

Exploring Game-Based Language Learning Applications: A Comparative Review of Quizwhizzer, Oodlu, Quizalize, and Bamboozle

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ABSTRACT

The rapid growth of technology has affected sectors of human life, including English Language teaching (ELT). Hence, English language teachers (ELLs) should grab the benefits of technology to elevate their teaching outcomes i.e., creating a more engaging classroom. Nevertheless, selecting the most suitable applications to support teaching is not easy. Hence, this research aims to review four Game-Based Language Learning (GBLL) Applications: Quizwhizzer, Oodlu, Quizalize, and Bamboozle to assist ELLs in making decisions. This study employed a comparative review method based on Chapelle's (2001) technology evaluation criteria. These criteria include language learning potential, meaning focus, learner fit, authenticity, impact, and practicality. Through the application of these criteria, the article explores and assesses the features, pedagogical approaches, user experiences, and language learning outcomes facilitated by each application. The findings showed that all applications had the potential to support English language teaching. Then, the majority exhibited positive impacts based on scientific research findings and reflected positive analysis from the lens of Chapelle's (2001) evaluation criteria. However, drawbacks appeared due to each application's special feature, i.e., the limited uploadable file formats and getting full access to application features. Hence, this study suggests further investigations due to its limitations.

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1. INTRODUCTION

Technology development has affected many aspects of human life, including English language teaching (ELT) (Alqahtani, 2019; Muslimin et al., 2023). Technology offers English language teachers a huge range of resources and applications to establish more engaging and dynamic language learning experiences for students (Kumi-Yeboah et al., 2020). The teaching of English which is embodied by technology offers chances for technology-based and interactive learning, which enables the multiplication of students' learning outcomes. According to some previous studies, technology can attend more realistic and authentic materials which bring language learners closer to learning from native and experience virtual learning (Ananda, 2020; Huang, 2021). Also, technology enables English language teachers to create more interactive learning which can promote learner's active engagement and learning motivation (Han, 2021; Li & Yu, 2022; Liu, 2015). Furthermore, technology allows English language teachers to incorporate multimedia materials, such as movies and audio recordings, into their lessons, allowing students to practice listening and speaking skills in an immersive and contextualized setting (Fidan & Debbag, 2018). EFL teachers may create dynamic and interesting learning environments that accommodate their students' different needs and preferences by using the power of technology.

Nevertheless, employing technology to support English language teaching would not be easy since there are huge technology options everywhere. With these varieties, the ELT teachers found it difficult to manage their time to unpack each of the language learning applications, hard to decide the tools appropriate to support their students' language learning, and confused to adjusting the technologies with the ideas of solving the existed language learning problems in the classroom, i.e. to elevate learners motivation and engagements (Deocampo, 2020). Moreover, embodying technology in teaching requires a teacher professional development (TPD) program that catalyzes the teachers' chosen technologies' comprehension and practical skills so that the adoption of technology can be the solution and not a distraction (Muslimin et al., 2022). Therefore, guidance or experience

reflections toward the application of technologies would help many English language teachers to efficiently save time during the technology selection, to precisely meet the teaching goal by selecting the most suitable technology, to minimize teaching planning errors by learning from the guidance, and to develop more effective teaching pedagogy through stepping on the drawbacks (Deocampo, 2020; Heap et al., 2021; Lim et al., 2020).

Instead of the issue that arose after the incorporation of technology into ELT, one typical challenge that teachers confront is persuading students to actively participate in the language learning process. Technology can help to solve this challenge by providing creative techniques that tap into students' inherent desires (Deocampo, 2020). Game-based language learning, in particular, uses the allure of games to pique students' interest and drive (Adipat et al., 2021; Plass et al., 2015). These apps combine elements of competition, prizes, and achievement to create an immersive and entertaining learning experience. By transforming language learning into a game-like experience, technology helps teachers address students' motivational issues by providing a sense of challenge, progression, and accomplishment. Through game-based language learning applications, teachers can captivate students' attention, increase their motivation to participate actively and foster a positive attitude towards language learning (Pan et al., 2021).

Moreover, Game-Based Language Learning (GBLL) applications play a crucial role in promoting students' learning motivation and autonomy (Adipat et al., 2021; Kashefian-Naeeni & Kouhpeyma, 2020). The gamified approach to language learning offers a range of benefits that empower learners to take charge of their learning journey. By integrating game elements such as points, levels, and badges, these applications provide students with a sense of achievement and progress, fostering intrinsic motivation. The interactive and adaptive nature of GBLL allows students to engage in personalized learning experiences tailored to their individual needs and preferences (Plass et al., 2015). Through immediate feedback, progress tracking, and performance analytics, students can monitor their learning, set goals, and make informed decisions about their language learning strategies. By promoting autonomy, GBLL applications cultivate a sense of ownership and responsibility in students, empowering them to become self-directed learners who take an active role in their language acquisition.

The need for a review of GBLL applications arises from the vast array of options available in the digital landscape. With the rapid advancement of technology, the market is flooded with numerous applications claiming to enhance language learning (Deocampo, 2020). However, not all applications are equally effective or aligned with pedagogical principles. Therefore, a comprehensive review of GBLL applications such as *Quizwhizzer*, *Oodlu*, *Quizalize*, and *Bamboozle* is crucial to assist educators in making informed decisions about their integration into EFL classrooms (Ishaq et al., 2021; Zhang & Hasim, 2023). By examining the features, functionalities, and pedagogical approaches of these applications, teachers can select the most appropriate tools that align with their teaching goals, learner needs, and technological requirements. A review of GBLL applications provides valuable insights into their strengths, weaknesses, and potential for enhancing language learning outcomes, allowing educators to optimize their use of technology in the classroom.

2. METHOD

2.1. Research Design

This study employed a comparative review approach to explore and evaluate four game-based language learning applications: *Quizwhizzer*, *Oodlu*, *Quizalize*, and *Bamboozle*. A comparative review is a kind of method that analyzes phenomena and then puts them together to find the points of differentiation and similarity (Miri & Shahrokh, 2019). Therefore, the aim was to assess their effectiveness in facilitating English Language Teaching and Learning (ELTL) as well as to compare their features, user experience, and pedagogical approaches. The review was conducted based on a comprehensive analysis of each application's functionalities and their alignment with language learning principles.

2.2. Selection Criteria

Before conducting the study, the researchers decided on some criteria for the Game-Based Language Learning (GBLL) applications selection. Adapting from Anstey and Watson's (2018) study, the selected GBLL applications should meet the following criteria. First, the application should be relevant for language learning, meaning that the application can be modified with English language teaching and learning materials or even if it has already had this feature. Second, the application should be practical and user-friendly. It means that the selected application should help the users to operate it easily with its explicit features and should have free access. The application should also be readily used online at any time and at any place. Third, the application must be adjustable for English language teachers to develop games to facilitate their teaching and support students' learning. Following the aforementioned criteria, the selected GBLL applications are *Quizwhizzer*, *Oodlu*, *Quizalize*, and *Bamboozle*.

2.3. Data Collection

The data of this comparative review were gathered through some steps. First, the researchers explored extensively each of the GBLL applications. The researchers observed and interacted with the application content, features, and tutorials. Second, the researchers conducted a systematic analysis of the GBLL applications' features and functionalities to support English Language Teaching and Learning (ELTL) by applying Chapelle's (2001) criteria for CALL evaluation. Third, the researchers reflected on their personal experiences to use the selected applications.

2.4. Evaluation Criteria

The systematic analysis of the chosen GBLL applications namely *Quizwhizzer*, *Oodlu*, *Quizalize*, and *Bamboozle* was conducted based on criteria adopted from Chapelle's (2001), criteria for CALL evaluation. The criteria include some items as follows:

1. Language Learning Potential: The degree of opportunity present for beneficial focus on form.
2. Meaning Focus: The extent to which learners' attention is directed toward the meaning of the language.
3. Learner Fit: The amount of opportunity for engagement with language under appropriate conditions given learner characteristics.
4. Authenticity: The language degree of correspondence between the learning activity and target language activities of interest to learners out of the classroom.
5. Impact: The positive effects of the GBLL activity on those who participate in it.
6. Practicality: The adequacy of resources to support the use of the GBLL activity.

2.5. Data Analysis

The data gathered during the research and evaluation of each application was qualitatively assessed. The features, functions, and possible efficacy of the applications were discovered and compared using common themes and patterns. The findings were then evaluated to provide an overall comparative assessment of the potential for game-based language learning of *Quizwhizzer*, *Oodlu*, *Quizalize*, and *Bamboozle*.

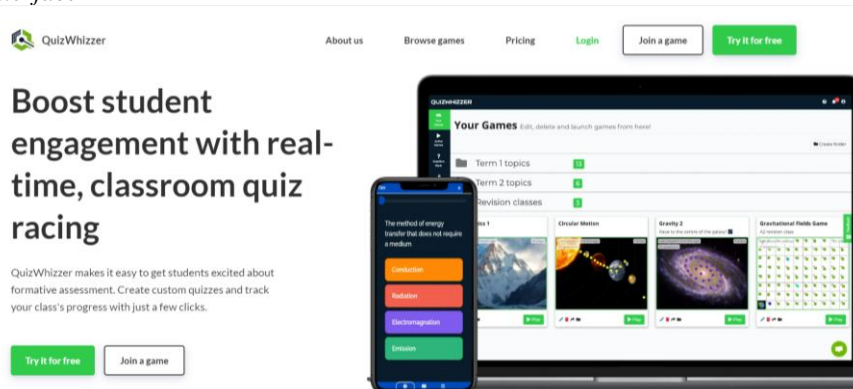
3. SUMMARY

This comparative review selected four GBLL applications: *Quizwhizzer*, *Oodlu*, *Quizalize*, and *Bamboozle* to be the objects of the review. To get general information about the applications, the summary part would capture the interface of the applications, describe the general functions of the applications, explain the features, provide the applications links, and explain how it supports English language teaching and learning.

3.1. Quizwhizzer

The first GBLL application that would be reviewed was *Quizwhizzer*. This application was developed to create interactive learning activities and competitions i.e., quizzes. The English language teachers can create interactive quizzes and play them or share them with the English language learners to play individually or in group competitions. Therefore, this application can promote English language learners' learning engagement and motivation. This application can be accessed through their website by searching in an online browser and typing '*Quizwhizzer*' or visiting <https://quizwhizzer.com/>. Figure 1 shows the interface of this application.

Figure 1
Quizwhizzer Interface



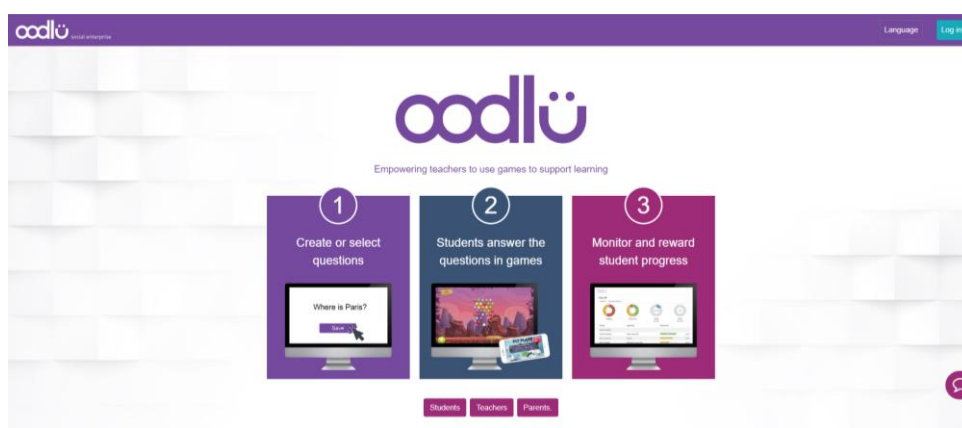
Inside the *Quizwhizzer* application, users can find some features which challenge the users' creativity to apply meeting their creation objectives. First, it has multiple question formats which enable users to create matching questions, fill in the blanks, and multiple choices. Second, it helps users to monitor their learning progress with the progress tracking feature and instant feedback feature. Third, it helps users to find some previously developed games since it has extensive customizable quiz and question options. The existing templates can help new users easily develop their games. Fourth, it has leaderboards that increase the competitiveness among players. Lastly, this application has gamified elements that enable creators to develop interactive, interesting, and engaging learning activities.

As English language educators or teachers, this application can be used as a medium to deliver language materials such as vocabulary, grammar, reading comprehension, and listening skills more attractively. The teachers can align the features of this application with the objectives of the language. This application can help teachers to develop more fun and competitive classroom situation.

3.2. Oodlu

Oodlu is the second GBLL application that would be reviewed. This application was also developed with a similar objective, which is about creating a more engaging and enjoyable learning experience for the students. This application offers various interactive activities and games that are suitable for any language learning game development, one of which is the English language. This application can be reached through the link <https://oodlu.org/> or by typing this application name 'Oodlu' in any online browser. The interface of this application can be seen in Figure 2.

Figure 2
Oodlu Interface



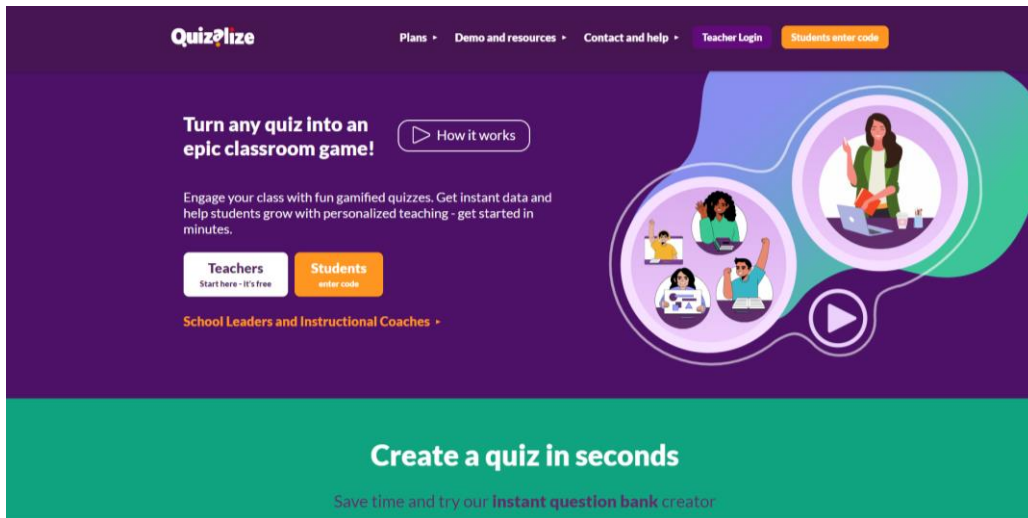
As a GBLL application, *Oodlu* promotes some features. First, it supports the creators to develop grammar, vocabulary, listening, and reading skills games. Second, it has personalized learning paths as the users can monitor their learning progress. It also has personal goal-setting options and performance analysis. Third, the creator can customize the contents of the games to meet the prospective users' language proficiency levels. Finally, *Oodlu* has various gamification elements such as badges, rewards, and colorful leaderboards.

English language teachers could take benefits from this application since this app provides numerous interactive activities and games to maintain the English language learners' engagement and promote their learning outcomes, especially to leverage the learners' language skills achievements. The teachers can develop games that lead to more learners' personalized learning paths to enable teachers to monitor the individual student's learning progress and needs, and to provide personalized learning feedback to increase learners' English language proficiency.

3.3. Quizalize

Quizalize is one of the GBLL applications that would be reviewed in the present comparative review study. This application also has quizzes development feature which is customizable and shareable to English language learners. This application also enables English language teachers to conduct formative assessments and give feedback. *Quizalize* provides information for teachers to monitor the learners' learning progress through the presentation of performance analysis. This application can be accessed through the link <https://www.quizalize.com/> or easily type the application name in any online browser. The interface of *Quizalize* is captured in Figure 3.

Figure 3
Quizalize Interface



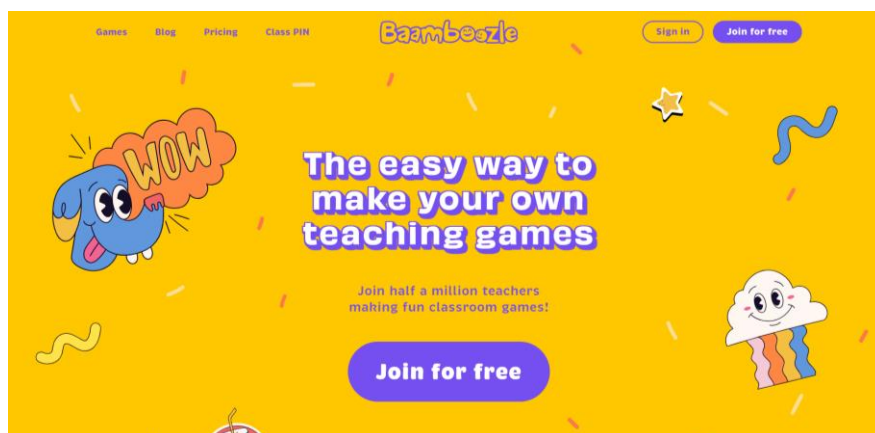
Quizalize provides many features that attract users to try it. First, this application provides various customizable quizzes with many different images and videos. The English language teachers can choose the best-suited multimedia elements with the objective of the creation. Second, it has a real-time feedback feature and learners' performance analytical information. Third, it made the possibility for creators to develop collaborative learning activities with multiplayer gaming mode. Finally, this application is shareable and connectible with the school's learning management systems (LMS).

As English language teachers or educators, they can use *Quizalize* to support their teaching and improve their students' learning outcomes. The teachers can create interactive and engaging quizzes that are suitable for the planned teaching objectives and students' proficiency levels. The students can also access direct feedback for learning improvement. To create collaborative learning circumstances, the teachers can make multiplayer game competitions to foster the English language learners' motivation and engagement.

3.4. Bamboozle

The last GBL application that would be reviewed is the *Bamboozle* application. *Bamboozle* is developed to aid language learning with more focus on developing vocabulary acquisition and retention. This application made vocabulary learning more interesting through interactive games and activities creation. The users can access this application by typing this application name in any online browser or using this link <https://www.baamboozle.com/>. To know more about the interface of this application, users can see Figure 4.

Figure 4
Bamboozle Interface



As the GBL application, this application offers some interesting features. First, it made it possible for users to create interactive games such as matching activities, word puzzles, and memorizing vocabulary games. Second, the difficulty level of the developed game is customizable. The user also can decide the time limits. Third, for vocabulary game development, the users can create suitable custom word lists. So, English language teachers

can share vocabulary games that match the materials that are used for their teaching. Lastly, similar to the other three previous GBLL applications, it provides progress tracking and statistical information on language learners' performance.

When the focus of applying games in English language teaching is to enhance the vocabulary of the language learners, indeed *Bamboozle* application is suitable. This application aided teachers to share essential and selected vocabulary through interactive and engaging games. The students will be trained in some activities that may retain their vocabulary mastery. The teachers can also develop pre-made word sets or lists that correlate to the specific English language learning objectives. The adjustable difficulty levels of the game and the statistics of the learners' performance features allow for more personalized and differentiated learning experiences.

4. ANALYSIS

The analysis of the present research was conducted following the comparative review criteria outlined by Chapelle (2001). The criteria comprise six items for review considerations including language learning potential, meaning focus, learner fit, authenticity, impact, and practicality.

4.1. Language Learning Potential

The GBLL applications should be potentially applicable and give benefits to enhance the quality of English language teaching and learning (ELTL). Findings the possible potentials to apply the applications worth conducting a review for future users. Meeting this objective of the review, it was known that *Bamboozle* had the most limited and specific language learning potential. This application focuses only to aid English language teachers with the creation of vocabulary acquisition and retention through word game development. Though the vocabulary was customizable and maintained the freedom of the users to enhance their game development creativity, nevertheless, *Bamboozle* could not help English language teachers to enhance learners' language skills proficiencies i.e., reading, writing, listening, and speaking. On the other hand, *Bamboozle* had more powerful activities to enhance the English language learners' vocabulary memory through vocabulary tile games. Hence, English language teachers or educators should have a teaching objective that guides them to decide the most suitable application to support their teaching (Hanghøj, 2013; Hartt et al., 2020; Plass et al., 2015).

When the users would like to develop interactive games for English language skills teaching and learning, reviewing the features of the chosen applications, only *Quizwhizzer* and *Oodlu* may help (Efendi & Sutiarti, 2023; Oktika et al., 2023; Rahayu, 2022). Both of the applications enable users to attach audio files for listening skills training as well as voice instructions for speaking. Both can provide wider space for teachers to embed text for reading activities and space for learners to write for writing training.

In terms of giving learning feedback and assessment, all of the applications could help English language learners to monitor their learning progress. Nevertheless, only *Quizwhizzer*, *Oodlu*, and *Quizalize* provided questions feedback, or answers explanation form in the application. This feature can help the learner to comprehend the reason of the answer and learn to avoid similar mistakes in future attempts (Ellis, 2013; Sánchez Calderón & Pacheco Plaza, 2021). Hence, the decided teaching objective of developing GBLL would decide which application would the English language teachers used.

4.2. Meaning Focus

The second criterion of the review was about the meaning focus. In this case, whether or not, the developed GBLL application facilitates learners' focus on the English language teaching and learning content. According to the users' experience in applying all the applications (*Quizwhizzer*, *Oodlu*, *Quizalize*, and *Bamboozle*), they were all able to aid English language learners to focus on meaning and understand the English language content. The teachers could increase the learners' content understanding both through the designed meaningful questions and the provided answers in the games. Moreover, the English language content games could be customized in various formats i.e., fill-in-the-blank or multiple choices to improve interactivity and learning engagement.

However, the focus of the game's development would be different for *Bamboozle* mainly designed for word games. The focus of meaning and content for *Bamboozle* would only be on vocabulary memory sustainability and retention. Furthermore, the creativity of the English language teachers to design the GBLL to meet the teaching objectives that contain the desirable contents for a more meaningful learners' learning experience would be challenging and determining the efficacy of the applications (Deocampo, 2020; Hartt et al., 2020).

4.3. Learner Fit

One of the considerations before the teaching practice is considering the English language learners' proficiency level. It is important to maintain the students' learning interest, motivation, and suitability with the learners' learning capacity (Gupta, 2019; Heap et al., 2021). Reviewing all the application features, all applications were adjustable to meet any levels of potential learners' conditions including proficiency levels and needs. English

language teachers can insert any teaching contents and materials that are suitable for the learners (Plass et al., 2015). Nevertheless, the functionality of *Bamboozle* focuses only on creating word games, the adjustment that the teachers can do is only creating a suitable vocabulary list with the learners' vocabulary proficiency level.

4.4. Authenticity

Authenticity becomes one of the most important issues for materials development in the English language teaching context. The more authentic materials that English language learners can use, the more relevant the contents they learn for actual use in life (Srinivas-Rao, 2019; Yadav, 2022). Consequently, their English language skills would be easily applied in their future language practice and endeavor.

Comparing the features of the chosen applications (*Quizwhizzer*, *Oodlu*, *Quizalize*, and *Bamboozle*), all applications could exhibit authentic materials in the forms of text and images. The English language teachers can upload any authentic vocabulary and pictures from any source to the applications to create the questions or instructions in the games. Nevertheless, only *Quizwhizzer* and *Quizalize* allow English language teachers to upload authentic audio and video (i.e., YouTube videos or Radio audio) to the applications. This flexibility to choose the material formats for the game development would increase the interest of users to apply the applications (Adipat et al., 2021).

4.5. Impact

One of the essential considerations to conduct a comparative review is to know the efficacy of the reviewed application to the language learning progress. Some studies said that *Bamboozle*, *Quizalize*, *Oodlu*, and *Quizwhizzer* could successfully increase the learners' motivation and learning interest (Efendi & Sutiyarti, 2023; Inglés, 2023; Oktika et al., 2023; Rahayu, 2022; Saud et al., 2021). Then, Oktika's et al. (2023) study stated that *Quizwhizzer* was effective to leverage the EFL learners' vocabulary mastery. When English language teachers need to check the efficacy of the application for assessment, a study conducted by Onasanya et al. (2020) said that *Quizalize* was effective to be used for formative assessment during the online learning situation.

Although numerous studies were found to discuss the efficacy of all the applications in this research, however, only few studies investigated the efficacy of *Quizwhizzer* and *Quizalize* for elevating English language teaching outcomes. Furthermore, there were no studies that focused the investigation only to check the impact of *Bamboozle* or *Oodlu* application to aid learners to learn the English language. Therefore, it opens very huge opportunities for researchers and academicians to conduct research in this vacuum area.

Discussing the impacts of the applications in this research from the view of the application's features, all the applications could help English teachers to maintain the learners' engagement and learning interest. Also, the application can aid teachers to increase learners' learning motivation and language learning achievement. Nevertheless, further scientific studies in the real teaching context should be conducted to confirm and test these positive assumptions.

4.6. Practicality

The last criterion of review is the practicality of the applications (*Quizwhizzer*, *Oodlu*, *Quizalize*, and *Bamboozle*). The potential applications should not add more burden for the English language teachers to plan and develop their teaching scenario (Hennessy et al., 2022). On the other hand, the application should scaffold challenges that the English language teachers meet during teaching. One of the practical considerations is the free-access. Based on the researchers' experiences, all were free-access applications that only need the users to register their email to create an account. The users were not requested to pay for the basic features of the applications. However, to access the unlimited features, all the applications demand users to subscribe or make payments.

In terms of device compatibility, *Oodlu*, *Quizalize*, and *Bamboozle* were operatable on multiple devices such as smartphones and notebooks. It allows both teachers and students to access the games at any time and any place. However, *Quizwhizzer* requires users to turn on the notebook to experience attractive learning English through online board games. With notebook operation, English language learners can enjoy readable word fonts and the full-screen design of the game. So, for more mobile use of applications, *Oodlu*, *Quizalize*, and *Bamboozle* are recommended.

Lastly, among the four analyzed applications, *Quizalize* is the only application that can be shared with Learning Management Systems (LMS) such as *Google Classroom* and *Moodle*. Nevertheless, all applications have shareable links or codes for inviting other users i.e., the students to join the game. These different features among applications will be the consideration for teachers to plan their teaching. They will choose the most practical application since it will minimize the possible challenges that may come (Stošić, 2015).

5. CONCLUSION

This study aimed to review four applications namely *Quizwhizzer*, *Oodlu*, *Quizalize*, and *Bamboozle* which are potentially used by English language teachers to develop GBL. The analysis following the comparative review criteria outlined by Chapelle (2001), all the applications are applicable to accommodate authentic English language learning materials or contents and support English language teaching and learning. The majority also showed scientific potential to increase the English language learners' motivation, engagement, learning interest, and learning collaboration. Then, one application showed its specialty by providing vocabulary mastery and retention features. However, some applications serve drawbacks such as limited uploadable file formats and types to create the game, limited access due to purchasing regulations for full versions, and device compatibility issues. Finally, further scientific investigations are required to robust the understanding of that application efficacy to enhance English language teaching outcomes.

Nevertheless, it is important to acknowledge certain limitations of this study. First, the analysis concentrated on a select collection of GBL applications and may not accurately represent the complete landscape of accessible options. Second, the evaluation was based on qualitative analysis and user feedback, which may have been influenced by individual experiences. Finally, there was no direct comparison with standard language learning methods in the study.

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