

## Students' Perception of Using Kahoot as an Online Assessment

Dedy Ahsan Muttaqin \*

STIT Al Aziziyah Kapek, Gunungsari, Indonesia

Received: 13<sup>th</sup> October 2024 | Revised: 23<sup>rd</sup> November 2024 | Accepted: 26<sup>th</sup> November 2024

\*Corresponding author. E-mail: [dediahsan@gmail.com](mailto:dediahsan@gmail.com).

---

---

### Abstract

Kahoot is an innovative assessment tool for education. This article examined students' views on using Kahoot as a tool for teaching English in an online setting. This study employs a quantitative-descriptive approach. The study focused on a population of eighth-grade students enrolled in an English course consisting of 37 participants. This investigation utilized a Likert Scale and conducted interviews to gather data. The statements were categorized into five distinct forms: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD). As indicated by their score of 1073, the majority of students were statistically neutral. Students perceive Kahoot as an enjoyable and user-friendly application with features that foster a constructive learning environment and promote healthy competition. This study's findings indicate a positive development among students at SMPN 1 Lingsar utilizing Kahoot, highlighting engagement, motivation, competitiveness, and concentration. In summary, Kahoot offers an intuitive interface and appealing design that encourages student engagement in learning.

**Keywords:** Assessment; Education; Kahoot; Motivation; Perception; Students.

### How to Cite:

Muttaqin, D. A. (2024). Students' Perception of Using Kahoot as an Online Assessment. *Humanitatis : Journal of Language and Literature*, 11(1), 89-98.

Copyright ©2024 The Authors.

This article is published by Universitas Bumigora under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

---

---

## 1. INTRODUCTION

In this era, 5.0 means students need to understand the influence of technology in a classroom context to realize and embrace new technology for learning (Machaba & Bedada, 2022). Different from teachers, their competence and skill are challenged when they face the reality that educational technology has emerged on the surface. Technical problems, such as poor Internet connectivity and limited data plans, compounded in the teaching and learning processes (Azlan et al., 2020). Major barriers to teaching using technology include the absence of mass, misunderstood words, vagueness, and student-centered learning (Onojah et al., 2020). Therefore, Kahoot can be an alternative for teachers when conducting assessments.

The purpose of using Kahoot is to help teachers measure the achievement of learning objectives in the classroom after teachers carry out learning and to improve significantly academic achievement and students' performances (Yu, 2021). Teachers use various ways to achieve effective learning. One is to use applications in the assessment processes (Samboteng et al., 2023). It is necessary to adopt assessment tools that follow the latest technological developments. Kahoot transforms the atmosphere in teaching English, making learning more entertaining and encouraging. It is also to create interactive classes and game experiences in teaching after technological advancement (Mdlalose et al., 2021). Kahoot also reviews students' knowledge for formative

assessment or a break from traditional classroom activities (Darma et al., 2022). Formative assessment using Kahoot will undoubtedly be able to describe the progress or achievement of each learning process in the classroom. With the advantages of Kahoot, teachers can carry out objective and efficient assessments so they can quickly reinforce things that students do not understand. Kahoot is an alternative learning tool for teachers in the teaching and learning process (Min et al., 2022). Afterward, the teacher can plan a reinforcement outside of intra-curricular hours at a school.

Teachers can connect learning instantly, regardless of geographical barriers. This digital era has raised concerns about the mastery of technology. The teachers must master technology because it plays a crucial role in English language instruction, primarily in developing writing and language abilities while serving as a communication tool between students and teachers ((Zheltukhina et al., 2023)). Kahoot is to uncover more effective outcomes than traditional language instruction addressed by technology (Rahmati et al., 2021) Kahoot is digital-based, making it easier for teachers to evaluate students. Teachers can collect data related to precise assessments and interventions that improve the teaching system (Tao, 2022).

English teachers should reduce the number of lectures in front of the class but empower students more in classrooms. Students should be encouraged to access vast sources of information through technology. So, Kahoot plays a role in students' progress and development related to the integration of digitalization and has been recognized as a crucial means of promoting digital literacy, an essential skill in the current era. (Jeong, 2023). The actualization of Kahoot significantly impacts the sustainability of a good educational ecosystem. This can improve the quality of teaching and self-learning to facilitate knowledge sharing, idea sharing, and critical thinking (Pérez et al., 2023). However, challenges are associated with using Kahoot in the classroom for young learners (Taghizadeh & Hasani Yourdshahi, 2020). The biggest obstacles to using Kahoot for most students are the lack of digital literacy and understanding of question instructions, making it difficult for most students. However, these obstacles are not too difficult because Kahoot is a very easy and friendly application. This reveals a positive perception of technology use (Rahayu & Wirza, 2020).

Kahoot is part of game-based learning. It provides an exciting experience for students to play and prepares activities to guide students toward learning objectives (Ghazy et al., 2021). Kahoot raises students' affection and application during the test when they do not need to attend school (Sofyana et al., 2020). Kahoot is an online formative assessment that provides time limits and scoring quizzes (Elkhamisy & Wassef, 2021). Using games as a learning tool is known as gamification (Chiang, 2020). Kahoot is a part of gamification and innovation in education. Operating game elements increases student motivation (Handoko et al., 2021). Gamification includes points, badges, challenges, leaderboards, rewards, and incentives. Gamification can be used as an assessment tool. The game elements present in Kahoot include stimulating music, colorful animations, and a countdown for each question that maintains participation engagement and creates a sense of competition (Elkhamisy & Wassef, 2021). An assessment component in the classroom for teaching and learning is important (Pan, 2020). In addition, the teaching and learning process in education must engage in technology development (Handoko et al., 2021), and technology aids teachers in obtaining rapid and accurate responses to a wide range of students' answers (Mohamed, 2024). Kahoot allows teachers to create questions with answers, enabling students to compete for points (Asniza et al., 2021).

Perception is a subjective matter that raises a problem between experience and objects in the world that people claim to know (Scott & Liu, 2024). Perception refers to the process of directly experiencing and generating opinions. A complex cognition yields a unique world picture, sometimes different from reality, influenced by factors like the perceiver, object, or situation (Dhingra & Dhingra, 2011). Kahoot remains the feeling of students after taking tests. Students who feel challenged by Kahoot and have difficulty making them better have different views. This research leads to seeing the picture of students after using Kahoot. This relates to gamified learning that impacts students' motivation to learn (Özhan & Kocadere, 2020). Here, SMPN 1: Lingsar became the object of study to see the effectivity of Kahoot. The appointment of SMPN 1 Lingsar is not without cause. The fundamental difference between this research and previous studies is the school's identity. This school is a *Sekolah Penggerak*, a

part of the Ministry of Education's strategic project.

This research innovates at the education level, where he carries it out at the junior high school level. In previous studies, former researchers examined Kahoot as a tool to improve student skills. However, the researcher wants to investigate students' perceptions after using Kahoot. Hopefully, this research will present a follow-up on its future relevance in the assessment context. So, the researcher is looking for students' perceptions of dealing with Kahoot. 1 Students' perceptions cannot stand alone without physical evidence and experience because perception is the final product of learning. There must be comprehension to obtain a clearer picture. The research questions regarding this study were: 1) How do students perceive the use of Kahoot? (2) Why do students think about this? The researcher examined how Kahoot played a role in the assessment process.

## 2. RESEARCH METHOD

This investigation was grounded in quantitative-descriptive analysis related to a phenomenological examination. This investigation uncovered students' views on using Kahoot following English instruction. Using Kahoot, a 10-item questionnaire and a literature search were developed on current online assessments—inquiries delving into the experience of utilizing Kahoot. The research encompassed 37 eighth-grade students from junior high school 1 Lingsar in West Lombok. The participants included 15 males and 17 females who had experience using Kahoot. The selection of 37 participants was because the number of students in class VIII was less than the number of respondents, and each participant had experience accessing Kahoot. The participants engaged voluntarily with Kahoot in English instruction, specifically involving eighth-grade students from junior high school 1 Lingsar. Seven Kahoot tests or formative assessments were conducted throughout the semester. Alongside distributing questionnaires for students to complete, the investigator carried out semi-structured interviews to verify that the responses aligned with their written submissions. The data on students' perceptions of the Kahoot experience was collected. The questionnaires communicated the essence of students' experiences with Kahoot by deducing information and interpreting the message through sensory engagement.

To assess the validity of the questionnaires, the researcher used Gregory's matrix to determine content validity. The researcher asked two English teachers who teach the subject to provide value regarding the instrument's validity. The coefficient is 0.78, which is highly valid. Incorporating the Pearson Product Moment Correlation 5% level of significance ( $\alpha$ ), the researcher randomly distributed the questionnaire to 15 students to obtain the samples and got 0.517, which was higher than the r table. For reliability, the researcher used Cronbach's alpha, and the score was 0.72, indicating that the instrument was reliable.

The researcher then adapted the Likert Scale to interpret the students' perceptions and opinions ranging from Strongly Agree (SA), agree (A), neutral (N), disagree (D), and Strongly Disagree (SD) of 37 students. For scoring, 5 (SA), 4 (A), 3 (N), 2 (D), and 1 (SD) were used. Therefore, the maximum score on the questionnaire was 1.850. It consists of 37 students  $\times$  5 (the highest score)  $\times$  10 (total questionnaires). The minimum score is 37 (students)  $\times$  1 (the lowest score)  $\times$  10 (total questionnaires) equals 370. The researcher has provided the table below to ease the results of the questionnaires.

Table 1. The Score and Consideration

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
1.850	1.550	1.150	750	370

Table 1 references the responses given by students after the researcher distributed the questionnaires. The questionnaire results become a basis for determining whether students' perception of using Kahoot is good. The interval score begins at 1.850 with strongly agree categorizations and ends with 370 categorizations that strongly disagree. The researcher conducted three steps of analysis after collecting the data. Data reduction, display, and conclusion drawing or verification are the final phases. Data reduction is the technique through which a researcher can gather a large amount of qualitative data, such as interviews, field notes, and observations, and eliminate

unnecessary data. The data display is organized information and groups, especially. In this stage, the researcher collected students' perceptions of using Kahoot. The last step is data drawing or verification. The researcher verified the data before using it as a basis data. This technique is supported by (Miles et al., 2020).

Researchers used the triangulation method with semi-interview techniques with five respondents to determine the suitability of existing data to obtain valid results. The basis of the semi-interview questions still leads to the questions in the questionnaire. The semi-structured interview is a dialogue between participants and researchers led by a flexible protocol to explore thoughts, feelings, and beliefs about specific issues. (DeJonckheere & Vaughn, 2019). It is a method of confirming findings, not contradicting them (Miles et al., 2020). The samples were determined by asking respondents to respond according to the criteria in the Likert scale: strongly agree (SA), agree (A), neutral (N), disagree (D), and strongly disagree (SD).

### 3. FINDINGS AND DISCUSSION

Table 2. The Total Item Score from the Questionnaire

No	Items	5 (SA)	4 (A)	3 (N)	2 (D)	1 (SD)	Items Score
1	I enjoy using Kahoot as a learning	35	36	15	18	7	111
2	I am motivated to study	25	24	24	20	8	101
3	Kahoot does not give any chance to cheat	40	36	21	18	4	119
4	Kahoot makes competitiveness among students	15	24	27	24	7	97
5	Kahoot creates students' concentration	55	28	24	8	7	122
6	I am friendly with Kahoot	25	24	21	18	10	98
7	I do not face any technical issues	45	20	9	16	12	102
8	I look forward to playing Kahoot	45	16	15	14	12	102
9	I like the features of Kahoot	10	36	36	16	6	104
10	Kahoot is the best online assessment app	25	48	27	12	5	117
<b>TOTAL SCORE</b>							<b>1.073</b>

As illustrated in the table above, several questions were posed to explore student perceptions regarding Kahoot, a website-based online application. Researchers used this instrument to see students' perceptions of using Kahoot. The findings of this study will be discussed later. The Kahoot app incorporates color, shape, and sound elements. It provides a comprehensive overview of the learning process and outcomes that foster student interest, enthusiasm, and active participation throughout their educational experience (Fathan & Syafii, 2018).

This study conceptualizes classroom dynamics, as noted in the background section. As a gamification component, Kahoot sustains student interaction, curiosity, focus, and interest throughout the course. Learning constitutes the transfer of knowledge within a classroom setting. Perception encompasses awareness derived from the physical senses, beliefs or opinions formed based on appearances, and the capacity to discern and comprehend aspects that may not be evident to others (Persson et al., 2022). Kahoot is a game-based learning method widely used in educational settings, including language teaching. It increases students' motivation and participation and influences their perception.

The information presented in Table 2 above elucidates the figure 1073. The figure reflects a neutral stance about the score in Table 1 and its implications. The neutral stance outlines students' views on the utilization of Kahoot. Nearly half of the population expresses satisfaction with the utilization of Kahoot. Additionally, 45% of the population indicated that the presence of Kahoot should allow for greater opportunities for students to engage in dishonest practices. The findings indicated favorable reactions to the implementation of Kahoot. Besides, 48% of the population stated that the existence of Kahoot increased students' concentration while working on questions. The findings of this study align with previous research, confirming the same conclusions as stated by Darma et al. (2022), Ghazy et al. (2021), Kurnia et al. (2020), and Min et al. (2022). Kahoot compelled engagement and boosted students' learning outcomes.

To obtain data validity, the researcher continued to conduct semi-structured interviews with the eighth-grade students at SMPN 1 Lingsar. The individual engaged with the students for an adequate duration to fully comprehend

this condition. Educators need to integrate historical learning into their classroom instruction (Setiawan et al., 2020). Below is part of the semi-interview process conducted by researchers to ensure the results.

As participant 1 explained (interviewed on 21 Sep 2024):

*“Saya sangat suka menggunakan Kahoot karena memotivasi saya dalam belajar dan secara tampilan juga sangat menarik.”*  
“I really like using Kahoot because it motivates me in learning and the appearance is also very interesting.”

Participant 2 also stated (interviewed on 21 Sep, 2024):

*“Saya merasa termotivasi untuk belajar karena saya tidak harus bisa meminta bantuan teman.”*  
“I feel motivated to study because I do not have to be able to ask friends for help.”

Participant 3 explained (interviewed on 21 Sep, 2024):

*“Saya menikmati belajar dengan Kahoot karena saya merasa belajar sambil bermain.”*  
“I enjoy learning with Kahoot because I feel like I am learning while playing.”

Participant 4 also delivered his opinion (interviewed on 21 Sep, 2024):

*“Kahoot itu mudah karena saya sebelumnya juga pernah menggunakan Kahoot.”*  
“Kahoot is easy because I have also used Kahoot before.”

Participant 5 figured out his opinion (interviewed on 21 Sep, 2024):

*“Saya merasa Kahoot sangat mudah digunakan meskipun saya baru.”*  
“I feel Kahoot is easy even for me as a new beginner.”

The students appreciated the distinctiveness of Kahoot. Consequently, various responses were identified based on experience, as evidenced by the interview feedback from five students. The participants articulated their understanding through the use of Kahoot. Several of the responses below align with the conclusions drawn from their perspectives and insights following their experience with Kahoot. The students expressed that Kahoot is a user-friendly application. The participants noted that Kahoot provided valuable competition and inspired them to enhance their English skills. Participants expressed that prior to engaging with Kahoot, there was a necessity for increased motivation to respond to the questions posed by their English instructors. They ultimately aimed to engage in research to secure the top spot on the Kahoot leaderboard. Some noted that with Kahoot, it was essential to comprehend the material's content and maintain concentration throughout the activity.

The research questions aim to elicit students' perceptions of the learning process at SMPN 1 Lingsar. The researcher discovered that pupils' perceptions led to a variety of perspectives. After three steps in the research method, the researcher identified ten questionnaires indicating students' perceptions of using Kahoot as an assessment tool and classified them into four categories: 1) students' attraction, 2) students' motivation, 3) students' competitiveness, and 4) students' Focus and Attention.

Student attraction. The statistics revealed that 16 students were thrilled to use Kahoot. This allows for the transformation of traditional learning into interactive and engaging experiences. Five kids were neutral, while 13 did not want to play Kahoot. Instead of listening to teachers, students actively participate in Kahoot by answering questions that might pique their attention. The students recognized that Kahoot provided them with many enjoyable, interesting, and useful experiences. In other words, Kahoot is a beautiful choice for engaging pupils in learning (Fiani et al., 2021).

Students' Motivation. Participants argued that Kahoot was a unique assessment tool. Eleven kids were encouraged to use Kahoot! Kahoot is more effective at increasing student enthusiasm to study. They realized that everything hinged on each individual's ability. They pushed themselves to study the subjects before using Kahoot. Many pupils believed that Kahoot prevented them from cheating. They squander time if they rely on other students for responses. Eight students greatly supported this proposal. This application indirectly supports students' best practices for avoiding name-checking. This increased student participation in the learning process. The application has a tremendous impact on student learning experiences. The study concluded unequivocally that Kahoot engaged and motivated students to learn autonomously, making learning more exciting and motivating. (Dermawan et al., 2023).

Competitiveness Among Students. This indicates that students faced the challenge of competing by responding to questions as rapidly as possible to advance on the leaderboard. Nine students expressed strong agreement with this statement. The remaining participants exhibited neutrality and expressed disagreement with this perception. This situation may lack significance due to their failure to engage in the learning and mastery of technology. The researcher indicated that Kahoot enhances students' confidence and fosters a positive outlook regarding their future attributes.

Students' Concentration and Attention. Kahoot facilitated greater collaboration among students and was user-friendly. The table indicates that Kahoot enhances student concentration during assessments. Eleven students shared the same perception of the idea. The participants concurred that Kahoot required them to work rapidly. The time limitations for each question instilled a sense of urgency. Their time to maintain student alertness and attentiveness was constrained. Kahoot's results were impartial and equitable.

The finding showed a neutral perception of Kahoot, but Kahoot brings many good things to the learning processes. In contrast to joint learning, Kahoot provides room for interaction. This finding also promotes using Kahoot as competitive, engaging, and attractive (Ghazy et al., 2021). The students were curious about learning and encouraged to focus on the subject (Sofyana et al., 2020). The researcher observed a desire to concentrate during the course and found a correlation between Kahoot and students' efforts (Rahmadani et al., 2024). Kahoot provides a positive, interactive, and fun natural app for students. It was briefly approved as a great application to motivate students. In conclusion, Kahoot can be more fun and exciting.

Students will continue to rely on themselves rather than expecting other students' answers. They were more persistent in their learning. It attempts to understand and examine what is correct or incorrect (Sofyana et al., 2020). This is a positive attitude for students because they understand the course more deeply. This finding supports previous studies on Kahoot-triggered positive attitudes, motivation, and less anxiety among EFL learners (Handoko et al., 2021). Kahoot can increase student interactions and competitiveness throughout the course. The findings also proved that the students were considerably motivated and authorized during the course. They pushed themselves to see their names on the leaderboard, and Kahoot succeeded in creating a spirit of competition (EkiNci-, 2020).

#### 4. CONCLUSION

Technological advancements have fostered a competitive atmosphere for learning. The individual contended that technology holds significant importance and offers numerous benefits. The findings suggest that Kahoot engages students' aspirations and dedication in learning assessment. Students' perspectives create their perceptions of dealing with Kahoot. Implementing Kahoot in junior high school raises significant concerns regarding students' motivation. Kahoot, an online game-based learning platform, aligns well with students' lifestyles, where technology significantly influences their daily experiences. This study had some limitations, which should be considered when interpreting the results. The study's focus could restrict the applicability of the findings to other junior high school levels utilizing Kahoot. Second, self-report measures like questionnaires and interviews increase the likelihood of response bias and subjective interpretation. To address this, subsequent investigations might integrate further objective metrics or observational techniques to offer a more thorough and unbiased evaluation of Kahoot within an educational framework. By addressing these limitations, future researchers can contribute to a more thorough

understanding of Kahoot's application in education and provide practical insight into its successful utilization in educational contexts. Educators should be more proactive in integrating Kahoot into classroom activities. Students must familiarise themselves with operating Kahoot to ensure they encounter no significant challenges while using the platform. Future investigations will allow for a more in-depth exploration of the application of Kahoot in educational settings.

## REFERENCES

- Asniza, I. N., Zuraidah, M. O. S., Baharuddin, A. R. M., Zuhair, Z. M., & Nooraida, Y. (2021). Online game-based learning using kahoot! to enhance pre-university students' active learning: A students' perception in biology classroom. *Journal of Turkish Science Education*, 18(1), 145–160. <https://doi.org/10.36681/tused.2021.57>
- Azlan, C. A., Wong, J. H. D., Tan, L. K., A.D. Huri, M. S. N., Ung, N. M., Pallath, V., Tan, C. P. L., Yeong, C. H., & Ng, K. H. (2020). Teaching and learning of postgraduate medical physics using Internet-based e-learning during the COVID-19 pandemic – A case study from Malaysia. *Physica Medica*, 80, 10–16. <https://doi.org/10.1016/j.ejmp.2020.10.002>
- Chiang, H.-H. (2020). Kahoot! In an EFL Reading Class. *Journal of Language Teaching and Research*, 11(1), 33–44. <https://doi.org/10.17507/jltr.1101.05>
- Darma, V. P., Agus, C., & Rosalina, U. (2022). An Analysis Of Students' Motivation In Teaching And Learning Process By Using Kahoot. *Journal of Social Science (JoSS)*, 1(1), 23–36. <https://doi.org/10.57185/joss.v1i1.5>
- DeJonckheere, M., & Vaughn, L. M. (2019). Semistructured interviewing in primary care research: A balance of relationship and rigour. *Family Medicine and Community Health*, 7(2), 1–8. <https://doi.org/10.1136/fmch-2018-000057>
- Dermawan, R., Masito Mutiara, T., & Kurnisar, K. (2023). Penerapan Aplikasi Kahoot dalam Meningkatkan Hasil Belajar Peserta Didik. *Jurnal Penelitian dan Pendidikan IPS*, 17(2), 163–171. <https://doi.org/10.21067/jppi.v17i2.8818>
- Dhingra, M., & Dhingra, V. (2011). Perception: Scriptures' Perspective. *Journal of Human Values*, 17(1), 63–72. <https://doi.org/10.1177/097168581001700104>
- EkiNci-, M. (2020). Tümüyle Kahoot: İngilizceyi Yabancı Dil Olarak Öğrenen Öğrenciler İçin Rekabetçi Öğrenmeyi Teşvik Etme. *International Journal of Languages Education*, 8.4(8.4), 305–318. <https://doi.org/10.29228/ijlet.46623>
- Elkhamisy, F. A. A., & Wassef, R. M. (2021). Innovating pathology learning via Kahoot! game-based tool: A quantitative study of students' perceptions and academic performance. *Alexandria Journal of Medicine*, 57(1), 215–223. <https://doi.org/10.1080/20905068.2021.1954413>
- Fathan, U. S. A., & Syafii, A. (2018). Kahoot as the Media Platform for Learn English. *English Education: Journal of English Teaching and Research*, 3(1), 52–57. <https://doi.org/10.29407/jetar.v3i1.11754>
- Fiani, I. N., Ahsanuddin, M., & Morhi, R. (2021). The Effectiveness of Using Kahoot! Application as An Evaluation Tool in Arabic Vocabulary Learning at Madrasah Ibtidaiyah. *Izdihar : Journal of Arabic Language Teaching, Linguistics, and Literature*, 4(2), 243–256. <https://doi.org/10.22219/jiz.v4i2.17186>
- Ghazy, A., Wajdi, M., Sada, C., & Ikhsanudin, I. (2021). The use of game-based learning in English class. *Journal of Applied Studies in Language*, 5(1), 67–78. <https://doi.org/10.31940/jasl.v5i1.2400>

- Handoko, W., Mizkat, E., Nasution, A., Hambali, & Eska, J. (2021). Gamification in Learning using Quizizz Application as Assessment Tools. *Journal of Physics: Conference Series*, 1783(1), 1–6. <https://doi.org/10.1088/1742-6596/1783/1/012111>
- Jeong, K.-O. (2023). Integrating Technology into Language Teaching Practice in the Post-COVID-19 Pandemic Digital Age: From a Korean English as a Foreign Language Context. *RELC Journal*, 54(2), 394–409. <https://doi.org/10.1177/00336882231186431>
- Kurnia, M., Rahmawati, M., & Fitriyana, W. (2020). Playing e-quizzes with KAHOOT!: Students' behavioral engagement on reading comprehension through KAHOOT! *English Ideas: Journal of English Language Education*, 1(1), 29–39. Retrieved December 2, 2024, from <https://journal.unsika.ac.id/IDEAS/article/view/4177>
- Machaba, F., & Bedada, T. (2022). University lecturers' preparedness to use technology in teacher training of mathematics during COVID-19: The case of Ethiopia. *South African Journal of Higher Education*, 36(1), 171–192. <https://doi.org/10.20853/36-1-4560>
- Mdlalose, N., Ramaila, S., & Ramnarain, U. (2021). Using Kahoot! As A Formative Assessment Tool in Science Teacher Education. *International Journal of Higher Education*, 11(2), 43–51. <https://doi.org/10.5430/ijhe.v11n2p43>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (Fourth edition). SAGE.
- Min, T. S., Rameli, M. R. M., Alhassora, N. S. A., & Abdullah, H. (2022). Effectiveness Of Using Kahoot! Application In The Teaching Of Vocabulary On Perception And Achievement Of Low Achiever Students. *Journal of Positive School Psychology*, 6(3), 2241–2251. <https://journalppw.com/index.php/jpspp/article/view/1937>
- Mohamed, A. M. (2024). Exploring the potential of an AI-based Chatbot (ChatGPT) in enhancing English as a Foreign Language (EFL) teaching: Perceptions of EFL Faculty Members. *Education and Information Technologies*, 29(3), 3195–3217. <https://doi.org/10.1007/s10639-023-11917-z>
- Onojah, A. O., Onojah, A. A., Olumorin, C. O., & Abimbola, I. O. (2020). Study Technology: The Suitable Tenacity to Learning Snags. *JPI (Jurnal Pendidikan Indonesia)*, 9(3), 497. <https://doi.org/10.23887/jpi-undiksha.v9i3.25191>
- Özhan, Ş. Ç., & Kocadere, S. A. (2020). The Effects of Flow, Emotional Engagement, and Motivation on Success in a Gamified Online Learning Environment. *Journal of Educational Computing Research*, 57(8), 2006–2031. <https://doi.org/10.1177/0735633118823159>
- Pérez, P., Gil, H., Artola, A., Royer, D. J., & Lane, K. L. (2023). Behavior-specific praise: Empowering teachers and families to support students in varied learning contexts. *Preventing School Failure: Alternative Education for Children and Youth*, 67(2), 83–90. <https://doi.org/10.1080/1045988X.2023.2181303>
- Persson, P. B., Hillmeister, P., & Persson, A. B. (2022). Perception. *Acta Physiologica*, 235(3), e13842. <https://doi.org/10.1111/apha.13842>
- Rahayu, R. P., & Wirza, Y. (2020). Teachers' Perception of Online Learning during Pandemic Covid-19. *Jurnal Penelitian Pendidikan*, 20(3), 392–406. <https://doi.org/10.17509/jpp.v20i3.29226>
- Rahmadani, F. G., Saman, T. N., & Bahing. (2024). Students' Perception of Game-Based Learning Using Kahoot! In Learning English. *EBONY: Journal of English Language Teaching, Linguistics, and Literature*, 4(1), 28–38. <https://doi.org/10.37304/ebony.v4i1.12442>



- Samboteng, L., Nadeak, B., Razati, G., Abidin, A. Z., & Rachman, R. S. (2023). The Effectiveness of Pre-test and Post-test Using Kahoot in Increasing Students' Attention. *AL-ISHLAH: Jurnal Pendidikan*, 15(1), 203–210. <https://doi.org/10.35445/alishlah.v15i1.2833>
- Scott, N., & Liu, B. (2024, June 24). Sensation and Perception. In *Tourism Social Science Series* (pp. 59–72). Emerald Publishing Limited. <https://doi.org/10.1108/S1571-504320240000027006>
- Setiawan, J., Aman, A., & Wulandari, T. (2020). Understanding Indonesian history, interest in learning history and national insight with nationalism attitude. *International Journal of Evaluation and Research in Education (IJERE)*, 9(2), 364–373. <https://doi.org/10.11591/ijere.v9i2.20474>
- Sofyana, A. W., Faridi, A., & Shakiyya, Z. (2020). Implementation of Kahoot as a Digital Assessment Tool in English Formative Test for Students of SMP Negeri 2 Temanggung in the Academic Year of 2019/2020. *English Education Journal*, 10(4), 466–473. <https://doi.org/10.15294/ej.v10i4.38619>
- Taghizadeh, M., & Hasani Yourdshahi, Z. (2020). Integrating technology into young learners' classes: Language teachers' perceptions. *Computer Assisted Language Learning*, 33(8), 982–1006. <https://doi.org/10.1080/09588221.2019.1618876>
- Tao, H. (2022). Online English Teaching System Based on Internet of Things Technology (C. Venkatesan, Ed.). *Journal of Sensors*, 2022, 1–8. <https://doi.org/10.1155/2022/7748067>
- Yu, Z. (2021, September 1). *A meta-analysis of the effect of Kahoot! on academic achievements and student performance*. <https://doi.org/10.21203/rs.3.rs-842089/v1>
- Zheltukhina, M. R., Kislitsyna, N. N., Sergeeva, O. V., Knyazeva, S. A., Polovikov, I. P., & Tukhvatullina, L. R. (2023). Trends of cultural studies in science education: A systematic review from 1973 to 2023. *Eurasia Journal of Mathematics, Science and Technology Education*, 19(12), 1–9. <https://doi.org/10.29333/ejmste/13837>

**[This page intentionally left blank.]**