
RESEARCH ARTICLE

The Impact of Kahoot on Enhancing Grammar Accuracy, Quantitative Approach Study

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ABSTRACT

This paper investigates Kahoot to improve the grammatical accuracy of students studying at the Technical and Vocational Training Corporation (TVTC). It also focuses on four grammatical categories: articles, pronouns, tenses, and prepositions. A quantitative method is applied and based on two instruments: a 20-item grammar test and a questionnaire for students' perceptions about Kahoot. The research intention is to examine the relationship between students' perceptions of Kahoot and their performance in the grammar test to determine whether perceptions toward the use of Kahoot correspond to improved grammatical accuracy. The findings are bound to provide useful insights into how gamified learning tools like Kahoot support the teaching of grammar and help inform good pedagogical practices related to grammar instruction in technical colleges.

KEYWORDS

Grammar accuracy, gamification, Kahoot, Digital learning tool, language engagement.

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1. Introduction

The utilization of technology in the learning settings has greatly impacted traditional pedagogy in learning and teaching practices in general education and language learning in particular. During the last two decades, the increasing pace of technological innovations has been evidenced in the production of technological tools that facilitate communication and interaction in classrooms. Further, second language learning or acquisition is no longer confined to traditional textbook and teacher-based learning activities. On the contrary, it's now more dynamic and focused on interaction through the utilization of multimedia materials and technology-based learning programs, which align with recent education theories hypothesizing the importance of autonomy and motivation of students in second language learning.

A technology tool that can be classified under this is Kahoot. This is one of the most famous online game-based learning tools. This technology tool allows teachers to create quizzes, discussions, and even surveys to help improve learning achievements among students. It incorporates elements such as competition and feedback to engage students. As indicated in the studies carried out by Wang (2015); Licorish et al. (2018); and Wang & Tahir (2020), the adoption of a technology tool as Kahoot can greatly improve learning motivation, focus, and engagement among students. Moreover, it promotes learning with repetition to help reinforce learning among students.

Despite these benefits, there are still limited studies on how Kahoot affects confidence, anxiety reduction, and grammar accuracy, particularly in the Saudi context. Additionally, there have been no extensive investigations to determine if there is a relationship between students' perception of the online platform and their effectiveness. Despite grammar skills forming the basis of English proficiency skills, there is limited exploration of the role of online game tools such as Kahoot in improving grammar skills among students, particularly those of the Technical and Vocational Training Corporation (TVTC) in the Kingdom of Saudi Arabia. This paper intends to investigate the effectiveness of the Kahoot tool in improving grammar accuracy among students as well as their perspectives on its role in grammar learning. Hence, this paper intends to answer the question with the

potential to add to existing knowledge and confirm the importance of game-based technology incorporation in grammar learning.

This study fills these gaps by investigating the impact of Kahoot in enhancing grammatical skills among TVTC students by including students' perceptions in survey questions within a grammar test. It seeks to link the technological potentials with practical outcomes to answer the following question:

Is there a relationship between students' perceptions of Kahoot's quizzes and their grammar test performance?

1.1 The study tests the following hypotheses:

- There is a positive relationship between the use of Kahoot and the correct use of articles.
- There is a positive relationship between the use of Kahoot and the correct use of tenses, simple present and simple past.
- There is a positive relationship between the use of Kahoot and the correct use of prepositions.
- There is a positive relationship between the use of Kahoot and the correct use of pronouns.

The null hypothesis is as follows:

- ✓ There is no positive relationship between the use of Kahoot and the correct use of articles.
- ✓ There is no positive relationship between the use of Kahoot and the correct use of tenses, simple present and simple past.
- ✓ There is no positive relationship between the use of Kahoot and the correct use of prepositions.
- ✓ There is no positive relationship between the use of Kahoot and the correct use of pronouns.

1.3 Research Objectives

The main objective of this research is to investigate whether there is a positive relationship between students' performances on two collection tools: a grammar test on certain grammatical aspects, such as articles, verbs (simple past and present simple), prepositions, and pronouns, and a questionnaire of learners' perceptions of Kahoot in the context of learning grammar. This study also intends to look into three critical variables that are influenced through using Kahoot, namely reducing anxiety, enhancing confidence, and increasing grammatical accuracy. Therefore, by examining both instruments, this research tries to give an adequate understanding of how learning games such as Kahoot can affect students' grammar learning performance.

1.4 Significance of the Study

The findings from this study are expected to provide instructors with pedagogical insights and enhanced resources for grammar teaching and learning. Furthermore, the research on Kahoot usage for second language acquisition aims at increasing the existing body of information on technology-based teaching approaches. It's important for all English language educators, especially those within technical institutions like the TVTC, since such knowledge provides insights about Kahoot as an innovative pedagogical tool. Moreover, such findings might influence educators to incorporate interactive gamified methods into their teaching strategies, thus enhancing students' engagement and motivation.

This research aims to enhance the process of teaching and learning by addressing motivational and engagement issues related to grammar acquisition. In this regard, it provides a theoretical framework for future research and educational practices that will help educators design more functional and engaging learning experiences. Therefore, the findings of this study will afford educators a unique opportunity to be equipped with deeper knowledge concerning pedagogical tools and processes and give them substantial ideas about English teaching and learning.

2. Literature Review

This section highlights the efficacy of Kahoot in improving grammar learning performance for EFL students. While previous research has studied the general effects of gamification on language learning, there are few studies discussing how Kahoot enhances the learner's grammar accuracy in the Saudi context. This study further seeks to combine existing findings and identify gaps in the integration of Behaviorism with a view to explicating pedagogical advantages and challenges encountered by gamification in EFL grammar learning in order to enhance an instructional framework.

2.1. Integrating Technology in Teaching English

Technology offers numerous characteristics in educational environments that allow English learners to encounter experiences absent in traditional education (Eady & Lockyer, 2013). Accordingly, it's challenging to assert that technology is not integral to language acquisition. Thus, creating learning activities that incorporate technology-enhanced tools has become a necessity due to their demonstrated effectiveness in EFL instruction. Moreover, through using the latest technology students are motivated to

create new opportunities for collaboration and interaction between teachers and students and to develop learner autonomy, their identities as learners, and new methods of using language (Murray, 2005). For these reasons, instructors need to be fully versed in teaching language using modern tools (Gilakjani, 2017).

Furthermore, Shahid et al. (2019) confirm that in the presence of technological integration, students and teachers are more engaged during the educational process. So far, educators and teachers have looked for ways to create the most innovative environment that would provide adequate opportunities for learners to integrate technology during the educational process effectively.

2.2 Gamification in Language Teaching and Learning

Games are a useful tool commonly used in language teaching. In relation to this, Plass et al. (2015) defined gamification as an interactive tool wherein its mechanics and elements are applied in a non-gaming environment. Games allow learners to have a more engaging and entertaining environment while also having important practice in all language skills. Hence, games will engage learners, enhance interaction, ease acquisition, and increase achievement (Malamed, 2012).

In language classes, gamification incorporates gaming aspects, mechanics, and concepts so as to enhance student engagement, dynamism, and enjoyment in language learning. Consequently, gamification is one of the successful pedagogical strategies, particularly in enhancing the engagement of students (Kim & Castelli, 2021). According to Rojabi et al. (2022), integrating game elements into the teaching of complex topics enhances content engagement and facilitates a friendly and engaging learning environment. Therefore, gamification can significantly contribute to language learning since it can help students practice the target language while having fun.

Continuously, gamification is also recognized to improve motivation and performance among learners (Özdamli & Yazdeen, 2021). Besides, gamification elements like progress tracking and narrative structure enhance enjoyment and engagement in educational experiences that are dynamic and motivating (Loderer, Pekrun, & Plass, 2019). However, there is a need for additional, structured studies to confirm the learning benefits of gamification, and also to understand aspects that make it effective (Dichev and Dicheva, 2017).

2.3 The Use of Kahoot in Language Learning

Advances in technology have played a crucial role in shaping the current face of education, particularly in language learning. Lectures and traditional forms of learning have been slowly substituted with activities that encourage participation. Among the tools that have played a crucial role in such a transformation is the use of Kahoot, which is a learning technology with a strong focus on playing. It allows teachers to create their own activities such as quizzes and tests, to meet their learning objectives (Wang, 2015).

Apart from increasing engagement levels, it has been noted that Kahoot creates linguistic confidence among students. The reason beyond that is due to the platform which provides a facilitative learning atmosphere that is enjoyable and free from judgment. This is especially advantageous to students who may be shy or less knowledgeable with the language who usually take time to contribute to discussions in language classes. Hence repeated engagement with the help of the gamification aspect of the platform instills confidence in them to take part in language activities (Licorish et al., 2018).

Kahoot is also known to eliminate fear associated with learning. This is one of the difficulties encountered in learning. The fear of learning is eliminated as students take part in a non-threatening environment to engage learning. Students can hence focus on what they have been taught without reliance on errors (Wang & Tahir, 2020). Thus, repeating activities is a strategy with high effectiveness. Students with high repeat rates have been observed to have high accuracy (Plump & LaRosa, 2017). Consequently; the combination of fun, repetitions, and reducing anxiety levels makes Kahoot not only a motivator for students but a builder of their confidence and language skills as well.

2.4 Grammar and Gamified Learning

Grammar is a key part of the language that should be considered when learning the language. According to Ur (2012), grammar can be defined as the mechanism that connects each unit of language through a set of rules or principles governing the language's system or structure to produce a meaningful utterance. In addition, Adab (2000) posited that grammar is the sound, structure, and meaning of a linguistic system. Therefore, English learners should be able to construct and put together words effectively to negotiate meanings in both verbal and written contexts.

Further, even though grammar is considered to be a complex part of English language learning, proper grammar knowledge is crucial to all learners since it impacts the individuals' linguistic proficiency in listening, speaking, reading, and writing. Hashim et al. (2019) described grammar as a complex feature of language, and its teaching and learning is considered complicated. On the other hand, grammatical rules are usually explicitly taught to the ESL learner since grammar learning is the core of speaking the language. Thus, the use of traditional methods is not suitable for current learners; hence, new technology teaching and learning tool integration into the syllabus has become a necessity to improve the quality of learning. As a result, various research studies have been conducted to examine the effectiveness of gamified learning to improve the grammatical competence of ESL learners. For instance, Perveen et al. (2016) demonstrated that students who received gamified grammar instruction demonstrated significant improvement in acquiring vocabulary words.

2.5 Theoretical Framework

According to the behaviorist model, developed by B.F. Skinner and John Watson in 1930, learning is defined as the development of new behavior through interaction with one's environment, largely in terms of stimulus-response associations and reward provision (Skinner, 1957). From this perspective, consistent exposure to correct shapes and timely feedback promotes learners' level of linguistic accuracy. The Kahoot platform follows the principles of behaviorism: it provides rehearsal with closed practice, immediate feedback, and rewards that may contribute to extensive improvement in grammatical accuracy in students. Also, behaviorism stresses the role of repetition and practice in building habits (Watson 1913).

3. Methodology

3.1 Research Design

The present study adopts a positivism approach to investigate the correlation between students' perception toward Kahoot and their scores in grammar test.

The quantitative approach is appropriate because it allows for data analysis from a large sample of participants by numerically comparing the students' test results against their responses to a structured perception questionnaire and carrying out correlation analyses. This approach provides a clear and objective framework for examining the strength, direction, and consistency of the relationship between the two variables under study.

3.2 Sample

A120 female students in their second year of diploma programs at the Technical and Digital Training Corporation in Jeddah were included for the study. In the data collection phase, a convenience sampling method was utilized targeting individuals who were cooperative, readily available, and currently enrolled in English language courses (Crano et al., 2014).

3.3 Data Collection

This research employed a correlational design, gathering data through two instruments, which are a questionnaire and a grammar test. The grammar test was used to assess students' grammatical accuracy in four particular aspects; articles, pronouns, prepositions, and simple verb tenses (past and present), in addition to the questionnaire which aimed to capture their perceptions of Kahoot as a tool for teaching English grammar. The dual purpose of employing these instruments was to explore whether a relationship existed between students' perceptions of Kahoot and their actual grammatical proficiency (Creswell, 2012).

The questionnaire consisted of 27 closed-ended questions divided into five sections, each addressing specific aspects aligned with the study's objectives. The first section included two items that explored students' prior experience with Kahoot and its prevalence in classroom settings. The second section comprised 14 items assessing how students perceived Kahoot's effectiveness in improving grammar, its usability, and its educational value.

The final section, which contained seven items, focused on four key grammatical components: articles, pronouns, prepositions, and tenses, particularly the simple present and simple past. In addition to the closed-ended items, two open-ended questions were included to gather more in-depth insights into how Kahoot influenced students' grammar development.

To supplement perception data, a grammar test was administered. It includes 20 multiple-choice questions, each with four answer options, designed to evaluate students' understanding and application of the same four grammatical domains addressed in the questionnaire. Each domain of articles, pronouns, prepositions, and tenses was equally represented, with four questions assigned to each area.

3.4 Validity and Reliability

Piloting procedures were carried out before comprehensive data collection involving 30 students to ensure the instruments' validity and reliability, which indicated no substantial concerns necessitating modifications of the instruments or processes. Subsequent to the pilot research, Cronbach's Alpha was computed to evaluate the internal consistency of the instruments. The questionnaire achieved a reliability score of 0.785, which is adequate to show a sufficient degree of consistency according to Dörnyei (2007), while the grammar exam was highly reliable as its Cronbach's Alpha equaled 0.91, reflecting very strong internal consistency in assessing grammatical accuracy. Based on these findings, a claim can be made for the use of both tools as reliable measures that can be used in exploring the association between students' responses to the Kahoot questionnaire and their performance regarding the grammar test.

3.5 Data analysis

The following procedure analysis employed in this study, encompassing descriptive statistics, correlation coefficients, and regression analysis, executed with SPSS version 26.0.

3.5.1 Main Research Question

Is there a relationship between students' perceptions of Kahoot's quizzes and their grammar test performance at the level ($\alpha < 0.05$)? The researcher tested the association between students' grammatical accuracy scores and their perception of Kahoot using Pearson's Correlation Coefficient. The outcomes are as follows:

Students' Perception of "Kahoot"	Correlation Coefficient	Sig. (2-tailed)	Result
Grammatical Accuracy	.835	.000	Significant at 0.01 level

Table (1) Pearson's Correlation Coefficient to test association between students' grammatical accuracy & their perception of Kahoot

Table No. (1) shows that the results indicate a statistically significant positive correlation, with a Pearson correlation coefficient of (0.835) at a significance level of (0.000), which is lower than the accepted significance level of (0.01). The correlation coefficient (.835) is positive, indicating that as the application of Kahoot increases in enhancing students' understanding of English grammar, reducing their anxiety, and boosting their confidence in practical application, their grammatical accuracy also tends to improve.

The alternative hypothesis, according to which there is a statistically significant positive relationship between students' perceptions of the "Kahoot" tool and their grammatical accuracy, is accepted, while the null hypothesis, according to which there is no statistically significant positive relationship between students' perceptions of the "Kahoot" tool and their grammatical accuracy, is rejected. The researcher concludes.

3.5.2 Research Hypothesis

As for the next step, the research hypothesis was tested for its validity and to determine whether the collected data support or reject the proposed assumptions. The researcher used simple linear regression analysis to determine the causal effect between the independent variable, represented by the correct use of tenses (simple present and simple past), and the dependent variable, represented by the effectiveness of using Kahoot. The simple regression is used since the study seeks to ascertain whether there's a correlation between student' grammatical accuracy and Kahoot effectiveness, as well as to determine whether Kahoot effectiveness significantly predicts accuracy levels and to quantify the magnitude of this effect.

3.5.3 First Research Hypothesis

The linear regression used to test if there is a statistically significant positive relationship at ($\alpha \leq 0.05$) between the use of "Kahoot" Kahoot and the proper use of definite and indefinite articles are shown in table (2) for the first assumption, which states that there is a statistically significant positive relationship between the use of "Kahoot" and the correct use of definite and indefinite articles.

Simple Linear Regression Analysis Using "Kahoot"	(R)	(AdjR ²)	β	F	(Beta)	Sig
Correct Use of Definite and Indefinite Articles	.669a	.442	.376	95.394	.669	.000

Table (2) The results of the simple linear regression estimation to ascertain the causal relationship between the impact of using Kahoot and the proper use of definite and indefinite articles

From the table, it's observed that there is a strong positive correlation between the correct use of definite and indefinite articles and the effectiveness of using "Kahoot", with a correlation coefficient R of (.669), which is a positive value. This indicates that as the use of "Kahoot" increases, the correct use of definite and indefinite articles also tends to increase. Furthermore, the value of the adjusted coefficient of determination (Adj R^2) is (.442), indicating that 44.2% of the variance in the dependent variable "effectiveness of using Kahoot" can be explained by changes in the independent variable "correct use of definite and indefinite articles." This suggests a strong explanatory power of this variable in predicting the effect of using Kahoot.

Therefore, since the significance level is less than the confidence level (0.05), specifically (.000), this means that the correct use of definite and indefinite articles has a significant impact when using Kahoot. Therefore, a one-unit increase in the correct use of articles leads to an increase of (.376) units in the effectiveness of using Kahoot.

The standardized regression coefficient (Beta) is (.669), indicating both the strength and direction of the relationship between the correct use of articles and the use of Kahoot. This means there is a strong, statistically significant positive effect of the correct use of articles on the effectiveness of using Kahoot. In other words, increased use of Kahoot leads to improved correct use of definite and indefinite articles.

The F-test, which assesses the significance of the model, yielded a value of (95.394), with a significance level of (0.000), which is below the 0.05 confidence level. Thus, this indicates a good model fit and that the linear relationship model is statistically significant.

3.5.4 Second Research Hypothesis

The linear regression was used to test if there is a statistically significant positive relationship at ($\alpha \leq 0.05$) between the use of "Kahoot" and the correct use of tenses (simple present and simple past) at the level ($\alpha \geq 0.05$).

Simple Linear Regression Analysis Using "Kahoot"	(R)	(AdjR ²)	β	F	(Beta)	ig.
Correct Use of Tenses (Simple Present and Past)	.619a	.378	.337	73.209	.619	.000

Table (3) The results of the simple linear regression estimation to ascertain the causal relationship between the impact of using Kahoot and the proper use of verb tenses

From the table above, it's observed that there is a strong positive correlation between the correct use of tenses (simple present and simple past) and the effectiveness of using "Kahoot". The correlation coefficient (R) was (.619), which is a positive value. Hence, this indicates that as the use of "Kahoot" increases, the correct use of tenses (simple present and simple past) also tends to increase.

Further indication, the adjusted coefficient of determination (Adj R^2) was (.378), indicating that 44.2% of the variance in the variable "effectiveness of using Kahoot" is explained by the variable "correct use of tenses (simple present and simple past)." This demonstrates the strength of this variable's ability to account for the changes in the effectiveness of using "Kahoot".

Moreover, the regression coefficient β between the correct use of tenses (simple present and simple past) and the effectiveness of using "Kahoot" was (.337). Since the significance level was less than the confidence level (0.05), specifically (.000), this indicates that the correct use of these tenses has a significant impact when using "Kahoot". Therefore, every one-unit increase in the correct use of tenses (simple present and simple past) would lead to a .337 unit increase in the effectiveness of using "Kahoot".

Since standardized beta coefficient was (.619), hence; it indicates the strength and direction of the relationship between the correct use of tenses and the use of "Kahoot". More comprehensively, it means there is a strong, statistically significant positive effect of the correct use of tenses (simple present and simple past) on the effectiveness of using "Kahoot". In other words, increased use of "Kahoot" leads to an increase in the correct use of these tenses.

As for the F-test value, which examines the significance of the model, was (73.209), a statistically significant value with a significance level of (0.000), which is less than the confidence level of 0.05. This indicates the goodness of fit of the model and that the linear relationship is statistically significant.

3.5.5 Third Research Hypothesis

The study also looked at whether using "Kahoot" and using prepositions correctly had a statistically significant positive link at $\alpha \geq 0.05$. The results' specifics are as follows.

Simple Linear Regression Analysis Using "Kahoot"	(R)	(AdjR ²)	β	F	(Beta)	Sig.
Correct Use of Prepositions	.726a	.523	.461	131.346	.726	.000

Table (4) The results of the simple linear regression estimation to ascertain the causal relationship between the impact of using Kahoot and the proper use of Prepositions

The correlation coefficient (R) reached 0.726, a significant number, indicating that there is a substantial positive association between the effectiveness of utilizing "Kahoot" and correctly using prepositions, according to table (4). This suggests that the proper usage of prepositions tends to rise in parallel with the usage of "Kahoot".

The adjusted coefficient of determination (Adj R²) was 0.523, meaning that 52.3% of the variation in the "effectiveness of using Kahoot" can be explained by changes in the "correct use of prepositions". This demonstrates the strength of this variable in explaining the variation in the effectiveness of using "Kahoot".

The regression coefficient β between the correct use of prepositions and the effectiveness of using "Kahoot" was 0.461. Since the significance level was less than the confidence level (0.05), specifically 0.000, this indicates that the correct use of prepositions has a significant effect when using "Kahoot". Thus, every one-unit increase in the correct use of prepositions leads to a 0.461-unit increase in the effectiveness of using "Kahoot".

The standardized beta coefficient was 0.726, indicating a strong and positive direction of the relationship between the correct use of prepositions and the use of "Kahoot". In other words, there is a strong statistically significant positive effect of the correct use of prepositions on the effectiveness of using "Kahoot". This means that increasing the use of "Kahoot" will lead to improved correct usage of prepositions.

The model's significance was tested using the F-test, which yielded a statistically significant value of 131.346 at a significance level of 0.000, below the 0.05 confidence level. This demonstrates that the linear regression model is statistically significant and that the relationship model fits data well.

3.5.6 Forth Research Hypothesis

The linear regression also tested There is a statistically significant positive relationship at ($\alpha \geq 0.05$) between the use of Kahoot and the correct use of pronouns. The results as shown below.

Simple Linear Regression Analysis Using "Kahoot"	(R)	(AdjR ²)	β	F	(Beta)	Sig.
Correct Use of Pronouns	.682a	.461	.637	102.724	.682	.000

Table (5) The results of the simple linear regression estimation to ascertain the causal relationship between the impact of using Kahoot and the proper use of Pronouns

From table (5), it can be concluded that there is a strong positive correlation between the correct use of pronouns and the effectiveness of using "Kahoot", as the correlation coefficient (R) reached 0.682, a positive value. This indicates that as the use of "Kahoot" increases, the correct use of pronouns also tends to increase.

The adjusted coefficient of determination (Adj R²) was 0.461, meaning that 46.1% of the variation in the "effectiveness of using Kahoot" is attributed to changes in the "correct use of pronouns". This shows the explanatory power of this variable regarding the changes in the effectiveness of using Kahoot.

The regression coefficient (β) between the correct use of pronouns and the effectiveness of using "Kahoot" was 0.637. Since the significance level was less than 0.05 (specifically 0.000), this means that the correct use of pronouns has a statistically significant effect when using Kahoot. Therefore, a one-unit increase in the correct use of pronouns leads to a 0.637-unit increase in the effectiveness of using Kahoot.

The standardized beta coefficient was 0.682, which confirms a strong, statistically significant positive relationship between the correct use of pronouns and the use of "Kahoot". In other words, the more Kahoot is used, the more accurate the students' use of pronouns becomes.

The regression model's significance was evaluated using the F-test value, which came out to be 102.724 at a significance level of 0.000, or less than 0.05. This demonstrates the statistical significance of the linear regression model and validates its goodness of fit.

Based on this, a statistically significant relationship was established at the level ($\alpha \leq 0.05$) between the use of "Kahoot" and the correct use of the four aspects of grammar, which supports accepting the alternative hypothesis and rejecting the null hypothesis.

4. Discussion

The study confirmed that the students perceive Kahoot as an effective tool for enhancing their understanding of grammar rules, reducing stress, and increasing their confidence in applying grammar in practice which aligns up with multiple studies, Wang and Tahir (2020) for instance; discovered that Kahoot increased learning performance by encouraging participation and lowering fear of failure. The platform was frequently referred to by students as a "safe" practice environment where making mistakes didn't feel as scary.

One reason for the observed increase in students' self-confidence and decrease in their anxiety in the current study could be the nature of the classroom environment in Saudi technical institutions. English is a crucial part of their technical training, although grammar is not their main subject of study, hence; students in these institutions frequently feel pressured to perform well in it. Consequently, the incorporation of Kahoot has produced a psychologically encouraging learning atmosphere where fun and group involvement are balanced with competition. The factor of utilizing Kahoot is consistent with the study conducted by Alharthi (2020), who found that Saudi EFL students showed increased confidence and decreased fear when studying grammar due to the instant feedback and safe environment of Kahoot-based exercises. By the same token, Aldubayyan and Aljebreen (2025), discovered that when utilizing Kahoot in grammar courses, Saudi students became less self-conscious and more emotionally engaged, which increased their willingness to take chances hence as a result, their linguistic accuracy has improved.

Further, the correlation between Kahoot's interactive features and the learning styles typically seen among technical college students, who react favorably to visual and participatory learning tasks, which I believe; could help to explain the improvement in students' accuracy in the current study. Similar pattern in Pham et al. (2025), who concluded that gamified grammar training improved learners' confidence and grammatical performance, active involvement and repeated exposure to the material through utilizing Kahoot and Quizzis. Likewise was noted by Navinkumar and Sivakami (2024), who asserted that ESL learners'

grammatical accuracy increased measurably as their anxiety levels decreased during Kahoot sessions. Thus; it can be concluded that Kahoot doesn't only function as an entertaining teaching tool in the Saudi technical college setting, but also as an affective support system that decrease anxiety, raise self-esteem, and help students learn grammar more effectively.

In my opinion, it is also important to interpret these results in light to larger context of English language instruction in Saudi Arabia, especially in technical and vocational education. More comprehensively, these students very often place more emphasis on technical topics than language proficiency, which may lower their motivation due to the neglect of the subject and how important English is in the workplace after graduation. Thus, Kahoot's use in these contexts may serve two purposes: it may raise participation while also lessening the affective barriers that normally impede learning. Constantly, the consistency upon contexts supports Bicen and Kocakoyun (2018), who asserted that the use of Kahoot resulted in an obvious increase in student excitement and participation, specially among those students who were originally hesitant to engage to class discussions. This supports that Kahoot facilitates removal of the emotional obstacles to learning English by increasing classroom participation.

4.1 Theoretical implications

The results of this study contribute significantly to behaviorist learning theory on various fronts. This is evidenced by the fact that students' perceptions of Kahoot correlate with their performance in grammar tests, showing how reinforcement and feedback within gamified environments affect the grammatical performance and emotional responses of learners. This idea agrees with behaviorism, which postulates that learning occurs when repeated stimulus-response interactions are reinforced through feedback and awards. This study established that students would participate more actively, provide correct answers, and internalize grammatical rules through repetition and reinforcement if they perceived Kahoot as fun and motivating.

Moreover, the findings suggest that positive reinforcement increases confidence and reduces anxiety in students. From a behaviorist point of view, anxiety is a conditioned response that decreases when students associate grammar practice with enjoyable and satisfying activities. Further, when correct answers were quickly reinforced, Kahoot's approach of instant feedback and points provided a low-stress environment that boosted confidence and perseverance.

Furthermore, using behaviorist theory in current digital learning environments is supported in this study due to the positive relationship between perceptions and performance. This positive relationship clearly demonstrates how engagement is involved in learning through conditioning when immediate positive reinforcement is experienced. Therefore, this study fits well within the theory that gamified technology, such as Kahoot is capable of influencing learners' behavioral actions by associating proper use of language with engaging experiences that positively influence learners' feelings of confidence and grammatical skills.

4.3 Limitations and Suggestions

The limitations of this study point to potential areas for further investigation. The scope of findings is limited since it focuses on four grammatical aspects: the articles, pronouns, simple tenses -present and past- and prepositions. The impact of Kahoot on grammar learning might be better comprehended by including a variety of grammatical elements, such as clauses, conditionals, or modals. Second, the results' generalizability is restricted by the study's setting within a single Saudi technical institution in Jeddah. Such a study could be replicated with different students of different skills and for different regions to improve its generalizability.

5. Conclusion

This study investigated the influence of Kahoot on students' grammatical accuracy and analyzed the correlation between their perceptions and performance. Consequently, good attitudes toward Kahoot were found to be highly correlated with improvement in the grammar scores of the students, thus signifying that increased engagement and motivation were accompanied by improved learning outcomes.

Based on the theoretical framework of Behaviorism, results showed that Kahoot's mechanism of quick feedback improved accurate grammatical responses. Second, regular practice helped students to internalize grammar rules and develop automaticity in responding.

They also perceived the platform as engaging and rewarding, which resulted in demonstrated performance improvement and increased confidence in using grammar. Thus, this proves that positive reinforcement, besides repetition and quick feedback, aids learning through response conditioning and behavior reinforcement.

Future studies could further develop the research by using an increasing number of grammatical features, such as sentences, conditionals, or modals, to extend understanding of the effects of Kahoot on language learning. Further, innovative research methods, including experimental or longitudinal approaches, would deeply investigate issues around causation and the longer-term effects of gamified reinforcement on grammatical ability and learner confidence and motivation.

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