com/) page to start the quiz.

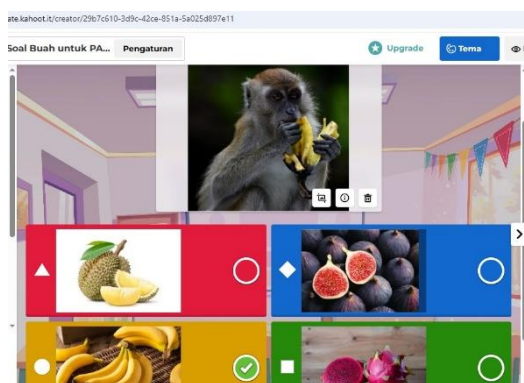


Figure 1. Examples of questions about using the kahoot application

An example of Kahoot implementation that is suitable for early childhood is for example learning to recognize fruit names. The teacher can prepare a question by displaying a picture of colored fruits, and then the child is asked to choose the correct answer from the available options. For example, the screen displays a picture of the monkey's favorite fruit, then the answer options that appear are red, yellow, green, and blue. Children then choose the answer to the picture of the fruit on their device. Kahoot is one of the applications in the form of online games that are suitable for early childhood learning as a learning evaluation tool (Salsabila and Riasmoro 2023).

In addition to introducing fruit names, Kahoot can also be used for color and number recognition. In this implementation, the teacher displays a picture of a certain number of objects, for example five balls, and then the child is asked to choose the appropriate number from several choices. Another example is learning to get to know animals, where teachers use the sound feature in Kahoot to play certain animal sounds (such as cat sounds) and then children choose an animal image that matches that sound. This activity not only trains cognitively, but also engages the child's sense of hearing. The implementation of quizzes in PAUD classes with Kahoot should be carried out in small groups to facilitate mentoring.

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Children can work in pairs or in groups each represented by one device. The teacher plays an active role in helping children choose the answers on the device, as well as providing explanations for each question after completing a question.

Teachers need to set the time for the quiz to be not too long, considering that the attention span of early childhood is still short. (Wang and Tahir 2020) explained that the optimal duration of Kahoot use is 10–15 minutes in one session, so that children stay focused and excited. With a simple, attractive, image- and sound-based question design, and with good mentoring, the implementation of game-based Kahoot in PAUD has been proven to be able to create an active, fun, and effective learning atmosphere to introduce basic concepts that are relevant to early childhood.

Based on the findings of this study, the application of Kahoot in early childhood education has high relevance to government and school efforts to improve the quality of technology-based learning. In the context of early childhood education in Indonesia, which still has limited facilities and digital literacy, the role of teachers and parents is very important as facilitators. Therefore, teachers are advised to design questions more creatively, use attractive visuals and audio, and involve parents to accompany children during activities. In addition, although Kahoot has many advantages, teachers also need to consider other interactive learning media alternatives such as Wordwall, Quizizz, or picture story-based media, which are also simpler and do not necessarily require a stable internet connection. This is important so that learning activities can continue even though technological facilities are limited.

CONCLUSION

Based on the research that has been discussed, it can be concluded that Kahoot has great potential as a game-based learning medium that is in accordance with the characteristics of early childhood. Kahoot's interactive features, engaging visuals, sound, and a healthy competitive atmosphere can increase children's motivation, engagement, and participation in the learning process. The advantages of Kahoot include ease of access, an attractive appearance for children, providing instant feedback, and creating a fun learning atmosphere that supports the principle of learning while playing. However, the implementation of Kahoot in PAUD also faces several challenges, such as the limitations of children's literacy and motor skills, the need for intensive guidance from teachers, and limited infrastructure facilities in some PAUD institutions. For this reason, the implementation of Kahoot in PAUD needs to be adjusted to the cognitive and motor development of children, with question designs based on images or sounds, accompanied by teachers, and carried out in small groups to facilitate mentoring.

REFERENCE

- Isjoni. 2016. *Pembelajaran Anak Usia Dini*. Bandung: Alfabeta.
- Kudri, Al, and Maisharoh Maisharoh. 2021. "Pengaruh Media Pembelajaran Kahoot Berbasis Game Based Learning Terhadap Hasil Belajar Mahasiswa." *Edukatif: Jurnal Ilmu Pendidikan* 3(6):4628–36. doi: 10.31004/edukatif.v3i6.1452.
- Licorish et al. 2018. "Students' Perception of Kahoot!'s Influence on Teaching and

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Available online at <https://journal2.upgris.ac.id/index.php/schola>

- Learning.” *Computers & Education* (127):13–27.
- Lo, Hua Chen, and Tzu Hua Wang. 2024. “A Study on the Design of Embedded Visual Image Teaching Aids to Assist Young Children’s Cognitive and Fine Motor Development.” *Journal of Intelligence* 12(10). doi: 10.3390/jintelligence12100102.
- Nur Wasi’ah, Muhammad Yusron Maulana El Yunusi. 2023. “Pendampingan Orang Tua Dalam Penggunaan Teknologi Digital Pada Anak Usia Dini.” *Pendidikan Multidisipliner* 6(11):16.
- Perdana, Indra, et all. 2020. “Persepsi Siswa Terhadap Pemanfaatan Media Kahoot Dalam Pembelajaran Bahasa Indonesia.” *Kwangsan: Jurnal Teknologi Pendidikan* 08(02):290–306.
- Plump, C. M., & LaRosa, J. 2017. “Using Kahoot! In the Classroom to Create Engagement and Active Learning: A Game-Based Technology Solution for ELearning Novices.” *Management Teaching Review* 2(2):151–58.
- Rocmah, L. Sholihah, .N. 2020. “Penerapan Metode Eksperimen Untuk Meningkatkan Keterampilan Proses Sains Anak Usia Dini.” *Incrementapedia: Jurnal Pendidikan Anak Usia Dini* 2(01):1–8. doi: 10.36456/incrementapedia.vol2.no01.a2510.
- Salsabila, N. F., and A. N. Riasmoro. 2023. “Pemanfaatan Aplikasi Kahoot Sebagai Alat Evaluasi Pada Pembelajaran Anak Usia Dini.” ... *Dan Pembelajaran* 5:106–11.
- Sugiyono. 2019. *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif Dan R&D*. Bandung: Alfabeta.
- Wang, A. I. 2016. “The Wear out Effect of a Game-Based Student Response System.” *Computers & Education* 82:217–27.
- Wang, Alf Inge, and Rabail Tahir. 2020. “The Effect of Using Kahoot! For Learning – A Literature Review.” *Computers and Education* 149(May 2019):103818. doi: 10.1016/j.compedu.2020.103818.
- Zarzycka-Piskorz, E. 2016. “Kahoot It or Not? Can Games Be Motivating in Learning Grammar? Teaching English with Technology.” 16(3):17–36.