| RESEARCH ARTICLE

A Systematic Analysis of Kahoot's Potential as a Tool for Improving EFL Instruction

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| ABSTRACT

This research provides a meta-analysis of an issue regarding the effectiveness of using Kahoot in English language learning environments from 2020 to 2024, focusing on the yearly publication rate, participant demographics, challenges, and benefits. It delves into the impact of technology integration and gamification on student learning outcomes, emphasizing the importance of motivation and engagement in educational settings. The systematic review explores some papers about Kahoot! in improving learning results in English for Foreign Language classes. It highlights the benefits of gamification in education, emphasizing Kahoot's ability to engage students' motivation and academic performance. This study also found some gaps in using Kahoot for English language learning among EFL students, including technology, competition, time management, classroom management, content creation, cultural relevance, and pedagogy. However, it shows several benefits, such as improved learning interest and process, better subject perception, higher class participation, and a more lively classroom state. Following the results, the researcher hopes this paper could give the impression that technology can provide great tools for improving English language learning, either for EFL learners or EFL teachers.

| KEYWORDS

EFL teaching, Kahoot, Technology Enhanced Language Learning.

1. Introduction

The ongoing evolution of technology has fundamentally changed the way daily tasks are carried out. Specifically within the realm of education, instructors now have the chance to incorporate play-based learning activities into their teaching through the use of technology (Elaish et al., 2019). First and foremost, educators must take into account factors like motivation and the platform's potential to encourage and support learning. In today's context, the use of technology is inherently intertwined with the internet. Yet, the full potential of the internet for educational purposes remains largely untapped. Only a small fraction, approximately 12.8%, of internet usage is dedicated to supporting education, contrasting sharply with the substantial percentages allocated to social media (44.4%) and mobile chatting (75%). This indicates a significant gap between the potential educational utility of the internet and its current predominant usage patterns for other activities (Ansari & Khan, 2020). This study shows that internet utilization in education for the learning process is still low. It is believed that teachers have to be able to involve technology in the teaching and learning process. In the atmosphere of the digital era, teachers are required to know how to operate the technology (Ebadi et al., 2023a; Hadijah et al., 2020).

Old-fashioned methods are obsolete in this setting. Technology boosts education, making it dynamic, interactive, and enjoyable—not forgetting that it is also intellectually challenging. This change introduces new vigor into the teaching fraternity, a stark challenge for educators to reconsider their positions and subsequently mold them according to the ever-evolving technological

scenario. In order to help the students' attention, energy, and interest, as well as remove learning anxieties and make the achievement of the learning goals easier —, feedback from formative assessment should be an integral part of the study process. As such, appropriately designed and used formative feedback greatly influences the quality of students' learning. The students' engagement and motivation are directly linked to the implementation of technology in the learning environment (Hendriwanto et al., 2022). It may be argued that using technology as a teaching aid enables narrative-based English students to narrate their stories to their schoolmates and other learners. Moreover, technology acts as a facilitator for the students to develop and socialize their language knowledge in the learning community.

Game-based learning, however, or the application of gamification, capitalizes on the immersive quality of games, enabling learners to actively engage throughout the learning process. This approach not only captivates learners' complete focus but also enhances knowledge retention owing to its playful essence. In the context of game-based learning, it is widely recognized that teachers must possess the capability to integrate technology into the teaching and learning experience. Particularly in the digital age, educators are expected to be proficient in utilizing technology to facilitate game-based learning methodologies effectively. Despite the wide number of benefits of game-based learning and the properness of this approach in educational environments, there are situations in which games can unsuitably be similar to those observed during the traditional teaching process.

Within an educational setting, gamification plays a significant role, particularly in capturing students' interest by offering a diverse array of technological options. It also enhances teaching effectiveness by making lessons more appealing and efficient in terms of improvement (Ebadi et al., 2023a; Holbrey, 2020). Gamification serves as a solution to counter student apathy resulting from less effective approaches, transforming a dull classroom environment into one that is enjoyable and conducive to learning. Gamification serves as a motivational tool for students, combining elements of enjoyment and substantive learning. This effectiveness stems from the strategic design features within the game, which encompass aspects such as point systems, levels, incentives, and badges. These elements are employed to both reward and rank students, as well as to present challenges that inspire excitement and engagement in the learning process (Hu, 2023). Based on the preceding discussion, it can be inferred that gamification holds great potential as a method to engage students in the English learning journey in the digital age. Through innovative and enjoyable mediums, such as Kahoot!, students find it easier to comprehend and retain the information conveyed by teachers. Hence, integrating game-based technologies like Kahoot! into classroom activities periodically is essential for fostering active student participation (Alharthi, 2020).

Numerous gamification applications are employed in educational settings. Examples such as Busuu, Classcraft, Doulingo, Quizlet, Socrative, Kahoot, Quizizz, Plickers, ClassDojo, and Flipquiz demonstrate the variety of online gamification tools available for educational purposes (MARANGOZ & ŞAHİN, 2023a). Kahoot! stands out among students for its captivating qualities, and certain aspects of the game may offer advantages over traditional games like Jeopardy. The inherent features of Kahoot!, such as its scoring system and audio feedback, contribute to students' motivation and enthusiasm (Ruiz, 2021). This observation suggests that compared to game-based platforms lacking audio feedback, such as Jeopardy and Kahoot!, they might serve as a more effective tool for exam review despite students' enjoyment of the gaming experience. Drawing on existing literature on Kahoot! and other game-based learning platforms, the primary objective of the current study was to evaluate the efficacy of Kahoot! in enhancing learning outcomes in an undergraduate child development course offered by a psychology department.

2. Methodology

This study offers a critical examination of articles on the subject to provide a detailed analysis that results in an in-depth understanding of the topic (Elaish et al., 2019). This examination of literature is, therefore, a way for this research to conduct a measure of inquiry into the sub-branches that make the issue under consideration. Thus, the reading shall add value to the literature on the body of knowledge by providing some perhaps new information on interpretations that would steer some aspects of the subjection.

A systematic search of online databases, including Google Scholar, DOAJ, and Research Gate, was run using predefined search terms related to Kahoot and language learning. Articles published between 2019 and 2024 were included in the review. In addition, several criteria consist of empirical studies that examined the impact of Kahoot on English language learning outcomes among foreign language learners. Studies were assessed for their methodological rigidity and relevance to the research question.

2.1 Article Selection

Several inclusion and exclusion criteria were included in this study to limit the quantity of search results for a trustworthy review.

Table 1 — Studies Using Kahoot in language education.

No.	Authors	Years	Participant	Findings
1.	Cardenas-Moncada et al.	2020	vocational higher education students, Participants' ages ranged from 18 to 56 years old. The gender distribution was 89% female students and 11% male students.	The survey results revealed that students held highly positive opinions and attitudes regarding the use of Kahoot. This good reception of Kahoot significantly enhanced the classroom environment and facilitated improved academic achievement.
2.	Alawadhi & Abu-Ayyash	2021	112 undergraduate students (female N = 102; male N = 10)	The findings of this study indicate that incorporating gamified digital platforms into teaching pedagogy can effectively maintain students' attention, boost their involvement, and offer them a more pleasurable and enriched learning experience.
3.	Reynolds & Taylor	2020	24 student participants: 12 males and 12 females, and 15 instructors (nine males and six females).	Although the vocabulary knowledge of the experimental group increased significantly, the differences were not statistically significant for the short duration and small sample number.
4.	Kuan et al.	2024	participants in this study were 24 students, 12 female and 12 male. Their ages ranged between fourteen and fifteen years.	The study results demonstrated that the utilization of these technology tools enhanced students' vocabulary comprehension and their inclination to engage in classroom activities. Moreover, this study examined the educational implications and recommendations derived from students' perspectives and viewpoints on the utilization of digital games for enhancing students' English vocabulary.
5.	Alfaruqy & Setyawan	2021	132 students on the second semester from 21 students from electrical engineering, 10 students from mathematics, 12 students from biology, 15 students from geophysics engineering, 24 students from pharmacy, 20 students from mining engineering, 13 students from chemistry, and 17 students from civil engineering.	The analysis indicated that students enjoy a favorable learning experience with Kahoot! Therefore, Kahoot! can serve as a supplementary educational tool for reviewing course materials and inspiring students to engage in English language study.
6.	Lewis-Powell	2022	Students: 15 (Ss), age 17-24, approximately 9 female, 6 male, native Spanish speakers, Advanced Educational level	Students that participate in the discussion will be rewarded with extrinsic motivation to promote more contributions in subsequent sessions, all while ensuring that everyone is at ease.
7.	Alharthi	2020	The study included thirty-six sophomore male students aged between 18 to 22 years.	The results demonstrated that the Kahoot game not only enhances the process of learning but also enhances students' motivation engagement and has a beneficial influence on the dynamics of the classroom.

8.	Korkmaz & Öz	2021	The participants of the study included a total of 38 undergraduate students studying in an English department at a major state university in Turkey.	The results indicate that Kahoot can serve as a successful method to inspire and engage English as a Foreign Language (EFL) learners, thereby improving their capacity to understand a range of reading materials.
9.	Flores Quiroz et al.	2021	participants had to be in either 9th or 10th grade to improve vocabulary and scores in the future. The number of subjects was twenty-eight out of thirty-one in the control group and twenty-nine out of thirty-nine in the experimental group.	Utilising the Kahoot! app, the experimental treatment's results showed an improvement in vocabulary understanding of English words with a substantial variation and a medium effect size. This generally indicates that in order to improve English learning in Chilean classrooms, new tactics must be implemented using the ICTs that are now accessible.
10.	Ahmed et al.	2022	50 Iranian intermediate learners were chosen for the participants of the study.	The results of paired samples and independent samples t-tests indicated significant differences between the immediate and delayed posttests of the experimental group (EG) and the control group (CG), favouring the EG.
11.	Mahbub	2020	For this study, a total of twenty-seven (n = 27) EFL teachers in secondary education at different high schools (Public = 44.4%, Private = 56.6%), mostly located in East Java, Indonesia, were chosen as participants based on a voluntary basis and their experience concerning the in-class use of Kahoot in their pedagogical practices. The majority of research participants were female (59.3%) and the remaining 40.7% were male. The age distribution of the participants was ranging between 25 and 51 years (M=35.56, SD = 6.38) teaching in secondary schools for 1 to 33 years.	The findings revealed that the majority of participants had favorable attitudes towards the use of Kahoot in English as a Foreign Language (EFL) classrooms. The data indicated that Kahoot was regarded as a promising software tool for improving the process of learning the English language.
12.	Hidayad et al.	2023	15 students from the Management majors were chosen as research participants by purpose. sampling for this study at STIA Satya Negara.	Based on the results of the student impression survey, over 70% of students expressed satisfaction with the Kahoot application. Kahoot improves pupils' academic performance.
13.	Pradana et al.	2024	The sample in this research is 36 students who have taken English literature at the school.	The result explained that students' understanding of English proverbs increased; namely, from cycle I of class X MIPA F, 23 students got a score of 77, with the KKM standard score of 75. In cycle II, 34 students got scores greater than 80, and the others got scores less than 80. Based on the actions taken, it can be concluded that the use of Kahoot applications can improve students' understanding of English proverbs.

14.	Mahbub	2020	A total of 21 participants were voluntarily involved in this study. They were all registered third-year undergraduate students of English Education Program at one of private universities in Jember, Indonesia enrolled in the academic year of 2016 – 2017; of them 33.3% male and 66.7% female.	The results demonstrated that they had a favorable perception of the incorporation of this tool into classroom education. Subsequent to that, the implications, conclusion, and limitations were deliberated over.
15.	EKİNCİ-	2020	The participants of the study were 73 EFL students who were selected through convenience sampling technique.	The study's findings demonstrated that the utilization of Kahoot significantly improved the level of involvement and drive of English as a Foreign Language (EFL) students in the process of acquiring language skills. Additionally, it was observed that Kahoot offered numerous advantages in terms of language acquisition for the learners. Additionally, it was presumed that Kahoot sessions facilitated the enhancement of language skills, including grammar proficiency, vocabulary acquisition, and reading comprehension.
16.	Kıyançiçek	2022	sample of 31 male and 19 female first-year undergraduates at a university in Pakistan. their ages ranged between 19 to 22 years,	Kahoot! can facilitate the cultivation of students' academic motivation and promote optimal teaching outcomes by assisting teachers in creating a suitable classroom environment. It provides teachers with the chance to create an attractive and customized learning environment, enhance learning, and enhance students' experiences in receiving and processing information and interacting. Additionally, it fosters a competitive atmosphere within the language classroom, allowing learners to collaborate either individually or in groups in order to attain success.
17.	Garza et al.	2023	sample of 125 students belonging to two different class groups. They were 173 first-year students enrolled in neu-roanatomy for the degree in medicine at the University of Zaragoza (Spain) during the 2021–2022 academic year.	Analyzed was the correlation between the Kahoot score and the final grade for all students who completed both exercises in the neuroanatomy course. The association between the Kahoot exercise and the theory test, image exam, and final grade was consistently positive in all situations. The correlation coefficients were 0.334 ($p<0.001$), 0.278 ($p=0.002$), and 0.355 ($p<0.001$), respectively. Furthermore, students who successfully completed the Kahoot! activity achieved notably superior results in every section of the exam. In the context of human histology, the theory tests, picture exams, and final grades showed a substantial increase when Kahoot! was used compared to the "traditional" methods ($p<0.001$, $p<0.001$, and $p=0.014$, respectively).
18.	Toma et al.	2021	sample of 392 students.	Utilizing the Kahoot! platform for evaluation had a notable and immediate beneficial impact on the educational process amid the COVID-19 pandemic.

19.	Ebadi et al.	2021	The participants of this study were three groups of university students taking a grammar course as a requirement for obtaining a bachelor's degree in English language and literature from a state university. university in Iran, with ages ranging from 18 to 25 years (each class contained 25–30 students). dents, 80 in total, 50 female and 30 male).	The findings indicated that, despite the favorable characteristics, the majority of students exhibited a lack of willingness to engage in this game-oriented application. The primary factors cited for their reluctance to use this application in the classroom, which resulted in demotivation and distraction among most learners, were the Internet connectivity issues, the fast pace of the game, its competitive nature, and the insufficient post-game explanations.
20.	Aziz	2022	A total of 10 participants from international students in the UK university were selected purposefully for this research. The participants come from postgraduate international students and studied master degree in one of the UK universities.	The findings indicate that utilising Kahoot! and Padlet can enhance the classroom learning process and provide a more favourable study experience compared to traditional methods.
21.	Melisa et al.	2023	Participants were included 6 English Teacher with ages ranging from 21-29	The findings indicate that the Kahoot programme is an effective instrument for instructing English language learners in vocabulary.
22.	Lofti et al.	2021	The participants of this research are students divided fifty-five female and ten males.	The data were gathered utilising the open-ended interview as the primary tool. The data analysis in this study employed a qualitative descriptive approach. This study employs coding analysis, which encompasses data reduction, data display, and drawing conclusions, to analyse the data.
23.	MARANGOZ & ŞAHİN	2023	The participants of the study consisted of 278 pre-service teachers in total, including 58 guidance and psychological counseling candidates, 52 pre-service elementary mathematics teachers, 52 pre-service Turkish teachers, and 33 pre-service social studies teachers, 43 pre-service classroom teachers, and 40 pre-service preschool teachers. While 162 teacher candidates participated in the practice with the distance education model, 116 Teacher candidates participated in the training in a formal education environment.	The participants consistently engaged in Kahoot gamification exercises at the conclusion of each class for a duration of 8 weeks. Based on the findings, the participants expressed overall satisfaction with the implementation of gamification using Kahoot. They discovered that these programmes were both enjoyable and educational.
24.	Figuccio & Johnston	2021	A total of 190 undergraduate students enrolled in sections of Child Development (PSY 232) participated in the study. A total of 144 students identified as female, 45 students identified as male, and one	Kahoot! scores explained 31.3% of the variation in test 1 scores, 11.1% of the variation in exam 2 scores, and 19.9% of the variation in final exam scores. Students indicated that Kahoot! enhanced classroom interactivity and facilitated their comprehension of course concepts. The data

			student identified as transgender male.	suggest that Kahoot! is a highly efficient tool for reviewing.
25.	Wahyuni & Etfita	2023	seventy-five participants in the English language education study program.	The research findings indicate that students have a greater preference for Kahoot over paper-based tests. This is due to the challenges it presents, its interactive interface, inclusion of sound and music, ability to enhance student focus on the subject, and its capacity to improve student interest and motivation.
26.	Kurniawan et al.	2024	The population of this study was 299 eighth-grade students consisting of 143 male and 156 female students with age range 12-14 years old. Two classes with a total of 67 students were chosen purposely to be the samples of the research because the participants have experienced in utilizing Kahoot! As gamification in EFL classroom.	The findings indicated that participants benefited from using Kahoot, as it facilitated better comprehension of materials, provided engaging exercises, and enhanced student enthusiasm.
27.	Rahmadani et al.	2024	The participants in this research consisted of 23 students.	The study's findings demonstrate that Kahoot! is a useful learning aid for raising students' enthusiasm for learning English. Furthermore, Kahoot! has the potential to elevate students' spirits and facilitate their comprehension of the subject matter more rapidly.
28.	Ahzim et al.	2023	The participants in this research consisted of all of the SDN 32 Rejang Lebong.	The utilization of the Kahoot application in measuring PAI learning at SDN 32 Rejang Lebong has yielded optimal results.
29.	Kamal Hossain & Abdullah Al Younus	2024	With 8 billion participants globally, including 60% of US students, Kahoot! has become a prevalent tool in language classrooms.	The study indicates a clear love for Kahoot! highlighting the platform's contribution to a fun and engaging learning environment.
30.	Andrei et al.	2023	Limitations of the study derive from the data made available by Clarivate as the dataset was constructed based on the data extracted on 13th of March 2023 and comprises of records on 481 documents.	The objective of the research is to conduct a meta-analysis of the scholarly literature pertaining to this gamification platform.
31.	Pham & Nguyen	2024	participants of 175 university students.	The potential use of Kahoot! in a Vietnamese educational setting has not been thoroughly investigated. Hence, the current inquiry investigating students' willingness to utilize Kahoot! for warm-up exercises seems to be well-timed.

32.	Aibar-Almazán et al.	2024	The sample consisted of 73 s-year students from a Bachelor's degree program in Physiotherapy.	The findings of this study demonstrate that incorporating Kahoot! into the educational setting, particularly in longer sessions that facilitate greater engagement with the game, yields advantages by engaging multiple cognitive facets and improving intricate abilities.
33.	Noori & Azimi	2023	In this study, a sample of six classes was selected, comprising a total of 74 participants. Cluster random sampling was employed as the students were already grouped into classes. The selected sample was then divided into two groups: an experimental group and a control group. Each group consisted of 37 students, resulting in a total sample size of 74 participants.	The findings demonstrated a notable and beneficial influence of Kahoot on students' inclination to engage in English language learning.
34.	Lopatynska et al.	2024	The participant in this research consisted of 15 students, which is 2 girls and 13 boys.	The findings indicated a considerable increase in the motivation of students who utilized the Kahoot application during English language instruction. This was facilitated by the application's capacity to adapt the learning tool according to the students' requirements, thereby fostering their active engagement in the learning process. Kahoot shows promise as a valuable tool for learning foreign languages in higher education.
35.	Rayan & Watted	2024	This study encompassed a total of 109 elementary school students, with the experimental group comprising 53 participants, including 29 from the 5th grade and 24 from the 6th grade. The control group consisted of 56 participants. with (N = 31) students from the 5th grade and (N = 25) from the 6th grade.	The study found that including Kahoot! exercises resulted in a notable enhancement in students' comprehension of scientific topics and principles. Furthermore, a significant rise in self-efficacy, interest, and enjoyment levels was noted among students in the experimental groups.
36.	Heni et al.	2021	The participants in this research consisted of all students in SMAN 1 Pontianak.	The expert evaluation results concluded that Kahoot! is both possible and recommended for integrating technology into students' grammar instruction.
37.	Satria et al.	2024	The participants in this research consisted of all students in SMP Hamong Putera Ngaglik.	The study revealed that the use of Kahoot! resulted in a notable enhancement in the vocabulary scores of the students. The gamification implemented by Kahoot! enhanced the enjoyment and involvement in the learning process. The platform's instantaneous feedback facilitated students in rectifying their errors, promoting dynamic learning, and enhancing their understanding of the English language.
38.	Sholihah et al.	2023	-	This study employs a qualitative case study methodology, specifically focusing on descriptive research.

| 39. | AlAli & Wardat | 2024 | This study included Jordanian teachers and gifted students. The sampling technique involved selecting one teacher and five gifted students randomly assigned from each school. This resulted in the recruitment of 112 gifted students from various colleges and schools in Jordan. | The findings make a substantial contribution to assessing the appropriateness of using Kahoot! as a teaching technique that includes gamification components, particularly in improving the academic achievements of gifted students in Jordan. |
| 40. | Nikmah H | 2020 | - | The results indicate that KAHOOT is effective in stimulating and promoting students' involvement in language learning and enhancing their language proficiency. |

First selection
The first selection discusses the effectiveness of Kahoot! in enhancing learning outcomes in EFL courses through a systematic review of studies on Kahoot and language learning. The study aimed to evaluate the impact of Kahoot on English language learning outcomes among foreign language learners by searching electronic databases for relevant studies published between 2019 and 2024. The inclusion criteria focused on empirical studies assessing the efficacy of Kahoot and its impact on learning outcomes, particularly in the context of language learning.

Second selection
The second document emphasizes the importance of gamification in education, highlighting how game-based learning activities like Kahoot can engage students effectively. It discusses the immersive quality of games, which captivates learners and enhances knowledge retention. Gamification is seen as a solution to counter student apathy, making lessons more appealing and efficient. By incorporating elements like point systems, levels, incentives, and badges, gamification serves as a motivational tool for students, inspiring excitement and engagement in the learning process. Overall, gamification holds great potential as a method to engage students in the English learning journey in the digital age.

Third selection
The third selection focuses on the variety of online gamification tools available for educational purposes, with a specific emphasis on Kahoot! as a standout tool known for its captivating qualities and potential advantages over traditional games like Jeopardy. The study aims to evaluate the efficacy of Kahoot! in enhancing learning outcomes in an undergraduate child development course by conducting a systematic search of electronic databases for studies related to Kahoot and language learning. The inclusion criteria involve empirical studies assessing the impact of Kahoot on English language learning outcomes among foreign language learners, published between 2019 and 2024.

Table 2 — Accumulated papers.

| Database	Total	Actual Usage
ResearchGate	17	17
DOAJ	17	12
Google Scholar	21	16

2.2 Classification of the contents of the papers
The selected papers were reviewed, and the results were classified based on the research question:

RQ1: What is the publication frequency across the years for the three databases?
RQ2: What domain areas of research, objectives, evaluation techniques, and participant demographics are involved?
RQ3: What challenges are associated with the implementation of Kahoot in English language learning environments for non-native speakers?
RQ4: What are the benefits of using Kahoot in EFL classrooms, based on a systematic review of research?

3. Results
RQ1: What is the publication frequency across the years for the three databases?

Table 3.1 – Publication Frequency
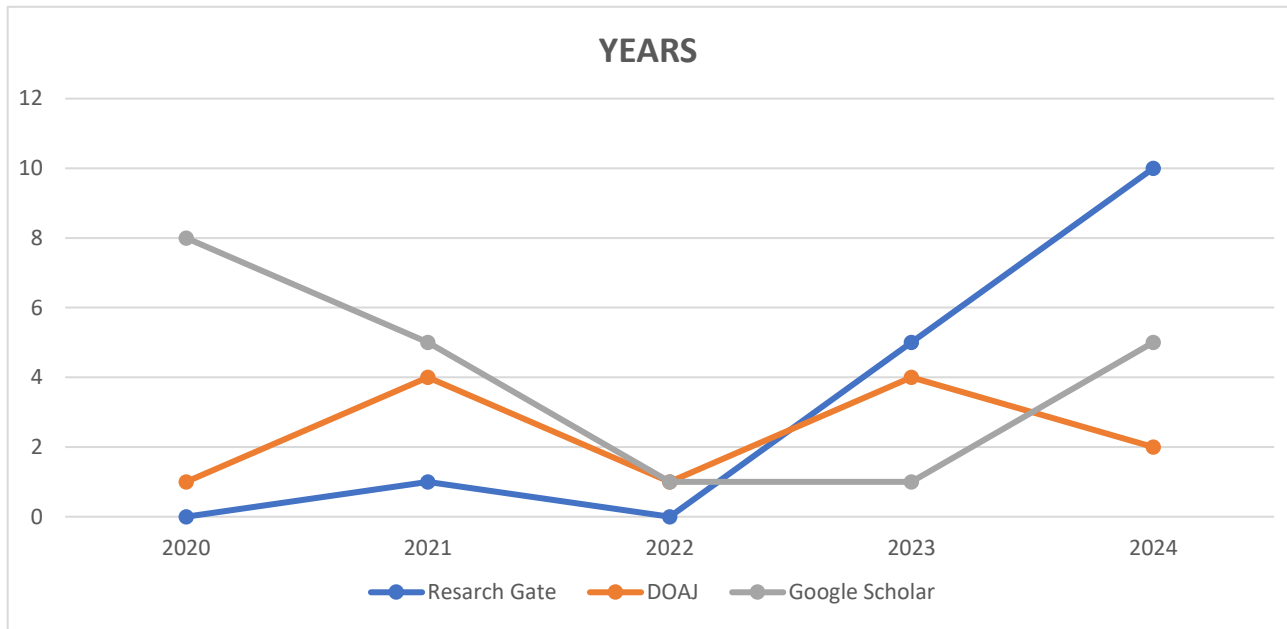
The year 2020 made Google Scholar the leader among all distribution channels in terms of the volume of published papers and reports. The enormous scope, in-depth search, and indexing helped make works available to millions of researchers around the world. This year, it showed peak performance, which drew attention to it and its central place in the academic publishing system.

Meanwhile, one observes that Research Gate also has an upward publication trend. This means that the platform is growing more popular, and researchers are relying more and more on its accomplished works. Moreover, they cannot resist using networking opportunities, so Research Gate publishing numbers constantly increase.

In contrast, the Directory of Open Access Journals has demonstrated fluctuations in publications over time, with a slight decline overall. Such an unsteady rate can be connected with the development of the open access movement or alterations in journal policies and journal indexing criteria. There is some trend towards fewer publications indexed by Google Scholar in the same years. This shows that the two systems are regularly influenced by changing environments and are active platforms requiring modification and development to meet changing scholars' needs and search preferences accordingly. Nevertheless, all play an important role in the distribution of open-access scholarly work.

RQ2: What domain areas of research, objectives, evaluation techniques, and participant demographics are involved?

Table 3.2 – Research Domain
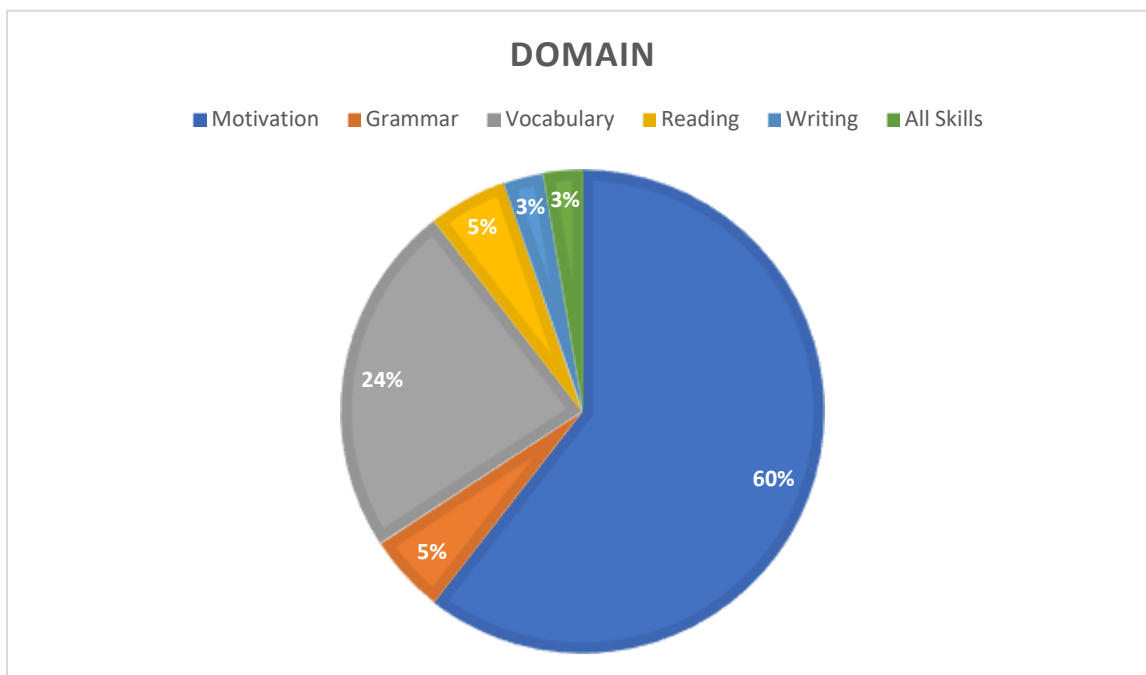
Using the proportion of subjects in one or another area as evidence, there is a strong bias towards motivation enhancement (60% of available research papers). In response to these motivating factors, motivation is key. So, 60% underscores how important it is that we have a clearer understanding and improvement of emotional factors relating to learning, which is already proving critical for students' success. The focus on motivation also argues for the widespread acceptance of its importance as a cornerstone of educational success, and research continues to pursue new ways to keep it.

At the same time, 24% of the papers are devoted to vocabulary improvement. The high determinants of understanding linguistic features and language fluency include ample lexis. Vocabulary is a key constituent of communicative ability, and the large proportion of research effort in this field reflects its importance. By focusing on language learning and mainly on vocabulary, scholars are striving to provide students with the power to take full control of sentences, to understand more thoroughly, and to express themselves truly. This targeted research also leads to the development of methods to expand a learner's lexis. This is important both for scholarly communication and in everyday conversation.

The remaining 16% of the paper is divided between a number of other fields, such as grammar, reading, writing, and overall language usage. An equal share is an indication that we take all parts of learning languages into account equally. Each of these elements is indispensable to completing a comprehensive framework for language education, and this division ensures that no single element is overlooked. Work in these areas adds up to a balanced view of language learning with which to feed wisdom back into teaching practices and educational policy-making at every level.

Table 3.3 – Research Methods

METHOD

■ Interview ■ Survey ■ Questionaire ■ Observation ■ Case Study ■ Online Discussion
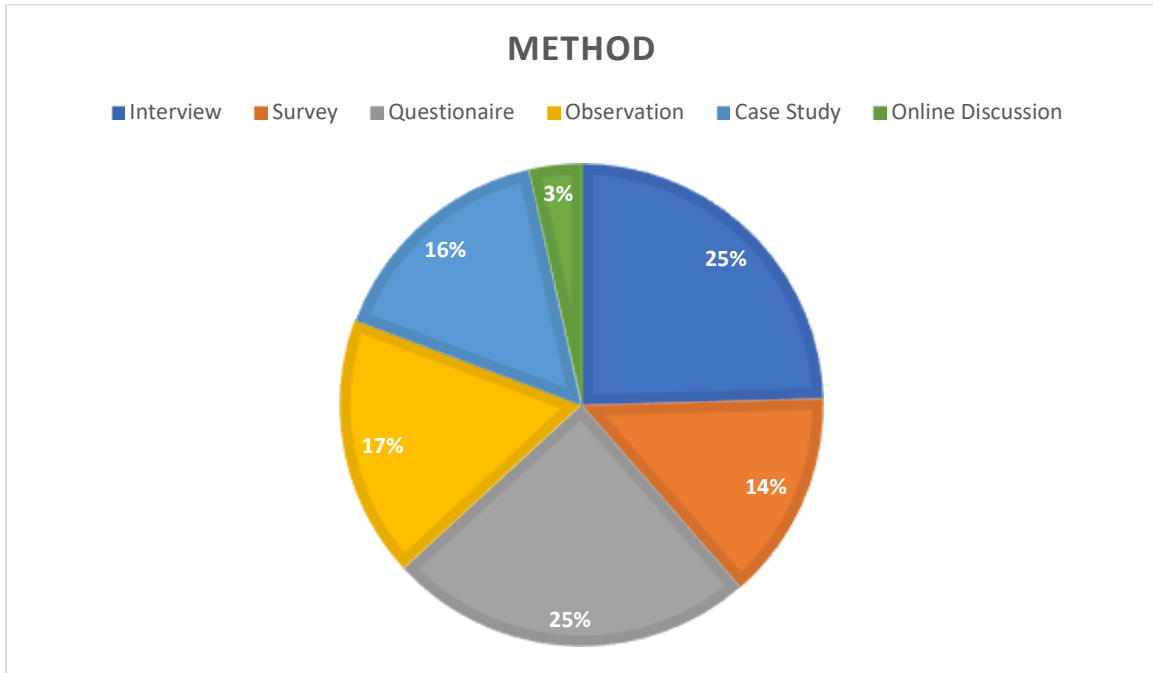
Research designs vary significantly among the papers, and they are all designed by researchers to serve different purposes and, therefore, various methodologies. Commonly used approaches include case studies, observations, interviews, surveys, and questionnaires, which yield data that informs many aspects of the project in most cases. On the other hand, online discussions as a methodological tool seem less preferred across these studies, a sign that there is a difference in the choice of research techniques among different research works.

Table 3.4 – Participant Demographic

PARTICIPANT

■ Students ■ University Students ■ Pre-Service Teachers ■ Teachers
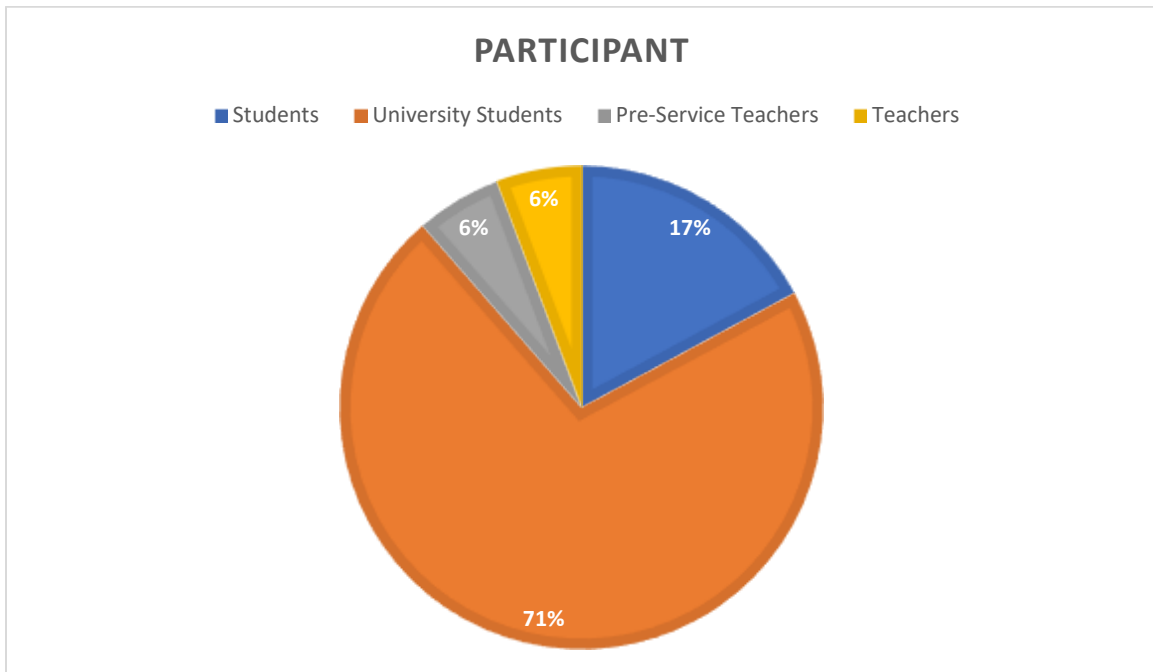

The survey sample mainly consisted of university students, as shown in Table 4. In this sample, there were a total of 25 papers focusing on university students. They far outnumber the out-of-school group and may, therefore, be a worthy representative for now. A few papers carried out studies on students from other levels of education. But we find this kind of work so negligible in number that it is impossible to constitute a figure small enough for inclusion in the statistical analysis undertaken here. Moreover,

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the researchers broadened their investigation to include pre-service teachers and in-service teachers, reactivating the experimental scope of the participants. Ethnic pedagogy is no longer limited to just one single type; it now covers many different social strata.

RQ3: What challenges are associated with the implementation of Kahoot in English language learning environments for non-native speakers?

This part delves into the challenges researchers encounter, as outlined in the papers. Understanding the obstacles faced by researchers provides valuable insight into the study's context and limitations. Some of the obstacles that have been encountered so far are described below:

Table 3.5 – Research Challenges.
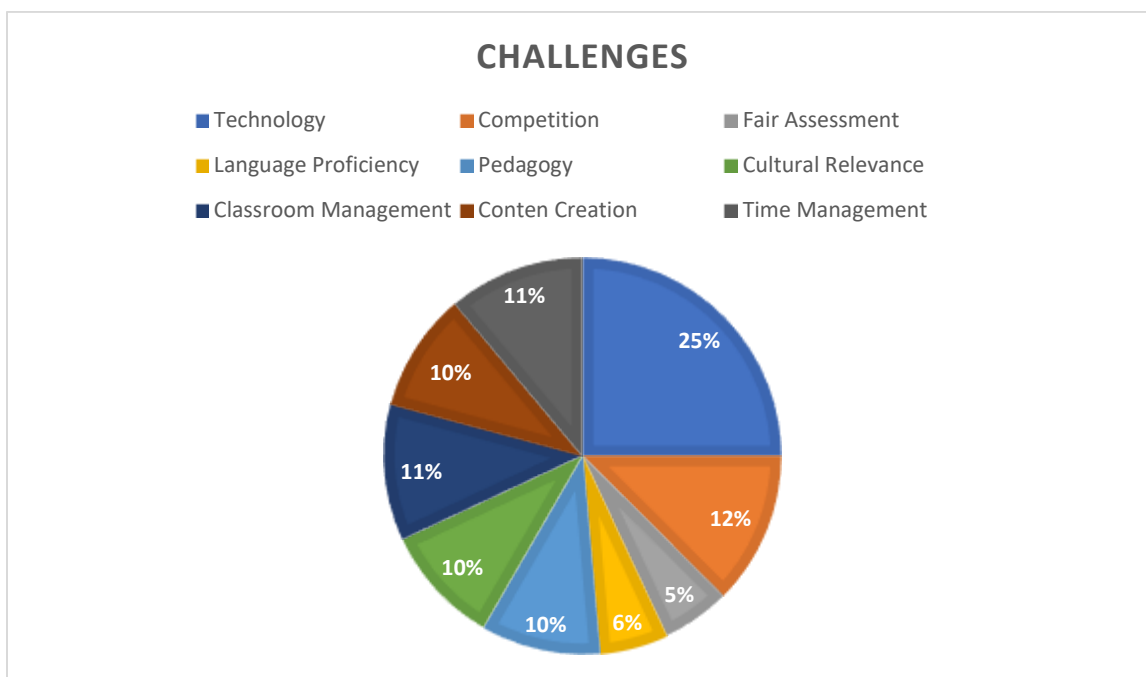
According to Table 5, there are three main difficulties faced when nonnative English-speaking students integrate Kahoot into their language learning environment. The major stumbling block is revealed to be technical, primarily concerning areas such as Internet speed or hardware compatibility. Challenges related to competition dynamics and time allocation come next in line, followed by classroom management, which appears briefly between these two facets but is then ignored altogether until it has surfaced yet again. There are also issues of content production, cultural fit, and pedagogical adaptation. A different story altogether: topics pertaining not just to language proficiency but also fair assessment score systems, for example, rarely lose their place on the research stage in such dramas as how well or knowledgably Kahoot is being put within languages.

RQ4: What are the benefits of using Kahoot in EFL classrooms, based on a systematic review of research?
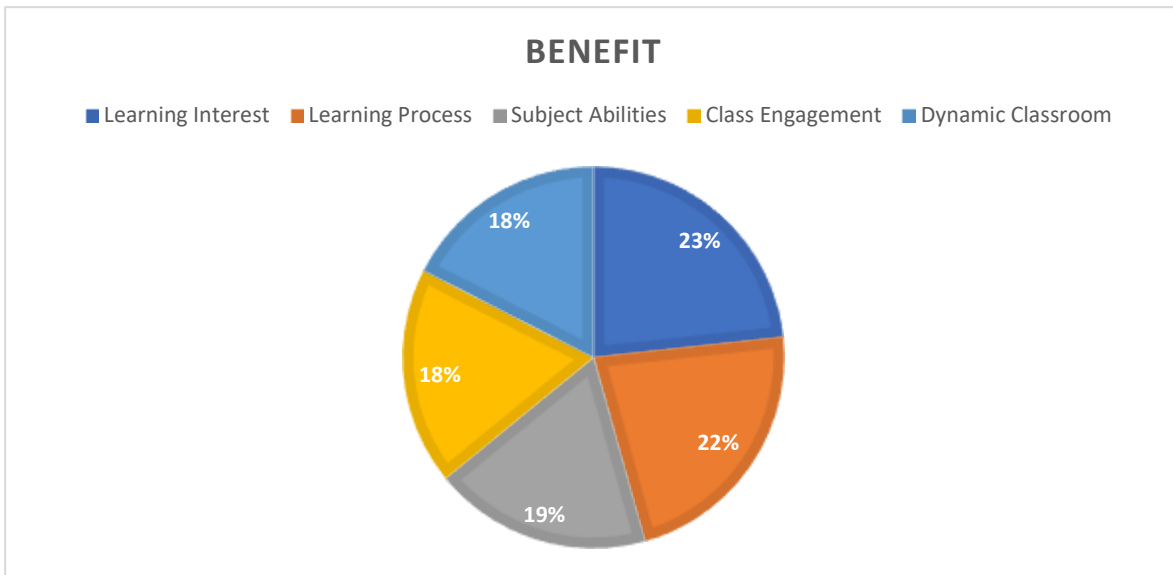
There are many benefits to incorporating Kahoot into your EFL classroom, and there are many benefits that EFL students can enjoy. The main benefits observed include increased interest in learning and increased engagement in the learning process. Additionally, Kahoot use is associated with improved subject skills, increased classroom engagement, and the creation of a dynamic classroom environment.

4. Discussion

Technological growth has brought about massive modifications in higher education, changing the structure of classroom instruction and learning activities. Over the past few years, there has been increasing interest in mixed learning within university settings (Hidayad et al., 2023; Ruiz, 2021). Educators have access to a variety of tools and resources to provide more active and interactive learning experiences for students by combining technology. This change has not only affected teaching methods but also given an idea for the structure and provided educational content. According to Solas & Sutton (2018), teachers have no time to provide instruction because students have been exposed to updated technology and are not necessarily getting the function by themselves. Introducing students to digital tools that enhance academic productivity and efficiency is crucial. Mixed learning, which combines traditional face-to-face activities with online components, is gaining a lot of interest due to its potential to improve student involvement, flexibility, and overall learning outcomes. As technology continues to evolve, higher education is expected to evolve with it, using it to innovate pedagogical approaches to meet the changing needs of students in the digital age. Hidayad et al., 2023).

The article discusses how Kahoot is being used by EFL learners. By highlighting difficulties found by researchers, it offers insightful information about the limitations and context of the study. The research methodologies used in the studies differ; case studies, observations, interviews, surveys, and questionnaires are often used techniques, whereas online conversations are less frequently used. Tools using immersive game-based activities, such as gamification, to improve motivation and learning results, such as Kahoot, are acknowledged for successfully involving students in the English language learning process in the digital era. It highlights the value of integrating technology into the classroom and the way that gamification can combat student indifference by enhancing the appeal and effectiveness of instruction (Putu Ade Resmayania et al., 2019).

The study also explores the area of gamification tools that are available online for educational use, with a certain focus on Kahoot, which is a great tool that is well-known for its engaging features and possible benefits over more conventional games. Kahoot and language learning are being researched by performing a thorough search of internet databases to assess the effectiveness of Kahoot in improving learning outcomes through students' and university students' courses on learner development. The inclusion criteria are empirical research published between 2019 and 2024 that evaluates Kahoot's effect on foreign language learners' English language learning outcomes. Most articles are found in Google Scholar, followed by DOAJ, according to database usage statistics; nevertheless, Taylor and Francis exhibit a distinct pattern. Kahoot implementation issues, research domains, publication frequency, and the advantages of utilizing Kahoot in EFL classrooms were taken into consideration while classifying the chosen papers.

The data shows a strong emphasis on university students, with 25 papers specifically addressing this group, followed by 6 papers focusing on students in general. Nonetheless, the research also involves pre-service teachers and teachers, which expands the range of participants involved. Kahoot in English language learning environments for EFL speakers, although regarding the challenges related to implementing technology-related challenges such as Internet connection and viable devices, competition, time management, classroom management, content creation, cultural relevance, and pedagogy. On the other hand, challenges related to language proficiency and fair assessment were less noted. However, the benefits of using Kahoot in EFL classrooms could vary. EFL students mainly obtain increased learning interest and progress, followed by enhanced subject skills, increased classroom participation, and a livelier learning environment. (Hidayad et al., 2023; Licorish et al., 2018)

In conclusion, the data collected from this report point out the importance of Kahoot as a key in both the area of English as an L1 language and in EFL classrooms. Educators can make the right decisions about integrating Kahoot into their teaching process by specifying the challenges and benefits associated with its implementation. The research also underlines the need for a longer study and adaptation to optimize the effectiveness of Kahoot in diverse educational settings. Moving forward, following research and collaboration will be necessary to make use of the full potential of Kahoot to enhance learning outcomes for students (Alfaruqy et al., 2021; Lofti et al., 2021).

5. Conclusion
In 2020, there was a notable improvement in the issue of research publications, implying which year had the most research from 2019 to 2023. The increase in the number of publications shows the growth of academic research activity during this period. The results of the data analysis show that the number of publications listed by Google Scholar and DOAJ has slowly but surely increased over the years, with random small decreases because of various reasons, such as changes in academic priorities, lack of data, etc. However, it is interesting to know that Taylor and Francis show a different report, as the number of papers is not the same as that of other resources.

The presented data in the paper, which focuses on improving motivation in the educational area, shows that 60% of the research is dedicated to this domain of research. This approach shows the awareness that motivation is important in improving effective learning results. Moreover, about 24% of the papers target vocabulary development, recognizing its important role in language learning. The remaining research is split into several areas, focusing either on grammar, reading comprehension, writing skills, or the overall development of all language skills. This complex procedure presents a broad implication that addresses many aspects of language learning. This highlights the fact that language capability involves the combination of many skills, each of which plays a unique role in overall language competence. Through this partial yet wide research, educators and researchers seek to gain a deeper understanding of the factors that influence language acquisition and proficiency, therefore informing teaching methods and learning strategies to optimize student learning outcomes.

The reviewed paper also shows different research methods and uses different approaches to collect data. Commonly used methods are case studies, observations, interviews, surveys, and questionnaires, but online discussions are rarely used throughout the process. Also, as noted in the article, a great number of participants were university students, with 25 papers focusing on this participant model, followed by student-focused studies. However, the researchers also give thought to including teachers and pre-service teachers in the data collection to widen the range of participants and ensure a better understanding of the issues they investigate.

As described in the article, the main challenges put into practice for Kahoot in English learning territories for EFL learners are specifically technological issues such as internet connection and compatible devices, followed by competition, time management, classroom management, content creation, cultural meaning, and pedagogy. But besides that, language knowledge and fair assessment are less noted as research challenges. In contrast, the benefits of using Kahoot in EFL classrooms are numerous. EFL students primarily benefit from the interest and process of learning, followed by improved subject skills, class engagement, and a more dynamic classroom.

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