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Quizizz in EFL Classroom Learning: Students' Perception and Challenges

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Abstract

This study investigates the perceptions of students regarding the implementation of Quizizz in a public school in Bali, as well as the challenges they face. Despite the growing popularity of digital tools in education, there is limited research specifically focusing on the perceptions and challenges of EFL students in Indonesia regarding the use of Quizizz. Employing a mixed-method explanatory sequential design, the research involved 34 English as a Foreign Language (EFL) students. Data collection included a questionnaire, designed based on the U.T.A.U.T. theory using a Likert scale, and an interview guide developed from Savinna's theory, consisting of six questions. The findings reveal that students generally hold a positive perception of Quizizz in EFL classes, noting that it enhances their motivation and participation. However, they also encounter several challenges, including unstable internet connections, inadequate device performance, and difficulties with certain Quizizz features that complicate their experience when faced with challenging questions.

Keywords: EFL; Quizizz; Implementation; Perception; Challenges

INTRODUCTION

In today's digital era, technology offers teachers innovative ways to create engaging learning experiences. Indrayana (2022) states that technological advancements can create fruitful opportunities for both learners and teachers. This development significantly impacts the language learning process by increasing students' interest in learning (Wulandari, 2022). According to Boyle and Nicol (2003), achieving optimal technological integration in the classroom involves using interactive technologies to elicit students' responses. Such technology not only provides students with various learning resources but also functions as an assessment tool, offering interactive quizzes that deliver instant feedback and reviews of students' work (Rahayu & Purnawarman, 2019).

Integrating technology in the English as a Foreign Language (EFL) classroom is crucial for enhancing the learning experience and improving student outcomes. Technology provides diverse resources and tools that cater to various learning styles, making lessons more engaging and interactive (Permana et al., 2024). It facilitates access to authentic materials, such as videos, podcasts, and online articles, which expose students to real-world language use and cultural contexts (Beckett & Slater, 2018). Additionally, technology enables personalized learning, allowing students to progress at their own pace and receive immediate feedback through interactive platforms and applications (Dimitrios et al., 2013). This integration also fosters collaboration among students, as they can work together on projects using digital tools, enhancing their communication skills. Ultimately, the use of technology in EFL classrooms not only motivates students but also prepares them for a digitally connected world, equipping them with essential skills for their future academic and professional endeavors.

One effective integration of technology-based learning media in the classroom is Mobile Assisted Language Learning (MALL). Kim et al. (2017) identify two types of mobile learning: SMS-based learning and game-based learning. Among these, game-based learning is particularly suitable for classroom use. Quizizz is one of game-based learning that usually used by the English teachers to conduct interactive quiz for providing fun learning activities to stimulate students' learning interest. Salsabila et al. (2020) stated that Quizizz is one of the media that is able to create a fun learning atmosphere without eliminating students' understanding of the learning material. Moreover, she emphasized that many felt the benefits of using Quizizz because this media can motivate brain work and time management. Moreover, research conducted by Hidayah et al. (2021) also stated that the use of Quizizz has 95% accuracy in creating learning that can hone creativity and is perceived as a good learning medium by students. Several studies had also been conducted related with the use of Quizizz. Suwarni et al., (2023) found that Quizizz is effective in increasing students' attention and learning motivation. Bindiya and Fediyanto (2023) found that the findings showed a positive response in each construct used to assess. Overall, these findings underscore the potential of Quizizz as a transformative educational tool that not only enhances engagement but also supports effective learning outcomes in the classroom.

While numerous studies have explored the use of Quizizz as an educational tool, there remains a notable gap in the literature concerning students' perceptions and the specific challenges they encounter when utilizing this platform in English as a Foreign Language (EFL) settings. Understanding these aspects is crucial, as students' perceptions can significantly influence their engagement and motivation, which are essential for effective language learning. This study aims to achieve two primary objectives: (1) to investigate students' perceptions of the use of Quizizz in EFL classroom learning, and (2) to identify the challenges faced during the implementation of Quizizz. By focusing on these objectives, the research seeks to provide a comprehensive understanding of how Quizizz impacts the learning experience of EFL students. To achieve these goals, the researcher engaged EFL students at a public school in Bali who have been using Quizizz for an extended period. Ultimately, the findings of this research will contribute to a deeper understanding of the role of technology in language education, offering valuable insights for educators and policymakers seeking to optimize the use of digital tools like Quizizz in EFL classrooms.

METHOD
Design
The method used in this research was a mixed method. The data collected in this study research has 2 forms there are quantitative and qualitative. The mixed method of this research in the form of an Explanatory Sequential Design. It involves a two-phase project in which the researcher collects quantitative data in the first phase, analyzes the results, and then uses the results to plan (or build on to) the second, qualitative phase. In this study, quantitative data was presented using a questionnaire as an instrument for collecting data and presented descriptively. Furthermore, qualitative data was collected through interviews.

Research Subject
The subject of the study was 9th-grade students in a public school in Bali, which has 34 students in the class. For choosing the subject, the subjects were selected by conducting purposive sampling. In selecting the subject, the researcher also has the criteria for selecting the subject. Several criteria were used to select these subjects. The requirements are as follows:
1. Students often study English lessons.
2. Students often use smartphones/PC.
3. Students can use Quizizz.
4. Students often use Quizizz in English lessons.

Data Collection
In collecting the data, this study used questionnaire and interview. The questionnaire was a close-ended questionnaire. The subjects were asked to fill out the scale 1, 2, 3, or 4 as their level of perception. This technique was used to collect students' perception data by distributing questionnaires to the study subjects. There were four items on the Likert scale: 'strongly agree', 'agree', 'disagree', and 'strongly disagree'. The questionnaire was used to collect data related to the students' perception. The subject was be given some statements after they learn using Quizizz. A blueprint of the questionnaires was created as the guideline to create the questions. The blueprint can be seen in Table 1.

Table 1. The Blueprint of Questionnaire

Dimensions	Sub-dimensions
Performance Expectancy	Perceived of Usefulness
	Extrinsic Motivation
	Job-Fit
	Relative Advantage
	Outcome Expectations
Effort Expectancy	Perceived Ease of Use
	Complexity
	Ease of Use
Social Influence	Subjective Norm
	Social Factors
	Image
Facilitating Conditions	Perceived Behavioral Control
	Facilitating Conditions
	Compatibility

The blueprint was adapted from the UTAUT theory by Venkatesh et al., (2003) which consists of four constructs such as Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. The performance expectancy consists of five sub-dimension such as perceived of usefulness, extrinsic motivation, job fit, relative advantage, and outcome expectations. Besides that, the effort expectancy is consisted of three sub-dimensions such as perceived ease of use, complexity, and ease of use. Moreover, the social influence consists of three dimensions such as subjective norm, social factors, and image. The last is facilitating condition, consist of three dimensions such as perceived behavioral control, facilitating conditions, and compatibility.

The interview guide was also used to collect the data related to the challenges of the implementation of Quizizz. Some questions' interview was given to the subject after they learn English material using Quizizz.

Data Analysis

In this study, there are two methods used to analyze the data in this research, namely quantitative and qualitative data analysis. Quantitative data analysis was used to analyze data from the questionnaire in order to answer the first research Question. The detailed of the step analysis can be seen below.

1. The first step, the researcher collected questionnaire sheets about students' perceptions of Quizizz which had been filled in by students and entered the results one by one in a table in Microsoft Excel. Data is presented using the label "S" which means statement. For example, question 1 is labeled S1, question 2 is labeled S2, and so on up to question 25. It is made with columns to the side S1-S25.

2. In the second step, respondents who answer this questionnaire are given the label "R" which means respondent. For example, R1 means respondent 1, R2 means respondent 2, up to R34 (respondent 34). Made in columns downwards from R1-R34. Then, student responses are entered into the statement column using a numerical Likert scale of 1 (Strongly Disagree), 2 (Disagree), 3 (Agree), and 4 (Strongly Agree). For example, if respondent 1 gives a response of 3 (Agree) to statement 1 then a Likert scale of 3 is input in column S1, then for example respondent 2 gives a response of 4 (Strongly Agree) to statement 1 then a Likert scale of 4 is input in column S1.

3. In the third step, the total number of respondents who answered 1 (Strongly Disagree), 2 (Disagree), 3 (Agree), and 4 (Strongly Agree) was calculated to get the results or percentages from the questionnaire.

4. The fourth step, the results or percentages of each Likert scale are described using a histogram with a range of 0% - 100% to determine the mode value for each question.

5. Finally, the results interpreted by the histogram are a determinant of the level of student's perception of the use of Quizizz in the EFL classroom.

The obtained data from the interview guide was analyzed descriptively and qualitatively. There are three processes for analyzing data adapted from Miles et al., (2014) as follows:

1. Data reduction: At this step, the researcher transcribes the results of the interview in the form of recordings into data transcription. In this transcript data, the researcher identified and collected points from several respondents' answers. Then, these points are selected to obtain the results needed for this research.

2. Data display: In this step, the selected data will be displayed. Data is displayed in data transcripts to describe the challenges students face and the solutions they use to overcome these challenges.

3. Conclusion: In conclusion, the results of the data display were summarized and described in the findings and discussion section in the next chapter.

FINDINGS AND DISCUSSIONS

1. Students Perception on The Use of Quizizz in EFL Classroom Learning

The questionnaire was used to gain data about students' perceptions of EFL Classroom Learning. The questionnaire was adapted from the UTAUT theory by Venkatesh et al. 2003 which contains 4 dimensions such as performance expectancy, effort expectancy, social influence, and facilitating condition. The four dimensions are made in 25 questions and use a Likert scale as a response to answer the questions. The Likert scale is 1-4, such as strongly disagree (1), disagree (2), agree (3), and strongly agree (4). The questionnaire results are presented in each dimension.

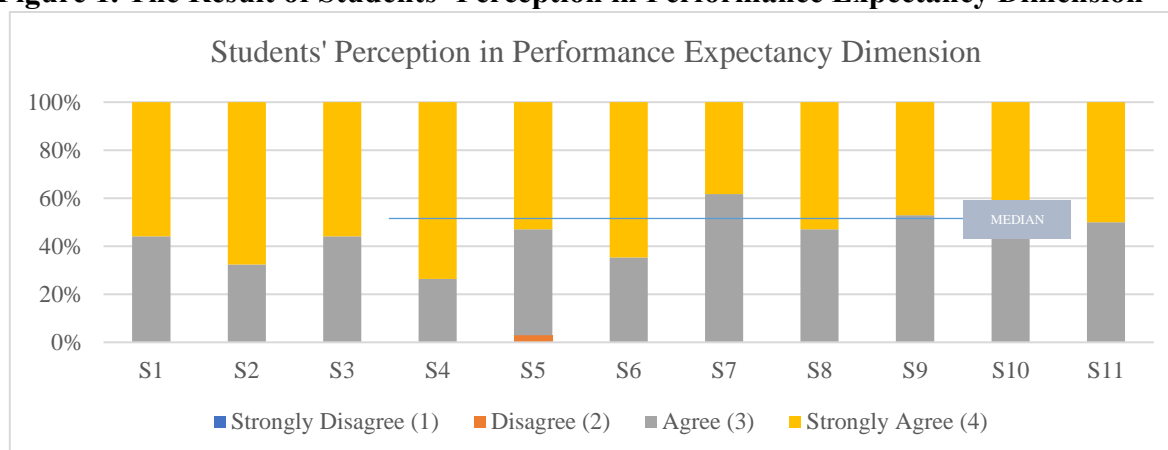**Figure 1. The Result of Students' Perception in Performance Expectancy Dimension**

Figure 1 discussed about the first dimension which is performance expectancy. This dimension includes students' perceptions of how Quizizz is in terms of the influence of its performance on students. The sub-dimension of this dimension includes perceived usefulness, extrinsic motivation, job fit, relative advantage, and outcome expectation. Based on the result of the Figure above, we can see that the students tend to positively perceive on the use of Quizizz in EFL classroom Learning. This is marked by the median of the data showing that most of the students tend to "Strongly Agree" responses in the most of statements, including statements 1, 2, 3, 4, 5, 6, and statement 8. Based on the results presented in Figure 1, it is evident that students tend to have a positive perception of the use of Quizizz in EFL classrooms, highlighting its perceived usefulness and motivational impact, which collectively contribute to enhancing their overall learning experience.

Figure 2. The Result of Students' Perception in Effort Expectancy Dimension
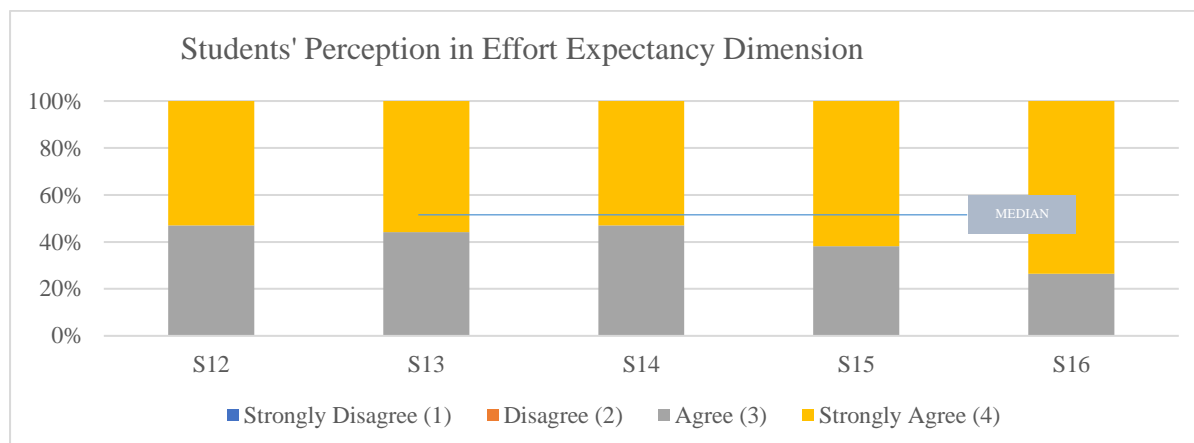

Figure 2 discussed about Effort expectancy dimension, covered students' perceptions in terms of effort in using Quizizz. This dimension has a sub-dimension including perceived ease of use, complexity, and ease of use and consists of 5 statements labeled by S12, S13, S14, S15, and S16 on the Figure. Based on the result of the Figure above, the students tend to positively perceive the use of Quizizz in EFL classroom Learning. Most of the students gave "agree" and "strongly agree" responses. This highlights that the students have a good perception in each statement of this dimension. This highlights Quizizz to be user-friendly and accessible, which not only facilitates their engagement in the learning process but also encourages a more seamless integration of technology into their EFL classroom experiences.

Figure 3. The Result of Students' Perception in Social Influence Dimension
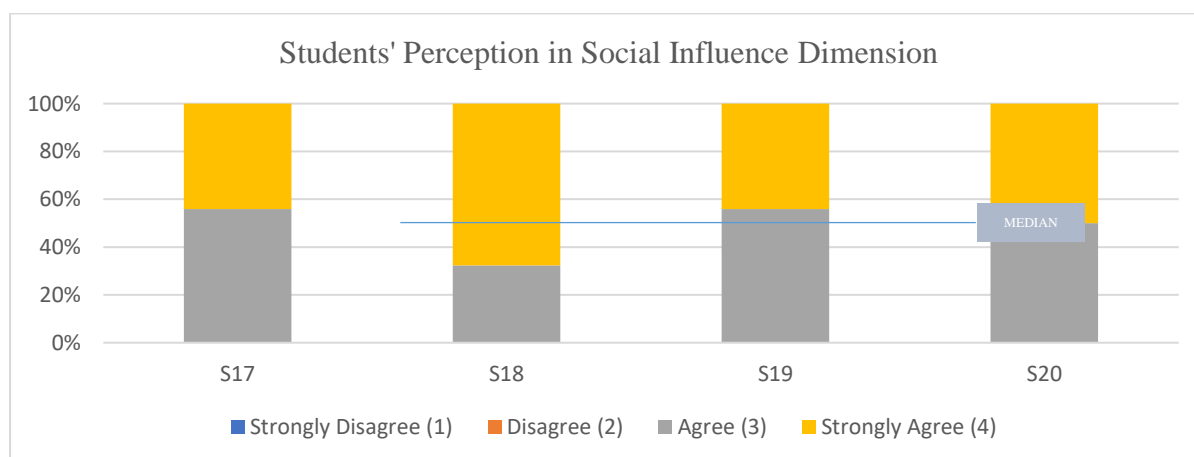

Figure 3 discusses the social influence dimension. This dimension has sub-dimensions such as subjective norms, social factors, and images. This dimension covers four statements, which are labeled by S17, S18, S19, and S20 on the Figure. Social influence dimension, covered how social influence relates to individuals each student on the use of Quizizz. As we can see the result of students' perception in social influence dimension, the students tend to "Agree" responses. According to the result from the four statements, students gave two agree responses in two statements. It is indicated that the most of students have a positive perception of social influence because the students also gave high responses in "Strongly Agree"

responses. According to the results from the figure, this suggests that peer support and social interactions significantly enhance students' willingness to engage with Quizizz, thereby fostering a collaborative learning environment in the EFL classroom.

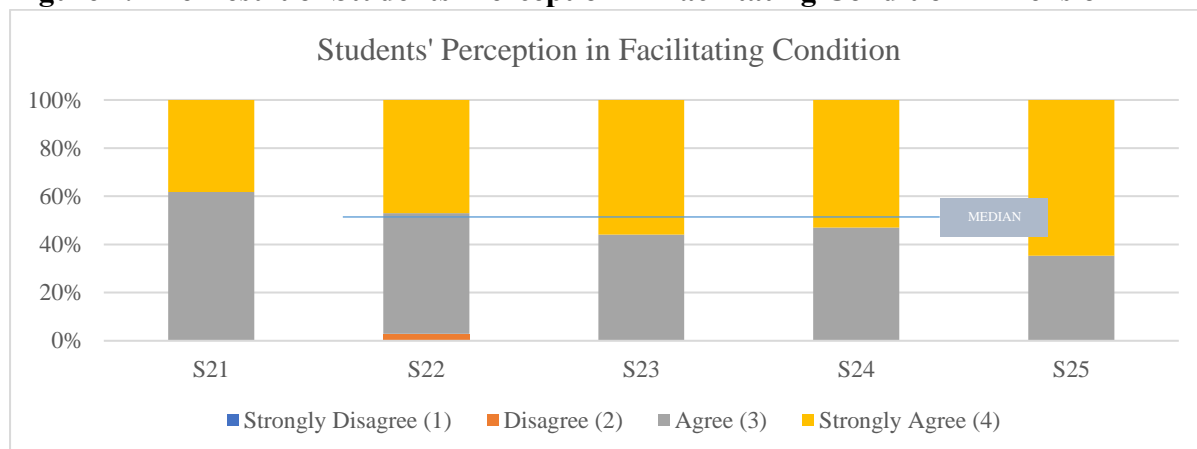**Figure 4. The Result of Students' Perception in Facilitating Condition Dimension**

Figure 4 discussed the facilitating condition dimension, covering students' perception of how the condition of the facilities provided by the school for learning English using Quizizz and whether the facilities provided are adequate or not. This dimension has sub-dimensions including perceived behavior control, facilitating conditions, and compatibility. This dimension consists of 5 statements, which are statements 21 to statement 25, labelled S21, S22, S23, S24, and S25 on the Figure. The results of this dimension can be seen from the Figure above. The Figure above shows that the majority of the students tend to have positive perceptions. This is proven by the median of the data. The median of the data shows that the students tend to choose "Strongly Agree" responses. This indicates that the students have a good perception in each statement of this dimension. Overall, these findings highlight the importance of ensuring that students have access to the necessary tools and conditions to effectively engage with technology in their EFL classrooms.

The Challenges Encountered During the Implementation of Quizizz

According to the results of the interview, the researcher found that when they implemented the Quizizz, the students faced several challenges and they also had a way to solve the challenges when implementing these Quizizz. The first challenges come from the connectivity of the Quizizz. This problem could be due to the responsiveness of the device used by the student or caused by a firewall that is not properly configured in the Quizizz system. In this challenge, students also have their own way to overcome this problem by refreshing the web where they log in to Quizizz. If this problem occurs repeatedly, students will try to refresh it repeatedly or log in from the beginning again. Students also perceived this solution its works.

The second challenge comes from their internet connection. Students sometimes experience problems with their internet connection where the connection they use is experiencing problems or the connection is unstable. This unstable connection makes it difficult for students to access Quizizz in English learning. Usually, this problem caused by the SIM card used by the student. In this case, students also have ways to overcome it. The way to overcome this is by connecting to a hotspot from a friend who has a good connection because a good connection also depends on each SIM card. The last challenges come from the feature

of the Quizizz. One of the features of Quizizz which is cannot be skipped the question or answered later. This feature makes the students cannot skipped the question when they find difficult question. Here, of course, students cannot think of answers to questions that they consider difficult. But students also have a solution for this. Students will still answer difficult questions using their instincts with the aim of being able to continue to the next question.

Based on the findings of each dimension, students of one public school in Bali tend to have positive perceptions. Implementing Quizizz can make learning better and more enjoyable and can increase students' motivation to learn English. This is in line with other studies, according to Salsabila et al., (2020), Quizizz itself is an educational game application that is narrative and flexible in nature, besides being able to be used as a means of conveying material, Quizizz can also be used, as an interesting and fun learning evaluation medium. In addition, according to Zhang and Crawford (2024) Quizizz also has a leaderboard feature that allows students to compete in quizzes, thereby increasing their motivation and activeness in learning. They believe that using Quizizz makes students enthusiastic to participate in English classes because there is a competitive atmosphere when they find out their ranking at the end of the session. Students also feel happy because they do assignments not only on paper but also answer questions via cellphones which makes students feel a new atmosphere in learning (Daulay & Ramadhan, 2023). These classroom situations show an increase in students' learning motivation and show good learning outcomes because the class becomes more active and exciting. This is also emphasized Aulia and Warni (2024) by where student learning motivation greatly influences learning outcomes, if students are more motivated, the learning achievement they will achieve will be higher.

Furthermore, the findings also describe the effortlessness of using Quizizz in EFL classes. Students perceive that they find it easier to learn English when they use Quizizz as their learning media. By learning to use Quizizz, learning becomes flexible and can be used anywhere using smartphones, laptops, and computers. They can choose the device they use and the place they use. Therefore, learning becomes efficient and they do not need a lot of paper to learn. This is also in line with other studies in this field. Quizizz is one of MALL's products where students do not always have to learn a second language in class but they can learn using mobile devices such as smartphones and computers anytime and anywhere (Miangah & Nezarat, 2012). In addition, Narpila et al., (2023) also argue that through the use of technology such as Quizizz, learning evaluation will be easier, more effective, and more efficient because students no longer use paper. They believe that students usually get bored when taking traditional paper-based evaluations and as a result student do not focus on the evaluation. On the other hand, Daulay and Ramadhan (2023) emphasized that apart from using paper as usual, then they don't feel bored because the atmosphere is learning but like playing.

Students also perceive that the social environment can influence the use of Quizizz as a medium for their English learning. The use of Quizizz as a medium for English learning is greatly influenced by the students' social environment. In this case, the student's social environment is the school and the people at the school. Schools that have provided supporting devices such as computers, speakers, projectors, Wi-Fi, etc. make students think that they need to take advantage of the facilities provided. Moreover, the devices are suitable for use and in accordance with what students need. These supporting devices make it easier to implement

Quizizz in their English classes. This is in line with other studies that state the relationship between the school environment such as teachers and student learning. As stated by Budiman et al., (2021) the professionalism of English teachers in implementing English learning by choosing the right methods and media can have a positive influence on the learning process because it can create an interesting learning atmosphere that could motivate students to learn comfortably. In line with the findings in this study which state that implementing Quizizz requires tools such as smartphones and computers and they have been provided by the school. Tools or devices that support the implementation of Quizizz have made it easier to implement Quizizz in English classes (Pradnyadewi & Kristiani, 2021).

Students also perceive conditions that facilitate students during the implementation of Quizizz. Facilitating conditions, in this case, is how infrastructure and technical support the implementation of Quizizz in English learning. Facilitating conditions are the main factor in the implementation of learning media, one of which is Quizizz. Quizizz is a technology platform whose implementation requires electronic devices such as laptops, computers, smartphones, and internet connections, which are the main factors in the implementation of Quizizz. This is in line with other studies which state that the availability of facilities is a supporting factor in English learning. According to Putra (2021), in addition to the role of students and teachers, the availability of adequate facilities can also provide comfortable learning conditions so that they can support English learning. This can be done by integrating the use of technology in the English learning process such as digital devices and social networking sites (Liu et al., 2014). In addition, Aryanti and Santosa (2024) added that educational technology has a very crucial role in learning, where this technology has a role in learning to facilitate the formation of collaborative interactions and build more understandable meanings.

Besides that, the students also faced challenges when implementing Quizizz. First, students experience problems with device connectivity to the Quizizz web. When they want to log in using the code provided, sometimes the web cannot respond, resulting in a delay in accessing Quizizz. Students assume that this can happen because of the responsiveness of the device used. To overcome this problem, students usually try to log in repeatedly and refresh the web page until they can connect to the server. This is in line with research from several studies. Yanti et al., (2021) found that students feel uncomfortable doing quizzes via Quiziz if the connection is not good because they need additional time just to access the quiz which is a waste of time. In addition, Mei et al., (2019) stated that the problem of accessing the server occurred in the implementation of Quizizz due to poor infrastructure. As with the obstacles students face when accessing Quizizz, they argue that this is caused by the responsiveness of each device used to access Quizizz. On the other hand, according to Pramudita (2023) one of the shortcomings of Quizizz is that when participants join late, they have to repeat from the beginning so that all participants have the same time limit and it hinders learning.

Furthermore, in addition to students assuming that it occurs because of the device used, students also think that login problems can be caused by the speed of the network used. Students sometimes experience problems with their internet connection, namely the connection used is problematic or the connection is unstable. This unstable connection makes it difficult for students to access Quizizz and hinders students when working on questions on Quizizz.

This is in line with several other studies in this field. According to Nova et al., (2023), the drawback in implementing Quizizz is that it requires a good internet connection because a good connection can help participants work on questions. Conversely, if the internet connection is bad, it will make it difficult for students to work on questions. On the other hand, Harahap and Kembaren (2023) emphasized the same thing which is they found that students often experience network problems which make the English learning process less effective. However, technical challenges such as limited access and technical constraints are identified as potential obstacles and these technical challenges need to be overcome (Indrayana, 2022).

In addition, the students also face challenges in the process of answering the questions because one of the features is that cannot skip questions, and that's it be a challenge for the students. In fact, that is becoming a positive challenge to the students, where the challenge will help the students to improve their concentration when they working on the questions. Most of the students think that feature is an obstacle when they are finding difficult questions, that is because they are not able to skip the questions or answer the question later. To overcome the difficulty, the students will answer the question randomly and discuss the difficult question when the quiz section ends. This statement is also supported by other research that highlights the shortcomings of Quizizz where Oktaviyanita (2021) stated that participants cannot answer the next question if the previous question has not been answered. This is a challenge that students must overcome using their own methods when they encounter difficult questions in a session. In this case, Wibawa (2021) emphasized that in essence, all digital platforms have advantages and disadvantages, for example, the Quizizz platform. All media will be able to function well if supported by material support from related parties, in this case, the school.

CONCLUSION

This study concludes that students experience a significantly improved learning environment when they feel happy and motivated during the English learning process. The presence of an active classroom atmosphere, coupled with enthusiastic participation, indicates that students achieve positive learning outcomes, particularly when using Quizizz as their educational tool. Observations reveal that students remain engaged and alert, rather than sleepy, while utilizing Quizizz for their English lessons. Supporting evidence from interviews further confirms that the use of Quizizz fosters active participation and enjoyment in learning. Students express enthusiasm when answering questions, which contributes to a more dynamic and enjoyable learning experience, alleviating feelings of boredom. However, students also encounter several challenges while using Quizizz. The first challenge involves difficulties logging into the platform. To address this issue, students often refresh the webpage when they experience login problems. The second challenge pertains to internet connectivity. Students occasionally face issues with unstable or unreliable internet connections, which can disrupt their learning experience. Lastly, a third challenge arises from the features of Quizizz itself, particularly the inability to skip questions or defer answers. This limitation can frustrate students who encounter difficult questions, as they are unable to bypass them. In summary, while Quizizz enhances student engagement and enjoyment in learning English, addressing the technical challenges and platform limitations is essential for optimizing the overall learning experience.

REFERENCES

Aryanti, R. D., & Santosa, M. H. (2024). A systematic review on artificial intelligence applications for enhancing EFL students' pronunciation skill. *The Art of Teaching English as a Foreign Language (TATEFL)*, *5*(1), 102–113. https://doi.org/10.36663/tatefl.v5i1.718

Aulia, R., & Warni, S. (2024). Students' perceptions toward Quizizz as an assessment tool in EFL classroom. *International Journal of Research in Education*, *4*(2), 283–294. https://doi.org/10.26877/ijre.v4i2.554

Beckett, G. H., & Slater, T. (2018). Technology-integrated project-based language learning. In C. A. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics* (pp. 1–8). John Wiley & Sons, Ltd. https://doi.org/10.1002/9781405198431.wbeal1487

Bindiya, A., & Fediyanto, N. (2023). EFL students' perceptions towards Quizizz usage in English subject formative assessment. *Journal of Research on English and Language Learning (J-REaLL)*, *4*(2), 167–182. https://doi.org/10.33474/j-reall.v4i2.20309

Boyle, J., & Nicol, D. (2003). Using classroom communication systems to support interaction and discussion in large class settings. *Research in Learning Technology*, *11*(3), 43–57. https://doi.org/10.3402/rlt.v11i3.11284

Budiman, M. A., Untari, M. F. A., & Listyarini, I. (2021). English learning practices. *Jurnal Pendidikan Bahasa Inggris Undiksha*, *9*(2), 205–213. https://doi.org/10.23887/jpbi.v9i2.39039

Daulay, S. H., Ramadhan, A., & Wahyuni, S. (2023). Quizizz application in students learning outcomes teacher's and students' perception. *Modality Journal: International Journal of Linguistics and Literature.*, *3*(2), 125–133. https://doi.org/10.30983/mj.v3i2.6719

Dimitrios, B., Labros, S., Nikolaos, K., Maria, K., & Athanasios, K. (2013). Traditional teaching methods vs teaching through the application of information and communication technologies in the accounting field: quo vadis? *European Scientific Journal*, *9*(28), 73–101.

Harahap, S. H., & Kembaren, F. R. W. (2023). Teachers' perceptions of utilizing Quizizz application in ELT for young learners. *Scope : Journal of English Language Teaching*, *7*(2), 278. https://doi.org/10.30998/scope.v7i2.16224

Hidayah, N., Hambali, S. U., & Millenia, T. F. (2021). Pemanfaatan media Quizizz sebagai media pembelajaran Bahasa Indonesia cerita rakyat kelas X. *Prosiding Samasta*, 1–12.

Indrayana, I. B. A. (2022). The implementation of learning media : Quizizz application in EFL remote learning. *Jurnal Pendidikan Bahasa Inggris Undiksha*, *10*(1), 1–6. https://doi.org/10.23887/jpbi.v10i1.44748

Kim, D., Ruecker, D., & Kim, D. J. (2017). Mobile assisted language learning experiences. *International Journal of Mobile and Blended Learning*, *9*(1), 49–66. https://doi.org/10.4018/IJMBL.2017010104

Liu, S., Liu, H., Yu, Y., Li, Y., & Wen, T. (2014). TPACK : A new dimension to EFL teachers' PCK. *Journal of Education and Human Development*, *3*(2), 681–693.

Mei, S. Y., Yan Ju, S., & Adam, Z. (2019). Implementing uizizz as game based learning in the Arabic classroom. *European Journal of Social Science Education and Research*, *5*(1),

194–198. https://doi.org/10.2478/ejser-2018-0022

Miangah, T. M., & Nezarat, A. (2012). Mobile-assisted language learning. *International Journal of Distributed and Parallel Systems (IJDPS)*, *3*(1), 309–319. https://doi.org/10.5121/ijdps.2012.3126

Miles, B., Huberman, M., & Saldana, J. (2014). *Qualitative data analysis : A method source book*. SAGE Pub.

Narpila, S. D., Wahyuni, S., Elfina, H., & Nasution, S. A. (2023). The effectiveness of Quizizz application as a learning evaluation instrument towards 5.0 society era in the set and logic course. *ICE*, 195–203. https://doi.org/10.2991/978-2-38476-020-6_20

Nova, M., Chaerunnisah, I. U., & Lastari, N. K. H. (2023). Challenges in utilizing Quizizz as a formative E-assessment media in English for tour operations class. *Premise: Journal of English Education*, *12*(3), 971. https://doi.org/10.24127/pj.v12i3.8001

Oktaviyanita, S. (2021). Increasing students' learning motivation through media audio visual Quizizz. *Social, Humanities, and Education Studies (SHEs): Conference Series*, *4*(5), 768–773.

Permana, I. G. Y., Rismadewi, N. W. M., & Putra, N. C. A. (2024). Gamification in EFL classroom : Results of implementation and teachers ' point of view. *Journal of Ultimate Research and Trends in Education*, *6*(1), 1–11. https://doi.org/10.31849/utamax.v6i1.19297

Pradnyadewi, D. A. M., & Kristiani, P. E. (2021). Use of Quizizz in improving students' reading skill. *The Art of Teaching English as a Foreign Language (TATEFL)*, *2*(1), 1–6. https://doi.org/10.36663/tatefl.v2i1.93

Pramudita, R. F. (2023). Quizizz as technology to enhance EFL students' active participation in the classroom. *Journal of English in Academic and Professional Communication*, *9*(1), 11–18. https://doi.org/10.25047/jeapco.v9i1.3755

Putra, I. B. Y. B. S. (2021). Teacher challenges and solutions in teaching EFL students. *The Art of Teaching English as a Foreign Language (TATEFL)*, *2*(2), 98–102. https://doi.org/10.36663/tatefl.v2i2.109

Rahayu, I. S. D., & Purnawarman, P. (2019). The use of Quizizz in improving students' grammar understanding through self-assessment. *Eleventh Conference on Applied Linguistics 2018* (pp. 102–106). https://doi.org/10.2991/conaplin-18.2019.235

Salsabila, U. H., Habiba, I. S., Amanah, I. L., Istiqomah, N. A., & Difany, S. (2020). Pemanfaatan aplikasi Quizizz sebagai media pembelajaran ditengah pandemi pada siswa SMA. *Jurnal Ilmiah Ilmu Terapan Universitas Jambi*, *4*(2), 163–172. https://doi.org/10.22437/jiituj.v4i2.11605

Suwarni, S., Lubna, L., Aimang, H. A., Cakranegara, P. A., & Pratama, D. (2023). Quizizz gamification of student learning attention and motivation. *AL-ISHLAH: Jurnal Pendidikan*, *15*(2), 1369–1376. https://doi.org/10.35445/alishlah.v15i2.3215

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly: Management Information Systems*, *27*(3), 425–478. https://doi.org/10.2307/30036540

Wibawa, A. E. Y. (2021). Implementasi platform digital sebagai media pembelajaran daring di

MI Muhammadiyah PK Kartasura pada masa pandemi Covid-19. *Berajah Journal*, *1*(2), 76–84. https://doi.org/10.47353/bj.v1i2.15

Wulandari, E. (2022). Quizizz application for English online learning: the students' perceptions. *Jurnal PAJAR (Pendidikan Dan Pengajaran)*, *6*(3), 640–645. https://doi.org.10.33578/pjr.v6i3.8774

Yanti, N. K. I. D., Suarnajaya, I. W., & Pratiwi, N. P. A. (2021). Students' perceptions and constraints on the use of Quizizz in teaching and learning process during Covid-19 pandemic. *Social Science, Public Administration and Management (HUSOCPUMENT)*, *1*(3), 147–155. https://doi.org/10.51715/husocpument.v1i3.73

Zhang, Z., & Crawford, J. (2024). EFL learners' motivation in a gamified formative assessment: The case of Quizizz. *Education and Information Technologies*, *29*(5), 6217–6239. https://doi.org/10.1007/s10639-023-12034-7