

# The Impact of Interactive Learning Applications on EFL Students' Preferences and Academic Achievement

Donny Adiatmana Ginting<sup>1</sup>, Syahrul Ramadhan<sup>1</sup>

<sup>1</sup> Doctoral Program in Language Pedagogy, Faculty of Language and Arts, Universitas Negeri Padang, West Sumatra 25173, Indonesia

**Abstract** – This study aims to investigate the perceptions of English as Foreign Language (EFL) students regarding the use of interactive learning applications. The research methodology is quantitative, using questionnaires to collect data on students' perceptions of interactive learning applications and their preferences in this regard. Additionally, academic performance data are included. The study population includes all students at Teacher Training and Educational Sciences College (STKIP) Al Maksum, North Sumatra, Indonesia. The sample consists of 20 students from the English Department Study Program, enrolled during the 2021/2022 academic year. The results of the study indicate that students' perceptions of interactive learning applications influence their choice of learning applications, ultimately impacting their learning outcomes. Based on the total score of students' perceptions of learning applications, students are more inclined to choose Kahoot for use in EFL. This is because, in terms of effectiveness, enjoyment, and perceived learning, this application excels over Quizizz.

**Keywords** – EFL, interactive application, student perception.

DOI: 10.18421/TEM132-50

<https://doi.org/10.18421/TEM132-50>

**Corresponding author:** Donny Adiatmana Ginting, Doctoral Program in Language Pedagogy, Faculty of Language and Arts, Universitas Negeri Padang, West Sumatra 25173, Indonesia


**Email:** [donnyaginting@student.unp.ac.id](mailto:donnyaginting@student.unp.ac.id)

*Received:* 26 November 2023.

*Revised:* 02 March 2024.

*Accepted:* 03 April 2024.

*Published:* 28 May 2024.

 © 2024 Donny Adiatmana Ginting & Syahrul Ramadhan; published by UIKTEN. This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 License.

The article is published with Open Access at <https://www.temjournal.com/>

## 1. Introduction

Nowadays, students are often referred to as 'digital natives' because they were born into a world of technology and quickly adapt to its integration. As technology continues to evolve, teachers need to engage in professional development to master it, especially in terms of digital media literacy. Educators must be proficient in selecting and implementing media to meet the individualized learning needs of their students [1], [2]. Teachers can leverage technology to enhance their students' language skills in the classroom [3], [4]. Teachers are now equipped with innovative tools and resources that enable them to create engaging and interactive learning experiences. In essence, educators are becoming facilitators of technology-enhanced learning, harnessing its potential to create immersive educational experiences that resonate with the 'digital native' generation. As students' familiarity with technology grows, educators must stay ahead of the curve, continually adapting their teaching methods to meet the evolving needs and expectations of the tech-savvy learners in their charge.

Prior research has emphasized the significance of technology in the field of language instruction [5], [6]. These studies indicate that the use of information and communication technology (ICT) in language teaching contributes to the development of students' motivation, participation, and engagement. When applying technology in the classroom, instructors can utilize various interactive applications such as Kahoot, Quizizz, Edmodo, among others, to enhance teaching and learning experiences. For instance, Kahoot is a free online game that is user-friendly for both students and teachers. It incorporates quizzes, debates, and surveys to create a challenging, entertaining, and engaging learning environment [7], [8], [9]. Similarly, Quizizz is an educational application that gamifies classroom exercises, promoting collaboration among students.

It allows students to complete in-class assignments on their electronic devices [10], [11].

The trend of using interactive applications in language teaching has seen significant growth since the COVID-19 pandemic, aligning with the demands of the 21st century, where instructors are expected to master technology in language education, particularly in EFL instruction. The pandemic-driven shift towards remote and hybrid learning environments has necessitated innovative approaches to language teaching.

Numerous scholarly investigations underscore the pivotal role of integrating interactive applications in the realm of language acquisition. Previous research has extensively scrutinized the pedagogical implications of Quizizz within language instruction, exemplified by studies [12], [13], [14]. These inquiries have consistently underscored Quizizz's user-friendliness as a teaching tool, its capacity to engender pedagogical enjoyment, facilitate deeper comprehension of instructional content, augment student engagement, and catalyze active participation within the domain of EFL learning. In parallel, Kahoot has emerged as a prominent interactive application within the purview of English language pedagogy [8], [15], [16], [17]. These comprehensive investigations have brought to light Kahoot's prowess in fostering inspiration among EFL students, thus amplifying their capacity to assimilate diverse literary materials. Kahoot's multifaceted utility extends to the domains of bolstering student engagement, shaping favorable perceptual attitudes towards the learning process, and nurturing intrinsic motivation, particularly within the context of reading courses. Furthermore, Kahoot has demonstrated its efficacy as an invaluable pedagogical instrument for honing reading comprehension skills. However, it is essential to underscore that the existing body of scholarship concerning the amalgamation of Kahoot and Quizizz as interactive applications and their precise ramifications on EFL student attainment remains relatively limited in scope and warrants further exploration.

There are gaps in the research, as there has been no study indicating whether students' perceptions of EFL affect their achievement. While in other subjects such as mathematics, as demonstrated by Shone *et al.* [18], students' perceptions have been shown to influence student achievement, this may differ in the case of EFL learning. The disparities in how students' perceptions influence their achievement in mathematics compared to English as an EFL can be attributed to a multitude of factors. Firstly, the inherent complexity of the subjects plays a pivotal role. Mathematics relies heavily on logical reasoning and problem-solving, while EFL involves language comprehension, communication, and cultural nuances. Consequently, the cognitive processes involved in these subjects differ significantly,

potentially leading to variations in the impact of perceptions. Additionally, the motivation and interest levels of students may vary. Some students might find mathematics intrinsically motivating, regardless of their perceptions, whereas the interest in EFL can be influenced by factors such as teaching methods and perceived relevance, making perceptions more critical in this context. Furthermore, the teaching methods, assessment techniques, language proficiency, cultural factors, teacher influence, and individual differences can all interact uniquely in these subjects, contributing to the differing results observed in studies examining the role of perceptions in student achievement. To understand these variations better, additional investigation is required to delve the interplay of these factors in mathematics and EFL education.

This study examines the effectiveness of Kahoot and Quizizz as interactive learning applications in EFL instruction. Furthermore, it seeks to determine whether students' perceptions of these interactive EFL learning applications influence their choice of application and whether the choice of application has an impact on exam outcomes. The aim of this study is to provide valuable insights for educators and instructors in deciding which application might be more effective for enhancing English language teaching and learning.

## 2. Methodology - Research Design

The research design employed quasi-experiments, specifically utilizing a single-group survey design to evaluate students' perceptions of innovative EFL learning applications, namely Kahoot and Quizizz. The study incorporated both pre-test and post-test data to assess student achievement. Furthermore, data pertaining to students' perceptions of these learning applications and their preferences in choosing them were gathered. This was achieved through the administration of a questionnaire or survey, a widely employed method for eliciting a population's viewpoints, preferences, attitudes, and opinions on topics of interest to researchers [19], [20].

### 2.1. Participants

The population in this study consists of all students of STKIP (Teacher Training and Educational Sciences College) Al Maksu, located in North Sumatra, Indonesia. Random sampling was employed to select the test sample, resulting in 20 students from the English Department Study Program for the academic year 2021/2022. The age range of the respondents is between 18 and 21 years old. Additionally, there were 14 female respondents and 6 male respondents.

## 2.2. Instruments

In this study, two types of instruments were used: a questionnaire and a test instrument. The questionnaire consisted of 14 statements related to students' perceptions of innovative learning applications and 8 statements concerning students' perceptions of two types of applications, namely Kahoot and Quizizz. The Likert scale was used for the first questionnaire consisted of 5 response options: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. In the second questionnaire, also, a 5-point response scale was used: 0 = No Response, 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, and 4 = Strongly Agree. Option 0 was included to allow respondents the choice of not responding to a statement if it did not align with their preferences. For instance, in the first statement (A1), "I was able to pay attention to the lecture because of the quiz," if respondents disagreed with this statement for both Kahoot and Quizizz, they could choose option 0. Additionally, the third instrument utilized was an exam to assess students' proficiency in the subject matter of EFL, which was administered both before and after the implementation of interactive learning applications.

## 2.3. Hypotheses Development and Data Analysis

The hypotheses in this study were developed based on identified problems within the educational context and were grounded in relevant theories. Specifically, the formulation of hypotheses stemmed from the observed challenges in traditional EFL teaching methods and the theoretical underpinnings of cognitive engagement and learning enhancement through interactive technologies like Kahoot and Quizizz.

Over the past few years, the realm of education has observed a rapid integration of technology into teaching and learning processes. The emergence of interactive learning applications, such as Kahoot and Quizizz, has provided educators with powerful tools to engage students in the learning process. These applications offer features that make learning more interactive, enjoyable, and potentially effective. However, it is crucial to understand how students perceive these technologies and whether their perceptions influence their choices when it comes to using interactive learning applications. Furthermore, the impact of these applications on students' actual learning outcomes is a critical aspect to explore.

Hence, this study puts forward the initial hypothesis as follows:

- H1: There is a significant influence between students' perceptions and the selection of interactive learning applications.

The first hypothesis (H1) is based on the premise that students' perceptions play a significant role in determining their preferences for using interactive learning applications. It is reasonable to expect that if students have positive perceptions of these applications, they are more likely to choose them as their preferred learning tools. Positive perceptions may encompass aspects such as ease of use, enjoyment, perceived effectiveness, and alignment with their learning goals.

- H2: There is a significant influence between the selection of interactive learning applications and students' learning outcomes.

The second hypothesis (H2) builds upon the understanding that the choice of interactive learning applications can influence students' actual learning outcomes. This hypothesis posits that the selection of specific applications, like Kahoot and Quizizz, can impact the effectiveness of the learning experience. Learning outcomes may include improvements in academic performance, increased engagement, and enhanced understanding of the subject matter.

Preliminary tests were carried out to verify the assumptions of normality and homogeneity. The criteria employed for the normality test were as follows: if the significance value (Sig.) in both the Kolmogorov-Smirnov test and the Shapiro-Wilk test was  $> 0.05$ , then the data from both research groups were normally distributed. The criteria for the homogeneity test were as follows: if the significance value (Sig. based on mean) was  $> 0.05$ , then the data were deemed to be homogeneous. Subsequently, if the prerequisites were met, linearization tests and hypothesis tests (F-test and t-test) were performed. Two variables were deemed to exhibit a linear relationship if the significance level for deviation from linearity exceeded 0.05. The criteria for the F-test were met if the Sig. value was  $< 0.05$ , indicating that the formed model was appropriate and could be used for analysis. Regarding the t-test, statistical significance was deemed present when the Sig. value was below 0.05, indicating the acceptance of the proposed hypothesis or the presence of a significant impact.

### 3. Results - Results of Prerequisite Analysis Test

A prerequisite analysis was conducted prior to hypothesis testing, including assessments for normality and homogeneity to ensure the appropriateness of statistical analyses.

Normality testing was conducted to ascertain whether the data collected from the assessment of both groups, both before and after the implementation of read-aloud training, conformed to a normal distribution or not. The outcomes of the normality tests are displayed in Table 1.

Table 1. Normality test results

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
P	.148	20	.200*	.960	20	.545
A	.160	20	.190	.946	20	.316
N-Gain	.130	20	.200*	.906	20	.053

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Note: P is student perception on interactive learning application; A is student perception on preference in choosing interactive learning applications; N-Gain is normal gain obtained from pre-test and post-test data.

Based on Table 1, the results of the normality tests for the research variable data, using the Kolmogorov-Smirnov test and the Shapiro-Wilk test, indicate that both the perception of interactive learning applications (P), the perception of interactive learning applications selection (A), and learning outcomes (N-Gain) have significance values (Sig.) > 0.05. These findings suggest that the data for all three research variables follow a normal distribution.

Table 3. The Results of Linearity Test for P to A

		Sum of Squares	df	Mean Square	F.	Sig.
A*P	Between Groups					
	(Combined)	.499	10	.050	2.337	.109
	Linearity	.438	1	.438	20.51	.001
	Deviation from Linearity	.061	9	.007	.318	.948
	Within Groups	.192	9	.021		
	Total	.692	19			

Note: P is student perception on interactive learning application; A is student perception on preference in choosing interactive learning applications.

Table 4. The Results of Linearity Test for A to N-Gain

		Sum of Squares	df	Mean Square	F.	Sig.
N-Gain *A	Between Groups					
	(Combined)	.789	9	.089	4.451	.014
	Linearity	.555	1	.555	27.878	.000
	Deviation from Linearity	.243	8	.030	1.523	.262
	Within Groups	.199	10	.020		
	Total	.997	19			

The results of the homogeneity test are presented in Table 2. Based on the information in Table 2, the homogeneity test outcomes for the research variable data mentioned above reveal that Sig. for the mean-based test is 0.144, surpassing the 0.05 threshold. These findings suggest that the data for all three variables exhibit uniform variance or are homogenous.

Table 2. Homogeneity test results

		Levene Statistic	df1	df2	Sig.
Value	Based on Mean	2.007	2	57	.144
	Based on Median	2.114	2	57	.130
	Based on Median and with adjusted df	2.114	2	46.492	.132
	Based on trimmed mean	2.026	2	57	.141

#### 3.1. Linearity Test Results

The linearity test serves the purpose of assessing whether a linear relationship exists between research variables. To conduct the linearity test on the data, SPSS is utilized, employing the test for linearity and examining the deviation from linearity values at a significance level of 0.05. It can be inferred that two variables possess a linear relationship if the significance value for deviation from linearity exceeds 0.05. Table 3 displays the outcomes of the linearity test between variable P and A, while Table 4 presents the findings of the linearity test between variable A and N-Gain.

Drawing from the information presented in Tables 3 and 4, it is evident that the significance value (Sig.) for deviation from linearity exceeds 0.05. Consequently, one can infer that the relationship between the two pairs of variables is indeed linear.

**3.2. Hypotheses Testing Results**

The hypotheses were addressed through model analysis. Model 1 was created to answer H1, which is the influence of students' perceptions on the selection of interactive learning applications. Meanwhile, Model 2 was developed to address H2, which is the influence of the selection of interactive learning applications on students' learning achievement. Additionally, the magnitude of influence and the significance of these variables on each other were also tested.

The model developed for both types of hypotheses is represented by Equations (1) and (2). Following this, correlation tests and coefficients of determination are performed to assess the degree to which the independent variables can elucidate variations in the dependent variable. The results of these tests are indicated by the values of R and R square. Tables 5 and 6 display the correlation and determination coefficient values.

$$A = a + bP + e \tag{1}$$

$$H = a + bA + e \tag{2}$$

Where, A = Students perception on preference in choosing interactive learning applications; P = students perception on interactive learning application; H = students learning outcomes; a = constant; b = regression coefficient; e = error.

Table 5. Correlation coefficient and determination coefficient values - model 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796 <sup>a</sup>	.634	.613	.11868

a. Predictors: (Constant), Variable P

Table 6. Correlation coefficient and determination coefficient values - model 2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.746 <sup>a</sup>	.557	.532	.15667

a. Predictors: (Constant), Variable A

Table 5 shows that the correlation coefficient (R) is 0.796, indicating a strong relationship between students' perception of interactive learning applications and their preference for choosing interactive learning applications.

Additionally, the determination coefficient (R Square) is 0.634, indicating that 63.4% of the variability in students' preference for choosing interactive learning applications is explained or influenced by their perception of interactive learning applications. Other variables beyond the research model account for the remaining 36.6%.

Table 6 reveals a noteworthy R of 0.746, underscoring a substantial and compelling association between students' preferences in selecting interactive learning applications and their ensuing learning outcomes. Concurrently, the determination coefficient R square stands at 0.557, indicating that 55.7% of the variability in learning outcomes can be ascribed to students' choices in interactive learning applications. The remaining 44.3%, as our findings suggest, is subject to influence from variables lying beyond the scope of this study.

Table 7 and 8 present the findings of the F-test for both types of models. The F-test (model fitness test) is used to determine whether the models formed in the research are suitable and can be used for analysis or not. Based on Table 7, the obtained F-count value is 31.117 with Sig. value of 0.000, which is less than 0.05. Therefore, it can be inferred that Model 1 formed in this study is deemed suitable and can be used for analysis. Similarly, based on Table 8, the computed F-value is 22.624 with a significance value (Sig.) of 0.000. Since the Sig. value of 0.000 is less than 0.05, it can be concluded that Model 2 formed in this study is considered suitable and can be used for analysis.

Table 7. F test (model fitness test) – model 1

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	.438	1	.438	31.117	.000 <sup>b</sup>
	Residual	.254	18	.014		
	Total	.692	19			

a. Dependent Variable: A

b. Predictors: (Constant), Variable P

Table 8. F test (model fitness test) – model 2

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	.555	1	.555	22.624	.000 <sup>b</sup>
	Residual	.442	18	.025		
	Total	.997	19			

a. Dependent Variable: N-Gain

b. Predictors: (Constant), Variable A

The hypothesis testing results are presented in Tables 9 and 10. Based on these two tables, we can determine the constants for Model 1 to be -0.366 and for Model 2 to be -0.704. Furthermore, the regression coefficients obtained are 0.468 for Model 1 and 0.896 for Model 2.

Therefore, both of these final model outcomes can be illustrated in Equations (3) and (4).

$$A = -0.366 + 0.469P + e \tag{3}$$

$$H = -0.704 + 0.896A + e \tag{4}$$

Table 9. T test (significance testing of parameters) – Model 1

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.366	.354		-1.035	.314
	P	.469	.084	.796	5.578	.000

a. Dependent Variable: A

Table 10. T test (significance testing of parameters) – Model 2

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.704	.304		-2.319	.032
	A	.896	.188	.746	4.756	.000

a. Dependent Variable: N-Gain

Table 9 shows that the t-test results (significance testing of parameters) yielded a t-value of 5.578 with a Sig. value of 0.000, which is less than 0.05. Therefore, it can be stated that students' perception of interactive learning applications significantly influences their preference in choosing interactive learning applications. Similarly, according to Table 10, the calculated t-value is 4.756 with a Sig. value of 0.000, which is less than 0.05. Hence, it can be stated that students' perception of their preference in choosing interactive learning applications significantly influences their academic outcomes.

Model 1 (Equation 3) signifies that with a constant value of -0.366, it indicates that when the variable P is zero, the A is -0.366. The coefficient B of 0.469 suggests that with each 1-unit increase in variable P, there is a proportional rise of 0.469 units in the variable A.

Moreover, Model 2 (Equation 4) implies that with a constant value of -0.704, it suggests that when the variable A is zero, the student outcomes have a value of -0.704. The coefficient B of 0.896 signifies that with each 1-unit increase in A, there is a related increase of 0.896 units in student outcomes.

### 3.3. Questionnaire Results

The questionnaire results are presented in this subsection, which demonstrates a summary of student responses regarding variables P and A. Tables 11 and 12 show the total scores for each item on both questionnaires. According to Table 11, the item with the lowest score is P1 (interactive applications enhance my motivation to learn English). This suggests that students may not feel as strongly motivated by interactive applications as they do with other aspects related to learning English.

Table 11. Score of student perception on interactive learning applications

Code	Statement	Total Score
P1	Interactive applications enhance my motivation to learn English.	74
P2	Using interactive applications makes me more interested in studying the subject matter.	80
P3	Interactive applications provide a variety of engaging learning methods for me.	81
P4	I feel more engaged in the learning process when using interactive applications.	80
P5	Using interactive applications helps me understand English concepts better.	85
P6	I feel more motivated to learn English independently with the presence of interactive applications.	90
P7	Interactive apps make the process of learning English more enjoyable.	87
P8	I tend to practice English more often in my free time when using interactive applications.	82
P9	The use of interactive applications makes me more confident in my English language skills.	81
P10	Interactive applications offer more relevant and engaging learning materials compared to conventional teaching methods.	83
P11	I am more inclined to recommend learning English with interactive applications to my friends.	90
P12	Interactive applications make it easier for me to continue learning English even outside of class hours.	84
P13	I feel that interactive applications provide helpful feedback in my learning process.	88
P14	Overall, interactive applications have a positive impact on my interest and motivation to learn English.	90
Mean		83.93
Std. Dev.		4.71
Min.		74.00
Max.		90.00

Additionally, Table 12 shows that students tended to prefer Kahoot over Quizizz in various aspects such as focus, enjoyment, and perceived learning, as evidenced by higher scores for Kahoot in these categories. However, Quizizz scored higher in aspects like enthusiasm and motivation. Overall, students rated Kahoot more positively than Quizizz in terms of their preferences for interactive learning applications.

Table 12. Score of student perception on preference in choosing interactive learning applications

Code	Aspects	Total Score	
		Kahoot	Quizizz
A1	Focus	37	34
A2	Enthusiasm	35	35
A3	Enjoyment	42	22
A4	Practical	36	36
A5	Perceived Learning	41	18
A6	Effectiveness	46	13
A7	Motivation	32	31
A8	Satisfaction	27	27
Mean		37.00	27.00
Std. Dev.		6.00	8.55
Min.		13	
Max.		46	

#### 4. Discussion

The findings of this study suggest that students' perceptions of interactive learning applications have a significant impact on learning outcomes. Constructivism supports the notion that students' perceptions of interactive learning applications play a pivotal role in shaping their learning outcomes. According to this educational theory, learners actively construct their understanding of the material by engaging with their learning environment. When students view interactive learning applications as effective and engaging tools, they are more inclined to actively engage in the learning process, ultimately leading to improved educational outcomes [21]. The findings from Wang and Suwanthep [22] further explain that constructivism supports EFL learning via the use of mobile application. Many scholars have endorsed constructivism as a novel trend in language learning [23]. It is rooted in the psychological theory of knowledge acquisition, where individuals actively engage in interpreting and constructing their own understanding and knowledge. This process occurs through their interaction with both their prior knowledge and newly introduced information.

Students can effectively construct knowledge in EFL through interactive application learning. This approach empowers learners by actively engaging them in the educational process, providing immediate feedback, and personalizing their learning experiences. These applications often incorporate diverse media elements, gamify the learning process,

and simulate real-world language contexts, making language acquisition not only more effective but also enjoyable. Furthermore, the flexibility and accessibility of interactive EFL applications enable students to learn at their own pace and convenience. These tools also facilitate progress tracking and support collaborative learning, connecting students globally and enhancing their cultural awareness. In essence, interactive EFL applications are a powerful means of fostering language proficiency and promoting effective knowledge construction in a dynamic and engaging manner.

While this research has a positive influence on students' learning outcomes, there are still several aspects to consider. Survey results show that, for the majority, students' perceptions regarding the ability of interactive learning applications to enhance EFL learning motivation are still quite low compared to other items. The survey results, which reveal reduced perceptions regarding the effectiveness of interactive learning apps in boosting EFL learning motivation, can be elucidated using the framework of self-determination theory (SDT). SDT proposes that individuals possess inherent psychological needs for autonomy, competence, and social connection, and meeting these needs is essential for nurturing motivation and overall psychological well-being. In the context of EFL learning and interactive applications, the observed discrepancy in students' perceptions may be attributed to how these applications either support or hinder these psychological needs. Autonomy is compromised when applications impose rigid structures, leading to a decline in intrinsic motivation. Competence suffers when applications do not align with students' skill levels, undermining their sense of effectiveness and mastery. Additionally, a lack of opportunities for social interaction within these applications can diminish the sense of relatedness, contributing to feelings of isolation.

Eventually, this research also reveals that students' perceptions of the effectiveness of the Quizizz application are very low. In contrast, students believe that Kahoot is highly effective for use in EFL instruction. These results contradict the findings of a previous study [24], which stated that students were more inclined to choose Quizizz over Kahoot. This difference in results could be attributed to variations in the features and functionality of Kahoot and Quizizz.

For instance, Kahoot is known for its competitive and gamified approach, while Quizizz offers educators greater flexibility and customization options. Depending on the specific needs and preferences of both students and instructors, one platform may be more appealing than the other. Additionally, the design of the questionnaires and the wording of specific questions may have influenced the obtained responses. Variations in question wording or the order in which questions were presented could have contributed to differences in participants' responses.

These research findings hold significant implications for educators and lecturers in the field of EFL instruction. Firstly, the revelation that students' perceptions of the Quizizz application are notably low underscores the importance of considering student feedback and preferences when selecting and integrating interactive learning tools into the curriculum. Educators should engage in ongoing dialogue with their students to understand which applications align more closely with their learning styles and needs. Moreover, the contrasting results between this study and a prior one highlight the importance of acknowledging the dynamic nature of technology-enhanced learning. Educators must stay informed about the latest developments in interactive learning platforms, as the features and functionalities of these tools can evolve over time. This necessitates a flexible approach to technology integration, allowing educators to tailor their choices to the specific learning context and goals. Furthermore, the uncertainty surrounding the influence of interactive learning applications on student motivation warrants further exploration. Educators can proactively investigate and experiment with motivational strategies within the EFL classroom to better understand how these tools can be harnessed to boost student engagement and enthusiasm.

## 5. Conclusion

The results of this study indicate that students' perceptions of interactive learning applications influence their preferences when choosing between Kahoot and Quizizz, further impacting their learning achievement. However, there is still uncertainty among students regarding the ability of interactive learning applications to influence their motivation in EFL learning. The research findings also suggest that students prefer Kahoot over Quizizz in EFL learning. This aspect warrants further investigation to explore what specifically boosts students' motivation in EFL. The study shows that using interactive learning apps like Kahoot and Quizizz makes learning English more enjoyable and effective for students.

For researchers, it suggests that more studies should explore these apps' benefits. Teachers can consider using these apps to engage and motivate their students better. Policymakers should support schools in adopting these technologies, and schools should provide training for teachers and students. Continuous evaluation and adaptation are essential to make the most of these tools in education. This study has certain limitations that need to be considered. The sample size is relatively small, comprising only twenty students from a single class. This limited sample may not fully represent the diverse range of EFL students in different settings and regions, thus limiting the generalizability of the findings. Moreover, while the quantitative questionnaire-based approach offers valuable insights, it may not provide a comprehensive understanding of students'



perceptions and preferences. Qualitative methods could complement these findings. Furthermore, the study does not extensively explore potential drawbacks or external factors that may influence learning outcomes, such as instructors' teaching methods or course content. Lastly, the findings are based on pre-pandemic data and may not fully reflect the evolving landscape of technology-enhanced learning, which has seen significant changes during and after the COVID-19 pandemic.

#### References:

- [1]. Ramadhan, S., Sukma, E., & Indriyani, V. (2019). Teacher competence in utilizing digital media literacy in education. *Journal of Physics: Conference Series*, 1339(1). Doi: 10.1088/1742-6596/1339/1/012111
- [2]. Zulfahfizh, Atmazaki, Syahrul R. (2013). Kontribusi Sikap dan Motivasi Belajar Siswa Terhadap Hasil Belajar Bahasa Indonesia. *Jurnal Bahasa, Sastra, dan Pembelajaran*, 1(2).
- [3]. Ramadhan, S., Sukma, E., Indriyani, V., Bahasa, F., & Padang, U. N. (2019). Persepsi Guru Terhadap Penggunaan Bahan Ajar Bahasa Indonesia Dengan Perangkat Seluler Dan Aplikasi Edmodo. *Seminar Internasional Riksa Bahasa XIII*, 1565–1572.
- [4]. Sari, Y., Ramadhan, S., & Rasyid, Y. (2018). Hubungan antara keterampilan membaca pemahaman dengan keterampilan menulis teks laporan hasil observasi siswa kelas X SMK Negeri 3 Padang. *Jurnal Pendidikan Bahasa dan Sastra Indonesia*, 7(3), 446–453.
- [5]. Azar, A. S., & Tan, N. H. I. (2020). The application of ICT techs (mobile-assisted language learning, gamification, and virtual reality) in teaching english for secondary school students in malaysia during covid-19 pandemic. *Universal Journal of Educational Research*, 8, 55–63. Doi: 10.13189/ujer.2020.082307
- [6]. Syahputri, V. N., Rahma, E. A., & Mardhiah, N. (2021). Persepsi Mahasiswa Tentang Penggunaan Web Design sebagai Model Pembelajaran Jarak Jauh Selama Pandemi di Perguruan Tinggi Aceh Barat. *Jurnal Pengabdian Masyarakat: Darma Bakti Teuku Umar*, 2(2), 306.
- [7]. Yürük, N. (2019). Edutainment: Using Kahoot! As A Review Activity in Foreign Language Classrooms. *Journal of Educational Technology and Online Learning*, 2(2), 89–101. Doi: 10.31681/jetol.557518
- [8]. Asniza, I. N., Zuraidah, M. O. S., Baharuddin, A. R. M., Zuhair, Z. M., & Nooraida, Y. (2021). Online Game-Based Learning Using Kahoot! to Enhance Pre-University Students' Active Learning: A Students' Perception in Biology Classroom. *Journal of Turkish Science Education*, 18(1), 145–160. Doi: 10.36681/tused.2021.57
- [9]. Suardi, I. P., Ramadhan, S., & Asri, Y. (2019). Pemerolehan Bahasa Pertama pada Anak Usia Dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 3(1), 265. Doi: 10.31004/obsesi.v3i1.160
- [10]. Prasongko, A. (2021). Quizizz as Fun Multiplying Learning Media in English Lecturing Process. *EduLink Education And Linguistics Knowledge Journal*, 3(1), 14. Doi: 10.32503/edulink.v3i1.1467
- [11]. Ramadhan, S., Sukma, E., & Indriyani, V. (2019). Environmental education and disaster mitigation through language learning. *IOP Conference Series: Earth and Environmental Science*, 314(1). Doi: 10.1088/1755-1315/314/1/012054
- [12]. Wulandari, E. (2022). Quizizz application for English online learning: The students' perception. *Jurnal Pendidikan dan Pengajaran (PAJAR)*, 6(3), 640–645.
- [13]. Muhtadin Amri, & Shobri, Y. A. (2020). Persepsi Mahasiswa Terhadap Penggunaan Quizizz Dalam Pembelajaran Akuntansi Konsolidasi Bank Syariah Di Iain Ponorogo. *Jurnal Teknologi Informasi dan Pendidikan*, 13(1), 128–138.
- [14]. Munuyandi, T. A., Husain, S., Jabar, M. A. A., & Jusoh, Z. (2021). Effectiveness Of Quizizz in Interactive Teaching and Learning Malay Grammar. *Asian Journal of University Education*, 17(3), 109–118. Doi: 10.24191/ajue.v17i3.14516
- [15]. Korkmaz, S., & Öz, H. (2021). Using Kahoot To Improve Reading Comprehension of. *International Online Journal of Education and Teaching (IOJET)*, 8(2), 1138–1150.
- [16]. Chaiyo, Y., & Nokham, R. (2017). The effect of Kahoot, Quizizz and Google Forms on the student's perception in the classrooms response system. *2nd Joint International Conference on Digital Arts, Media and Technology 2017: Digital Economy for Sustainable Growth, ICDAMT 2017*, 178–182. Doi: 10.1109/ICDAMT.2017.7904957
- [17]. Marsa, S. S., Kuspiyah, H. R., & Agustina, E. (2021). The Effect of Kahoot! Game to Teaching Reading Comprehension Achievement. *Journal of English teaching*, 7(2), 133-149.
- [18]. Shone, E. T., Weldemeskel, F. M., & Worku, B. N. (2024). The role of students' mathematics perception and self-efficacy toward their mathematics achievement. *Psychology in the Schools*, 61(1), 103-122. Doi: 10.1002/pits.23033
- [19]. Mulyatiningsih, E. (2011). *Riset Terapan Bidang Pendidikan dan Teknik*, 183. Yogyakarta: UNY press
- [20]. Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif dan R&D* (2<sup>nd</sup> ed.). Bandung: Alfabeta.
- [21]. Jonassen, D. H. (1991). Evaluating Constructivistic Learning. *Educational Technology*, 31(9), 28–33.
- [22]. Wang, F., & Suwanthep, J. (2017). Constructivism-Based Mobile Application for EFL Vocabulary Learning. *International Journal of Learning and Teaching*, 3(2). Doi: 10.18178/ijlt.3.2.106-112
- [23]. Sweller, J. (2003). Evolution of human cognitive architecture. *Psychology of learning and motivation*, 43, 216–266.
- [24]. Basuki, Y., & Hidayati, Y. (2019). Kahoot! or Quizizz: the Students' Perspectives. In *Proceedings of the 3rd English Language and Literature International Conference, ELLiC, 27th April 2019, Semarang, Indonesia*. EAI. Doi: 10.4108/eai.27-4-2019.2285331