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Article

A Systematic Review on The Implementation of Game-based Learning to Increase EFL Students' Motivation

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A B S T R A C T

This systematic literature review examines the effect of implementing game-based learning on increasing student motivation in learning English as a Foreign Language (EFL) by analyzing eleven relevant articles published between 2017 and 2024. The findings show that Game-based Learning significantly increases student motivation, besides that game-based learning can also improve student vocabulary, and academic results, reduce anxiety and support collaborative learning, strengthen relationships between students and teachers, and increase student engagement in learning. Further recommendations for future research in the implementation of game-based learning should focus on optimizing Game-based Learning for various learning contexts and integration with conventional methods, as well as developing training programs for teachers.

Keywords: EFL, English Learning, Game-based Learning, Students' Motivation

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INTRODUCTION

Education is an important aspect of every individual's life that everyone must pursue. Having an education in a field helps people think, feel, and act. Apart from that, education develops people's personalities, thinking, and ways of interacting with other people, and prepares them for life experiences, as well as developing various skills that will be very useful in life. One of the skills that can be developed is foreign language skills, especially English. Considering its status as a foreign language and being used as an international language, the ability to speak English opens up many opportunities in various fields, such as academic, professional, and social. By learning English, one can become a translator, language teacher, or marketing professional working for global companies. (Ilyosovna, 2024). So the abilities in English must be good and follow the required standards. (Santosa & Agustino, 2020). Good English language skills enable students to access global information, communicate with people from different cultures, and increase competitiveness in the international job market. English as a global language opens access and provides broad connections to every aspect of humanity to have a good future career in the digital era. (Priyanti et al., 2019). Learning English, especially as a foreign language, plays an important role in education. English is a subject that needs to be studied at school in the world, especially in Indonesia, not only for students but the teachers also need to learn English.

Learning English as a foreign language certainly has its challenges, and many students find it difficult to learn a foreign language because it is not their mother tongue. In addition, according to Hibatullah (2019), the challenges faced also include limited language exposure where English is only used and studied in class, then there are difficulties with language skills, lack of vocabulary, and grammar, there are also challenges due to limited teacher competence in teaching and especially lack of student motivation in learning English, this is because they

consider learning English only a necessity at school, not an essential need. This challenge is not only faced in Indonesia but also faced by international EFL students in non-English speaking countries.

In this context, motivation is one of the key factors that determines the success of learning English. According to Rodiyah et al., (2016) Motivation plays an important role in directing student behavior during learning activities. Motivation is one of the main factors that helps students learn faster and more effectively (Frymier, 2016). In addition, student motivation is related to their desire to participate in the learning process, as well as the reasons or goals underlying their involvement in academic activities. The teaching and learning process will be successful if students are involved, enthusiastic, and active in learning activities. There are two kinds of motivation, namely intrinsic and extrinsic motivation. According to Emda (2018), intrinsic motivation is closely related to interest, desire to learn, and a sense of achievement that originates from within the individual, while extrinsic motivation involves external factors such as external rewards or social pressure. So, motivation can encourage students to continue learning and try to master English even though they face various difficulties.

In learning English, apart from being a foreign language is difficult to learn, and low student motivation is also caused by other factors, namely according to Leonangung et al., (2021) several factors influence students' low motivation, such as internal and external factors, where Internal factors include the interest or encouragement of the students themselves, while external factors include the teacher's strategy or style. In teaching, variations in the media are used, surrounding conditions, namely the environment, and other factors that come from outside. Meanwhile, according to Sabrina et al., (2017), low student motivation is caused by how teachers teach and guide students, how the surrounding conditions greatly influence them, and what students' abilities are. According Sasmita et al., (2020) also proves that students do not dare to answer, or ask questions, lack attention from teachers, have low curiosity, and lack clear explanations from teachers, so students find it very difficult to listen and understand what is being said, which causes low student motivation.

To solve the problem, conventional methods of teaching English are often unable to overcome students' motivational challenges effectively, resulting in a decline in students' interest in learning. So an innovative, effective, and modern strategy is needed which can be achieved according to current technological developments (Santosa et al., 2022). By utilizing digital technology, teachers can create engaging and interactive learning experiences for their students. According to research conducted by Raja and Nagasubramani (2018), modern students tend to prefer to use technology in their learning. The use of modern technology such as interactive devices and tools can improve student learning and interactivity. Technology has an important role in the learning and teaching process because technology has become a support and media that is always used in learning (Ahmadi, 2018). Existence of importance and usefulness, technology can help facilitate the learning needed by teachers and students, this can facilitate the teaching and learning process so that it can motivate students.

With the increasingly rapid and popular development of technology, innovations have emerged in the world of education, one of which is the Game-based Learning (henceforth, GBL) approach. The definition of GBL according to Plass et al., (2015) is a type of game-based learning media, which utilizes technology as an interactive learning media. GBL offers an innovative approach that increases student motivation and engagement through game elements such as challenges and rewards. Unlike traditional methods that are often monotonous, GBL supports active learning, provides immediate feedback, and allows for personalization to suit student's abilities. In addition, GBL also enhances 21st-century skills such as creativity and problem-solving and is flexible because it can be accessed through technology, making it a more effective and enjoyable alternative to traditional methods. This not only makes the learning process more enjoyable but also increases student motivation and involvement in learning English (Mao et al., 2022).

Realizing the fact that English as a Foreign Language (henceforth, EFL) students experience certain difficulties in the English learning process, researchers decided to conduct

a systematic literature review on several studies regarding game-based learning that can increase students' motivation to learn English. Related studies reveal that game-based learning is an innovative strategy and can be implemented in English language learning, but there are still few studies regarding how GBL can influence EFL students' motivation to learn English. This research focuses on looking at student motivation as an important aspect of learning English as a foreign language many students face difficulties in learning because it is not their language and the lack of appropriate strategies and innovations applied, so the application of game-based learning which is an innovation from technological developments will very precisely be applied. This systematic review aims to identify the influence of GBL on increasing student motivation in learning English.

Game-based Learning Increase Students' Motivation

Based on the literature review matrix, shows several studies on the topic of the efficacy of GBL in increasing student motivation in learning English. The results show that the application of GBL in English language learning can provide a significant increase in student motivation. Increasing student motivation in implementing GBL has proven to be very effective, apart from increasing student motivation, GBL has also been proven to increase student vocabulary, and learning outcomes, and reduce excitability. Prastiwi and Saktiono (2023) found that the implementation of GBL, which is the main focus is the use of the OCEAN application, was proven to increase student learning motivation, and vocabulary and reduce anxiety. Apart from that, Tinambunan and Orongan (2023) show that apart from having a positive impact on student motivation, GBL also has a positive impact on learning outcomes so that it can improve student achievement, especially in academic areas. In the context of digital game-based learning (DGBL), Zheng et al., (2024) and Razali et al., (2023) found that Digital game-based learning (DGBL) has shown potential and impact for improving student learning, motivation, engagement, and learning outcomes in English language teaching. Other research by Yieng and Aziz (2022), and Ahmed et al., (2022), also supports and confirms that in increasing vocabulary, motivation, and spelling and reducing anxiety, GBL is very effective. (Kongprab, 2019) and Huang (2023) found that implementing GBL provides appropriate feedback that can increase vocabulary acquisition and learning motivation. Tsai et al., (2017) and Chen (2017) also highlight that increasing achievement and learning motivation are significantly influenced by the mobile GBL approach. Gamlo (2019) also found that the instrumental motivation shown by students was higher and showed that mobile game-based learning applications (MGBLLA) were very useful in increasing student motivation. Overall, these findings indicate that GBL has a significant effect on increasing EFL students' motivation in learning English, which can affect other aspects such as increasing student vocabulary, achievement, learning outcomes, and reducing anxiety.

This systematic review attempts to address the gap in the lack of studies regarding the influence of GBL on EFL students' motivation by summarizing information from previous research regarding the implementation of GBL to students' motivation in learning English in the EFL context between 2017 and 2024. This paper aims to analyze and summarize information from studies regarding the effect of implementing GBL on students' motivation in learning English in the EFL context published in 2017-2024 and summarize the findings to achieve the goal of knowing the effect of implementing game-based learning on EFL students' motivation in learning English. Based on one interpreted goal, the research question for this systematic literature review is "What is the effect of implementing GBL on increasing EFL students' motivation to learn English?".

METHOD

The investigation on implementing GBL to increase EFL students' motivation was carried out by selecting articles in the year of publication: 2017-2024. To select relevant information regarding the topic of implementing GBL to increase EFL students' motivation, a systematic review method was applied. This paper also uses PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) to outline the process of searching for

articles and eliminating them to match topic interest. The PRISMA model is applied to search for indicators that meet the requirements, article search process, article details, and article results.

Data Collection Technique

This paper uses Harzing's Publish or Perish tool connected to Google Scholar as the primary source database. Google Scholar is implemented by entering keywords of topic interest. The keywords mentioned are "GBL in EFL learning" and "Use of in increasing EFL student motivation" with the publication year setting: 2017-2024. In the data recruitment process, PRISMA coaching is carried out in the following three steps. These three steps are identification, filtering, and data entry. It starts by having 200 records from the database. To avoid irrelevant data being included in the SLR, an inclusion and exclusion process is carried out.
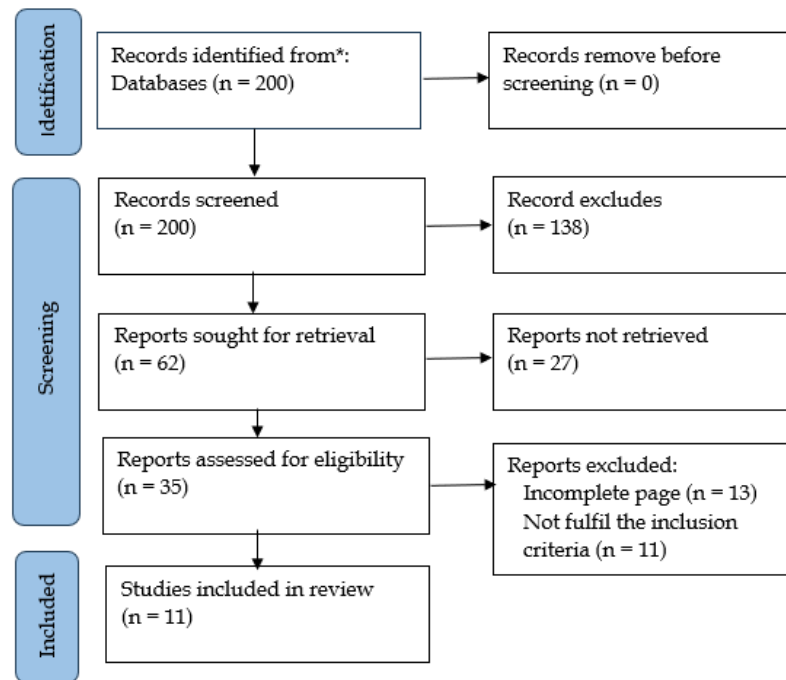

Figure 1. PRISMA diagram

To select the relevant articles, authors establish inclusion and exclusion criteria as follows:

Table 1. Inclusion and Exclusion Criteria

Inclusion criteria	Exclusion criteria
The use of GBL for student motivation in English learning	Not using GBL for student motivation in English learning
Research on the application of GBL to increase student motivation	No research on the application of GBL to increase student motivation
The use of scientific approaches including qualitative, quantitative, or both	Not using scientific approaches including qualitative, quantitative, or both.
Publication years in 2017-2024	Below publication years of 2017-2024
English language	Non-English language

Data analysis

The data selection was carried out by taking articles that did not match the research and saving eleven articles that discussed the application of game-based learning in increasing EFL students' motivation to learn English. From the selection of data, eleven main articles and several other articles were selected to support the main narrative. These articles were used to answer this research question. The eleventh selected articles were all reviewed to gather information essential for this systematic literature review. Of the eleven articles collected, all discuss the effects of implementing GBL on EFL student motivation. The focus of this research

discusses how GBL can significantly increase student motivation.

This research aims to answer important research questions, namely (1) What is the effect of implementing GBL in increasing EFL students' motivation? That will build on the discussion of this systematic literature review. The author has provided several articles outside of the selected articles to support information on the effectiveness of implementing game-based learning. From there the author can create a discussion by answering the research question.

Studies conducted on the implementation of GBL come from various researchers, subjects, and places. This research uses manual selection data with the help of PRISMA in the exclusion and inclusion process. Apart from that, the data found in this research are entirely based on the Google Scholar database by entering keywords and the year the article was published. This systematic literature review only reviews what previous research found about the implementation of GBL to increase EFL students' motivation. This systematic literature review will not create any findings outside of previous studies.

FINDINGS AND DISCUSSION

The researchers selected eleven relevant articles related to applications in increasing student motivation. In Table 2, relevant articles were collected because they fit the criteria for implementing GBL. Of the eleven published studies, it is known that 1 article focuses on a specific application in increasing student motivation and the other 10 articles focus more on the implementation of GBL in general. The final results of the eleven articles reviewed show that the implementation of GBL has a significant effect on increasing EFL student motivation.

The significant effect of GBL provides more potential for changes in student performance. Based on previous studies, it is known that several studies have been conducted in Indonesia and abroad, such as in Iran, Taiwan, Saudi Arabia the United Arab Emirates, Germany, Thailand, China, and Malaysia, which focused on the application of GBL in EFL contexts. Based on research findings, the implementation of these applications mostly occurs at the high school and university levels. There were 11 articles selected to support this research and most of them were related to the application of game-based learning and related to increasing EFL students' motivation.

Table 2. An overview of selected articles

No	Authors	Findings	Methods	Future study
1	Prastiwi & Saktiono (2023)	The OCEAN game-based learning application effectively improves students' vocabulary by reducing anxiety and enhancing motivation in learning English, based on the need analysis of vocational maritime students.	Questionnaires and interviews	Pronunciation sound needs improvement. Several words need improvement. More challenges are needed in the game.
2	Tinambunan & Orongan (2023)	The implementation of GBL led to improved academic achievement, with GBL students outperforming non-GBL students.	A quasi-experimental, pretest-posttest method.	The suggestion for future researchers to conduct further studies on pedagogy to gather more data on its applications and uses
3	Razali et al., (2023)	Digital game-based learning has positive impacts on students' motivation and learning	Systematic review method	Emphasis on the need for further training and courses for teachers and educators

		outcomes in English language teaching.		Encouragement for stakeholders to make necessary insights into the implementation of GBL in ELT
4	Yieng & Aziz (2022)	GBL is an effective and practical strategy to enhance pupils' vocabulary and spelling by boosting motivation, knowledge, and skills.	Systematic review method	Not mentioned
5	Ahmed et al., (2022)	GBL was effective in increasing motivation and reducing anxiety among Iranian EFL learners compared to traditional instruction.	Quantitative method	The sample used must be enlarged so that it is not too limited and the duration of use is extended.
6	Kongprab (2019)	Digital Game-Based Learning was effective in improving vocabulary gain and learning motivation among upper primary school students.	A quasi-experimental	Quantitative data on learning motivation in the learning of both experimental and control groups should be further compared.
7	Huang (2023)	Digital game-based learning can significantly enhance learning motivation and vocabulary acquisition, especially when used appropriately with correct feedback.	Qualitative method	Future research should improve the collection of data on learning through educational games and the progressive elaboration of references on practical instructions with digital games.
8	Tsai et al., (2017)	The significant improvement in student learning motivation and achievement through the mobile game-based English learning approach, the positive effectiveness of the Happy English Learning System (HELS).	Quasi-experimental design with pretest and posttest,	Future research should focus on conducting longer experimental periods and enhancing external stimulation in mobile game-based English learning approaches.
9	Chen (2017)	Game-based instruction significantly affects learning motivation and learning achievement. Learning motivation positively influences the learning effect and learning harvest in learning achievement.	Experimental research	Exploring the impact of different types of encouragement on students' thinking, investigating the design of digital games with multiple challenges for problem-solving.
10	Gamlo (2019)	Students exhibited higher instrumental motivation than integrative motivation	Quantitative approach	Future research could consider longer study periods, larger sample

		in learning English. - The majority of students found the use of MGBLLAs beneficial for improving their motivation to learn English.		sizes, investigation of both genders, and exploration of MGBLLA selection.
11	Zheng et al., (2024)	Digital game-based learning (DGBL) has shown potential for scale-up student learning, motivation, and engagement. DGBL increases students' digital etiquette literacy while providing a positive influence on their motivation and engagement related to learning.	Quasai Experiment	Further research is needed to collect data from different places, such as regions, schools, and levels so that the data becomes more formative and can provide technical support for reliable infrastructure.

The Effect of implementing GBL in Increasing EFL students' motivation

From the PRISMA method, it was found that the implementation of GBL had a significant and effective effect in increasing EFL students' motivation to learn English. In Figure 1, the implementation of GBL in learning English as a foreign language (EFL) has shown significant results in increasing students' learning motivation in all article that were selected. GBL has a broadly positive effect on several other aspects, not only does it have a positive effect in increasing student motivation, but GBL also affects increasing vocabulary, students' academic achievement or results, and reducing anxiety.
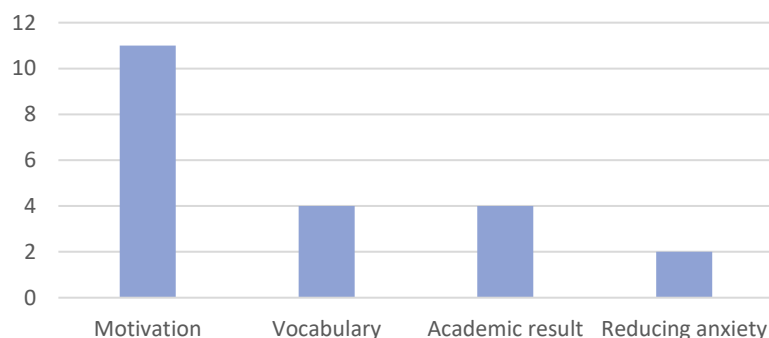

Figure 1. Key findings

Prastiwi & Saktiono (2023) highlight how the implementation of GBL which focuses on the use of the game-based OCEAN application has been proven to reduce student anxiety and increase student motivation in learning English, where this application is designed to be suitable for various educational contexts and in specifically to meet the needs of maritime vocational students.

In addition, Tinambunan & Orongan (2023) found that there was a significant comparison between students who used the GBL method and students who used the traditional method, and the result showed that students who used the GBL method showed higher achievement compared to students who used the traditional method. Although the initial motivation of the two groups was equal, a significant increase in motivation was shown in the group using the GBL method, which shows that GBL also provides a sustainable

motivation boost for students. Razali et al., (2023) and Zheng et al., (2024) who focus on digital game-based learning (henceforth, DGBL) also have a positive impact on increasing student motivation and student learning outcomes, especially in English language teaching. The application of DGBL has shown good potential for improving the quality of learning and increasing motivation and student engagement. Apart from that the application of DGBL can also have a positive effect in increasing student involvement in learning, increasing student motivation, and increasing student digital etiquette literacy. This study shows that DGBL has been successfully integrated into various sectors within and outside education, which has demonstrated great flexibility. Meanwhile, Yieng & Aziz (2022) emphasized that apart from increasing students' motivation, GBL is also a practical and effective strategy for improving their spelling, vocabulary, knowledge, and skills.

Ahmed et al., (2022) corroborated these findings by stating that in increasing motivation, the implementation of GBL is more effective compared to traditional or conventional learning methods. GBL is effective in increasing Iranian EFL students' motivation and can reduce anxiety. The research uses a quantitative approach and the results show that students who learn through GBL have lower levels of anxiety, but have higher motivation compared to students who use traditional methods. So, apart from being effective in increasing student motivation and academic results, GBL is also effective in improving students' emotional well-being. Furthermore, research by Kongprab (2019) and Huang (2023) confirms that DGBL is effective in increasing learning motivation in elementary school students as well as increasing vocabulary acquisition. Huang (2023) specifically highlights the importance of appropriate feedback in the GBL process to achieve optimal learning outcomes. Constructive feedback helps students achieve optimal learning outcomes in the GBL process. Constructive feedback is very influential and helps students to know and understand their performance, mistakes, shortcomings, and strengths, and improve their performance, which will greatly influence increasing learning effectiveness.

Research by Tsai et al., (2017) focuses on mobile game-based English learning, where this study shows that there is a significant increase in student motivation and achievement through the Happy English Learning System (HELS), which is a mobile game-based English language learning approach. This study found that intrinsic goal orientation and self-efficacy, which are components of motivation, have predictive power on students' English post-test scores. This shows that student academic results are greatly influenced by student motivation, which means that a significant increase in academic achievement is influenced by a significant increase in motivation as well. Apart from that, Chen (2017) also found that digital game-based instruction had a positive impact on students' learning motivation and achievement. High learning motivation has a very positive influence and is related to learning outcomes, this reflects that GBL plays an important role in creating an effective learning environment. Gamlo (2019) found that in English language learning, instrumental motivation in EFL students in Saudi Arabia was higher than integrative motivation. This research shows that in increasing students' learning motivation, the integration of game-based learning implementations is very useful and influential.

Based on the findings above, it can be concluded that in increasing EFL students' motivation, the implementation of GBL has had a significant positive impact. Not only does it increase motivation, but the implementation of GBL also greatly influences increasing vocabulary, improving academic results, and reducing anxiety. This increase in motivation can be seen in various groups of students, from upper elementary school, high school, vocational school to university level, which shows the effectiveness and flexibility of GBL in various educational contexts. Apart from that, GBL also has great potential in increasing student learning outcomes, where GBL not only makes learning more fun and more interesting, but GBL is also very effective and has an influence on improving actual student learning outcomes. The study results show that consistently applying the GBL method, can be superior compared to applying traditional methods. This shows that GBL is a very effective strategy for significantly increasing motivation and learning outcomes.

Apart from that, this research emphasizes the importance of providing feedback to

students, providing good and appropriate feedback will help students in knowing the progress of each learning process. Apart from that, the importance of accurate and meaningful learning strategies is especially important in implementing GBL. With proper and appropriate implementation, GBL will be very helpful and useful in increasing students' learning motivation, which will give rise to a sense of satisfaction it will also reduce feelings of anxiety. The importance of constructive feedback can help students find mistakes, weaknesses, and strengths in student performance, so this will help students to develop and improve their performance, thereby increasing the effectiveness of learning in implementing GBL. These findings show that it is important for educators and policymakers to consider appropriate strategies or methods, namely considering integrating the application of GBL in education, especially in the curriculum or English language learning, because it has been proven to be useful for increasing student motivation and learning outcomes. Through the application of GBL which can influence students' motivation levels, this will have a great opportunity to improve the overall quality of English language learning and with this, GBl can be the key to improving the quality of education, especially in English language learning.

Overall, the evidence from this study shows that GBL is a very effective strategy or method used in efforts to increase EFl students' motivation. So the integration of the implementation of GBL in English language learning needs to be considered as an effort to improve the quality of student learning, education, motivation, and student learning outcomes, especially in English. These studies also highlight that the motivation resulting from the use of GBL not only has a short-term impact but can also have a long-term impact on the willingness and behavior to learn English. By having high motivation to learn English, students will tend to be diligent in learning, actively involve themselves during the learning process, and have a greater desire to get maximum results and achieve the desired goals. This creates a very positive relationship, where having high motivation will produce maximum learning results, and of course, this will have an influence on other aspects.

Apart from that, the implementation of GBL also teaches interactive and collaborative situations, where students can work together, and learn from each other, so that this can build social skills which are very important in life. When implementing GBL in learning, students will be more required to work together in teams, solve problems, and discuss, apart from increasing the sense of togetherness between students, this will also strengthen good relationships between teachers and students. To achieve the potential or expected goals, educators need to understand and study more deeply the principles of effective and appropriate game design which will later be applied in learning. Therefore, it is important to provide training and professional development for teachers in using GBL to ensure successful implementation. Apart from that, support from the school and policies from the center that support the use of technology in learning also play an important role in the success of GBL.

The integration of GBL with conventional methods and cultural differences in its implementation are two important areas that need further exploration. Currently, many educational institutions still rely on conventional methods such as lectures and written tests, while GBL is often considered separate from conventional teaching. In depts, research is needed to combine game elements with a structured approach to create more effective holistic learning. Furthermore, the implementation of GBL in EFL contexts is influenced by cultural factors, where students' responses to game-based activities may differ based on the social and educational norms in their respective countries. Understanding these differences is essential to designing GBL that is appropriate to local needs, ensuring successful, flexible, and inclusive implementation.

By paying attention to these various aspects, the application of GBL in EFL learning can be an effective strategy for creating an interactive, dynamic, fun, and collaborative learning environment which will ultimately increase student motivation and learning outcomes significantly. These findings underline that innovation in the use of technology in education is very important, where innovative strategies using technology will be able to advance the teaching and learning process in this digital era.

CONCLUSIONS

This systematic literature review explores the effectiveness of implementing GBL to increase motivation to learn English among EFL students. Based on documents published during the period 2017 to 2024; Researchers identified that the implementation of GBL has a significant effect in increasing students' EFL learning motivation. Based on various empirical findings, GBL also has a positive and significant effect on increasing student vocabulary, and learning outcomes and reducing anxiety. Implementing GBL has been proven to create a fun learning environment and dynamic and of course support collaborative learning because when implementing GBL students are encouraged to work together well, so this will strengthen the relationship between students and teachers and increase active student involvement. Further research is needed to explore the integration of GBL with conventional methods so that they can combine. The development and evaluation of teacher training programs also need to be emphasized and focused on in further studies to ensure that what skills and knowledge need to be developed more deeply to implement GBL effectively, such as teacher can adjust the games to be selected with the topics to be given and in accordance with the abilities and circumstances of students. Therefore, future research is expected to provide stronger evidence and broader insight regarding the application of GBL in English language education.

REFERENCES

Ahmadi, D. M. R. (2018). The use of technology in English language learning: A literature review. *International Journal of Research in English Education*, *3*(2), 115–125. https://doi.org/10.29252/ijree.3.2.115

Ahmed, A. A. A., Ampry, E. S., Komariah, A., Hassan, I., Thahir, I., Hussein Ali, M., Fawzi Faisal, A., & Zafarani, P. (2022). Investigating the Effect of Using Game-Based Learning on EFL Learners' Motivation and Anxiety. *Education Research International*, *2022*. https://doi.org/10.1155/2022/6503139

Chen, Y. C. (2017). Empirical study on the effect of digital game-based instruction on students' learning motivation and achievement. *Eurasia Journal of Mathematics, Science and Technology Education*, *13*(7), 3177–3187. https://doi.org/10.12973/eurasia.2017.00711a

Emda, A. (2018). Kedudukan motivasi belajar siswa dalam pembelajaran. *Lantanida Journal*, *5*(2), 172. https://doi.org/10.22373/lj.v5i2.2838

Frymier, A. B. (2016). Students' motivation to learn. *Communication and Learning*, *92*, 377–396. https://doi.org/10.1515/9781501502446-016

Gamlo, N. (2019). The impact of mobile game-based language learning apps on EFL learners' motivation. *English Language Teaching*, *12*(4), 49. https://doi.org/10.5539/elt.v12n4p49

Hibatullah, O. F. (2019). The challenges of international EFL students to learn English in a non-English speaking country. *Journal of Foreign Languange Teaching and Learning*, *4*(2). https://doi.org/10.18196/ftl.4240

Huang, A. (2023). The effect of digital game-based learning on motivation for EFL. *Journal of Education, Humanities and Social Sciences*, *23*, 18–22. https://doi.org/10.54097/ehss.v23i.12726

Ilyosovna, N. A. (2024). Importance of the English language in today's world. *International Journal of English Learning & Teaching Skills*, *6*(2), 22–24. https://doi.org/10.15864/ijelts.6205

Kongprab, T. (2019). Effects of digital game-based learning on vocabulary gain and motivation of Thai upper primary school students. *Global Digital Society*, 107-125.

Leonangung, A., Saiman, M., & Nasar, I. (2021). Guru dan motivasi belajar siswa sekolah dasar. *Jurnal Literasi Pendidikan Dasar*, *2*(2), 26–30.

Mao, W., Cui, Y., Chiu, M. M., & Lei, H. (2022). Effects of game-based learning on students' critical thinking: A Meta-Analysis. *Journal of Educational Computing Research*, *59*(8), 1682–1708. https://doi.org/10.1177/07356331211007098

Plass, J. L., Homer, B. D., & Kinzer, C. K. (2015). Foundations of Game-Based Learning.

Educational Psychologist, *50*(4), 258–283. https://doi.org/10.1080/00461520.2015.1122533

Prastiwi, A. D., & Saktiono, M. A. (2023). Developing OCEAN as a game based on English learning in teaching vocabulary. *IJET (Indonesian Journal of English Teaching)*, *12*(1), 27–38. https://doi.org/10.15642/ijet2.2023.12.1.27-38

Priyanti, N. W. I., Santosa, M. H., & Dewi, K. S. (2019). Effect of quizizz towards the eleventh-grade English students' reading comprehension in a mobile learning context. *Language and Education Journal Undiksha*, *2*(2), 71–80. https://doi.org/10.23887/leju.v2i2.20323

Raja, R., & Nagasubramani, P. C. (2018). Impact of modern technology in education. *Journal of Applied and Advanced Research*, *3*, S33–S35. https://doi.org/10.21839/jaar.2018.v3is1.165

Razali, N. H., Ahmad, N. A., Mazlan, N. A., & Abd. Rahman, S. F. (2023). Technology in the English language teaching (ELT): The impact of digital game-based learning. *International Journal of Academic Research in Business and Social Sciences*, *13*(7), 1863–1870. https://doi.org/10.6007/ijarbss/v13-i7/17344

Rodiyah, D. A., Rahayu, P., & Antoni, R. (2016). Motivation in learning listening at second semester of English study program in University Pasir Pengaraian. *Jurnal Mahasiswa Prodi Bahasa Inggris UPP*, *2*(1), 1–11. http://jurnal-u3jpptpwbqyg895xoy_3gnc9bclbzboc

Sabrina, R., Fauzi, & Yamin, M. (2017). Faktor-faktor penyebab rendahnya motivasi belajar siswa dalam proses pembelajaran Matematika di kelas V SD Negeri Garot Geuceu Aceh Besar. *Jurnal Ilmiah Mahasiswa Pendidikan Guru Sekolah Dasar*, *2*(4), 1–23.

Santosa, M. H., & Agustino, E. (2020). E-Learning-mediated Instruction: Preparing innovative and work ready English materials for nursing assistant students. *Pedagogy : Journal of English Language Teaching*, *8*(2), 149. https://doi.org/10.32332/pedagogy.v8i2.2037

Santosa, M., Putra, I. G. P. D. D., & Pratiwi, N. P. A. (2022). Exploring EFL teacher's and student's challenges in remote learning context in Tabanan, Bali. *IJEE (Indonesian Journal of English Education)*, *9*, 102–119. https://doi.org/10.15408/ijee.v9i1.22744

Sasmita, O. T., Narut, Y. F., & Baci, R. (2020). Peran guru kelas untuk meningkatkan motivasi belajar siswa di Sekolah Dasar. *Februari*, *1*(1), 2721–0294.

Tinambunan, S. R. N., & Orongan, M. J. Q. (2023). Game-based learning on students ' motivation and academic achievement in science 9. *International Journal of Multidisciplinary Research and Development. 10*(2), 14-17.

Tsai, C.-H., Cheng, C.-H., Yeh, D.-Y., & Lin, S.-Y. (2017). Can learning motivation predict learning achievement? A case study of a mobile game-based English learning approach. *Education and Information Technologies*, *22*(5), 2159–2173. https://doi.org/10.1007/s10639-016-9542-5

Yieng, C. D. M., & Aziz, A. A. (2022). A systematic literature review on using game-based learning to enhance English vocabulary and spelling for primary school pupils. *International Journal of Academic Research in Progressive Education and Development*, *11*(2). https://doi.org/10.6007/ijarped/v11-i2/14081

Zheng, Y., Zhang, J., Li, Y., Wu, X., Ding, R., Luo, X., Liu, P., & Huang, J. (2024). Effects of digital game-based learning on students' digital etiquette literacy, learning motivations, and engagement. *Heliyon*, *10*(1), e23490. https://doi.org/10.1016/j.heliyon.2023.e23490