
| RESEARCH ARTICLE

The Effectiveness of Using Kahoot in Reinforcing Grammar and Writing for Ibn Tofail University EFL Students

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| ABSTRACT

This study explores the positive and negative aspects of using Kahoot to reinforce grammatical rules and writing skills among EFL students at Ibn Tofail University in Morocco. The findings reveal that Kahoot effectively enhances feedback validity, time management, and student motivation. Key motivational factors include engagement, the game-like nature of Kahoot, the evaluation system, anonymity, and competitiveness. However, the study also identifies several drawbacks, such as the potential loss of classroom objectives, accessibility issues, the creation of a tense environment, and limited opportunities for creativity. The research used a mixed-methods approach, combining quantitative data from student questionnaires and qualitative data from researcher observations. Results indicate that while Kahoot is a valuable tool for engaging students and improving learning outcomes, its implementation should be carefully managed to reduce potential disadvantages. Further research is recommended to expand the sample size, include diverse student populations, and explore the long-term effects of Kahoot in various educational contexts.

| KEYWORDS

EFL, Game-based platforms, Gamification, Grammar, Grammatical Rules, Kahoot, Writing, Writing Skills, Morocco.

| ARTICLE INFORMATION

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1. Introduction

Too frequently, many students see traditional education as monotonous or ineffective (Dicheva, Dichev, Agre, & Angelova, 2015). Thereby, teachers and professors search for and try new approaches to inspire and engage students in the learning process to address the issue. Thus, game-based learning, an education method quickly gaining popularity due to technological advancements, is one way to solve that problem. Over time, research on gamification and its uses in K-12 and higher education have increased; however, further exploration, particularly in higher education settings, is required to enhance grammar and writing during the guided practice stage.

It is especially pertinent because practicing grammatical rules and writing is never an easy assignment for teachers (Ellis, 2006). Indeed, teaching grammar and writing to EFL students, especially in guided practice, has always been controversial in EFL research (Borg, 1999). For example, although the current practice in teacher pedagogy adopts the communicative approach, the latter has been criticized for neglecting a direct approach to teaching grammar (Thornbury, 1999). Additionally, writing instruction often faces challenges in maintaining student engagement and providing effective feedback, making it difficult to develop strong writing skills (Hyland, 2003). This paper explores the strengths and weaknesses of using Kahoot to reinforce grammar rules and writing skills. Thus, the following research questions are presented:

- 1) What are the positive aspects of using Kahoot in the EFL classroom?

- 2) What are the negative aspects of using Kahoot in the EFL classroom?

2. Literature Review

Several studies in the international sphere have highlighted the positive aspects of using technology-based tools in learning. For instance, Licorish, Owen, Daniel, and George (2018) pointed out the increasing popularity of interactive technologies and games in instructional science and postsecondary education due to their accessibility and affordability. Additionally, Chotimah and Rafi (2018) found that students trained using Kahoot performed better than those taught using traditional textbooks. Other studies focused on the positive impact of motivation and engagement in gamified learning, demonstrating the ability of educational games to enhance student engagement and motivation, especially in teacher-centered classes where low levels of student involvement can lead to boredom and disengagement (Handayani, 2019; Susanti, 2018; Werbach & Hunter, 2012; Yürük, 2019).

Adopting game-based learning tools like Kahoot can be grounded in several educational theories. Constructivism, for instance, emphasizes the importance of active engagement in learning, where learners construct new knowledge based on their experiences. Game-based learning aligns well with this theory as it involves active participation and immediate feedback (Donkin & Rasmussen, 2021). Cognitive load theory also supports the use of gamified tools by suggesting that well-designed games can optimize cognitive load and enhance learning efficiency (Mdlalose et al., 2021). Behaviorism, focusing on reinforcement, can explain how the rewarding aspects of games (points, badges) motivate students to engage more deeply with the content (Bawa, 2018).

While Licorish et al. (2018) highlight the popularity and benefits of interactive technologies, it is crucial to note the study's context, sample size, and methodology. Similarly, Chotimah and Rafi's (2018) findings on Kahoot's effectiveness must be scrutinized for experimental design and controls. The studies by Handayani (2019), Susanti (2018), Werbach & Hunter (2012), and Yürük (2019) provide valuable insights into engagement and motivation but would benefit from a more detailed discussion of their limitations, such as sample diversity and the duration of the interventions.

The COVID-19 pandemic has increased the use of digital tools in Moroccan educational institutions. A study by Boulaid and Moubtassime (2019) found that Moroccan university students of English supported using Kahoot as a game-based tool in their Public Speaking course. This platform has become popular in Morocco and has helped improve student participation and engagement across various subjects. The participants stated that Kahoot helped them improve their grammar, vocabulary, and listening skills. Understanding the specific challenges and opportunities within the Moroccan education system can help assess the applicability of these findings to similar contexts.

A few studies were comparative in nature, aiming to compare conventional grammar teaching methods with gamified approaches. Susanti (2018) conducted an experimental study comparing traditional grammar teaching to using Kahoot for teaching grammar. However, the study did not specify if Kahoot was used throughout the session; instead, it was only adopted as a break from traditional teaching to create lively moments during the session (Susanti, 2018).

Some studies have examined the connection between grammar and game-based learning, specifically Kahoot, from a psycholinguistic perspective. For instance, game-based learning has the potential to be an effective educational tool because it engages the verbal aspects of our cognitive processing (Woo, 2014). In other words, it helps learners enhance their knowledge retention through active participation in the gamified learning process, often without even realizing it (Gee, 2003).

Several studies have examined the issue from a quantitative/statistical standpoint to determine whether using Kahoot and effectively learning grammar is correlated. For instance, Prawira and Mukhaiyar (2020) conducted research to assess the effectiveness of Kahoot in teaching grammar. They used a pre-test and post-test control group design. They found that using Kahoot led to higher average scores in the experimental class compared to the control class, indicating that Kahoot was a reliable tool for enhancing learning.

The effectiveness of Kahoot in teaching language skills extends beyond writing to include reading. Wibisono (2019) discovered that students who used Kahoot for reading comprehension performed better on reading tests. It illustrates how Kahoot can improve language learning and understanding (Kohnke & Moorhouse, 2021). The platform's capacity to address various aspects of language education, from writing to reading and more, is also emphasized (Kohnke & Moorhouse, 2021). These findings suggest that Kahoot has the potential to be an invaluable tool in language education, providing a comprehensive approach to enhancing language skills and comprehension (Licorish et al., 2018).

However, every advantage also brings disadvantages; using Kahoot for educational purposes in the classroom may pose many challenges beyond control. According to Wang and Tahir (2020), teachers face difficulties when using Kahoot. These challenges include determining the complexity of questions, deciding the appropriate response duration, and implementing a grading system

based on students' speed of response (Wang & Tahir, 2020). The tendency for students to prioritize speed over accuracy could reduce their reflection and lead some students to make assumptions without thinking just to achieve a higher score (Licorish et al., 2018). These challenges could undermine the effectiveness of Kahoot as a teaching technique (Plump & LaRosa, 2017).

Drawing on previous studies, this research aims to revisit the positive and negative aspects of using Kahoot in the Moroccan EFL classroom. The aim is to either confirm or refute the earlier findings. The findings of this study will highlight not only interesting aspects observed in the classroom but also aspects that were not observed in the classrooms. Additionally, the study will explore university students' attitudes regarding the use of Kahoot.

3. Methodology

3.1. Kahoot as a Formative Assessment Tool: Definition and Context

Kahoot is an application used for conducting surveys, conversations, and quizzes. It is a real-time game-based classroom response system that involves the entire class. Questions with multiple choices are displayed on the screen, and students can use their computers, tablets, or smartphones to answer. Kahoot can change the pace of regular class activities, review students' knowledge for formative assessment, and offer trivia tests. It is a helpful tool for creating quizzes based on the concepts taught and for reviewing those concepts with students to assess their understanding of the material. The tool was designed for group learning, where students gather around a standard display such as an interactive whiteboard, projector, or computer monitor.

Screen-sharing tools like Google Meet can also be used to access the website. Players must look up from their devices regularly due to the game's nature. The game is straightforward to understand. Players join a game by using a gadget to answer questions created by a teacher or another creator on Kahoot, and they do so via a game PIN displayed on a shared screen. Modifying the questions to award points is also possible, and the leaderboard updates with points after each question. Kahoot, with its web interface, can be used on various web browsers and mobile devices. In September 2017, it introduced a mobile application for homework. The game concept used in Kahoot was developed by Professor Alf Inge Wang at the Department of Computer Science at the Norwegian University of Science and Technology in 2006.

3.2. Research Design

This study adopted a mixed-methods design to evaluate the effectiveness of Kahoot as a formative assessment tool in reinforcing grammar and writing skills among EFL students. Combining quantitative data from questionnaires and qualitative data from researcher/teacher observations comprehensively analyzed the learning process and outcomes.

3.3. Study Population and Sampling

The study population is EFL students in their first year at the English department of Ibn Tofail University, Kenitra, Morocco. In the first year, students study a total of twelve modules (i.e., courses). Four of these courses are grammar- and writing-related. The grammar course comprises mainly the following vital topics: articles, countable and uncountable nouns, prepositions of time and place, conjunctions (i.e., correlative, coordinating, adverbial, and subordinating conjunctions), quantifiers, adjectives, and adverbs, including the order of adjectives and comparative/superlative adjectives, all twelve tenses, modals, passive voice, relative pronouns, clauses, and reported speech as for the writing course. It includes the following topics: types of sentences, punctuation, capitalization, faulty sentences, and paragraph structure. The students were tested on these topics using Kahoot games. Note that there were 439 participants in different groups in both semesters.

3.4. Implementation of Kahoot

Regarding key information on the Kahoot games, they were administered from April 1st, 2021, to March 30th, 2022, noting that some were administered online due to the COVID lockdown. The other Kahoot! Games were played at Ibn Tofail University. As for how the Kahoot games were implemented, the instrument used in this study was a general review of different grammar concepts. The objective test used in this research was multiple-choice. The multiple-choice test is an objective test in which each test element usually has more than two choices for responding. This study has four answer choices: red, yellow, blue, and green. Of all the choices available, one or more is the correct answer. Usually, one option is an incorrect answer, which distracts.

Before the sessions, the students were asked beforehand on Google Classroom to have a provided network on their phones. For those who were not financially capable of doing so, the teachers shared the data from their phones, which gave accessibility to up to ten students. When they came to class, the teachers wrote the Kahoot! code on the whiteboard so that latecomers would be able to access the game later. As for the readability of the questions, the teacher used a feature on Kahoot that allows the students to see the questions on their phones. Nevertheless, a data projector was also used to strengthen the readability of questions and to discuss some difficulties faced after answering each question.

3.5. Data Collection

Data were collected using two main methods:

- 1) Questionnaires: Distributed to students to gather quantitative data on their attitudes, opinions, and perceived effectiveness of using Kahoot for learning grammar and writing skills.
- 2) Researcher-Teacher Observations: Qualitative data were gathered through observations of classroom interactions, student engagement, and overall effectiveness of the Kahoot sessions.

3.6. Data Analysis

Quantitative data from the questionnaires were analyzed using SPSS software to measure student perceptions and learning outcomes. Qualitative data from observations were analyzed thematically to identify common themes and insights regarding the implementation and impact of Kahoot.

4. Results and Discussion

This section discusses some main findings regarding teaching grammar and writing using Kahoot.

4.1. Observations in the Classroom: Positive Aspects of Using Kahoot in Teaching Grammar

4.1.1. Feedback Validity

One of the positive aspects of using Kahoot to reinforce grammar and writing is its ability to provide immediate feedback. After each question, students receive instant feedback, which allows them to review and comprehend the course material. According to Wichadee (2018), Kahoot makes lessons more enjoyable and enables all students to participate and receive feedback simultaneously. When Kahoot was not used, the teacher would observe most students raising their hands and assume that they understood the task. However, when Kahoot was employed, it was discovered that although most students answered the questions, many responded incorrectly. For instance, a teacher noticed that most students chose the wrong answer during a challenging grammar question. Kahoot helps rectify this misunderstanding. Without Kahoot, teachers might assume students understand the task based on raised hands. Kahoot allows teachers to provide constructive feedback to address students' errors.

4.1.2. Time Management

Utilizing Kahoot as a real-time assessment tool can save time during guided practice. For instance, if Kahoot indicates that most people answered a question correctly, the teacher does not need to spend too much time on that particular grammatical or writing item. However, if Kahoot shows that students had varied answers for a specific item, then the teacher could take the time to re-explain the grammatical and writing rules through remedial work. It saves time, combats boredom, and prevents students from disengaging from the learning process. If most students understand a grammatical or writing rule and the teacher re-explains it during guided practice, most of those students will lose focus. However, by using Kahoot, teachers can discern that most students understand the item, and thus, they do not have to waste time re-explaining it. It is essentially what Stosic (2015) confirms by stating that educational technology aids students in re-learning material that was not sufficiently clear.

Another positive aspect of using Kahoot in terms of saving time is that it allows teachers to record the students' quiz results and assess their understanding quickly compared to the paper-based method. In a scenario without Kahoot that involves worksheet papers, it will take longer to distribute the paper in the classroom, for students to answer the questions within the allotted time, and for the teacher to provide individual feedback. Our observation is supported by Rambe's (2021) study, which states that creating online assessments differs significantly from face-to-face instruction. As a result, Kahoot may be an excellent tool for teachers to use to assess students' understanding due to its time-saving capabilities.

4.1.3. Motivation

We have identified five key concepts that motivate students in the classroom when using Kahoot to teach grammatical rules. These concepts are engagement, the game-like nature of the application, the evaluation system, anonymity, and competitiveness.

Incorporating the Kahoot application into classroom instruction is inherently engaging, requiring all students to participate with a simple click. According to Reeve (2012), "Engagement refers to the degree to which a learner exhibits dynamic participation, attentiveness, and enthusiasm when involved in the learning process, which can contribute to satisfying learning performance" (p. 13).

The table below displays the number of students who actively participated in the Kahoot games:

Table 1
The number of active engagements in the Kahoot game

Number of participations	Number of active participations	Percentage
439	331	75%

Two researchers who taught these students actively shared their network data so that more students could engage with the task. In this perspective, Rosyadah et al. (2022) found that because the medium used (i.e., the blackboard) is less interactive, many students showed little attention, spoke with their friends, or slept in class.

Second, the fact that it is a game-based application automatically motivates students to 'play' since they associate the latter with a comfort zone and not as a task that must be done.

Third, the learners will be self-motivated to provide accurate answers because this innovative evaluation system displays their scores on the screen.

Fourth, one of the challenges teachers face when teaching grammar and writing is that students fear giving incorrect answers. A good teacher creates an inclusive environment, and this environment must consider shy students who do not raise their hands when they do not understand a particular grammar or writing item. Allowing anonymity can promote solid and rich participation, even though it is perceived as a negative characteristic of involvement in technology-mediated learning environments. Therefore, Kahoot will enable students to stay anonymous using a superficial nickname. We report the following results:

Table 2
The number of times students did not use their full names in the Kahoot game.

Number of participations	Number of anonymous students	Percentage
439	331	75%

Table 2 shows that allowing anonymous involvement in a learning setting can encourage greater participation since it fosters a sense of safety and privacy (White & Dorman, 2001). Students were allowed to participate without worrying that their answers would be evaluated as correct or incorrect, which promoted involvement. When students are worried about answering questions publicly, using fake names on the leaderboard could help. However, this would mean the instructor cannot track individual student performance after the quiz. Note that the students not responding could be due to network connection problems. Nevertheless, this is still counted as non-engagement.

It should be noted that we used the concept 'participation' and not 'participants' on purpose since some of the students played the Kahoot game several times. The number used is not about the number of students but the frequency of participation. That is, there might be a student who played three times in a semester. It still shows the insistence on staying anonymous even if they played many times and were comfortable. According to Squire (2011), anonymity is a positive behavior that fosters enjoyment and social learning components of game-based environments. Finally, competitiveness was a significant factor in motivating students. Students shared their phones with their classmates, which was a sign of a healthy, competitive environment. The displayed scores on the leaderboard created a competitive environment and encouraged students to answer correctly to advance to the top. Competition was an effective means of reaching the desired learning objectives. To reinforce our claims, a study done on 58 eighth-grade students showed an increase in mastery goal orientation toward learning when the game featured competition and collaboration (Plass et al., 2013). All in all, using Kahoot to reinforce grammatical and writing rules seems to be an excellent tool to motivate students, a finding that many studies have also reached (Heni et al., 2021; Zarzycka-Piskorz, 2016).

4.2. Observations in the Classroom: Negative Aspects of Using Kahoot

Even though studies found that the statistical significance of Kahoot positively influences students' grammar achievement (Haryati & Diyah, 2020; Prawira & Mukhaiyar, 2020; Rosyadah et al., 2022), Kahoot has disadvantages. In the following subsections, we will explore some of these disadvantages we observed in the classroom.

4.2.1. Students Forgetting the Objective Behind Using Kahoot

During the Kahoot game, we observed that students used funny names to attract attention. For example, We identified four categories, including selecting movie or TV character names (e.g., Simba, Elsa, and Vader), selecting personal nicknames (e.g., /qirj/'shark', /xoxa/'peach,' the king, and the king of kings), emojis (e.g., wink emoji and heart emoji), and other miscellaneous names (e.g., physics, 'bruh,'/şəndala/'sandals'). Licorish et al. 's (2018) study solidifies our observation by warning students that entering with funny names could divert their attention from their academic work as they no longer take Kahoot seriously.

4.2.2. Accessibility Issues

A bad network connection is the most frequent challenge to students and teachers. To use Kahoot effectively and avoid this issue, teachers need to have a projector, laptop, smartphone, and a steady internet connection. A lack of equipment is one of the critical issues preventing Kahoot from being efficiently used. As stated in the methodology section, we tried to share our network connection with ten students, hoping to reach as many students as possible. Unfortunately, other students were excluded because smartphones can only allow ten devices to connect to the data. Another way we tried to solve the problem is by having two students or even three share one device. Both researchers-teachers gave their phones to the students as a show of support for their learners' needs. Wang and Tahir (2020) state that among the significant issues associated with using Kahoot are technical difficulties, including undependable internet services and questions that are difficult to read on projected computer monitors. In our case, some students used phones with outdated systems, making it extremely hard to connect and read the questions on their phones.

4.2.3. Tense Environment

We have noticed a drawback in the game: every question has a timer, which may have led to competition among students as they tried to answer quickly. It might have caused anxiety and concern for some students, as they worried about not having enough time to think and feared giving wrong answers. To support this observation, some students told us that the timer was the reason for their low scores. It contradicts Stosic's (2015) belief that educational technology allows students to work at their own pace.

4.2.4. Limited Degree of Creativity in Grammar and Writing Practice

One other downside of using Kahoot for grammar practice is the degree of creativity it offers. Students can only practice grammar and writing at the sentence level, but grammar encompasses more than just sentences. Many experts advocate for teaching grammar implicitly through methods like storytelling, role plays, discussions, and reports. Additionally, grammar is closely related to speech, which Kahoot cannot address. Regarding writing, Kahoot falls short in covering aspects such as paragraph structure, coherence, and cohesion.

4.2.5. Classroom disturbance

Maulidya (2021) claims that the disturbance to students' concentration is a disadvantage of Kahoot, which she discovered in her research. According to two of the six participants, other participants' noise bothered them. The disturbance occurred in some situations in the classroom where students were playing loudly because they were overexcited, which impacted the other students who could not concentrate due to the noise. This scenario does not, however, occur in every classroom; it relies on how the students behave, she adds. We reinforced her conclusion because, in our classrooms, there were no such disturbances.

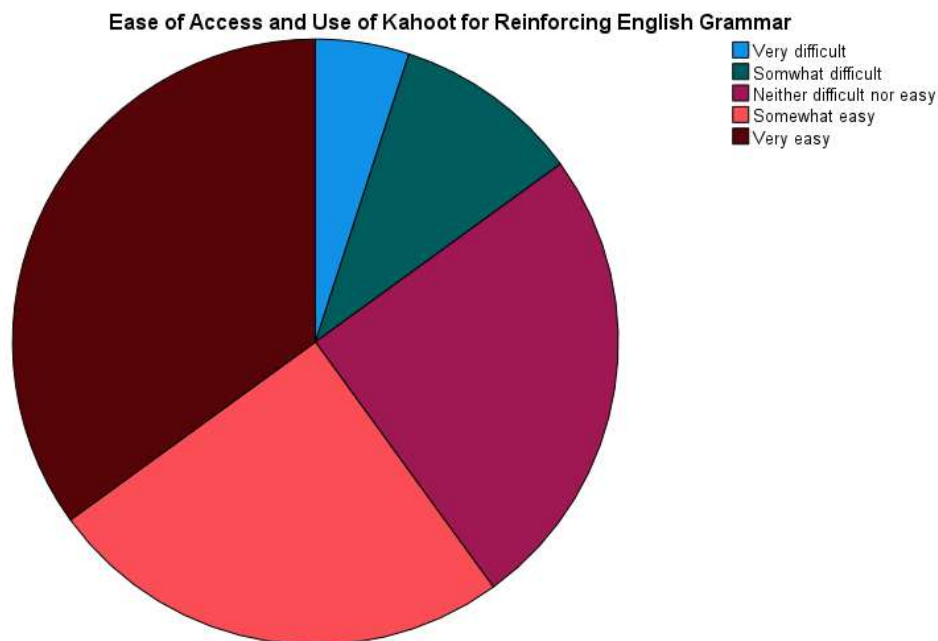
4.3. Questionnaire Results and Discussion

In this section, we explore the results of the online questionnaire, which reflects the views and opinions of the students regarding using Kahoot to reinforce grammar and writing. Notably, 86% considered themselves to be (upper-)intermediate, while only 14% considered themselves advanced. It was essential to test the use of Kahoot to learn grammar for students who are mostly still in the intermediate learning process.

4.3.1. Attitudes of University Students in Using Kahoot to Reinforce Grammar

In the survey, we initially asked two important introductory questions. The first question was whether they had ever used Kahoot to reinforce grammar, and 81% answered yes. The second question asked how often they used grammar in class; nearly 50% said they sometimes used Kahoot. These two questions were crucial to ensure that some of these students had actually learned using Kahoot over a period long enough for them to evaluate the tool. In terms of Kahoot's functionality and ease of access, we obtained the following results:

Ease of Access and Use of Kahoot for Reinforcing English Grammar



We have observed mixed results regarding the ease of use of Kahoot. The teacher must provide a quick and thorough tutorial to maximize the learning experience. However, the fact that some students found Kahoot somewhat challenging does not mean they did not find it helpful. In fact, when asked about the utility of Kahoot in reinforcing their understanding of English grammar concepts, 90% of students indicated it was useful. Specifically, 45% found it constructive, while another 45% found it somewhat beneficial.

In our previous classroom observations, we noted a high level of student engagement, further confirmed by a questionnaire. When asked about the level of engagement Kahoot provides as a learning tool, 95% of students found it engaging, with 40% finding it very engaging and 55% finding it engaging. Furthermore, 75% of students expressed their likelihood of using Kahoot in the future, and 75% also said they would recommend it to other learners. Additionally, when asked about their confidence in their grammar knowledge before and after using Kahoot, 70% of students reported feeling confident. These results support our initial observation of Kahoot's key role in motivating students in the present and future. However, it's important to note that the teacher should provide feedback to sustain this engagement, as 55% of students expressed a need for immediate feedback during Kahoot sessions.

A surprising answer we got in the questionnaire was when we asked students which types of Kahoot activities they found most effective in reinforcing their understanding of grammar. 65% said that the multiple-choice questions were the most effective. At first glance, it might seem, against our initial observation in the classroom, that these close-ended questions can be problematic (see 4.2.5. above). However, in section 4.2.5., we discussed how Kahoot impedes creativity. This does not mean it cannot be effective in other areas, such as accuracy or general understanding. Regarding accuracy, we found that 70% of students said they noticed an improvement in their grammar test scores after using Kahoot. Regarding general knowledge, we found that when students were asked if using Kahoot improved their understanding of English grammar, 90% said Kahoot improved it.

Unlike the common belief that Kahoot might cause negative competition, 50% said they would be put into groups instead, 35% said they would rather play Kahoot individually, and 15% said they had no preference. This shows that 65% do not mind being put into groups, so we would not expect a very tense environment. This reinforces our observation in the classroom regarding this issue.

With regard to the questionnaire data, the findings revealed that most students prefer online tools over traditional methods like textbooks. For instance, 86% of students used online resources, while only 50% used textbooks. When students were asked to compare using Kahoot with other grammar reinforcement methods, 40% found Kahoot to be better, while 35% felt it was similar to other methods. This indicates that integrating various online tools can significantly enhance student engagement.

Let us now move on to some testimonies of students who were asked about the strengths of using Kahoot to reinforce English grammar. The results are as follows: There were six themes regarding the strengths of using Kahoot. These are interactivity, fun/enjoyment, repetition, instantaneous feedback, and vocabulary reinforcement. For interactivity, The participants highlight that Kahoot is an interactive platform that engages learners in the learning process. Help keep students interested and motivated in the topic being taught. It has also been noted that Kahoot provides interactive illustrations that aid in memory retention of grammar rules. It suggests that visual aids can help reinforce learning and make it more engaging for students. Indeed, one of Kahoot's ultimate strengths is engagement, which is consistently mentioned in classroom observations and in students' attitudes. In addition, the second theme is fun and enjoyment. Most participants also claim that Kahoot makes learning enjoyable. This insinuates that using Kahoot can create a positive learning experience for most students. However, very few stated that using Kahoot in the classroom is rather boring.

As for the theme of repetition, the participants noted that the repetition of the questions helps students understand the rules. This suggests that using Kahoot can help reinforce grammar rules by repeating questions, leading to better retention and understanding of the material. The fourth theme is instantaneous feedback. Some participants highlight that Kahoot provides instantaneous feedback for both teachers and students. That is, using Kahoot can facilitate the learning process by providing immediate feedback on the correctness of answers. This can help students identify their strengths and weaknesses and make possible adjustments accordingly. As for the fifth theme on vocabulary reinforcement, it is essential to note that some answers regarding the strengths of using Kahoot stress the fact that Kahoot helps with vocabulary terms and definitions. Therefore, Kahoot can be used to reinforce vocabulary and terminology associated with grammar, which can aid in understanding and retaining the material. This point was not clearly observed in the classroom, but it is interesting to realize that there is a correlation between grammar and vocabulary. The final theme is regular use: One participant suggests that consistent use of Kahoot can significantly improve English grammar. It indicates that regular Kahoot can reinforce grammar rules and vocabulary, leading to better understanding and retention of the material. It has also been mentioned that Kahoot is easy to use. It implies that Kahoot's user-friendly interface can make it accessible to students with varying technical skills and abilities.

As for the limitation of using Kahoot to reinforce English grammar, we identified four themes. The first is lack of explanation. One participant from the survey mentioned that Kahoot doesn't explain why a response is correct or incorrect. It implies that the lack of feedback or explanations may hinder the learning process and prevent students from fully understanding the grammar rules, whether Kahoot is used or not. Another participant noted that the way Kahoot reviews information is overly reliant on the amount of time allowed to answer the question and the teacher's explanation of incorrect responses. The limited feedback provided by Kahoot may not be sufficient for all learners. Second, students also complained about the limitations of content coverage. One of the participants noted that English grammar has many exceptions that cannot be easily covered on Kahoot. It suggests that Kahoot's limited scope may not cover all the complexities and exceptions of grammar. This problem relies entirely on the teacher finding ways to tackle the exceptions of grammar using Kahoot, which is possible. It goes back to our initial observation that grammar does cover exhaustively creativity. The third theme is insufficient time. One potential limitation of using Kahoot is that it does not give sufficient time for learners to think of the answers. Though this helps learners make quick decisions using critical thinking, it is to be noted that the fast-paced nature of Kahoot may not be suitable for all learners and may create a stressful learning environment for low-paced learners. More interestingly, Kahoot's limitations may depend on individual learning styles and preferences. One participant pointed out that there are no limitations to using Kahoot for grammar. This is why Kahoot was chosen as a means of reinforcement but not a primary tool for learning grammar. Therefore, we expect the teachers to develop different practices during the controlled practice stage. The final surprising element that we saw from students' comments is boredom. One participant from the survey mentioned that Kahoot can become boring, which might be the case for many others. Hence, we should presume that Kahoot can be a one-fits-all as the repetitive nature of Kahoot may not be engaging or stimulating for all learners.

4.3.2 Attitudes of University Students in Using Kahoot to Reinforce Writing

Based on the participants' responses, many do not use Kahoot often to reinforce their writing skills. This suggests they prefer other methods or resources to improve their writing abilities. Similarly, a significant number of the participants mentioned that they use Kahoot occasionally to enhance their writing skills, indicating that they recognize the potential benefits of Kahoot but may not consistently incorporate it into their writing practice. A small group of participants (10%) reported using Kahoot weekly. This indicates a regular commitment to utilizing Kahoot to improve their writing abilities, suggesting they find it helpful and worth incorporating into their routine.

Interestingly, 10% of the participants said they never use Kahoot to reinforce their writing skills. This could indicate they are unfamiliar with the platform or prefer alternative methods for enhancing their writing abilities. However, a small percentage (5%) of participants reported using Kahoot daily. This implies they find Kahoot an effective and valuable tool for consistent writing practice and improvement. Finally, 5% of the participants mentioned using Kahoot monthly as they recognize the benefits of

Kahoot but may not prioritize it for regular use in their writing practice. The responses indicate that while there is a range in frequency, a significant number of participants either rarely or sometimes use Kahoot to reinforce their writing skills. However, many participants still utilize it weekly, daily, or monthly, indicating its potential effectiveness in improving writing abilities.

Concerning responses related to the types of writing practices involved in using Kahoot, it has been noticed that most participants reported using Kahoot to practice vocabulary and sentence structure. A significant subset of the participants used Kahoot to reinforce their understanding and usage of punctuation marks and sentence structure. In contrast, about 30% of the participants mentioned using Kahoot to improve their spelling and organization skills. A small percentage (5%) of participants said they do not use Kahoot for writing purposes. This could indicate that they primarily use Kahoot for other subjects or purposes unrelated to developing writing skills. Similarly, another 5% of participants mentioned that they do not use Kahoot at all, implying they are unfamiliar with the platform or prefer alternative methods for practicing writing skills.

In light of these answers, Kahoot seems to offer vocabulary-building exercises or word games that help users expand their word choices and enhance their writing style. It is also deduced that Kahoot provides interactive exercises or quizzes that help users improve their knowledge and application of these aspects of writing. Again, Kahoot provides spelling quizzes or activities that prompt users to effectively organize their thoughts and ideas.

Regarding the effectiveness of Kahoot in reinforcing writing skills, 95% said it was effective, 65% said they noticed improvement, 89.5% said that they would likely use Kahoot, and 66.7% said that they would recommend Kahoot to other university students. However, we should note the context of this response. During the Kahoot practice, students were not exposed to paragraph structure and coherence/cohesion; otherwise, we can expect different results. When asked about the strengths of using Kahoot to reinforce writing skills, we found the following results: First, some students stated that Kahoot helps them understand writing skills, particularly punctuation and vocabulary. Second, some participants mentioned that Kahoot offers the chance to repeat writing rules, and frequent practice is the way to improve students' skills. Third, some participants preferred to use Kahoot over other tools such as quizzes, booklets, and watching TV. One of them even said they prefer Kahoot because it locates errors. Fourth, a student stayed neutral and stated that it depends on how one uses the tool, and this is a very interesting answer. Indeed, Kahoot is a tool, and it is up to the teacher to use it in the best way possible. Fifth, a participant said that Kahoot presents new topics that help many students get much information and enrich their vocabulary. Finally, it seems that a student thinks of Kahoot as a strength but gives a condition that one should not depend on Kahoot only. All of these strengths further prove our initial observations in the classroom.

When students were asked about Kahoot's weaknesses in reinforcing writing skills, we saw the following results, noting that some were not observed in the classroom. Some said predictable comments, such as that Kahoot provides less practice, is done in a limited time, and is unfamiliar to students. However, one surprising comment to the teacher/observation in the classroom was that cheating can occur in guided practice. This is another evidence that using the tool alone is insufficient. Indeed, it is not about Kahoot itself but how it is used, regulated, and monitored in the classroom. Another weakness is that a student said that sometimes background music can be distracting and stressful, so we recommend that teachers turn off this feature to maximize students' focus. Another interesting answer is related to the other tools the students prefer. Some students said they prefer Quizziz and ChatGPT over Kahoot. This comment shows a variation of technological literacy; while some students are unfamiliar with websites such as Kahoot, some are already practicing their writing skills using Artificial Intelligence. Notice how there are mixed results regarding what tools students prefer. While some said they prefer Kahoot over classical tools, others prefer more advanced ones. However, 68.4% said that Kahoot is as equal to other online tools. Other online tools that students use besides Kahoot are the Duolingo application, Google quizzes, the English Grammar Book application, Grammarly, Grammar Checker, Grammar Monster, and YouTube, among others. This shows that many students are aware of online tools; therefore, starting a conversation about one tool will hopefully open doors to re-evaluate the use of ICT in the classroom.

5. Conclusion

This paper explored the positive and negative aspects of using Kahoot to foster grammatical and writing rules. The positive elements identified include feedback validity, time management, and motivation. Motivation, in particular, was a significant positive aspect of teaching grammar and writing, encouraged by factors such as engagement, the nature of the application as a game, the evaluation system, anonymity, and competitiveness. The study confirms the impact of motivation on students' grammar and writing achievement. However, this paper also challenges other studies' proposals, such as the notion that educational technology always allows students to choose their own pace, the absence of classroom disturbance, and the limited degree of creativity associated with Kahoot. Mixed results were found regarding anonymity; while Kahoot encourages shy students to participate without repercussions, it also leads to some students using humorous names, resulting in a loss of classroom objectives and difficulty tracking individual performance.

5.1. Limitations

Several limitations were identified in this study. First, the sample size was restricted to a single university, which may not reflect the broader population of EFL students. Second, the reliance on self-reported student data may introduce biases in evaluating Kahoot's effectiveness. Third, the study was conducted during a period of both online and in-person learning, which may have influenced the outcomes and cannot be generalized to purely online or traditional settings. Lastly, technical issues such as inconsistent internet access and outdated devices limited some students' participation, affecting the overall results.

5.2. Recommendations for Further Studies

Further research should address these limitations by including multiple universities and a more diverse student population to ensure broader applicability of the findings. Employing a mixed-methods approach that combines quantitative and qualitative data would provide a more comprehensive understanding of Kahoot's impact on learning. Additionally, future studies should explore the long-term effects of using Kahoot in various educational contexts and subjects to determine its sustainability and effectiveness over time.

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