Research Article

Teachers' Perceptions of Utilizing Quizizz Application in ELT for Young Learners

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A B S T R A C T

At the current, the usage of learning media is crucial in the sphere of education. Media integration has been used in the classroom by both students and teachers. To keep up with the digital shift in society, teachers must include technology in their lesson plans. For the instructor to establish an engaging teaching and learning process, using technology in the process becomes crucial and necessary. Quizizz has also developed into one of the web tools that instructors utilize in ELT classrooms. This study looks into how English teachers feel about utilizing Quizizz in their classes. A case study was chosen as the research design in this qualitative study. The researchers conducted semi-structured interviews with ten English teachers for prime schools in Medan and distributed the Likert scale questionnaire to get the data. This study found the perceptions of English teachers in utilizing the Quizizz application for young learners. The study investigated English teachers' perceptions of the effectiveness, feasibility, the difficulty of utilizing Quizizz, how Quizizz can motivate the students, and the willingness of the teachers to continue using Quizizz in the English classroom. Briefly, the teachers perceive that Quizizz has benefits in teaching English even Quizizz has drawbacks too.

INTRODUCTION

Due to the rapid advancement of technology and the societal use of digital technologies, education has undergone numerous changes. It is an essential instructional tool that instructors can use to support students' learning. According to Nomass (2013), technology use in the classroom is now an unavoidable need. To meet international requirements for educational quality, educational professionalism must also continue to adapt to technological developments. Additionally, a wide variety of technical tools are now available to aid teachers in developing their pedagogical approaches. Teachers must be able to carefully choose the effective technology and use it to its fullest extent if technology is to support

the teaching and learning process successfully. To build efficient second language learning and teaching, they must be able to use contemporary technological techniques (Nomass, 2013).

In line with utilization of technology in education, when students actively participate in teaching and learning, the educational paradigm shifts from passive to active learning. It is thought that using the internet as a communication and informational medium would promote interactive teaching and learning. The topic has been raised by several researchers to support the value of technology in education (Hernandez, 2017; Nilsen, 2016; Darmadi, 2015). Hernandez (2017) asserted that technology can increase student motivation, making it a useful tool for language instructionTechnology is supposed to make it easier to

explore potential, particularly when it comes to improving students' capacity to learn a foreign language. Then, according to Nilsen (2016), students will use media more creatively if ICT is used as a teaching tool since it allows them to investigate and analyze materials. Tecnology can be as a tool or media for teachers and students to develop the better teaching and learning process.

Darmadi (2015) contended that for teachers to have the greatest impact on how well students acquire their abilities, they must be able to expand the learning options for their students while also significantly raising the quality of instruction. Teachers need a range of roles, functions, skills, and responsibilities in order to provide engaging, dynamic, innovative, successful, and enjoyable teaching and learning environments.

Technology in education can not be separated from online learning. Most of the technology engaged with online learning which can be accessed whenever and wherever. Additionally, using simulations and games, individualized learning routes based on the needs of the students, and practicing with pertinent feedback are all features of efficient online learning (Muhammad, 2011). The use of sophisticated ICT in English instruction is widely acknowledged as the most modern iteration of methodologies, approaches, tools, tactics, strategies, and programs that are highly appropriate to teaching English and help students achieve the desired results. The innovation offered is speed and infinite access to knowledge at any time and place. Thus, technology is widely acknowledged as an essential teaching and auxiliary tool in a wide range of teaching-learning environments, particularly for the teaching of the English language. It offers a variety of potential ways to enhance the pedagogical content and supporting materials.

English should be studied and practiced specifically for pupils starting in elementary school, whether in or out of the classroom. English should be studied early by students. No of their age, students should begin learning English as a second language as soon as they can. However, it can be difficult to teach English to young students, particularly when they are learning online. Teachers must use caution while selecting suitable learning resources for young students. Teachers are expected to use and modify appropriate learning resources to the needs of young learners in the digital age by taking into account the features of a young learner.

One of the popular technology utilizations that can be applied in education is game-based learning. According to Ratnasari et al. (2019), one method that can be taken is to use application-based learning media online or by using game-based learning methods. The material provided by the teacher will be more easily understood by students with

the help of appropriate learning media. Such as several applications used by teachers in carrying out the learning process, namely; Google Classroom, E-mail, Youtube, Zoom, Jitsi, Google Meet, Quizizz, School, Kahoot, etc. Nowadays, there are so many games application that can be used by the teaching in teaching, especially in ELT classrooms. Bicen and Kocakoyun (2018) stated that the learning approaches using games can provide a new learning experience for students. The use of game-based apps can result in a number of advantages, including more engaged students, a more dynamic learning environment, and more learning opportunities in general. The literature on prior studies, which claims that using technology-based learning medium is often regarded as better than the conventional approach, also supports this (Fies & Marshall, 2006). Lestari (2019) further indicated that incorporating online games into teaching and learning activities might boost students' motivation and increase their enthusiasm for learning. The use of Quizizz is one instance of digital content that teachers can use in their lesson plans.

Quizizz is one of the learning media in the form of an application-based quiz game. Quizizz is a fun online learning tool that uses game-based learning to increase student engagement and motivation. Gamification is the use of game-based rules and game-like concepts to increase learners' motivation and behavior (Alomari et al., 2019). Compared to other applications, this one is for learning. With the help of this program, students can respond to tests or questions with an easy-to-read display. Students will find it harder to finish it because of time constraints. When compared to other applications, the Quizizz program has a number of advantages, some of which include the presence of a leaderboard that allows users to see how they rank in relation to other users and how well they did on the quiz (Zhao, 2019).

Most of the teachers in the classroom, just give the tasks or exercises traditionally, such as giving questions and students should answer them in their books. But, in this digital era, teachers can design tasks or exercises for the students through applications or games. According to Puspitarini and Hanif (2019), educators should be highly skilled in both traditional and digital media in the hopes that doing so will encourage pupils to learn English. Quizizz program also has the ability to make learning engaging and entertaining. This description leads to the conclusion that Quizizz is a quiz game application that may be utilized in the classroom and is played utilizing an internet-connected smartphone. The advantages and applications of the Quizizz application in the process of teaching and learning activities have been investigated in earlier studies. Application Classes that utilize Quizizz frequently benefit more from it than classes that use it just sometimes (Zhao, 2019).

Most of the studies that have been done on the Quizizz application have concentrated mostly on the effectiveness of Quizizz in teaching English and students' perception of Quizizz in ELT classrooms. However, there is a lack of studies that investigates the teachers' perceptions of Quizizz in teaching English to young learners. As a result, the purpose of this research is to investigate the primary school teachers' perceptions of utilizing Quizizz in ELT classrooms.

METHOD

Research Design

This research was conducted in qualitative research. A qualitative case study approach was utilized to provide a more detailed description and improve comprehension. In order to show a full explanation of the phenomena as expressed by the students, with minimum interpretation, student experiences were repeated in a way that was as accurate as possible to what the participants said (Creswell, 2018). In order to acquire information from the students without disrupting the existing learning environment, data from a variety of sources were combined (Kahlke, 2014). Furthermore, Teherani et al. (2015) stated that qualitative research gives researchers the opportunity to carry out a well-structured analysis of participants while they are in their natural surroundings. This qualitative case study makes it possible for a better knowledge of the perspectives and views held by the participants to be achieved. Therefore, this qualitative descriptive case study's objective is to analyze the EFL teachers' perceptions of the use of Quizizz in ELT classrooms for young learners.

Participants

The participants who took part in this study were EFL teachers who are teaching English in some primary schools in Medan and who have used Quizizz in EFL classrooms. Ten participants participated in the study after being selected purposefully for the sampling. In the process of purposive sampling, the researcher chooses by hand which individuals to examine based on predetermined criteria related to the statement of the problem (Morrell & Carroll, 2010).

Data Collection

In order to gather the necessary information for this study, a questionnaire and an interview were conducted. The research questions that were answered by this study are posed in the form of closed-ended questions in the questionnaire. The questionnaire was presented online, and all ten participants had the option to respond anonymously. Some of the survey questions centered on the teachers' impressions of utilizing Quizizz in EFL classrooms. The questionnaire was crafted and organized in such a way as to collect and arrange the required information in a format that is capable of being evaluated. Additionally, the questionnaire is used to obtain the information that is required.

The second method of gathering information consisted of conducting semi-structured interviews with each of the twenty participants. In a semi-structured interview, guidelines are developed and adhered to in as close of a manner as is practicable, but there is some leeway for deviating from the script. It is possible to ask follow-up questions, and the interviewee's responses can be examined in greater depth (Morrell & Caroll, 2010). Teachers were interviewed in secret, and they will not be identified in any way so as to preserve their identity. Higher levels of validity can be attained through the use of semi-structured interviews, which also make it possible to ask follow-up questions and gain a deeper comprehension of the issue (Doody & Noonan, 2013). A thematic analysis was performed on the data gathered for this study. It was decided to extract, discuss, and write about the assertions made by the instructor in order to explore the perceptions of using Quizizz in EFL classrooms for young learners (Miranty et al., 2021).

Data Analysis Techniques

This style of interview is suitable since the research methodology (case study) attempts to provide factual information about the participants' feelings and opinions. A thematic analysis was performed on the data collected for this study. The data are categorized based on some themes, then the data are analyzed from the results of the questionnaire and the result of the interview. The data which related each other are categorized in one theme and so on. It allows for in-depth analysis of the data in a particular context, specifically the investigation of teachers' impressions of Quizizz usage in ELT classrooms for young learners.

RESULTS AND DISCUSSION

This study gathered information on how English teachers of prime schools in Medan perceived utilizing the Quizizz application for young learners. Respondents completed surveys for this study. To analyze the data, the researchers used scales of Likert. The scale questionnaires consisted of three scales, namely: 1 (meant for disagreeing), 2 (meant for neutral), and 3 (meant for agreeing). However, the answers in this section are divided into five themes:

Teachers' Perceptions' of the Effectiveness of Utilizing Quizizz

At this point, researchers got a sense of participants' perceptions of the effectiveness of utilizing Quizizz in

English classes for young learners. The information about this issue can be seen in Table 1 below.

Table 1. The Effectiveness of Utilizing Quizizz in English Classroom

Likert Scale	Frequency	Percentage (%)
1	1	10
2	3	30
3	6	60
Total	10	100

The data in Table 1 showed that most participants stated that the Quizizz application is effective in teaching English in the classroom (six participants), while three participants voted neutral and one participant stated that Quizizz is not effective in English classrooms. These statements are also supported by the excerpt below.

> *"Quizizz is very effective and helpful for me as the teacher in designing quiz for the students. Then, the quiz will be interesting for the students."* (Excerpt 1, interview)

> *"Quizizz is helpful, I usually Quizizz in creating quizzes or exercises for my students. I do not need to check the answer again, the application will do that automatically. We can get the score, it saves my time."* (Excerpt 2, interview)

Based on the result of the interview, it can be concluded that Quizizz is very helpful for teachers and effective in the teaching-learning process. Quizizz can save time for the teacher to check the student's answers because Quizizz can do that automatically. So, Quizizz is effective in ELT classrooms, according to teachers. The class is more engaging and communicative during the teaching-learning process when the teachers use this application. Then, Dhamayanti (2021) argued Quizizz is a useful learning tool with engaging features that teachers and students can use to boost motivation during online learning activities.

Then, according to Wulandari (2022), Quizizz can be used as one of the options for holding instructive sessions during online learning. This platform can support language learning for both teachers and students. The kids like studying because of the system's simplicity, appealing design, and game-like character, which raises their level of comprehension of the lesson. With reference to the data previously covered, it is clear that Quizziz, particularly in the context of remote learning, can be very beneficial in assisting English learning. This application is suggested for use by teachers during online English classes. Teachers concur that Quizizz is beneficial since pupils feel satisfied while utilizing the program, according to Yunus' and Tan's

report from 2021. In their research, they also discovered that Quizizz is successful in that it aids kids in learning independently by enhancing memory. After playing one round of the game, the students are given the opportunity to evaluate the questions and conduct independent study. In other words, students give more attention when they had exercises in Quizizz application.

Additionally, Quizizz is superior to older, more conventional approaches by a significant margin, according to Poole's and Midura's (2020) study, because it can draw learners in and help them recall the key lessons gained. This is so that players can gain extra points by accurately answering questions within the game itself. Roshdan et al. (2021) provided support for this; nonetheless, educators should make changes to ensure that students taking English courses have relevant and pleasurable learning experiences in this new normal.

Teachers' Perceptions' of the Feasibility of Utilizing Quizizz

At this point, researchers got a sense of participants' perceptions of the feasibility of utilizing Quizizz in English classes for young learners. The information about this issue can be seen in Table 2 below.

Table 2. The Feasibility of Utilizing Quizizz in English Classroom

Likert Scale	Frequency	Percentage (%)
1	0	0
2	3	30
3	7	70
Total	10	100

The data in Table 2 showed that most participants stated that the Quizizz application is feasible to use in teaching English in the classroom (seven participants), while three participants stated that Quizizz voted neutral and no participant stated that Quizizz is not feasible to use. These statements are also supported by the excerpt below.

> *"Quizizz is very easy to use and friendly-user. Everyone can operate this application through a computer, laptop, or mobile phone."* (Excerpt 3, interview)

> *"Every teacher can use this every time easily. I can create quizzes from my mobile phone and I can check the score of my students on my mobile phone too"* (Excerpt 4, interview)

Based on the result of the interview, it can be concluded that Quizizz is friendly and easy to use for the teacher. Teachers can use some devices, such as computers,

laptops, and even mobile phones. Teachers can create the quiz, then share the link with the students, and can check the students' scores automatically.

The feasibility of utilizing Quizizz means how Quizizz can be used by teachers in the teaching-learning process. The results of this study show that Quizizz is simple to use, user-friendly, and saves time while producing quizzes. Some earlier investigations have also supported this concern. Quintas-Hijos et al. (2020) claimed that because Quizizz is user-friendly for everyone, teachers find it to be extremely viable. They must still have an Internet connection in order to take part in the sessions, though. The majority of educators also concur that Quizizz is excellent for teaching and studying the English language, but they also stress the need to ensure that all students have equitable access to educational opportunities, including online learning (Kurt et al., 2019).

To access a game that may be played in real-time mode or student-paced mode throughout the teaching and learning process, students only need a game code from their teachers (Almeida & Simoes, 2019; Kalogiannakis et al., 2020). Because they have the option to decide when and where they want to complete the quizzes supplied by the teacher, this gives students a more equal opportunity to participate actively in the learning process and makes Quizizz more accessible to them. Overall, teachers concur that Quizizz is simple to use and handy for both students and teachers. For the teachers, designing the games is easy because Quizizz is a user-friendly application that can be accessed on a smartphone. It is not difficult to apply the whole navigation menu in Quizizz. While for the students Quizizz is easy to use. The students just insert the code and the name, then the students can follow the quiz directly.

Teachers' Perceptions' of Difficulties in Utilizing Quizizz

At this point, researchers got a sense of participants' perceptions of the difficulties of utilizing Quizizz in English classes for young learners. The information about this issue can be seen in Table 3 below.

Table 3. The Difficulties of Utilizing Quizizz in English Classroom

Likert Scale	Frequency	Percentage (%)
1	4	40
2	1	10
3	5	50
Total	10	100

The data in Table 3 showed that half of participants stated that the Quizizz application has difficulties in utilizing (five

participants), while one participant stated that sometimes he/she has difficulties, and four participants stated that they have no difficulties in utilizing Quizizz. These statements are also supported by the excerpt below.

> *"I do not have trouble in utilizing or in operating the Quizizz. The trouble sometimes comes from the internet connections. For the features that were provided are easy to apply."* (Excerpt 5, interview)

> *"For me, sometimes I have trouble in utilizing Quizizz beside the internet connection. I do not understand the whole of the features in Quizizz. But I think I should learn and practice more."* (Excerpt 6, interview)

Based on the result of the interview, the teachers have difficulties in utilizing Quizizz from the internet connection. In operating this application, teachers, and students need an internet connection, if there is no internet connection, we can operate this application in the learning process.

Everyone can use Quizizz, an online platform that is free for both teachers and students. Users can join up for free and gain unrestricted access to a variety of tests that are appropriate for their skill levels with only the press of a button. Teachers are free to use any of the quizzes that are offered on the site, and they are also free to develop or create new quizzes whenever they like. Some teachers, meanwhile, find it challenging to use Quizizz in the English classroom. According to the findings, using Quizz is difficult for teachers due to poor internet connections. This assertion is in line with Ningrum's (2022) assertion that the Quizizz application's shortcoming is the requirement for consistent internet usage. Then, according to Degirmenci (2021), there will be instances when students have trouble utilizing Quizizz owing to a variety of circumstances like Internet connectivity, and device accessibility.

Another aspect of difficulty found in this present study was the difficulties faced by teachers in creating or using the quizzes on Quizizz. Because they are unsure of how to use Quizizz to its full potential, senior professors have stated that they are not interested in using the platform. Additionally, age and time considerations are now frequently cited by teachers as reasons why Quizizz should not be used in teaching and learning sessions in the classroom (Ahmad et al., 2020; Cetin, 2018; Alzu'bi, 2018). However, with a little practice or quick courses that can be taken while at school, these challenges can be quickly solved. It is crucial to realize that with exposure, students will become accustomed to these platforms and will be better prepared for the future (Kalogiannakis et al., 2020).

Teachers' Perceptions' of How Quizizz Motivates the Students

At this point, researchers got a sense of participants' perceptions of how Quizizz can motivate the students in English classes for young learners. The information about this issue can be seen in Table 4 below.

Table 4. Students' Motivation in Utilizing Quizizz in Their English Learning

Likert Scale	Frequency	Percentage (%)
1	0	0
2	2	20
3	80	80
Total	10	100

The data in Table 4 showed that most participants stated that the Quizizz application can motivate students in English class (eight participants). Then, two participants stated neutral and no participant stated that Quizizz can not motivate the students. These statements are also supported by the excerpt below.

> *"Since I apply quiz through Quizizz for daily exercises, homework, or monthly test, the students are motivated in English learning. They really have Good enthusiasm in answering the questions, they try to the best because they want to be the winner in every quiz."* (Excerpt 7, interview)

> *"Quizizz makes the class more communicative and fun. Quizziz can decrease the students' boredom in English class, especially when the students are asked to answer the questions."* (Excerpt 8, interview)

Based on the result of the interview, Quizizz can motivate the students in the English class. The students feel more enthusiastic about doing the task or quiz. The students believe they have to be the winner in every quiz that teachers created. And the teachers stated that students do not feel bored in the classroom. The majority of pupils believe that learning English is tough and uninteresting. However, the inclusion of Quizizz in ELT classes encourages students to adhere to teacher directives and complete quizzes via the Quizizz program. A study carried out by Ningrum in 2022 lends credence to this assertion. According to the students' perceptions, the Quizizz application is a learning tool that is enjoyable, efficient, not monotonous, varied, difficult, easy to use, and portable. Students expressed their desire for more teachers to routinely use the Quizizz application into the teaching and learning process in their comments. In general, using the Quizizz program has a good effect on the process of learning English, according to the research's findings.

The Dhamayanti's study's results (2021) then demonstrated that the majority of EFL students had favorable perceptions of and motivation for Quizizz. Quizizz can therefore aid in the learning process in an online English classroom. It suggests that Quizizz is a suitable e-learning tool for use in English virtual classrooms and that it can boost EFL students' motivation for online learning. According to Wulandari (2022), a large percentage of students expressed satisfaction with the application in the survey, indicating that they had a positive opinion of Quizziz as a tool for online English learning. According to the study's findings, teachers should think about using this tool to design meaningful and interesting online learning encounters.

Additionally, Sutyaman et al. (2020) found that pre-service English teachers who participated in the study had a favorable opinion of using Quizizz as a site-app for the students' daily online quizzes. Additionally, the majority of them concur to employ Quizizz in their future classrooms. The majority of diploma students at UiTM in the academic year 2020–2021 had a favorable opinion of using Quizizz as an online learning resource and it is more engaged and driven in the classroom (Roshdan et al., 2021).

Teachers' Perceptions of Willingness To Continue Using Quizizz

At this point, researchers got a sense of participants' perceptions of the willingness of utilizing Quizizz in English classes for young learners. The information about this issue can be seen in Table 5 below.

Table 5. Teachers' Willingness on Utilizing Quizizz in the English Classroom

Likert Scale	Frequency	Percentage (%)
1	1	10
2	4	40
3	5	50
Total	10	100

The data in Table 5 showed that half of the participants stated that they will continue to use Quiziz in the English classroom. While four participants voted neutral, which means they still want to use this application too, but not for routine time. But the teachers will use this application at a certain time. And one participant will not continue Quizizz in his/her English class. These statements are also supported by the excerpt below.

> *"I feel that Quizizz is helpful for me in creating a quiz for the students and save my time. So, I will*

continue to use this application in may class." (Excerpt 9, interview)

"Quizizz is helpful in English class. But for the daily task maybe I do not use, it because nota ll of students are allowed to bring phone to school. I will use the Quizizz for the homework or monthly test." (Excerpt 10, interview)

Based on the result of the interview, it can be concluded that Quizizz is friendly and easy to use for the teacher. Teachers can use some devices, such as computers, laptops, and even mobile phones. Teachers can create the quiz, then share the link with the students, and can check the students' scores automatically. It can be shown that teachers wish to utilize Quizizz in their English classes since it helps the teacher create a learning environment and manage daily quizzes and assessments. The majority of teachers in the study had favorable opinions of Quizizz and were prepared to use the platform in the future (Rueckert et al., 2020; Cetin, 2018; Müller et al., 2021).

CONCLUSION

Therefore, it is assumed that Quizizz is integrated since adding ICTs or website apps to students' daily online quizzes increases their effectiveness dramatically. They unanimously agreed that Quizizz should be a part of the students' daily online quizzes. The use of the Quizizz program generally has a favorable effect on the process of learning English. However, the Quizizz application makes it enjoyable. Students claim that the Quizizz program encourages them to be more engaged as they compete for the top rank and grade on quizzes in their class. Prior to the quiz, students are also more engaged in learning the content. As a result, students are more motivated to learn. According to the students' perceptions, the Quizizz application is a learning tool that is enjoyable, efficient, not monotonous, varied, difficult, easy to use, and portable. The Quizizz application does have some drawbacks, though. Because not all students have access to a reliable internet connection, internet use must be stable. Students who experience network or signal issues lag as a result of this. Additionally, there are comments from students who wish that more teachers will regularly incorporate the Quizizz program into the teaching and learning process. This is beneficial for preventing student learning boredom.

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REFERENCE

Ahmad, J., Mahmud, N., Jabbar, A., & Ikbal, M. (2020). Opportunities and challenges in the use of information and communication technology: Study for "Teaching From Home" for pandemic COVID-19. *Int. J. Sci. Technol. Res*. 9, 294–299.

Almeida, F., & Simoes, J. (2019). The role of serious games, gamification and industry 4.0 tools in the education 4.0 paradigm. *Contemp. Educ. Technol. 10*, 120–136.

Alomari, R., Al-Samarraie, I, H., & Yousef. (2019). The role of gamification techniques in promoting student learning: A review and synthesis. *J. Inf. Technol. Educ. Res*.

Alzu'bi, D. M. (2018). The degree of applying e-learning in English departments at Al-Balqa Applied University from instructors' perspectives. *Turk. Online J. Educ. Technol*, *17*, 192–196.

Bicen, H., & Kocakoyun, S. (2018). Perceptions of students for gamification approach: Kahoot as a case study. *International Journal of Emerging Technologies in Learning*, *13*(2), 72–93. https://doi.org/10.3991/ijet.v13i02.7467

Cetin, H. S. (2018). Implementation of the digital assessment tool 'Kahoot!' in elementary school. *Int. Technol. Educ*. J, *2*, 9–20.

Creswell, J. W. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5th ed.).* Sage.

Darmadi, H. (2015). Tugas, peran, kompetensi, dan tanggung jawab menjadi guru profesional. *Jurnal Edukasi*, *13*(2), 161–174.

Degirmenci, R. (2021). The use of Quizizz in language learning and teaching from the teachers' and students' perspectives: A literature review. *Lang. Educ. Technol*. 1, 1–11

Dhamayanti, F. I. (2021). EFL students' perception and motivation toward Quizizz as e-learning media in English e-classroom. *Education of English as Foreign Language Journal (EDUCAFL), 4*(2), 70-77.

Doody, O., & Noonan, M. (2013). Preparing and conducting interviews to collect data. *Nurse Researcher,* *20*(5), 28–32. https://doi.org/10.7748/nr2013.05.20.5.28.e327

Fies, C., & Marshall, J. (2006). Classroom response systems: A review of the literature. *Journal of Science Education and Technology*, *15*(1), 101–109. https://doi.org/10.1007/s10956-006-0360-1

Hernandez, R. M. (2017). Impacto de las TIC en la educación: Retos y perspectivas. *Propósitos y Representaciones*, *5*(1). doi: 10.20511/pyr2017.v5n1.149.

Kahlke, R. (2014). Generic qualitative approaches: Pitfalls and benefits of methodological mixology. *International Journal of Qualitative Methods*, *13*(1), 37–52. https://doi.org/10.1177/160940691401300119

Kalogiannakis, M., Papadakis, S., & Zourmpakis, A.-I. (2020). Gamification in Science education. A systematic review of the literature. *Educ. Sci.*, 1, 22.

Kurt, A. A., Sarsar, F., Filiz, O., Telli, E., Orhan-Göksün, D., Bardakcı, S. (2019). Teachers' use of Web 2.0: Education bag project experiences. *Malays. Online J. Educ. Technol*, 7, 110–125.

Lestari, T. W. (2019). Kahoot! and Quizizz: A comparative study on the implementation of e-learning application toward students' motivation. *Journal of English Language Teaching, Learning and Literature*, *2*(2), 13-22.

Miranty, D., Widiati, U., Cahyono, B. Y., & Suzila, T. I. (2021). The effectiveness of using Grammarly in teaching writing among Indonesian undergraduate EFL Students. *Advances in Social Science, Education and Humanities Research,* 612*, International Seminar on Language, Education, and Culture (ISoLEC).*

Morrell, P. D., & Carroll, J. B. (2010). *Conducting Educational Research: A Primer for Teachers and Administrators.* Sense Publisher, Oregon, USA.

Muhammad, N. (2011). Effect of e-learning on language learning. *Procedia Comput. Sci*, 465, 2011.

Müller, A.M., Goh, C., Lim, L., Gao, X. (2021). COVID-19 emergency e-learning and beyond: Experiences and perspectives of university educators. *Educ. Sci. 11*, 19.

Nilsen, D. L. F. (2016). The use of Case Grammar in teaching English as a foreign language. *TESOL Quarterly,* 5(4), 293. https://doi.org/10.2307/3585495

Ningrum, D. W. (2022). The Utilization of Quizizz Application in Online Learning. *Eltin Journal: Journal of English Language Teaching in Indonesia, 10*(1), 55-64.

Nomass, B. B. (2013). The impact of using technology in teaching English as a second language. *English Language and Literature Studies, 3*(1), 111.

Poole, F., & Midura, J. (2020). A systematic review of digital games in second language learning studies. *Int. J. Game-Based Learn*, *10*, 1–15.

Puspitarini, Y. D., & Hanif, M. (2019). Using learning media to increase learning motivation in elementary school. *Anatolian Journal of Education*, 53-60.

Quintas-Hijos, A., Peñarrubia-Lozano, C., Bustamante, J. C. (2020). Analysis of the applicability and utility of a gamified didactics with exergames at primary schools: Qualitative findings from a natural experiment. *PLoS ONE*, *15*, e231269.

Ratnasari, E., Hikmawati, R., & Ghifari, R. N. (2019). Quizizz application as gamification platform to bridge students in teaching reading comprehension, 1333-1337.

Roshdan, N. F.M., Fisol, S. H. A. M., & Yahyauddin, N. (2021). Students' Perceptions towards the Use of Quizziz as a Tool in Improving Reading Skills. *Proceedings of the 5th INACELT (International Conference on English Language Teaching).*

Rueckert, D., Pico, K., Kim, D., Sanchez, X. (2020). Gamifying the foreign language classroom for brain-friendly learning. *Foreign Lang. Ann*, 1–18.

Sutyaman, M., Akbar, F., & Salsabila, S. (2020). English Education Students as Pre-Service English Teachers' Perception on Quizizz: Considering Mall Utilization as a Pedagogical Tool. *iTELL (Indonesia Technology Enhanced Language Learning)*

Teherani, A., Martimianakis, T., Stenfors-Hayes, T., Wadhwa, A. & Varpio, L. (2015). Choosing a qualitative research approach. *Journal of Graduate Medical Approach, 7*(4), 669–670. https://doi.org/10.4300/JGME-D-15-00414.1

Wulandari, E. (2022). Quizizz application for English online learning: The students' perceptions. *Jurnal PAJAR (Pendidikan dan Pengajaran)*, *6*(3), DOI: http://dx.doi.org/10.33578/pjr.v6i3.8774.

Yunus, C. C. & Tan, K. (2021). Exploring a gamified learning tool in the ESL classroom: The case of Quizizz. *J. Educ. E-Learn. Res*, 8, 103–108.

Zhao, F. (2019). Using Quizizz to integrate fun multiplayer activity in the accounting classroom. *International Journal of Higher Education*, *8*(1), 37–43.