English Teachers Perception of Using Game-Based Learning (GBL) to Enhance Students' Vocabulary

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Abstract

Game-based learning (GBL) is a tool used by academicians to teach learners about English for vocabulary. Vocabulary is crucial in learning the language; it is used to construct sentences, for communication, and especially improving the four skills (listening, speaking, reading, and writing). The lack of vocabulary is one of the aspects that make students lazy in learning the language. As we know, during this pandemic, there are so many educational technologies in the form of games used in teaching. Teachers use the game as a method to reduce students' boredom while studying. This research aimed to find out teachers' perceptions of using game-based learning in their classes. There were 40 high school teachers from Sumatra Island and Java Island who participated in this study. Questionnaires were distributed online using Google Forms. The finding of this research shows that the teachers' perception of using game-based learning (GBL) is very good. They agree that using game-based learning not only enhances students' vocabulary but also reduces students' boredom in learning.

Keywords: game-based learning, vocabulary, gamification

INTRODUCTION

In the process of teaching and studying EFL these days, game-based language learning has taken center stage in the classroom (Katemba & Sinuhaji, 2021), especially during this pandemic covid-19. Game-based learning and gamification are popular trends used in various situations, including corporate training, education, and social media (Pho & Dinscore, 2015). Game-based learning is a game that is deliberately made for educational purposes as a support for learning media. It is more necessary to use suitable learning media to be interesting than the conventional teaching and learning process (Dewi & Listiowarni, 2019). Especially during the pandemic of Covid-19, many online games are used in education. Bohyun Kim (2013) stated gamification might boost motivation and incentive in various higher education activities.

Vocabulary is one of the critical aspects in making sentences and communication, especially for improving the four skills in English. In order to carry a communication, vocabulary plays an important role either in written communication or oral communication (Berliani & Katemba, 2021). Vocabulary and learning are inseparable components (Korlu & Mede, 2018). Learning vocabulary through games can decrease the students' anxiety and create a fun classroom atmosphere, especially during this pandemic. Therefore, teachers must create learning materials that are enjoyable, engaging, and not dull. Vocabulary games are one of the strategies used by teachers to teach vocabulary. Vocabulary games assist students in improving their ability to utilize

English in a flexible, conversational manner by bringing real-world context into the classroom (Wigfield et al., 2013). Games always bring happiness and get students' attention more than teachers give materials while learning. Through games, students can get the material quickly (Aslanabadi & Rasouli, 2013).

According to Ersoz (2000), because they are both entertaining and fascinating, games are very motivating in foreign language learning. They may also be used to develop a variety of skills, including language and communication abilities. Moreover, vocabulary games can decrease anxiety and stress while learning. Games are beneficial because they relieve anxiety, promote pleasant sentiments, and enhance self-confidence because when learners freely practice the target language, they are not afraid of punishment or criticism (Crookall et al., 1990). To know more how the importance of game-based learning, teacher perception can be so critical. Teachers' opinions are significant because they play a key role in selecting, delivering, and assessing educational games for their pupils (Hanghøj & Engel Brund, 2011).

Implementing game-based learning in the classroom has been shown by other researchers to improve student engagement and motivation, content knowledge acquisition, conceptual understanding, comprehension of complex or abstract concepts, and social and higher-order thinking skills such as empathy, systems thinking, and problem-solving (Clark et al., 2009; Lavidas & Gialamas, 2019; Tsai, & Tsai, 2020).

Vocabulary and Language Teaching Games

Online games, which are one of the most popular entertaining ways of learning a foreign language, may be utilized to teach vocabulary (Dudeney & Hockly, 2012; Henry, 2013). According to Bradley (2010, p. 3), games contain the following features that benefit language learners:

"First, games engage pupils in the learning process. When students play games in pairs or groups, they have the opportunity to recognize and appreciate the contributions of others while also practicing team-building skills. Some classroom games rely on people fighting against all of their peers to win. This type of game is best suited for students that are extremely motivated and competitive.

Second, games allow people to collaborate and cooperate. Classroom games enable students to communicate and cooperate while striving for a shared objective - victory. Some games couple or group pupils, which may result in peer tutoring and cooperative skills to win. They may be unaware that they are learning, yet they are all striving towards the same objective.

Third, games create an enjoyable learning environment. Making learning entertaining and pleasant is a big step toward encouraging pupils. According to research, classroom games are excellent learning techniques.

Finally, games involve all pupils, allow for collaboration and cooperation, and create a pleasurable learning experience."

Online Game

Many studies have found that using online games while teaching English helps learners acquire L2 (Peterson, 2010; Ranalli, 2008; Sahrir & Yusri 2012), which may persuade teachers to use such games in their classes, but they should consider some criteria when selecting appropriate ones for

their students. However, because they are primarily concerned with the educational elements of online games, extra methods are necessary to evaluate the websites or software in terms of technological features. According to Wood (2001) research, a vocabulary website or program should contain the following technical elements to aid in vocabulary instruction(a) Animations, (b) video clips of related information, (c) sound components, (d) hyperlinks to related information, (e) the ability to create one's own pathway through information, (f) the ability to pause, repeat information, or replay video clips, (g) hints or clues related to word meaning, (h) multimodal information presentation, and I online definitions, glossaries, or thesauruses.

The data provided above piqued the researcher's interest in knowing the 'teachers' perspective in increasing students' vocabulary through game-based learning. Based on the foregoing, this research aims to answer the following research questions: "What is English teachers' perspective in enhancing vocabulary through Game-Based Learning (GBL)?" The researcher believes that the findings of the study will assist and benefit students, English teachers, the university, and future researchers.

METHODOLOGY

Research design

A survey research design was employed in this study. The surveying study design is one of the most commonly used quantitative social science research types, according to Mcchester and Ihedigbo (2014). In survey research, researchers choose a random sample of people from the general population and ask them standardized questions. The researcher utilized this approach to learning about the teachers' perception of GBL in order to expand students' vocabulary. This is a quantitative research study.

The questionnaires were distributed to the sample by the researcher throughout the data collection process. The researcher requested the teachers to be truthful in their responses to the questionnaire. The researcher provided them with a comprehensive description of how to complete the questionnaire before they answered it. The researcher distributed the questionnaires to teachers in Sumatera and Java online (Facebook, Twitter, Whatsapp, and Line App). The total number of samples used in this study was forty. The information was collected in August and September of 2021.

Participants

The participants of the research were high school teachers from Sumatra Island and Java Island. There are 40 teachers, 21 teachers in Senior High School, and 19 in Junior High Schools. The ranged age of the teachers from 21 up to 50.

Figure 1 & Figure 2.
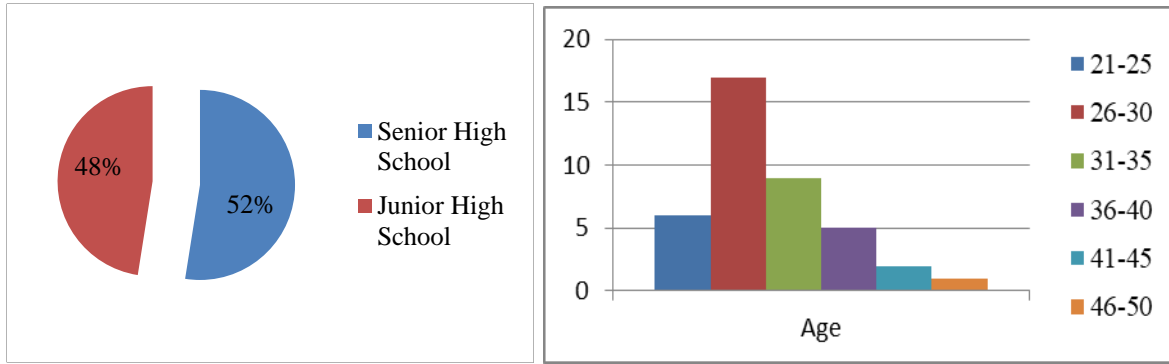
Instruments

The instrument employed by the researcher was a questionnaire. The questionnaires were used as the instrument in this study to assess teachers' perspectives on game-based learning (GBL) for vocabulary enhancement.

A self-designed survey in the questionnaire was the major tool for this study in the questionnaires. Respondents in this research read the questions, understood what was being asked of them, and then entered their answers. This study consisted of twenty questions with five possible answers: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (DA), and Strongly Disagree (DSA). Based on Likert scales, each statement in the questionnaire was assigned a score from 1 to 5, with 5 being the highest favorable response (Strongly Agree). The researcher used a clear statement in the poll. When creating a survey, Leung (2001) advised avoiding negative statements as much as possible. Table 1 shows how the questionnaire's scoring method was classified.

Table 1: Questionnaire Scoring System

Statements (Answers)	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Value	5	4	3	2	1

Data analysis

The pilot test measured the validity and reliability level of the instruments. The valid and reliable items will be used as the research instruments.

A validity test determines if an instrument test is suitable for use in research. According to Arikunto (2012), the following formula was used to determine the instrument's validity:

$$r_{xy} = \frac{n \, \Sigma \, XY - (\Sigma X)(\Sigma Y)}{\sqrt{\{n \, \Sigma X^2 - (\Sigma X)^2\}\{n \, \Sigma Y^2 - (\Sigma Y)^2\}}} \qquad (1)$$

Where:

r_{xy} : Correlation coefficient

n : Number of subjects

x : Item Score

y : Total Score

The classification of validity is shown in Table 2.

Table 2: Classification of Validity Questions

r_{xy}	Interpretation
$\leq$	Not Valid
0.00 – 0.20	Very Low
0.21 – 0.40	Low
0.41 – 0.60	Moderate
0.61 – 0.80	High
0.81 – 1.00	Very High

Content validity evaluator

The content validity evaluator was a lecturer from the English Department. Mrs. Caroline V Tobing, Ph.D., reviewed and approved the questionnaire.

According to Arikunto (2012), an instrument is trustworthy if the test yields the same result every time. As a consequence, gathering reliable data is dependable. The following is the formula that is used to find the reliability of the instrument:

$$r_{11} = \left(\frac{n}{n-1}\right) \left(\frac{S^2 - \Sigma pq}{S^2}\right) \tag{2}$$

Where:

r_{11} : Reliability of all tests

n : Total number of question

p : Subject proportion for the right answer

q : Subject proportion for the wrong answer $(q = 1 - p)$

S^2 : Standard deviation of the test

Σpq : The result of p times q

Table 3 below shows the classification of the reliability coefficient:

Table 3: Classification of Reliability Test

Amount of r_{11}	Interpretation
$r_{11} \leq 0.20$	Very Low
$0.21 \leq r_{11} \leq 0.40$	Low
$0.41 \leq r_{11} \leq 0.70$	Moderate
$0.71 \leq r_{11} \leq 0.90$	High
$0.91 \leq r_{11} \leq 1.00$	Very High

RESULTS

In this study, the researcher statistically evaluated the collected data and then compared the value to the criteria in Table 4 to identify the valid statements to assess the instrument's validity.

Table 4: Validity Coefficient

Validity Coefficient Value	Interpretation
Above 0.35	Very beneficial
0.21 – 0.35	Likely to be useful
0.11 – 0.20	Depends on circumstances
Bellow 0.11	Unlikely to be useful

The validity test yielded the following results. There are 23 statements. Table 5 shows the four most significant items (Q2, Q9, Q13, Q18) and the two most low significant items (Q20, Q22).

Table 5: Validity Test

NO	Correlation & Sig	Responses Test	Information
Q2	Pearson Correlation	.840	Valid
	Sig. (2-tailed)	.000	
	N	21	
Q9	Pearson Correlation	.840	Valid
	Sig. (2-tailed)	.000	
	N	21	
Q13	Pearson Correlation	.822	Valid
	Sig. (2-tailed)	.000	
	N	21	
Q18	Pearson Correlation	.822	Valid
	Sig. (2-tailed)	.000	
	N	21	
Q20	Pearson Correlation	.156	Low Valid
	Sig. (2-tailed)	.499	
	N	21	
Q22	Pearson Correlation	.156	Low Valid
	Sig. (2-tailed)	.499	
	N	21	
Q23	Pearson Correlation	.279	Low Valid
	Sig. (2-tailed)	.279	
	N	21	

Table 4 shows that the Pearson Correlation is more significant than the coefficient values 0.21 – 0.35 (Likely to be useful) and 0.35. (very beneficial). The assertions are statistically significant and legitimate if the significant value is less than 0.05. Twenty statements were used in this study.

In this study, the researcher utilized the reliability test to determine whether or not the instrument was dependable. SPSS 25 was used to determine the reliability findings for the instrument's pilot test. Cronbach's alpha was.787, which placed it in the top range, and it was trustworthy enough to be utilized as a researcher instrument. The reliability analysis scale is shown in the table.

Table 6: Reliability Statistics

Cronbach's Alpha	N of Items
.787	20

Table 6 shows that Cronbach's Alpha value is 0.787 or 78.7%, which is more significant than 0.50 or 50%. It means that the list of questions is reliable.

The reactions of teachers in improving students' vocabulary through game-based learning are effective. This response focuses on teachers' own perspectives on the application of game-based knowledge.

Table 7: The Result Analysis of English Teachers' Perception of Using Game-based Learning (GBL) to Enhance Students' Vocabulary

Teachers' Perspective in Using GBL to Teach Vocabulary	1.	94% of teachers agreed that GBL increased their self-confidence (as a teacher) in teaching English.
	2.	89% of teachers agreed that GBL contributed to my learning how vocabulary teaching should be achieved
	3.	85% of teachers agreed that GBL helped them to obtain a reasonable degree of knowledge on teaching vocabulary
	4.	82% of teachers agreed that they gained skills for teaching through a game-based teaching method
	5.	81% of teachers agreed that game-boosted their motivation for teaching vocabulary
	6.	92% of teachers agreed that GBL increased their interest in teaching vocabulary
	7.	95% of teachers agreed that GBL provided a means for fun in learning English Vocabulary
	8.	89% of teachers agreed that GBL helped decrease the anxiety level of class
	9.	87% of teachers agreed that in GBL, students and teachers do actively participate in the course
	10.	82% of teachers agreed that GBL helped structure the knowledge more easily
Teachers' Perspective about the Weakness of GBL	11.	20% of teachers agreed that GBL practices boring
	12.	5% of teachers agreed that GBL would not contribute to enhancing students vocabulary
	13.	5% of teachers agreed that GBL is time-consuming in learning vocabulary

	14.	8% of teachers agreed that GBL is not effective in learning vocabulary
	15.	17% of teachers agreed that teaching vocabulary through GBL is easier
Teachers' perspective about the relationship between students and teachers in the classroom	16.	87% of teachers agreed that GBL contributes to the development of creative thinking skills of students
	17.	84% of teachers agreed that through GBL, they had the opportunity to evaluate both teacher and students in the classroom
	18.	84% of teachers agreed that GBL develop their problem-solving skills in the classroom
	19.	87% of teachers agreed that through GBL, an environment that encourages cooperation with their students
	20.	89% of teachers agreed that they could use games they prepare effectively in their teaching life

DISCUSSION

The questionnaire has been distributed to teachers online in Sumatra and Java, and the result showed that most of the teachers agree that game-based learning enhances students' vocabulary. It decreased the anxiety because most teachers gave positive responses related to game-based education to improve students' vocabulary.

Based on the first indicator about teachers' perspective in using GBL to teach vocabulary, the majority of teachers agreed that GBL contributed to how the teacher should teach vocabulary in the classroom and the teacher also got self-confidence in teaching. As Karadag (2015) said, GBL improves skills, so they do provide fun classes that encourage participation in the classroom. The researcher has the same gain as the previous researcher got. Further, Katemba (2020) found in her study on teachers' perceptions on using technologies in the classroom was helpful for the teacher to have a variety of learning, and the students were not feeling bored.

On the other hand, the second indicator is about teachers' perspectives about the weakness of GBL. According to Karadag (2015), GBL increased inactive students' engagement and improved their capacity to organize content-based knowledge. Through that statements, it might conclude that GBL will provide positive gains to teachers. However, the researcher found that only some teachers agreed about the weaknesses in GBL. It meant that GBL is very effective to use in the classroom.

According to the third indicator about teachers' perspective about the relationship between students and teachers in the classroom, most of the teachers agreed that GBL could develop creative thinking not only for the teacher but also for the students. GBL also creates an environment that can cooperate with students.

Karadag (2015), on the other hand, is concerned about 'Pre-service Teachers' Perceptions on Game-Based Learning Scenarios in Primary Reading and Writing Instruction Courses.' It employs the same strategy as game-based learning in the classroom but with different goals. In this study, the researcher focuses on instructors' opinions of using GBL to increase students' vocabulary.

Utami and Bharati (2020) stated that the games in their research on teachers' perspectives of utilizing game-based learning in the classroom were primarily cooperative and competitive, with the objective of increasing speaking, listening, writing, and vocabulary training. The teachers

mostly agree on the problems they encountered when implementing GBL, such as agreeing that when implementing GBL, they dealt with issues such as students not being in good condition or mood; games being too difficult for students, and students being more focused on winning the game than on practicing the language. Table 7 shows the result analysis of English Teachers' Perception of Using Game-based Learning (GBL) to Enhance Students' Vocabulary.

In the questionnaire, the researcher asked the teacher to fulfill the challenges that they found in using GBL and also their suggestion. However, not all teachers did fill this part, and they felt free to fill it or not.

Challenges that teachers faced in using GBL

"At the beginning, students may not follow you well, but in continuing, they will be much more fun of the game-based learning because it is not boring."

"The students are very excited, and it makes me as a teacher have to handle it seriously."

"Of course, it requires a lot of preparation for teachers. Besides, need analysis is needed to gain information about the students' preferences, like what kind of game that they like."

"It's quite hard to control all the students in following the instructions. Some of them may find it difficult to tell motivated in playing the game."

"The challenges that I face when using games in my teaching experience is that I need to have lots of ideas and use different games for every learning to enhance the ambiance in the class."

"Sometimes students get too involved in the game and turn to their mother tongue to "just move forward." They may lose interest if the rules are too complex."

Comments and suggestions about GBL

"Game-based learning is a brilliant idea in teaching vocabulary, but the teacher must make sure that all the students are equipped with a compatible device."

"As English teachers should understand what Students need, we have to be able to create interesting Game-based Learning, which is not only fun but also easy to understand by students."

"We have to make sure that the inclusion of English materials and the objective of the lesson in the game is covered sufficiently. Many things need to be carefully designed and considered. Despite its negligible shortcomings, I think it's possible to implement game-based learning."

"For the suggestions: See the student's ability, make a game which student can interact with others, and absolutely the cost, how to maintain the cost to buy the material, or the cost of time to make the game through the application."

"I suggest that teachers should consider the game as a learning tool inside the class, not only during students' recess. Game is a wonderful tool for learning not only vocabulary in languages but also in all other courses such as Math, science, and so on. An oral questionnaire with answers options and a small prize in between is full motivating for students of all ages."

CONCLUSION

The purpose of this study was to see if game-based learning might help students increase their vocabulary while learning English. Therefore, based on the survey, the ninth-highest scores affected teachers' perception of using GBL to enhance students' vocabulary. First, the calculation result showed that 95% of teachers agreed that GBL increased their self-confidence (as a teacher) in teaching English. Second, 90% of teachers agreed that GBL contributed to my learning of vocabulary teaching. Third, 92.5% of teachers agreed that GBL increased their interest in teaching vocabulary. Fourth, 95% of teachers agreed that GBL provided a means for fun in learning English Vocabulary. Fifth, 90% of teachers agreed that GBL helped decrease the anxiety level of the class. Sixth, 95% of teachers disagreed that GBL practices were tedious. Seventh, 95% of teachers disagreed that GBL will not contribute to enhancing students' vocabulary. Eighth, 90% of teachers disagreed that GBL is time-consuming in learning vocabulary. Ninth, 90% of teachers agreed that they could effectively use the game to prepare them effectively in their teaching life.

Based on teachers' responses, it can be concluded that teachers agree that students learn and enhance their vocabulary through game-based learning. Students can learn many new words and decrease their anxiety in learning English. Despite that, through game-based learning, teachers' can get skills in teaching English and create a good atmosphere. Students can study well while still having fun while learning English. Students' vocabulary will improve as a result of game-based learning.

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