IJIET
International Journal of Indonesian Education and Teaching

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IMPROVING STUDENTS' VOCABULARY MASTERY IN READING COMPREHENSION THROUGH GAMES AT SMPN 259 JAKARTA

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https://doi.org/10.24071/ijiet.v8i1.7169
received 8 September 2023; accepted 22 January 2024

Abstract
This research aims to improve mastery of English vocabulary in reading comprehension through the use of game methods at SMPN 259 Jakarta. The type of research used is classroom action research using the Kemmis and McTaggart model. The subjects in this research were 33 students in class VIII at SMPN 259. The research took place over three cycles and each cycle consisted of one meeting. Data collection techniques use observation techniques and need analysis tests. Data analysis techniques use quantitative descriptive and qualitative descriptive. The results of the research show that the use of the games method can improve vocabulary mastery and students' learning outcomes in reading comprehension. In the pretest vocabulary activity, the class average score was 71.75, while the reading value was 68.18. After being given treatment for 3 cycles, the average post-test vocabulary score was 91.13 and the post-test reading score was 86.95. With this, it can be concluded that through the game method, students' reading comprehension ability increased by 27%.

Keywords: game, reading comprehension, vocabulary

Introduction

English language skills are very important in the era of globalization. A good command of English provides the opportunity to learn science and technology from other, more developed countries (Sari, Lapiana, & Sudaryanto, 2022). In addition, the ability to communicate in English can open up opportunities for cross-border collaboration (Agung, Scholastica, & Widiantara, 2022). Therefore, English language skills play an important role in the progress of a nation. According to Novianti (2020), learning English emphasizes four language skills namely listening, speaking, reading, and writing. The main thing in the process of learning English is vocabulary mastery as a basis for understanding English concepts. In learning English, vocabulary is very important to master because it will affect other English skills such as listening, reading, writing, and speaking (Amirzai, 2021). A similar opinion was also expressed by Komachali and Khodareza (2012) stated that "Vocabulary is a separate part of any language learning process. It would be impossible to learn a language without vocabulary". So, the richer a person's vocabulary, the more helpful it will be in mastering the language, in this case,

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English. If students do not master vocabulary, it will be difficult for them to understand conversations and reading in English. In addition, they will find it difficult to communicate verbally and in writing in English (Sa'd & Rajabi, 2018). Thus, vocabulary mastery is a priority to have good English skills. However, the results of the study show that there are still many students who have difficulty mastering English vocabulary (Dewati, 2020).

Lack of vocabulary mastery can hinder students' reading comprehension abilities. Comprehension is the main thing in reading to be able to grasp meaning. The students' low vocabulary has an impact on the student's ability to understand the content of the discourse. It can be seen from the fact that there are still many students who do not understand the meaning of words in a discourse and have difficulty finding the main idea of a paragraph in a discourse. Apart from this, students also still have difficulty in concluding the content of the discourse. Meanwhile, understanding the meaning of a word, finding the main idea, and concluding the content of the discourse are 3 important things among several other things that determine the ability to understand the content of the discourse text in reading skills (Dalman, 2017).

According to Sudijono in Aprinawati (2018), comprehension is a person's ability to understand or comprehend something after that something is known and remembered. Understanding requires knowledge of vocabulary and its meaning. According to Maher Salah (2008), Nations (2001), and Stahl (1990) (Anjomshoa & Zamanian, 2014), Vocabulary knowledge and reading comprehension are closely related, and this relationship is not one-directional, since vocabulary knowledge can help the learner to comprehend written texts and reading can contribute to vocabulary growth.

One of the factors causing students' lack of mastery of English vocabulary is low motivation and self-confidence in learning English. This can be caused by the less varied learning methods in the classroom so that students are less able to play an active role (Agistiawati & Asbari, 2020). Therefore, teachers need to find and adapt learning media to the needs and characteristics of students to be able to create a more meaningful learning process because learning processes that are meaningful for students can affect learning outcomes (Bhakti, Astuti, & Rahmawati, 2020). So, learning methods are needed that can increase motivation and encourage students to be active in the learning process. One method that can be used is learning English through games.

The use of games in the process of learning English has several benefits, namely, teachers can convey material more interestingly, students can more easily understand and remember the vocabulary being taught, and more active interaction between teacher and students causes students to become more motivated to learn (Sahrawi, Hafis, Sari, Astuti, & Wiyanti, 2018). In addition, the use of games in the classroom can create student-centered learning so that students can play a more active role in the learning process. The class atmosphere becomes more enjoyable so that it can increase students' interest in learning (Anisa, Marmanto, & Supriyadi, 2020). Learning innovation can be done using an application that is already available (Shalikhah, 2017). The task of the 21st-century teachers who are known to be "literate" in technology today is not only to act as teachers but also to be learning managers (Rusman, 2017). Therefore, a teacher is required to be able to

provide creative and enjoyable learning services for students to achieve the desired learning goals (Tiana, Krissandi, & Sarwi, 2021).

According to Hastuti (2011), so that the learning process is enjoyable, teachers must provide opportunities for students to do what they are learning so that students gain real experience. A learning model with varied types of activities and learning while playing approach, playing while learning can foster students' motivation, self-confidence, and responsibility to carry out the tasks given by the teacher independently. The above follows the results of the author's findings when studying professional teacher education in PPL schools.

This research refers to research conducted by Meidianty (2014). Based on the results of this research, the hangman game method used in this research was able to increase English vocabulary skills by 3.5%. The quality of teacher activity increased by 7%, the percentage of student learning activity in the very active criteria increased by 9%, and the active criteria increased by 1%. This percentage is not optimal, but it describes the real conditions in this study. In addition to this research, I also refer to research conducted by Rantika, Pudjiati, and Megawati (2019). The results of the study showed a significant increase in English learning outcomes in seventh grade. This is indicated by the average result of the test given in each cycle increases. The average score results in each cycle, in cycle 1 it was 70.5 and in cycle 2 it increased to 80.25 and finally in cycle 3 it increased to 80.25 and the results of the interviews conducted concluded that learning English through Spelling Bee Games was interesting for students. Based on these data, the researcher concluded that there was a good increase in students' vocabulary mastery through the Spelling Bee Game in the seventh grade of One Roof Karang Kobong State Middle School.

This is in line with the results of observations made by the author at PPL schools, it can be seen that students still really need help to improve their English vocabulary mastery. To validate these findings, the authors conducted a needs analysis test for class VIII students at the PPL school, namely SMPN 259 Jakarta using the Google form. Based on the results of the analysis of the answers of 33 students, it was seen that 36.4% of the students wanted to improve their vocabulary mastery. Then the largest percentage, namely 51.5% of students, wanted to use learning media in the form of games. The majority of students, namely 75.8%, thought that learning media was able to increase their motivation to learn.

Method

The method used in this research is Classroom Action Research (CAR). Classroom Action Research (CAR) is research conducted by teachers (educators) in the classroom or where they teach which focuses on improving learning processes and praxis. Classroom Action Research serves as a tool for solving problems that arise in class and also as a tool for in-service training, where teachers use new skills and methods and sharpen their analytical abilities. Furthermore, as a tool to create innovative learning, as a tool to improve communication between teachers and scientific researchers, as well as a tool that provides alternatives to problems that occur in the classroom (Khasinah, 2015).

According to Mahendra (2020), Classroom Action Research (CAR) is research carried out systematically reflective of various actions carried out by teachers who are also researchers, from the preparation of a plan to the assessment

of real actions in the classroom in the form of teaching and learning activities, to improve the conditions of learning carried out previously. Meanwhile, the implementation of CAR includes the aim of improving the quality of education or teaching carried out by the teachers/teacher-researchers themselves, with the result that it is hoped that there will be no more problems blocking the class.

The research model used by the author in this research is the Kemmis and McTaggart model. Kemmis and Mc Taggart (1992) in Bro (2020) form a CAR cycle that is carried out through phases such as initial reflection, planning, action, observation, and reflection. The phases in a flowchart can be explained as follows:
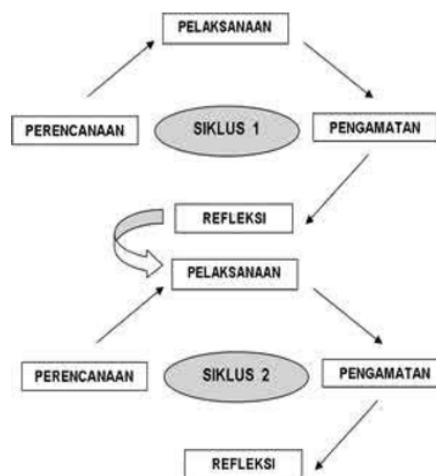
Figure 1. Kemmis and Taggart CAR cycle

This Classroom Action Research consists of 3 cycles with the number of meetings once in each cycle, so there are a total of 3 meetings. This research was carried out at SMPN 259 Jakarta with the research subjects being 33 class VIII H students. The data processing technique in this research uses qualitative and quantitative descriptive techniques. According to Sugiyono (2019), the qualitative research method is a research method based on postpositivism philosophy which is used to examine objects in natural conditions (real conditions, not set or in experimental conditions) where the researcher is the key instrument. According to Kurniasari (2022), qualitative descriptive analysis techniques are techniques used to collect, process, analyze, and present data descriptively. In this technique, data can be presented in graphical form such as plots or diagrams, and can also be in numerical form, for example calculating the average or standard deviation. Qualitative descriptive analysis techniques are usually closely related to research related to social phenomena that cannot only be measured with numerical data.

Findings and Discussion
Cycle1

On May 4, 2023, the author conducted teaching in cycle 1 of Classroom Action Research (CAR) in class VIII H with the learning topic "Notice" from short functional texts. Before starting the lesson, the writer also conducted a pretest as a form of initial assessment. This pretest consists of two categories, namely the vocabulary pretest and the reading comprehension pretest.

The vocabulary pretest aims to measure students' understanding of vocabulary related to the material "Notice, short message, and announcement". The results of this pretest provide an initial description of the level of student's mastery of the vocabulary to be used in learning. In addition, the pretest also informs the extent to which students already know the words related to "Notice, short message, and announcement".

Meanwhile, the reading comprehension pretest was designed to test students' understanding of reading texts related to "Notice, short message, and announcement". This pretest assists the writer in evaluating the student's ability to understand and analyze the English text as a whole. The results of this pretest provide an initial indication of students' ability to understand the content of English texts.

After the pretest is complete, it continues with treatment using the "Notice" material. In this lesson, the author uses various relevant learning strategies and methods to teach the concept, structure, and use of notice in everyday life. The author provides examples of various interesting notices and involves students in discussions and activities that encourage understanding and application of the concepts being taught. Apart from that, the author also provides games-based online LKPD using the WordWall application after discussing the notice material.

During treatment, the author actively monitors student participation and provides constructive feedback. The author seeks to create an inclusive and supportive learning environment, where students feel comfortable to contribute and share their thoughts about the material. The author also utilizes visual aids and other resources to enrich learning and facilitate student understanding.

After treatment, a post-test will be carried out in the third cycle to evaluate students' understanding after taking notice of material learning. The post-test results will be compared with the pretest results to see students' changes and progress in understanding vocabulary and reading comprehension related to notice.

In the reflection stage, the writer analyzed the pretest and post-test data, evaluated the effectiveness of the teaching strategy that the writer used, and identified steps that the writer could take to improve learning outcomes in the next CAR cycle. Overall, learning in cycle 1 runs smoothly and according to the teaching modules that have been designed. Based on the results of the pretest shows that the student's abilities related to vocabulary and reading comprehension are still quite low and do not meet the class average. The student's average score for the vocabulary pretest was 71.75 while the student's average score for the reading comprehension pretest was 68.18. Then after being given the first treatment and spelling online games, the class average showed the number 97.87.

Table 1. Pretest

Aspect	score
Vocabularies	71.75
Reading Comprehension	68.18
Average	69.96

Note: Has not reached the minimum standard

Cycle 2

On May 10, 2023, the author held a learning session in cycle 2 of CAR in class VIII H. The material that the author taught that day was one of the topics of a short functional text, namely "Short message". In this meeting, the authors continued the second treatment using interactive and digital games such as Kahoot.

When starting the activity, the author introduces the students to the forms of short messages. Next, we continued with game-playing activities. The game that the author designed is called "Write It and Find Me!". Students are asked to take a piece of paper containing vocabulary. They work in pairs and create short messages using the words they get. Apart from that, they also have to write the meaning of the short message on separate paper.

After completing the short message, the papers were collected and shuffled on the teacher's desk. Students then take papers randomly one by one. They opened the paper and all the students came forward. Taking turns, they read the paper they got and looked for a partner who had the matching paper. After finding a partner, they were asked to sit together and work on LKPD 2 in the form of a Quiz Game using Kahoot. After being given treatment until this second cycle, the learning outcomes of students began to increase, the average student achievement score in this second cycle was 81.47. This is following what is expected, that media learning games will motivate students' learning.

Cycle 3

On May 17, 2023, you will study the 3 CAR cycle in class VIII H with the material "Announcement text". The entire series of activities can be carried out well and smoothly following the teaching module that the author has designed. The author designed an interactive game called "Let's Build It". Interactive Games "Let's Build It" involving students in interactive games is an effective way to encourage active participation and strengthen their understanding of announcement texts. In this game, students work in groups to compose a complete announcement text using the words they choose. This process allows them to collaborate, understand text structure, and develop written communication skills. Here's how to play the game "Let's Build It!":

1. Students help the teacher stick announcement paper in class
2. Students one by one take the paper containing the word to later insert it into the blank announcement text.
3. Students look for announcement papers and also group members based on the paper they have obtained
4. In groups, students build the announcement text into a good and complete text.
5. In groups, students understand the announcement text they have made and then discuss it with their group mates
6. Representatives from each group explained the announcement text they had compiled and then explained the important information contained in it to other group mates.
7. All groups pay attention to other groups who are presenting their announcement texts

These group discussion activities and presentations provide an opportunity for each group to share important information contained in their announcement text.

This facilitates communication and collaboration between students and increases their understanding of the announcement text. Then the next activity is the use of online games; After discussions and presentations, the authors integrated online games using the Quizalize application. These games can be used as an evaluation tool to measure students' understanding of vocabulary and reading comprehension material. The use of technology in learning provides variety and increases student engagement.

Then the last activity is the post-test; Providing a vocabulary post-test and reading comprehension post-test at the end of the lesson aims to measure students' progress in understanding and mastery of the material after going through the learning process. The post-test also provides useful information in the evaluation of learning and subsequent development. After being given treatment in the third cycle, student learning outcomes began to increase, the average student LKPD score in the third cycle was 89.6. The average value of the vocabulary post-test was 91.13 and the average value of the reading comprehension post-test was 86.96. The following chart shows the increase in student learning outcomes after being given treatment in 3 meetings.
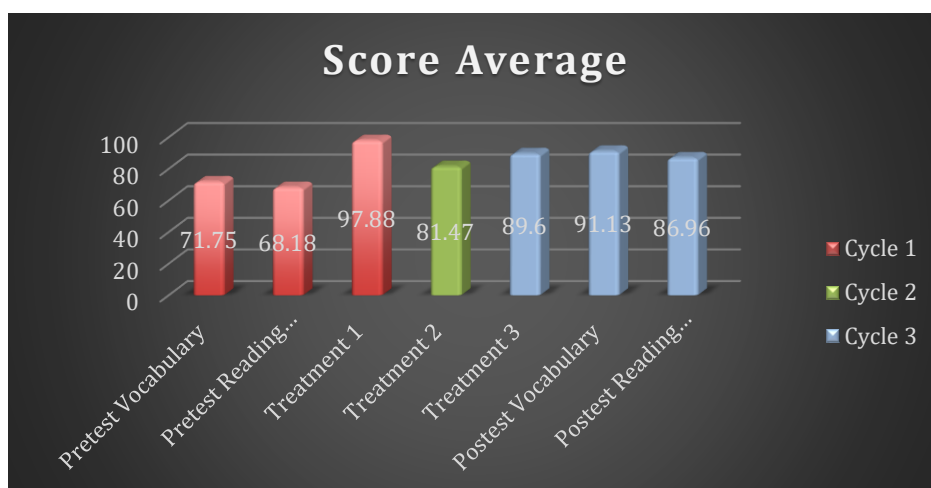
Figure 2. Student Learning Outcomes for 3 Meetings

Conclusion

This research concludes that the use of the games method can improve students' vocabulary mastery in reading comprehension, especially in class VIII H SMPN 259 Jakarta. By using the game method, students are increasingly motivated to learn English because students can experience their learning with an exciting and fun method. By combining interactive games and online games, we are also able to accommodate all learning styles of students in the class so that the learning provided is fair and accommodates all learning interests in the class. The use of online games that are integrated with technology can also increase students' enthusiasm for learning because technology is very close to their daily lives. Increasing student learning outcomes is shown by the results of the vocabulary pretest the class average value was 71.75, while the reading value was 68.18 before being given treatment, but after being given 3 cycles of treatment, the average post-test vocabulary score was 91.13 and the post-test reading score was 86.95 With this, it can be concluded that through the game method, students' reading comprehension

skills increased by 27% and they were able to achieve the minimum completeness criteria.

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JOB BURNOUT AND SATISFACTION AMONG SECONDARY TEACHERS: REGRESSION AND K-MEANS CLUSTERING ANALYSIS

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https://doi.org/10.24071/ijiet.v8i1.7243
received 20 September 2023; accepted 22 January 2024

Abstract
Burnout on a teaching job refers to exhaustion that leads to depression which can affect the teacher's well-being and satisfaction. This article looks into the level of job burnout and satisfaction of high school teachers during modular distance learning and determines its association at different levels. Cross-sectional primary data were gathered from a random sample of secondary teachers in Ormoc City, Leyte, Philippines. The gathered data were job burnout and satisfaction scores and described using standard statistical metrics. Moreover, correlation and regression analysis were employed to analyze its association, and K-means clustering was used to identify homogeneous categories of job burnout and satisfaction scores with similar characteristics. On average, results showed that the high school teachers were still "satisfied" despite the "high burnout" they were facing during the modular distance learning amid the pandemic. Using the correlation analysis, it is revealed that teachers' satisfaction and burnout are significantly and inversely correlated to each other. This implies that the burnout level adversely affects the satisfaction in teaching. Based on regression analysis, there is a decrease of 0.653 units in the satisfaction perception score for every 1 unit increase in the burnout perception score and it is significant at a 1% level. It is depicted in K-means clustering that teachers' satisfaction and burnout levels are compact and converge to the interpretation that they were highly burnout yet satisfied in modular distance learning. Hence, the study suggests that teachers' tasks during distance education must be lessened to increase their well-being as educators.

Keywords: burnout, descriptive-correlational, high school teaching, modular distance education, satisfaction

Introduction

Satisfaction in teaching is a measure of subjective fulfillment or well-being in doing assigned tasks. In the study of Hashim et al. (2020), and Ali and Anwar

(2021), job satisfaction refers to the overall feelings of the workers which signifies their pleasure, work performance, productivity, motivation, and expectations. According to Casinillo et al. (2020), satisfaction in teaching refers to the happiness of what they have accomplished and it is directly related to their productivity in the workplace. During the time of the COVID-19 pandemic, the job satisfaction of teachers was adversely affected and most of them are experiencing unfulfillment due to ineffective forms of learning as face-to-face classes shifted to distance education (Castroverde & Acala, 2021). In addition, teachers' tasks during the new normal were routine in which they were just printing modules for their students and checking their outputs with no physical interaction (Chen et al., 2020). As a result, teachers were facing a high level of burnout in their teaching career during distance learning. Job burnout is defined as physical and emotional exhaustion in their required tasks which results in stress and depression (Rubilar & Oros, 2021). Burnout in teaching adversely affects the well-being of a teacher which results in decreased productivity and satisfaction with their assigned tasks. During the pandemic, teachers are struggling to communicate with their students one by one to monitor their progress and this makes them burn out due to the barriers of distance learning (Sokal et al., 2020). Hence, the teachers' scenario under distance education makes them unsatisfied with their job.

Without face-to-face interaction, teachers and students fall into less satisfactory relationships and seldom engage students in the learning environment. As a result, students are unable to grasp their lessons and cannot finish their required learning tasks which leads to lower academic performance (Casinillo, 2023). With these poor education outcomes, teachers were highly stressed of felt ineffective in their job, which led them to high burnout levels. According to Harmsen et al. (2018), teachers who are dealing with high levels of burnout are more likely to leave their profession and find better jobs outside teaching. In that case, as the teachers face job burnout at a high level, their satisfaction diminishes in their productivity is adversely influenced (Hashim, 2020). In the study of Fakhi et al. (2021), it is mentioned that teachers who were affected by the pandemic have lower satisfaction with their jobs, and the quality of work is negatively affected. Moreover, teachers' perspective in delivering their lessons during distance education seems to be ineffective since they cannot see the academic progress of their students. It is worth noting that the pandemic brought anxiety which is a hindrance to the quality and motivation of both teachers and students in the learning process (Casinillo et al., 2022). In that case, the goal of the educational process and the quality of teaching and learning are not realized due to the barriers of distance education. Hence, some educational researchers were investigating the teachers' satisfaction and burnout levels amid distance education to somehow find a remedy and solve the problem of low performance of students and teachers' well-being concern (Ali & Anwar, 2021; Dicke et al., 2020; Rubilar & Oros, 2021). Dayagbil et al. (2021) portrayed that investigating the scenario of teachers during the pandemic contextualized strategic actions during and beyond the health crisis.

Though the scenario of teachers' satisfaction and burnout levels were well-researched, however, its relationship and classification within clusters have never been investigated amid distance education. Moreover, the investigation of job

satisfaction and burnout of high school teachers during modular distance education in Ormoc City, Leyte, Philippines has never been done. Hence, the researchers were motivated to carry out this current study to fill in the said gap. The main goal of this research study is to characterize the level of teachers' satisfaction and burnout as they faced modular distance learning during the COVID-19 pandemic and explain its relationship at different levels. In specific, the article established an answer to the following objectives: (1) to measure the level of the teachers' satisfaction and burnout during distance education; (2) to model the relationship between teachers' satisfaction and burnout using regression analysis; (3) to constellate the teachers' satisfaction and burnout level into similar characteristics using K-means clustering. The purpose of conducting this study is to understand the teachers' satisfaction and burnout which might be useful for school heads and policymakers to improve the educational system in distance education. The results of this research study may provide some information to reduce the burnout level and enhance the teachers' satisfaction. Furthermore, the findings of this article might be useful as input to educational policy during distance learning and beyond the pandemic to ease unprecedented challenges.

Methods

This study involved a correlational research design that focuses on the relationship between two variables of interest namely the teachers' satisfaction and burnout levels during the distance learning amid the pandemic. The design used determined the degree and direction of association between the two variables which describes the teachers' motivation and struggles in teaching amid distance education. The desired respondents of this study were the secondary teachers in Ormoc City, Leyte, Philippines. Selected National High Schools (NHSs) namely: (1) Margen NHS, (2) Linao NHS, and (3) Valencia NHS were chosen as the schools of interest. The schools were chosen by the researchers since they have the highest turnover rate based on the record of the Ormoc City School Division. Using Slovin's formula with a 5% margin of error, the computed sample size of this study is 132 teachers. The sample size was proportionated to the three schools and simple random sampling was employed so that every teacher within the school has an equal chance of being selected as respondents. Hence, out of 53 teachers in Margen NHS, 36 were selected, out of 66 teachers in Linao NHS, 44 were selected, and out of 80 teachers in Valencia NHS, 52 were selected.

The research instrument involved two parts such as teachers' job satisfaction and burnout level. The teachers' job satisfaction questionnaire was adapted from the paper of Lester (1987) in which the researchers aligned it to the current scenario of modular distance learning. The satisfaction questionnaire involved 20 statements about the teachers' work satisfaction that follows a 5-point rating Likert scale such as follows: Very dissatisfied - 1, Dissatisfied - 2, Neutral - 3, Satisfied - 4, Very satisfied - 5. In determining the satisfaction level, all perception score in each question was summed up. The highest possible satisfaction score is 100 and the lowest is 20. The higher score indicates a higher satisfaction and the lower score indicates a lower satisfaction. Using Cronbach's alpha, the said questionnaire possessed a reliability score of 0.91 which indicates that the set of questions is reliable for use. Table 1 depicts the possible interval satisfaction scores, responses, and verbal interpretation.

Table 1. Teachers' satisfaction perception score, response, and its interpretation

Total satisfaction score	Teachers' response	Interpretation
20 - 36	Strong disagree	Very dissatisfied
37 - 52	Disagree	Dissatisfied
53 - 68	Neutral	Moderately satisfied
69 - 84	Agree	Satisfied
85 - 100	Strong Agree	Very satisfied

The questionnaire for teachers' burnout level was adapted from the instrument Oldenburg Burnout Inventory (OLBI) which captures the job burnout of an employee (Demerouti & Bakker, 2008). This research instrument is composed of sixteen (16) questions that follow a four 4-point Likert scale that includes the following: Strongly Agree -1, Agree - 2, Disagree - 3, and Strongly Disagree - 4. To determine the job burnout level, all burnout perception score in each question was summed up. The highest possible burnout perception score is 64 and the lowest is 16. The higher the score means a higher burnout level and the lower score implies a lower burnout level. Reis et al. (2015) depicted that the OLBI instrument has a reliability score of 0.73 to 0.85 which can be interpreted as a reliable set of questions.

Table 2. Teachers' burnout perception score, teachers' response, and verbal interpretation

Total burnout score	Teachers' response	Interpretation
16 - 28	Strongly agree	Extremely burnout
29 - 40	Agree	Highly burnout
41 - 52	Disagree	Moderately burnout
53 - 64	Strongly disagree	Low burnout

The questionnaire for the teachers' job satisfaction and burnout level was validated and evaluated by the three (3) experts in social science research and portrayed that it captures the experiences and well-being of the high school teachers during modular distance learning. The data were encoded in Excel and formatted for the STATA statistical program for the calculation analysis. In summarizing the data, descriptive metrics were used such as minimum (Min) and maximum (Max) values, mean (M), standard deviation (SD), and scatter plots. In elucidating the relationship between teachers' satisfaction and burnout level, the Spearman correlation was employed. Moreover, regression analysis was used to determine the approximate change in teachers' satisfaction levels concerning their burnout level. Furthermore, to assemble the teachers' satisfaction and burnout levels into the same characteristics, the K-means clustering was employed to further understand the association of the said variables. All statistical results were tested at standard statistical significance levels (1% and 5%). Table 3 shows the possible ranges of the Spearman correlation coefficient and degree of relationship based on the study by Casinillo and Guarte (2018).

Table 3. Range of Spearman correlation coefficient

Spearman correlation coefficient (r_p)	Degree of relationship
$0.0 < |r_p| \leq 0.3$	Weak relationship
$0.3 < |r_p| \leq 0.7$	Moderate relationship
$0.7 < |r_p| \leq 1.0$	Strong relationship

Findings and Discussion

Based on Table 4, it is shown that teachers were still satisfied (M=69.80, SD=9.79) in their teaching career during modular distance learning despite the challenges they encountered. This implies that teachers are still motivated to work as part of their profession even if they are facing difficulties in the teaching-learning process amid the pandemic. According to Xun et al. (2021), teachers during the pandemic were enhancing their coping mechanisms and resilience to maintain their eagerness to teach and stay committed to their assigned tasks. On the other hand, it is revealed in Table 4 that teachers were highly burned (M=34.79, SD=3.85) in doing their jobs during the distance learning process amid the pandemic. The result indicates that teachers were physically and emotionally exhausted in facing the limitations and barriers of modular distance learning. Rubilar and Oros (2021) portrayed that teachers during the pandemic were stressed and burned out due to the paperwork assigned to them and how to deal with their students at a distance. The Spearman correlation analysis revealed that the relationship between teachers' satisfaction and burnout levels is inversely related (r_p=-0.309, p-value<0.001). Based on Table 3, the degree of relationship between the two variables is moderate. This implies that as the teachers are highly burnout in their assigned work, their level of satisfaction or well-being is decreasing moderately. In the study of Chávez et al. (2022), it is depicted that teachers were facing several technical problems in delivering their lessons to their students at a distance which caused them stress and burnout and negatively affected their teaching performance and satisfaction level.

Table 4. Descriptive statistics and Spearman correlation for teachers' satisfaction and burnout level

Variables	M	SD	Min	Max	Interpretation	r_p	*p*-value
Satisfaction	69.80	9.79	50	93	Satisfied[a]	-0.309*	<0.001
Burnout	34.79	3.85	24	46	Highly burnout[b]		

Note: a - See Table 1; b - Highly burnout; * - Highly significant at 1% level of significance.

Table 5 depicted that in every 1 unit increase in burnout perception score, there is a corresponding decrease of 0.653 units in the satisfaction perception score of high school teachers. This result is significant at a 1% level which indicates that the satisfaction level of the teachers is significantly (p-value=0.003) and adversely affected by their burnout level. Based on Figure 1, it is shown that the regression line is downward sloping. This implies that the relationship between satisfaction and burnout level is inversely proportional which implies that teachers' motivation and well-being were negatively influenced by the stress and exhausting tasks during the modular distance learning amid the pandemic. Cheptea et al. (2021) stated that the unprecedented situation and unfamiliar methods of teaching hurt the well-being of teachers which increases the burnout level and decreases the satisfaction. In the study of Ozamiz-Etxebarria et al. (2021), it is mentioned that due to the new ways of teaching at a distance during the pandemic, teachers were accumulating negative mental symptoms that caused them to anxiety and depression which affected their teaching performance. It is worth noting that teaching is considered a high-stress profession and during the pandemic, burnout levels is more increasing because of the challenges and barriers in the teaching-learning process in distance education, hence, teachers'

burnout has adversely affected the school effectiveness and climate for students (Chen et al., 2020; Sokal et al., 2021).

Table 5. Linear regression model for teachers' satisfaction and burnout level

	Coefficient	Std Error	p-value
Burnout level	-0.653*	0.216	0.003
Constant	92.523*	7.556	<0.001
n		132	
F-computed		9.16*	
p-value		0.003	
R-squared		0.066	

Note: * - Highly significant at 1% level of significance. The dependent variable is the teachers' satisfaction level
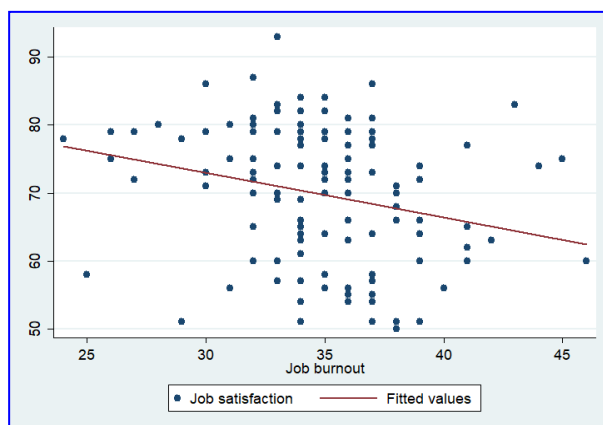
Figure 1. Scatter plot and regression line

It is shown in Table 6 that all clusters have the same teachers' job satisfaction and burnout levels. This implies that teachers during the time of distance learning were consistently burnout but satisfied with their assigned work. It is shown that in cluster I, the job satisfaction score is close to 70.80 (SD=10.62) and the burnout score is close to 35.38 (SD=12.42) which can be interpreted as "satisfied" and "highly burnout", respectively. In cluster II, the teachers' satisfaction score is approximately equal to 80.02 (SD=11.57), and the teachers' burnout score is approximately equal to 32.96 (SD=13.41) which indicates that teachers were "satisfied" and "highly burnout", respectively. Moreover, in cluster III, on average, the teachers' satisfaction score is close to 69.79 (SD=95.90) and the teachers' burnout score is close to 34.79 (SD=14.79) which indicates that teachers were "satisfied" and "highly burnout", respectively. This implies that teachers were still doing their job and responsibilities as educators while facing unprecedented challenges during distance learning as a modular type. According to Xun et al. (2021), teachers during the pandemic were developing resilience to somehow cope with the difficulties in delivering lessons to their students which contributed to a gratifying feeling for them despite the rising burnout level.

Table 6. *K*-Means clustering for teachers' job satisfaction and burnout level

Cluster	Descriptive metrics	Job satisfaction	Job burnout
I (n=45; 34.09%)	Mean	70.80	35.38
	Standard deviation	10.62	12.42
	min	65	27

Cluster	Descriptive metrics	Job satisfaction	Job burnout
	max	77	45
	Interpretation	*Satisfied*[a]	*Highly burnout*[b]
II (n=45; 34.09%)	Mean	80.02	32.96
	Standard deviation	11.57	13.41
	min	75	24
	max	93	43
	Interpretation	*Satisfied*[a]	*Highly burnout*[b]
III (n=42; 31.82%)	Mean	69.79	34.79
	Standard deviation	95.90	14.79
	min	50	24
	max	93	46
	Interpretation	*Satisfied*[a]	*Highly burnout*[b]

Note: a - see Table 1; b - see Table 2.

In Figure 2, it is presented that the three clusters have a little distance to each other, in other words, the scatter plot is compact. Cluster II possesses the highest job satisfaction score followed by Cluster I and the lowest job satisfaction score falls at Cluster III. This means that teachers at cluster II were the highest satisfied with their jobs and willing to do their work despite the exhausting nature of modular distance learning.
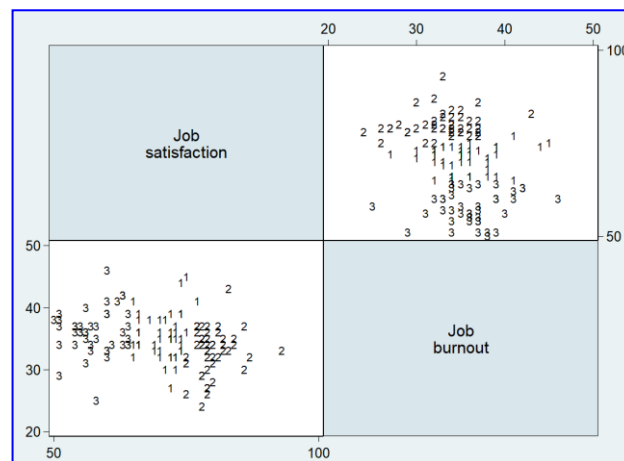
Figure 2. K-means clustering (K=3).

Samifanni and Gumanit (2021) portrayed that teachers were showing endurance and patience in dealing with limitations and struggles in the teaching process to create positivity in the learning process for their students. Also, teachers were applying some innovative teaching strategies to lessen their work in delivering their lessons (Jr. & Casinillo, 2020; Yu et al., 2021). In that case, the challenges do not hinder the passion of teachers to impart knowledge to their students and they were still motivated and satisfied with their work by thinking of the situation as temporary and not for a lifetime. In the study of De Aquino et al. (2023), it was revealed that teachers were willing to sacrifice just to accomplish their assigned tasks as teachers and apply coping mechanisms to survive the unprecedented challenges during the pandemic. Moreover, despite the difficulties during the pandemic, teachers were willing to provide caring service to their

students and they always made plans and improved their teaching method to promote quality learning amid distance education (Gonçalves, 2020).

Conclusion

The main goal of this research article is to measure the teachers' satisfaction and burnout levels during distance education and elucidate the association between the two variables of interest. Based on descriptive results, it is shown that the teachers were "satisfied" and "highly burnout" during the modular distance learning amid the pandemic. This implies that teachers are willing to do their job with confidence despite the exhausting and challenging situation in distance education. It is revealed by the Spearman correlation that teachers' satisfaction and burnout have a highly significant inverse relationship. Conclusively, the burnout level that teachers were experiencing adversely affects their satisfaction and well-being. Burnout diminishes the personal identity of the teachers and reduces their accomplishments due to work-related depression and stress. In addition, the regression analysis portrayed that in every 1 unit increase in the burnout perception score, there is a corresponding decrease of 0.653 units in the satisfaction perception score which is highly significant. Moreover, the K-means clustering depicted that teachers' satisfaction and burnout levels are compact which can be interpreted as high burnout but satisfaction in teaching. In that case, teachers were performing in the workplace but could feel exhaustion and stress. Henceforth, it is highly suggested that school leaders must reduce the teachers' tasks during modular distance learning to increase the well-being of teachers. Additionally, teachers must be provided with incentives and opportunities to take a vacation to relieve stress. It is recommended that a similar study be realized in other parts of the Philippines to gather richer information about the satisfaction and burnout levels of teachers during modular distance learning.

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DETERMINANTS OF PARENTAL SCHOOL CHOICE: A SYSTEMATIC REVIEW OF THE LITERATURE

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Abstract
The study examined determinants of parental school choice internationally aiming to identify research gaps and providing suggestions for researchers. Articles published between 2000 and 2023 were searched from 9 databases and a total of 30 articles were included in the review. The result showed that parental school choice is critically affected by parent-related factors like parents' education, income, family size, and education level of the children, and the school-related factors: quality of education, performance of teachers, school facilities, school cost, parent-teacher relationship, and school curriculums are the major ones. The safety/security related and children's educational achievement is found slightly affecting factor on parental school choice. The research design of reviewed articles is found descriptive research although the explanatory research design was appropriate as it supports better. The study also identified factors for developing and developed countries are different. For developing countries socio-economy, income, family education, cost, curriculum, technology, proximity to home, number of children, and age of the child are the major ones. For developed countries: school quality, teacher performance, special programs, playground, training teachers, library service, student moral development, school performance, environment, school ranking, interaction with parents, discipline, curriculum structure, knowledge, result, and communication skills are paid attention for parental school choice decisions.

Keywords: achievement, education quality, parent income, school choice

Introduction

Education is a fundamental right and a powerful tool for individual and societal development. It equips individuals with the necessary knowledge, skills, and values to lead fulfilling lives and contribute to the betterment of society. However, there are still significant challenges to ensuring education is accessible, equitable, and of high quality for all individuals, regardless of their socioeconomic background or geographical location. Education plays a great role in the development and socio-economic welfare of society. It also enables people to become more productive members of society. Overall, the development of human

resources is impossible without an emphasis on education (Olaniyan & Okemakinde, 2008). It contributes to the formation of an informed and engaged citizenry, capable of participating in democratic processes and making informed decisions, it promotes social cohesion, tolerance, and understanding among diverse communities.

School choice is a concept that allows parents to have the freedom to choose the best educational option for their children. It recognizes that not all schools are created equal and that different educational approaches may work better for different students. Connecting the quest for better education with school choice is important because it empowers parents to actively participate in the development process of their children. When parents can choose the school that aligns with their values, goals, and preferences, they can ensure that their children receive an education that meets their individual needs (Kamal & Zunaid, 2006).

Parents play a crucial role in the upbringing and education of their children. They are the first teachers of their children and have a significant influence on their development. From a young age, parents provide the foundation for their children's learning by creating a nurturing and supportive environment. They provide the foundation for their children's learning, instill values and morals, and support their academic success. Parents not only play a crucial role in the upbringing and education of their children but also have significant responsibilities and aspirations for their children. They invest in their children's success and have high expectations for their future (Anderson, 1992). Parents want their children to have a better life than they did and often see education as the key to achieving it. Parents also have aspirations for their children's academic achievements and career paths. They want their children to excel in school, go on to college or university, and secure stable and fulfilling careers.

Hence one of the most important parental roles in their children's academic upbringing is choosing the school they attend as school choice gives parents greater power not only over their children 's education but also in influencing important educational decisions (Aweke, 2016). This implies that parents are prominent stakeholders in the process of their children's schooling on the one hand, and they are primarily responsible for the holistic development of their children on the other hand. Parents respond differently in fulfilling those responsibilities; particularly in deciding about a school to which their children should go (Anderson, 1992). Furthermore, parents take on various roles and responsibilities in their children's lives. They act as caregivers, nurturers, educators, and mentors. They provide emotional support, guidance, and encouragement to help their children navigate through life's ups and downs. Parents are there to celebrate their children's successes and provide comfort during times of failure or disappointment.

However, it is important to recognize that not all parents have equal opportunities or resources to support their children's education. Socio-economic factors can impact the level of involvement and support parents can provide. Therefore, society must ensure that all parents have access to the necessary resources, such as affordable childcare, parental education programs, and support networks, to help them fulfill their role in their children's education. It is important to note that parents' decisions about school choice are influenced by various factors such as their educational background, socioeconomic status, cultural beliefs, and personal experiences. Every parent wants the best for their child, and their choices

reflect their aspirations and expectations for their children's education and future. Some parents may prioritize academic excellence and choose a school with a strong academic reputation. They believe that attending a prestigious school will provide their children with the best educational opportunities and set them up for future success. These parents may also consider factors such as class size, teacher quality, and extracurricular activities in their decision-making process. Other parents may prioritize the values and principles taught at a school. They may choose a school that aligns with their religious or cultural beliefs, or one that promotes a specific educational philosophy such as Montessori or Waldorf. These parents believe that a school's values and principles will shape their children's character development and overall well-being.

Several researches have been published about the determinants which affect parental school choice. This is done in the world as well as in Africa. This large abundance of literature makes complex which variant types of determinants affect one and not others. This makes it for the practitioners and school providers difficult to implement their activity by understanding which factors are most significantly determined by parents. Different empirical research has been done to identify the determinants that are responsible for the decision-making of parental school choice. Specifically, the research-focused area was grouped into four broad categories: (a) parent-related factors which come through different demography of parents. (b) school-related factors that come through the characteristics of schools. (c) Safety/security-related factors that have effects on the student's sense of security. (d) Students' achievement-related factors depend on the student's grades in different examinations.

Hence, this paper attempts to assess how parental school choice is conceptualized and understood in various studies. An attempt is made to consider as many published research articles as possible in this area to fill in these gaps draw lessons from the past and discuss the possible implications for future practice and research. Accordingly, the following research questions should be answered by the review:

- According to the studies reviewed, what are the determinants of parental school choice globally?
- According to the studies reviewed, are the determinants of parental school choice the same for developed and developing countries?
- To what extent has 'parental school choice' been an agenda of educational research in Ethiopia?
- What do studies conducted on parental school choice in Ethiopia, if any, indicate?

Methods

The method that was used to answer the research questions was a systematic review of studied literature conducted between 2000 and June 2023. Inclusion/exclusion criteria were used to determine the articles to be reviewed as annexed on Appendixes: Table 1 Summary of the included in the systematic review

Search methods and coding process

The subject and keyword for the search: 'School choice," "determinants of school choice," "factors of school choice," "education" or "student achievement", "school achievement", "private school" and "government school".

The articles were selected and analyzed their content together. The major ones taken from them were the methodological part of the analysis methods they used, sampling methods, and research approaches employed were the major. School choice was picked as the dependent variable and independent variables were taken and each assessed for the degree of significant effects and the direction of relation on parental school choice were analyzed.

Inclusion Criteria

Different criteria were used to screen the studies published for inclusion in this analysis. The major one was articles that were studied on the determinants of parental school choice and the relation between the determinants and their effects on parental school choice and articles that were studied after 2000 are included in this systematic review. The second inclusion criterion for this study was the articles that were published and acknowledged by known publishers considered as a criterion of inclusion. The articles also have to be done on schools preschool, primary, and secondary school levels are included as parents have relatively more follow-up with students. Hence, studies that are done at tertiary levels are excluded from the study. Other studies that were not published and studied in Ethiopia were also included in the meta-analysis. Articles that were done before 2000 were excluded from the analysis and the articles that did not include four groups of the above-listed independent variables and that did not use primary data sources were also excluded from the analysis.

Analytical methods

Descriptive statistics were used both to determine the frequency of various methodological parameters, as well as to identify variations due to the time of the study, geographic focus, and product type.

Study selection

The articles retrieved from their initial database search were 5,534. A total of 401 articles were selected and the others which came from duplication of searches and unrelated articles were removed. Another 363 were excluded after the clear review of the abstract, depending on the inclusion criteria in which they did not relate directly to the study of the determinants of parental school choice. Most are removed since they study determinants and students' achievement relations and used secondary data as a result only 30 articles were included in the study.

Study characteristics

All the selected four major groups of factors which affect parental school choices were identified in the review. The four groups were parent-related factors, school-related factors, safety/security-related, and student achievements. The studies included the use a research approach of a qualitative, quantitative, and or mixed research approach. All the included studies use primary sources of data.

Quality of methods of included studies
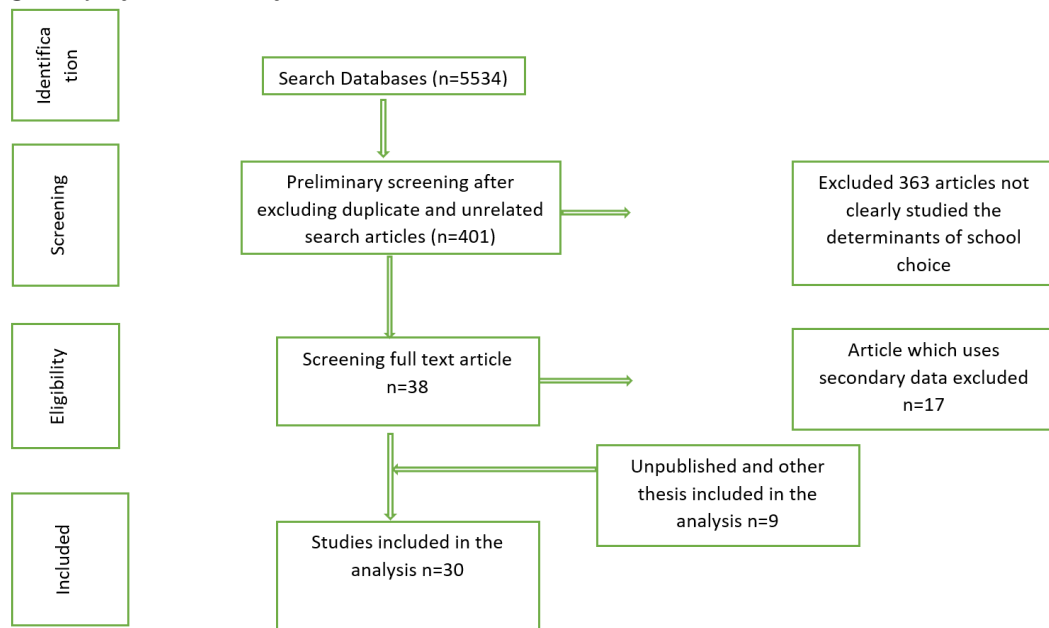
Figure 1. Inclusion/exclusion processes of the studies from 2000 to 2022

Findings and Discussion
Determinants of parental school choice globally

Table 1 in the appendix shows in detail the study setting and the underlying factors influencing parental school choices. Analysis of the reviewed articles revealed four major themes namely: school-related, parent-related, security/safety-related, and student achievement-related factors that influence parental school choice. These four major themes had several subthemes and are reported below:

(a) parent-related factors that come through different demography of parents.

(b) school-related factors that come through the characteristics of schools.

(c) Safety/security-related factors that have effects on the students on their security issues.

(d) Students' achievement-related factors depending on the student's grades in different exams are the major determinant factors grouped on parental school choice decision.

Parent related factors

These factors come from parents of students and it originates from the demography of parents mainly. The factors included in these groups are parent education, parent income, size of family, number of children, socio-economic situation, student age, student gender, and ethnic background.

Parent education

Parental education was taken as the most important factor in parental school choice. Parents are taken as the first and most decisions makers in the education of children and when parents' education levels become high their decisions become reasonable in choosing schools for their children (Chaturvedi, 2021; Ghosh & Dey,

2020; Hossain, Ahamed, & Jahan, 2017; Siddiqui, 2017; Tarkhnishvili, Tarkhnishvili, & Strielkowski, 2022).

From the results of Siddiqui (2017) in Pakistan school choice is more dependent on parents' education. When parents attend a formal school for a long period, they tend to select private schools for their children, and parents having a lesser number of years spent in formal education is positively related to children's enrolment in Madrassahs. The differences in parental school choice are noticeable between private schools and Madrassahs but less obvious between government schools and private schools (Siddiqui, 2017).

According to Chaturvedi (2021), studies in India mother's education is more important than a father's education in the decision on the choice of school. Parents' education is significantly related to parental school choice in India (Chaturvedi, 2021)

Parent education is also a determinant factor for parental school choice in Georgia. Private school' students' have better education. The study shows that school choice is much linked to the parent's education When the private school student's parents have higher education (compared with the public school students' parents), the chance of sending their kids to a private school in the future is inevitably high (Tarkhnishvili, Tarkhnishvili, & Strielkowski, 2022).

Among the socioeconomic factors, parental education is the most crucial role in school choice. Because, educated parents know that selecting schools for children is an important decision to make as these institutions would be the caterer for the children's future roles and successes (Tanvir, Tunvir, & Nusrat, 2017).

Parents with higher educational attainment are more likely to find themselves in positions where they can make informed decisions on their children's education (Oiyer, Odundo, Obat, Lilian, & Akondo, 2015).

Parent income

Parent income is one of the most significant factors in choosing students' schools. When the income of parents becomes high there is an intention to choose private schools and when the income is low parents choose more on public schools (Bedaso &Shobisso, 2020; Charbaji, Sellami & Al Qassass, 2019; Hossain, Shohel, & Jahan, 2017; Tarkhnishvili, Tarkhnishvili, & Strielkowski, 2022).

Georgia Private school students' parents have better income. When the private school students' parents have a higher income (compared with the public school students' parents), the chance of sending their kids to a private school in the future is inevitably high (Tarkhnishvili, Tarkhnishvili, & Strielkowski, 2022). Parent income is a determinant of school choice in Bangladesh (Hossain, Shohel, & Jahan, 2017). Parent school choice in Qatar (El-Kassem, Sellami, & Qassass, 2019) and India (Ghosh & Dey, 2020) depends on the income of the parents. In Ethiopia also income of parents was the most important variable that affected the parents' decision regarding the selection of public or private schools (Merga & Sofamo, 2020). Parents from rich families prefer private schools over public schools because private schools offer more resources to extend learning opportunities for the children than underfunded public schools (Hossain, Shohel, & Jahan, 2017).

Size of family

According to Hossain, Shohel, and Jahan (2017), children from families with fewer members and not more than one sibling attended private schools as smaller families have more financial mobility than extended families in Bangladesh and the number of kids in the family has critical effects on parental school choice of Georgia (Anna, Levan, & Wadim, 2022).

Education level of children

Parents' preference for school differs based on a child's grade level as they are less concerned for the moral guidance and safety of an older child than the younger one as the latter requires more attention and care. Findings of Hossain, Shohel, and Jahan (2017) show that parents in the KCC area preferred private schools instead of government schools, specifically for their younger kids, as private schools offer a more congenial educational environment than the hectic conditions in government schools.

School related factors
Educational quality

The education quality of the school is considered a vital school-related factor for parental school choice (Ahmed & Jahan,2020; Asanjarani, Alkash'an & Keshavarz, 2021; Bedaso & Shobisso,2020; Grosset al., 2015; Tanvir, Ahamed & Jahan, 2017; Tarkhnishvili & Strielkowski, 2022). Parents look and research the quality of education before deciding on their children's school.

Bedaso and Shobisso's (2020) results confirmed that the quality of education was a strong determining factor relating to parental school choice. The quality of private schools significantly influenced the enrolment decision as it indicated that parents would like to send their children to private schools for better education (Merga & Sofamo, 2020). The quality of education is the major factor in parental school choice in Pakistan (Shahzad, Naoreen, & Ashraf, 2020).

Performance of teachers

The performance of teachers was also considered as a deciding factor for parental school choices since it is directly related to the educational quality of the schools, it becomes the major factor for parental school choice. According to Shahzad, Naoreen, and Ashraf (2020) in Pakistan, the performance of teachers was the major factor in parental school choice for their children.

In Thailand, the quality of the teacher and the class size are worth noting as they relate to the academic performance criteria that parents consider. Parents believe with the presence of quality teachers and smaller classroom sizes; their children will receive better teachers' attention and therefore result in better academic performances (Wei & Mhunpiew, 2020).

School facilities

School facilities like class size, library service, technological services, laboratories, technological labs, and playgrounds of schools have significant effects on parents choosing a school for their children.

In Bangladesh concerning the physical facilities, it was observed that many private schools have a large and diversified collection of books with a mandatory

provision of library hours and internet connectivity and hence parents prefer private schools (Chowdhury & Synthia, 2020).

Adequate and appropriate facilities, materials, and equipment for students to learn in a classroom are also critical factors in school choice in Kenya (Oiyer, Odundo, Obat, Lilian, & Akondo, 2015).

The physical characteristics of a school and its buildings are appealing to them and therefore, an influential factor when determining their school of choice (Cantu, Verela, Jones, & Challoo, 2021).

Cost of school payment

The cost of schools is also a major factor for parents to choose schools for their children. When the cost of the school becomes very high parents' capacity to pay becomes less and most parents do not choose. The cost of schooling is a sensitive issue for decision-making in developing countries like Ethiopia where the literacy rate is low as compared to developed countries (Merga & Sofamo, 2020).

Parent-teacher relationship

Parent-teacher relationship is also a major school-related factor for parental school choice. relationship between parent–teachers, and teacher–learners is the major factor for school choices in South Africa (Roy & Miller, 2021). The parent's involvement in children's educational experience and their level of "motivation", as factors mostly influencing the choice between public and private schools in Italy (Pandolfini, 2013).

School curriculum

In Bangladesh, public schools follow the national curriculum that focuses more on core contents, whereas private schools put more emphasis on critical reasoning and learning or operational curriculum (Chowdhury & Synthia, 2020). Hence school curriculum is the major factor for school choice in Bangladesh and the structure of the curriculum of the school is the critical factor in the school choice of Tamilnadu (Jayasubramanian, Rajamani, & Rajakrishnan, 2020). The school curriculum is the major factor that affects Iranian parents' school choices, too (Faramarz et al., 2022) as many Iranian parents need a religious-based curriculum.

Safety/security related factors
School safety

Safety was regarded as a key factor influencing parental school choice decisions in South Africa. Articulate discipline and safety as key factors influencing their school choice decision-making process. It should also be noted that school discipline is a key requirement for a safe schooling environment (Roy & Miller, 2021). Parents choose schools for academic reasons and safety measures undertaken by learners, staff, parents, and other stakeholders to either minimize or eliminate risky conditions or threats that may cause accidents, bodily injury as well as emotional and psychological distress. A safe and secure school environment facilitates and fosters quality teaching and learning in educational institutions (Oiyer, Odundo, Obat, Lilian, & Akondo, 2015). Also, safety measures were influential in parental school choice decisions to enroll in a particular school in the USA (Cantu, Verela, Jones, & Challoo, 2021).

Social atmosphere

Providing school-choice options has led to (socially biased) pupil flows across the city from residential areas with higher socio-economic profiles to desirable classes in different schools. Ethics and the social atmosphere are critical factors in school choice in Finland (Kosunen, Bernelius, Seppanen, & Porkka, 2020).

The study findings also asserted that school social environment besides academic preference influences some parents when choosing a school for their children. The social environment which is defined by the teacher-pupil relationship, discipline, and the diversity of the school determines parental school choice (Oiyer, Odundo, Obat, Lilian, & Akondo, 2015).

Distance from home to school

Safety to and from school and in school is the major factor that affects parental school choice for their children in Pakistan (Shahzad, Naoreen, & Ashraf, 2020). The geographical importance is not only tied to convenience but is also tied to the school's surroundings and transmitting a sense of confidence that children are safe. Safety was indicated as a top influential factor for parent participants in the research study. School safety is an important issue for many school leaders and parents (Cantu, Verela, Jones, & Challoo, 2021).

Students' achievement-related factors
Child education

parents choose schools that are convenient with the belief that they will provide better educational quality. They believe that pupils attending a school out of the immediate environment spend more time commuting and have less time for learning. Parents typically choose a school near where they live as a convenience when deciding on children's education (Oiyer, Odundo, Obat, Lilian, & Akondo, 2015).

When the school culture promotes a positive and caring climate that supports learning, the academic standards go hand in hand. Parents are greatly influenced to enroll in a school where they feel the people whom they interact with genuinely care for their child (Cantu, Verela, Jones, & Challoo, 2021).

This systematic review examined the factors that affect parental school choice from different countries around the globe from different grouped factors individually as well as in a group. School-related factors and parent-related factors were more investigated in the review articles. In the reviewed articles the schools related factors that affect parental school choice for their children were quality of education, teacher performance, school facilities, learning curriculum, parent-teacher relationship and cost of school are the critical factors which affect parental school choice for their children. It is found that the school-related factors mostly and more significantly affect parental school choice than parent-related factors in the reviewed articles. The parent-related factors that affect parental school choice are parents' education, income, size of family, and education level of children.

The other two groups that affect school choice are safety/security-related factors and children's education-related factors. The safety/security-related factors that affect parents when choosing a school for their children are the distance from home to schools, school safety, and social atmosphere are the major one. From

student achievement children's academics is the factor which affects parental school choice.

Determinants of parental school choice in developed and developing countries

Here thirty studies were identified and meta-analyses were done. Accordingly, from 30 studies the majority were descriptively analyzed. From the 30 studies included in the meta-analysis 22 studies which cover (73.33%) of the total were simply descriptive analyses. Only 8 that covers (26.67%) of the studies concluded from the inferential analysis although it is hardly possible to generalize from descriptive statistics of a relationship variable. This means studying the cause and relationship of variables descriptively is invaluable. It requires an explanatory research design and hence an inferential analysis is mandatory. One paper from each of Pakistan, Qatar, India, and Ethiopia was inferentially analyzed despite using a different model.

The research approach of the papers included in the SLR 7 studies from 30 which covers (23.33%) used a qualitative research approach. Different researchers inferred that qualitative research is appropriate when the area is new and needs an depth analysis. To test models and study the causal relationship quantitative research approach could have been better. Hence this indicates that there is a gap in the studied literature that supports the determinants of parental school choice.

Besides, the majority of the studies were from developed countries whereas studies on the determinants of parental school choice in Africa and specifically in Ethiopia were few. But it is known that education is necessary more for developing countries than the developed ones.

For developing countries including Ethiopia socio-economy, income, family education, school cost, curriculum, technology, relationship, proximity to home, number of children, and age of the child are the major ones that affect parental school choice, and for developed countries school quality, teacher performance, special program, playground, training teachers, library service, student moral development, school performance, environment, school ranking, interaction with parent, discipline, curriculum structure, knowledge, result, and communication skill gives attentions for parental school choice. Therefore, there are different factors in developing and developed countries.

From the systematic reviewed article these four main factors are different from one country to the other country. The major factor for one country may not be significantly considered for the other country. It is observed parent income from the parent-related factor and school payment from the school-related factors have a significant effect on parental choice in developing countries which is not a factor for a developed one.

The systematic review from the different countries indicates that parent income is a critical factor that affects parental school choice in the country of Georgia, Bangladesh, Qatar, India, and Ethiopia (Bedaso & Shobisso, 2020; Charbaji, Sellami & Al Qassass, 2019; Hossain, Shohel, & Jahan, 2017; Tarkhnishvili & Strielkowski, 2022).

In addition, the size of the family is the factor that affects parental school choice in Bangladesh and Georgia. Parents' education is a significant factor as parents are more educated, they can choose schools which are better for their children's future success and in countries like Pakistan, India, Georgia, the USA,

Kenya, and Bangladesh parent education was given more attention for school choice (Chaturvedi 2021; Ghosh & Dey, 2020; Hossain, Ahamed, & Jahan, 2017; Siddiqui, 2017; Tarkhnishvili, Tarkhnishvili, & Strielkowski, 2022).

When we saw the effect of the size of the family on parental school choice studies performed in Bangladesh and Georgia take as the critical factors which affect parental school choice. (Anna, Levan, & Wadim, 2022; Hossain, Shohel, & Jahan, 2017). Education level also has an effect on school choice in Bangladesh (Hossain, Shohel, & Jahan, 2017).

School characteristics from the systematically reviewed articles include education quality, the performance of teachers, school facilities, cost of schools, parent-teacher relationship and school curriculums are factors that affect parental school choice. Education quality is the critical factor that affects parental school choice. Studies which were done in Pakistan, Ethiopia, Bangladesh, and Iran identify education quality as the major factor that affects parental school choice (Ahmed & Jahan, 2020; Asanjarani, Alkash'an & Keshavarz, 2021; Bedaso & Shobisso, 2020; Grosset al., 2015; Tanvir, Ahamed, & Jahan, 2017; Tarkhnishvili & Strielkowski, 2022).

Whereas the performance of teachers in Pakistan and Thailand is a critical factor for parental school choice. When the performance of teachers becomes high at schools the school's quality of education is higher hence from the reviewed articles it becomes a critical factor in parental school choice. Parents believe with better quality teachers and smaller classroom sizes; their children will receive better teachers' attention which therefore results in better academic performances (Shahzad, Naoreen, & Ashraf, 2020; Wei & Mhunpiew, 2020).

As reviewed literature in Ethiopia indicates the cost of schools has a significant effect on parental school choice. The cost of schooling was a sensitive issue for decision-making. In developing countries like Ethiopia where the literacy rate is low as compared to developed countries (Merga & Sofamo, 2020).

Parent-teacher relationships and school curricula are also critical to school-related factors that affect parental school choice. Safety/security-related factors are also determinant which affects parental school choice. Parents choose schools for academic reasons and safety measures undertaken by learners, staff, parents, and other stakeholders to either minimize or eliminate risky conditions or threats that may cause accidents, bodily injury as well as emotional and psychological distress (Oiyer, Odundo, Obat, Lilian, & Akondo, 2015; Cantu, Verela, Jones, & Challoo, 2021; Roy & Miller, 2021). Studies performed in South Africa, the USA, and Kenya identify safety/security as factors of school choice.

From the reviewed articles safety to and from school and in school are the major factors which affect parents to choose a school for their children in Pakistan and Texas (Cantu, Verela, Jones, & Challoo, 2021; Shahzad, Naoreen, & Ashraf, 2020).

On the other hand, in developed countries, factors such as school quality, teacher performance, special programs, playgrounds, training for teachers, library services, students' moral development, school performance, environment, school ranking, interaction with parents, discipline, curriculum structure, knowledge, result, and communication skills are given more attention in parental school choice. These factors highlight the focus on providing a high-quality educational experience for students in developed countries.

The differences in determinant factors between developing and developed countries can be attributed to various factors such as differing levels of economic development, educational resources and infrastructure, cultural norms and values, and government policies. Policymakers and educators need to consider these unique factors when developing interventions and policies to improve parental school choice and educational outcomes in different contexts.

Parental school choice' as an agenda of educational research in Ethiopia

The determinant factors selected for developing countries and developed countries are different. For developing countries including Ethiopia socio-economy, income, family education, cost, curriculum, technology, relationship, proximity to home, number of children, and age of the child are the major ones that affect parental school choice, and for developed countries school quality, teacher performance, special program, playground, training teachers, library service, students' moral development, school performance, environment, school ranking, interaction with parent, discipline, curriculum structure, knowledge, result, and communication skill gives attentions for parental school choice. Therefore, there are different factors in developing and developed countries.

Some educational studies tried to find out about the determinates of parental school choice in Ethiopia Tilahun Bedaso and Belay Shobisso (2020) have tried to analyze through Binary Logistic regression to find the determinants of parental school choice and Teshome (2017), Yadessa and Bekabil (2022), Seboka (2003), Gizaw (2019), Woldehanna, Mekonnen, and Jones (2009) have also conducted educational research which deals about parental school choice in Ethiopia. In general, the educational research did not give more attention to parental school choice as little research was done on the topic although parental school choice is still a critical problem.

Studies conducted on parental school choice in Ethiopia

In Ethiopia, parents have the freedom to choose among public schools, private schools, and community-based schools for their children's education. Studies have highlighted challenges related to the quality and accessibility of education in Ethiopia. Some parents may choose private schools as they perceive higher quality, while others may prefer public schools due to lower costs or proximity. Affordability is a significant factor influencing parental school choice in Ethiopia. Private schools often charge fees, which can be a barrier for low-income families. government schools are generally more affordable but may face resource constraints. Location and infrastructure: proximity to schools and the availability of appropriate infrastructure also impact parental school choice. In rural areas, where access to schools might be limited, parents may opt for community-based schools.

The studies employed in Ethiopia about the determinants of parental school choices were few and counted in numbers. From them, some are still analyzed descriptively. From this the factors that significantly separated were family economic status, family education, cost of schools, distance from home to school, and socioeconomic status are the determinants that affect parental school choice.

When we saw some like Merga and Sofamo (2020) that try to analyze through Binary Logistic regression to find the determinants of parental school choice.

Others study includes Teshome (2017), Yadessa and Bekabil, (2022), Seboka, (2003), Gizaw, (2019), and Woldehanna, Mekonnen, and Jones (2009) are educational research that deals with parental school choice in Ethiopia. Most studies used descriptive statistics while generalizing from descriptive statistics of a relationship variable is difficult. This means studying the cause and relationship of variables descriptively is invaluable. It requires an explanatory research design and hence an inferential analysis is mandatory.

Conclusion

These studies emphasize the need for schools to prioritize academic excellence, values and principles, social environment, and practical considerations to attract and retain students. By addressing these factors, schools can create an environment that is conducive to learning, growth, and overall student well-being. In conclusion, parental school choice is influenced by a variety of factors including academic excellence, values and principles, social environment, and practical considerations. Understanding these factors can help schools and policymakers make informed decisions to improve educational outcomes for all students. Additionally, it is important to recognize that the factors influencing parental school choice may vary between developing and developed countries, highlighting the need for context-specific approaches to education. The determinant factors selected for developing countries and developed countries are different. The studies conducted in Ethiopia about the determinants of parental school choices were few, inadequate, and did not get proper attention in the educational research.

Implication

Researchers have to employ the inferential analysis method as it plays a crucial role in understanding the determinants that influence parental school choice. By analyzing data and making generalizations about the larger population, researchers can draw meaningful conclusions and inform educational policies and programs. School-related factors and parent-related factors have been identified as critical factors affecting parental school choice, and understanding these factors can lead to more informed decision-making and improved educational outcomes. Inferential analysis allows researchers to examine the relationship between these factors and parental school choice in a more comprehensive and meaningful way. By analyzing data from a sample of parents, researchers can make generalizations about the larger population of parents and conclude the factors that significantly influence their school choice decisions rather than simply using the descriptive method. Research in school choice has to be done at a comprehensive level in Ethiopian education.

Policymakers and school providers have to pay attention to providing schools for the determinants of parental school choice as parental school choice is a basic need for education and parents are the critical persons who choose schools for their children. Therefore, the school-related factors that have to be given more attention are education quality, teachers' performance, school facilities, cost of schools, parent-teacher relationship, and school curriculums. Parents did not only consider school-related factors but also parent-related and safety/security-related factors are critical to parents. Therefore, when providing schools, the determinants have to be considered to satisfy parents' needs and increase the quality of education.

Strengths and limitations of this study

The major strength of this systematic review it focuses on increasing the understanding of the determinants which affect parental school choice. The study also highlighted the gap in knowledge in the literature and only a few studies are dealing with the effects of safety/security-related factors on parental school choice and most of the studies have given attention to school-related factors on parental school choice. However, the conclusion drawn from the systematic review is limited to the data within the identified articles.

Although the use of this concept will help school providers and policymakers, the finding of the article reviewed in this study within each country may not be representative of all the identified countries. The variables studied in these systematic reviews are also only for the selected and identified variables in the designated articles.

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INVESTIGATING EFL STUDENTS' ONLINE ENGAGEMENT IN ZOOM MAIN ROOM AND BREAKOUT ROOMS

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https://doi.org/10.24071/ijiet.v8i1.6152
received 27 March 2023; accepted 24 January 2024

Abstract

Zoom as one of the video conference applications facilitates synchronous online learning through its main room and breakout rooms features. This research aimed to compare students' online engagement in Zoom main room and Breakout rooms. It also explored the extent to which group discussions could facilitate students' online engagement through Zoom Breakout rooms. Ninety-one EFL students participated in this mixed-method study. Quantitative data were collected using 24-item questionnaires addressed to two different groups of students: breakout room and main room students. Qualitative data were collected by interviewing six respondents from the breakout room group to explore their opinions regarding the breakout room's effectiveness in promoting online engagement. The independent sample t-test towards the quantitative data revealed a significant difference between online engagement that occurred in the Breakout room compared to the Zoom main room (t=-4.922, df=89, p<0.05). Further, it was found that Zoom breakout rooms were able to facilitate online engagement in the five engagement aspects, namely social, collaborative, behavioral, emotional, and cognitive engagement. These findings imply that Zoom Breakout rooms can be optimized to boost online engagement.

Keywords: breakout rooms, online engagement, synchronous learning, Zoom

Introduction

During the COVID-19 pandemic, students and educators should conduct learning activities from home. This issue compelled educators to rethink how they provide their courses promptly. Online education is the most excellent solution and has ushered us into a new era of education. There are two types of online learning systems: synchronous and asynchronous. According to Wintemute (2021), asynchronous learning is not real-time learning. The synchronous method allows students to communicate with their teachers or peers (Kumar, 2021). This procedure is like the traditional one, except it is carried out using an internet platform.

In synchronous learning, students' engagement is one of the most important aspects that should be seen. Zoom meeting is a software that can be used to do synchronous meetings and can help to boost students' engagement. Mclaughlin and

Brame (2021) show the data that Zoom Meeting was one of the most popular video conferencing software for education in 2020. According to Ngoma (2020), Zoom meetings have many features, including cloud or computer recording—which allows the educator to record the meeting so that students can learn asynchronously, screen sharing—which allows the educator to show the materials, and breakout rooms—which allows the educators to divide the students into smaller spaces. Conducting group discussions through the Breakout rooms feature in a class is suitable for applying student-centered learning (Korturska, 2019).

For English as a Foreign Language (EFL) students, Zoom meetings are beneficial as the media to practice and improve their language skills. Based on Nurieva and Garaeva's (2020) research, students feel more convenient attending online learning through Zoom meetings than the traditional one due to its flexibility to be accessed. However, there are several problems with the device and internet connection when having synchronous learning using Zoom meetings.

This study investigated the use of the Zoom meeting and the Breakout rooms. There are several studies about the use of Zoom meetings for educational purposes. Some of them are Nurieva and Garaeva's (2020) study which discusses the benefits of Zoom as a distance learning tool and Venton and Pompano's (2021) research which examines active learning methods in Zoom meetings. However, the studies that compare and investigate online engagement in Zoom meetings and Breakout rooms are scant because several studies only focus on the engagement happening in the Zoom main meeting or Breakout rooms. Furthermore, this research was conducted to fill the gap in the literature by investigating an online conference platform, Zoom's main room, compared to its feature, Breakout rooms, to stimulate students' online engagement.

This study aimed to determine students' engagement in Zoom's main room and Breakout rooms. It also explores the extent to which group discussions facilitate online engagement in Breakout rooms. In other words, this study has two research questions:

1. Is there any significant difference between students' online engagement in Zoom's main room and Zoom Breakout rooms?
2. To what extent do group discussions in Zoom Breakout rooms facilitate students' online engagement?

To answer the first research question, particularly, hypotheses were developed.

a. H_0: There is no significant difference between students' online engagement in Zoom main room and Zoom Breakout rooms. (H_0: $\bar{x}_{mainroom} = breakout_{out}$)
b. H_A: There is a significant difference between students' online engagement in Zoom main room and Zoom Breakout rooms. (H_A: $\bar{x}_{main\ room} \neq breakout_{out}$)

Equationarning

In the era of COVID-19, education must run online learning. Online learning is education that occurs using the Internet. It is one form of "distance learning" (Vural, 2013). According to Rossett (2002), online learning offers vast potential, but it takes time, effort, and resources to get the benefits. Online learning must be authentic, interactive, and collaborative. There are two alternatives to conducting

online learning, i.e. asynchronous and synchronous learning systems (Ring & Mathieux, 2002).

Kumar (2021) claims that asynchronous learning does not imply real-time learning because educators upload the materials to a cloud where students can open them. Asynchronous has several strengths: convenience for students in having a high degree of control over when and where they engage with course materials and activities, highly structured, efficient, and secure management of assignments and grades for educators and students (Fadde & Vu, 2014).

Meanwhile, the synchronous method is a technique that allows students to have live communication with educators, similar to what they did in the traditional school system (Fadde & Vu, 2014). The most important advantage of synchronous learning is that educators can provide instant feedback to students (Chen et al., 2005). It increases levels of motivation which might boost students' engagement to get better learning experiences (Chen et al., 2005; It-analysis, 2001)

Zoom Meeting

Zoom meetings are a beneficial software for teleconferencing that can support learning needs by enabling interaction with so many individuals remotely (Pratiwi et al., 2019). Zoom meeting has many features, such as screen sharing, recording of the meeting, and Breakout rooms, which can support the meeting. It is compatible with computers, laptops, Android devices, and smartphones (Laili & Nashir, 2021).

Zoom facilitates educators and students to have synchronous learning (Laili & Nashir, 2021). Some Zoom features enable English educators to display and examine language skills via full interactions with students and deliver the essence of material in various ways (Guzacheva, 2020).

Zoom main room and breakout rooms feature

Zoom meeting accommodates online learning similar to traditional learning–face-to-face learning. Educators and students can meet synchronously in the Zoom main room. After actions are taken in the Zoom main room, it gives students positive feelings about the Zoom meeting (Nurieva & Garaeva, 2020).

One of Zoom's features is Breakout rooms that can be used in online teaching. In Zoom, the Breakout Rooms feature is a virtual room separate from the main room (Agustina & Suharya, 2021). The use of the Breakout rooms can be a game-changer in anticipating learning obstacles in digital learning (Lee, 2021). The educators can split students into small groups, so the students can interact with peers (Chandler, 2016). Venton and Pompano (2021) surveyed students' attitudes toward Breakout room activities, and the result shows that students feel more engaged in learning in smaller groups. As language learners, it helps students to practice and use the language being studied. Students who are engaged with each other in the learning process through various methods, such as group work, can improve their ability in speaking and critical thinking (Coates, 2006).

Students' online engagement

Engagement is about the activity that makes people feel a sense of belonging (Redmond et al., 2018). Good student engagement is about the time, energy, and resources students devote to activities designed to enhance learning and the quality of learning that can invite students to participate in the learning process (Krause,

2005). There are five student engagement; social, cognitive, behavioral, collaborative, and emotional engagement (Redmond et al., 2018). Social engagement refers to the social investment to have experiences in every participation (Knight, 2013). It is about building community, creating a sense of belonging, developing relationships, and establishing trust. Cognitive engagement concerns students' scholastic success (Pasaribu & Wulandari, 2021). It is about how the learning process can build students' critical thinking (Redmond et al., 2018). Behavioral engagement concerns students' attitudes toward achieving academic skills and supporting and encouraging peers (Redmond et al., 2018). Collaborative engagement is associated with forming various networks and alliances that facilitate learning, such as peer-to-peer learning and collaboration with others (Redmond et al., 2018). The last one, emotional engagement refers to students' reactions to their peers, educators, academics, and colleges (Fredricks et al., 2004).

Students' online engagement is essential in education since the educator can provide the learning strategies to engage the students using these five frameworks (Redmond et al., 2018). Each aspect has its indicators as presented in Table 1.

Table 1. Online engagement framework for higher education (Redmond et al., 2018)

Online Engagement Element	Indicators
Social Engagement	Building community Creating a sense of belonging Developing relationships Establishing trust
Cognitive Engagement	Thinking critically Activating metacognition Integrating ideas Justifying decisions Developing deep discipline understanding Distributing expertise
Behavioral Engagement	Developing academic skills Identifying opportunities and challenges Developing multidisciplinary skills Developing agency Upholding online learning norms Supporting and encouraging peers
Collaborative Engagement	Learning with peers Relating to faculty members Connecting to institutional opportunities Developing professional networks
Emotional Engagement	Managing expectations Articulating assumptions Recognizing motivations Committing to learning

Method

A mixed-method explanatory design approach was conducted to answer the research questions because it empowers a more comprehensive and meaningful understanding of the topic (Cohen, Manion, & Morrison, 2018). The mixed-method approach focuses on collecting, analyzing, and mixing quantitative and qualitative

data in a single study or series of studies, providing a chance to understand research problems and questions (Cohen et al., 2018, p. 32). This approach also gives more prosperous, broader, and more profound knowledge about a situation (Creswell & Clark, 2018). In the explanatory design, the quantitative data is used to help give direction to the qualitative research and its results to help explain the initial quantitative findings (Creswell & Clark, 2018).

The research was carried out in the English Language Education Study Program (ELESP) at Sanata Dharma University (SDU). This research was conducted in February 2022. The research participants were SDU ELESP batch 2019 students who have experienced online learning using Zoom meetings to have discussions in the Zoom main room or Breakout rooms during the pandemic.

To collect the quantitative data, the researchers made a closed-ended questionnaire containing two different links to answer the first research question; one focuses on ELESP students' views on the use of Zoom main room and another one is on the use of the Breakout rooms feature to stimulate students' online engagement. The respondents could click the link by themselves based on their experiences. Closed-ended questions with 4-point Likert scales ranging from Strongly Disagree, Disagree, Agree, and Strongly Agree were used in this questionnaire so that the participants have to choose their absolute side with no neutral answer (Cohen et al., 2018). The scale had been thoroughly evaluated for dependability and internal consistency. The Cronbach Alpha value was 0.932 (>0.70), indicating that the scale has excellent internal consistency validity (Pallant, 2020).

The questionnaire consisted of 24 close-ended questions based on indicators of students' online engagement aspects from Redmond et al.'s (2018) theory. There were four statements about social engagement, six statements about cognitive engagement, six statements about behavioral engagement, four statements about collaborative engagement, and four statements about emotional engagement.

Table 2. Total respondents

Form	Total of Respondents	Percentage
Zoom main room	33	36.26%
Breakout rooms	58	63.74%
Total	91	100%

There were 91 out of 159 students in the ELESP batch 2019 who participated in the questionnaire. Among those, 33 respondents gave responses about Zoom main room and 58 students gave responses about Zoom breakout rooms. Using Google Form features, all respondents were only allowed to fill out the questionnaire once. In other words, there was no possibility that a respondent gave answers to two different types of questionnaires.

After collecting sufficient quantitative data, purposive sampling was used to narrow down the respondents based on some resourceful people who have had or shared similar experiences (Etikan et al., 2016). To find the qualitative data, six resourceful interviewees were selected from the results of the use of the Breakout Rooms questionnaire. Three students with the highest and lowest scores who filled

out the Breakout Rooms questionnaire form and were willing to be interviewed were the samples in this study.

For collecting the qualitative data, a semi-structured interview was performed. In formulating questions for the interview, the researchers combined Redmond et al.'s (2018) theory with Agustina and Suharya's (2021) statement on students' perspectives of peer-to-peer in an online method, Lee's (2021) statement that group work discussion can increase students' active participation, and Krause's (2005) statement that effective discussions can improve speaking skills.

Due to the COVID-19 pandemic, the interview was conducted through Zoom. The purpose of the online interview was to learn more about samples' views on using Breakout rooms to stimulate students' online engagement. The online interview was semi-structured because there were some planned questions and additional questions (Adams, 2015). The online interview consisted of seven open-ended questions so that interviewees could freely express their experiences and thoughts to obtain the necessary answers (Creswell & Clark, 2018).

The quantitative data were analyzed inferentially using independent samples t-test. The researchers tried to answer the first research question and reject the null hypothesis. The null hypothesis (H_0) is rejected if the p-value is below or equal to the given level of significance or critical alpha ($p \leq \alpha$), whereupon the critical alpha is 0.05 (García & Puga, 2018). Before proving the null hypothesis, the researchers endeavored to demonstrate the data's variance homogeneity and normality.

To answer the second research question, numerical results were tabulated into a descriptive statistic. By spotting patterns in data, quantitative descriptive analysis characterizes the phenomenon by equipping responses to the who, what, where, when, and to what extent questions (Loeb et al., 2017). In addition, Loeb et al. (2017) also mentioned that the explanatory method is used to present the data. Therefore, data from Zoom main room and Breakout rooms are classified using the following categories:

Table 3. Standard of the mean from each engagement

Mean Range	Category
1.00-1.60	Very Low
1.60-2.20	Low
2.20-2.80	Moderate
2.80-3.40	High
3.40-4.00	Very High

Each form of Zoom main room and Breakout rooms would be looked for the mean and its mean category to compare and find out what engagement aspects are there. For the qualitative data, the audio/video of the interview was transcribed into written dialogue. As a result, to process the data, several stages were conducted, namely data managing, reading/memoing, describing, classifying, interpreting, and representing/visualizing (Creswell & Clark, 2018).

Findings and Discussion
Students' online engagement in Zoom main room and Zoom breakout rooms

Using the quantitative data from the questionnaire, the researchers performed a hypothesis testing to find the difference in EFL students' online engagement in

different Zoom meeting rooms. Table 4 shows the descriptive summary of the quantitative data.

Table 4. Descriptive statistics

	Zoom Main Room	Breakout Rooms
Mean	70.33333	80.60345
Standard Deviation	10.56724	8.96179
Minimum	49	57
Maximum	94	96

Table 4 shows the average students' online engagement score in Zoom main room ($\bar{x}$=70.33, SD=10.57) and Breakout rooms ($\bar{x}$=80.60, SD=8.96) is different, i.e. the Breakout room group has a better average. The maximum score on Breakout rooms is a perfect score for the total score on the questionnaire (96). It indicates that some participants were highly satisfied with the Breakout rooms feature for online discussion and learning.

Before performing the hypothesis test, the data needs to be checked in terms of homogeneity and normality. The following table displays the result of the homogeneity test.

Table 5. Test of homogeneity of variances

	Levene Statistic	df1	df2	Sig.
Based on Mean	0.061	1	89	0.806
Based on Median	0.053	1	89	0.818

According to Parra-Frutos (2013), in checking homogeneity, the significance value based on the mean must be greater than the critical alpha (0.05). The data above shows that the homogeneity p-value is greater than the critical alpha (0.806>0.05), so it reveals that the data were homogeneous.

Next, a test of normality was performed to check if the data distributions were normal. Table 6 displays the result of the normality test.

Table 6. Test of normality

Label	Kolmogorov-Smirnov		
	Statistics	df	Sig.
Zoom Main Room	0.129	33	0.180
Breakout Rooms	0.080	58	0.200

In the Kolmogorov-Smirnov normality test, the data is normal if the significance of the data is more than the critical alpha (0.05) (Das & Imon, 2016). It was deduced that the data collected is normal because the significance of the Zoom main room (0.180) and Breakout rooms (0.200) are greater than the critical alpha. Since the data are normally distributed, the researchers can proceed to the next stage of data testing. The independent sample t-test was performed to prove the hypothesis. Table 7 shows the result of the t-test.

Table 7. T-test result

	t	df	Significance	
			One-Sided p	Two-Sided p
Equal variances assumed	-4.922	89	0.000	0.000
Equal variances not assumed	-4.703	58.088	0.000	0.000

The independent t-test results (df=89, p=0.00) showed that students' online engagement in Zoom Breakout rooms ($\bar{x}$=80.60, SD=8.96) is higher than in Zoom main meeting ($\bar{x}$ =70.33, SD=10.57). It indicates that the students' online engagement in Zoom main rooms and Breakout rooms is statistically different ($\bar{x}_{main\ room} \neq breakout_{out}$, p<0.05). It gives enough evidence to reject the null hypothesis—there is no significant difference between students' online engagement in Zoom main room and Zoom Breakout rooms—and accept the alternative hypothesis—there is a significant difference between students' online engagement in Zoom main room and Zoom Breakout rooms.

Based on the results obtained from the statistical calculations above, it can be concluded that there is a significant difference between students' online engagement in Zoom main room and Zoom Breakout rooms where engagement occurs in the Breakout rooms and is proven to be better than in Zoom main room. It verifies Lee's (2021) statement that small group discussions can increase students' engagement and active participation. In addition, Álvarez's (2020) statement also proves that peer-to-peer learning can bring good engagement in learning.

Therefore, this result confirms the findings of Venton and Pompano's (2021) research, which found that students felt more motivated to learn in Breakout rooms. In addition, this research is linear with Nurieva and Garaeva's (2020) findings that Zoom meetings, in particular, the breakout rooms feature can facilitate students' learning and skill development during online learning.

Students' online engagement in Zoom breakout rooms

In this part, the researchers attempted to answer the second research question; to what extent do group discussions in Zoom Breakout rooms facilitate students in online engagement?

Descriptive statistics results

The average value of each engagement aspect was measured to display further the differences in engagement in the Zoom main room and Breakout rooms. Table 8 shows the results of the categorization.

Table 8. Mean categorization for each engagement

Engagement	Zoom Main Room			Breakout Rooms		
	SD	Mean	Category	SD	Mean	Category
Social	0.69	3.01	High	0.58	3.53	Very High
Cognitive	0.70	3.10	High	0.59	3.43	Very High
Behavioural	0.94	2.92	High	0.81	3.17	High
Collaborative	0.90	2.52	Moderate	0.55	3.37	Very High
Emotional	0.81	3.04	High	0.64	3.36	High

The table above is presented using a 4-point Likert scale. Cognitive engagement is the best in the Zoom main room ($\bar{x}$=3.10, SD=0.70). Meanwhile, in Breakout rooms, social engagement ($\bar{x}$=3.53, SD=0.58) is the most pleasing engagement that students could experience. Although behavioral engagement isthe most subordinate engagement in Breakout Rooms ($\bar{x}$=3.17, SD=0.81), the average value is still higher than the moderate cognitive engagement in the Zoom main room, which is the highest average in the Zoom main room. As another proof, the data presented above show that high and very high categories dominate most of the average categories in Breakout rooms.

Table 8 shows all engagement that occurs in both the Zoom main room and Breakout rooms. However, the data showed that the students' online engagement in Breakout rooms is better than in Zoom's main rooms. So, group discussions in Breakout rooms can facilitate online engagement through all aspects of engagements.

Interview results

To strengthen the results related to the extent to which Breakout rooms can facilitate online engagement through all aspects of engagements, qualitative evidence is presented as follows:

1. Collaborative Engagement

Collaborative engagement is about doing a target through collaboration, such as peer-to-peer learning. Some respondents said:

[Respondent 1: *I enjoy learning with my friends. We can discuss some materials together. Peer-to-peer tutoring activity is a suitable method for me. We, me and my friends, can share our thoughts about a problem.*]

[Respondent 2: *Learning with peers is helpful. It can release my anxiety. We can discuss some materials together. This activity helps me to broaden my knowledge and later our findings can be asked by the lecturer whether our information is accurate or not.*]

Those show that peer tutoring is beneficial. It could give students new experiences in exploring materials. Lee (2021) stated that peer collaboration will make students feel more comfortable talking to their friends. The interview results also show linear results. It indicates that Breakout rooms provide a friendly collaboration space for students.

2. Social Engagement

Socialization can build relationships and communities (Knight, 2013; Redmond et al., 2018). The respondent said:

[Respondent 5: *In addition, during this pandemic, the engagement that occurs in Breakout rooms can expand our opportunities to get to know our classmates more deeply.*]

Having online learning pushed students not to meet in person with their friends. However, Breakout rooms gave us chances to keep building good

friendships through discussion. Redmond et al. (2018) said that social engagement is about the activity that makes people feel a sense of belonging. So, this is true if direct interaction with friends in Breakout rooms makes them know their friends better.

3. Cognitive Engagement

Cognitive engagement is something related to academic knowledge which can build critical thoughts (Redmond et al., 2018). Respondent 2 gave a statement that supported this finding.

[Respondent 2: *The most important thing is that we can sharpen our critical thinking by discussing problems and solving them together. We also must be wiser in filtering information.*]

Active learning activities require students to be more selective in accepting the data or information. Pasaribu and Wulandari (2021) agreed that cognitive engagement focuses on scholastic success. Critical thinking is the first step to achieving this success. Therefore, in addition to establishing familiarity, discussions conducted by students can also be useful in preparing themselves to improve their thinking skills.

4. Emotional Engagement

Getting involved in the discussion is a fundamental aspect of engagement and this engagement relates to reactions to their peers or educators (Fredricks et al., 2004). In accordance, some said:

[Respondent 3: *I will actively participate in the forum as my responsibility to improve my skills and knowledge.*]

[Respondent 4: *I will give my ideas and share my understanding because I respect my group mates.*]

Respondent 3 shows that in group discussions, students were aware of taking a role in discussions due to the responsibility and developing their knowledge. Therewith, Respondent 4 also explained that respect could bring students to involvement in group work.

In addition to reactions to peers and educators, emotional engagement is also related to the feelings felt during online learning activities. Hasan and Pardjono (2019) mentioned that discussions in small groups make students feel not under pressure. Departing from this statement, it was found that several respondents had the same feelings with the following answers:

[Respondent 1: *I feel nervous speaking in the main room because I am terrified of making errors and will look stupid. Yet, learning in Breakout rooms gives me a chance to gain more confidence. If I don't know the materials, I can ask my friends freely. I have no doubts about showing my nescience. We can collect information together.*]

[Respondent 4: *We study with our friends so that we can be more comfortable, we can make jokes. It is not tedious. We also can discuss the tasks more casually.*]

[Respondent 5: *I am afraid to ask questions in the Zoom main room because I am frightened that my friends and lecturers will think I am making a rhetorical question. Also, I feel bad for my lecturers if I still make some grammar mistakes. Breakout rooms give us space for more expression. That is why, I am happy when I am given the authority and freedom to discuss with friends.]*

Those excerpts supported the previous statement. Respondents said that learning in smaller groups makes them more relaxed because discussing learning materials with peers created a better experience for SDU ELESP batch 2019 students. Being at the same level of acquaintance made them more pleased to explore the material. Moreover, discussing materials with friends could make the dialogue more relaxed and could even make some jokes in the forum. These experiences in Zoom Breakout rooms gave them an immersive and engaging learning experience.

5. Behavioural Engagement

This engagement is focused on supporting and encouraging peers (Redmond et al., 2018). In Breakout rooms, some students could support and encourage their peers to have good discussions. This attitude brought students to respect each other. Here are the answers of some respondents:

[Respondent 2: *I try to be the initiator in group discussions. I invite my friends to engage with each other so we can produce good results. I always open my camera, which indicates I am ready to do tasks.*]

[Respondent 5: *I always try to appreciate all my friends. As much as possible, I will respond to my friends' suggestions and deliver my view. I will open my camera because I want to be considered there or if I cannot do that, I will just open my microphone.*]

From those statements, it is concluded that the freedom to study with peers gave them space to express their feelings and responsibilities. Students could show respect and openness to help each other complete the assigned tasks.

In correlation with behavioral engagement, students could acquire other good impacts because of the application of this aspect. As language students, language proficiency must be applied in real life. One of the main things that students must do is practice speaking. Online learning conducted by the ELESP at SDU facilitates students to carry out this practice. Some lecturers in certain courses mandated students to use English when discussing in Breakout rooms and this activity showed a tremendous impact. These things could be reflected in the following answers:

[Respondent 1: *Lecturers make it mandatory to speak English in Breakout rooms, which is very helpful. I do agree that we will become more confident in honing our speaking skills with the discussion in English. Even though we don't fully*

speak with perfect grammar in that small group, at least we have learned to increase our fluency.]

That shows that using English during group discussions could also increase EFL students' confidence and even fluency in speaking. Krause (2005) believes that discussions give students a chance to learn to speak in a group and it gives a chance to improve their speaking skills. From the experience above, Krause's (2005) statement is true. Besides, those students could get partners to continue rehearsing these skills.

The above statement clearly stated that all aspects of online engagement could be satisfactorily fulfilled in the Breakout rooms. Many positive things were obtained from the discussion activities in the Breakout room. Students could hone critical thinking, socialize with friends, collaborate, learn leadership, be responsible, respect each other, work together in teams, understand others, and develop speaking skills. So, the extent to which group discussions facilitate online engagement in the Breakout room can be seen through all the engagements that occur and along with all the good advantages that can be acquired.

Conclusion

This research aimed to find out the difference in students' engagement in Zoom main room and Breakout rooms. It also explored the extent to which group discussions facilitate online engagement in Breakout rooms. In this study, it was found that there was a significant difference in students' online engagement in Zoom main rooms and Breakout rooms. Primarily, both Zoom main room and Breakout rooms can stimulate student engagement because, in the study, it was found that all aspects of online engagement can be fulfilled both in Zoom main room and Breakout rooms. However, the engagement happens in Zoom's main room and the Breakout rooms are different. The data showed that students learning in the Zoom breakout room had stronger engagement, compared to those who learned in the Zoom main room.

In addition, it was also found that all six interviewees confirmed that all online engagement aspects could be fulfilled in Breakout rooms. For collaborative engagement, several students stated that having discussions in Breakout rooms makes the learning process more enjoyable. For social engagement, some students agreed that Breakout rooms gave chances to keep building good friendships through discussion. For cognitive engagement, the students stated that having group discussions trained them to be wiser and more critical. For emotional engagement, the students could be involved in the learning process with their peers and it gave them fun activities to do together. Then, for behavioral engagement, the students could learn how to respect others and be responsible for their tasks. However, sometimes, group discussions could make students feel unsure about their discussions' findings. Even so, all respondents agreed that having group discussion activities in Breakout rooms could allow them to get to know their peers better during online learning. Moreover, students could also learn to hone critical thinking, work in teams, develop leadership, and practice speaking skills which are very useful for EFL students.

Based on these research findings, it is recommended that English educators set learning methods that can engage students to get involved in material discussions considering the many features offered in Zoom meetings to make the class more interactive. Moreover, following what Krause (2005) said practical group discussions can improve speaking skills, this platform and its feature, Breakout rooms are recommended for English educators to design English activities that can make students continue developing their basic English skills. Other than that, it is advised that English educators apply an active learning system through group discussions because group discussions with peers make the learning process happier. It also follows. Hasan and Pardjono's (2019) unified statement states that peer discussion can provide a more relaxed feeling.

For EFL students, they are advised to use the opportunity to learn in Zoom's main room and Breakout rooms properly to support their learning process. Further, EFL students are urged to take advantage of the online discussion in the Zoom main room and Breakout rooms to gain new knowledge, improve soft skills, and develop basic English skills in the learning process. Lastly, future researchers are advised to investigate other advantages of Zoom main room and Breakout rooms features and other platforms that can increase students' engagement in online classrooms.

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AN EXPLORATORY STUDY ON HOW MALE SECONDARY SCHOOL STUDENTS' ACADEMIC PERFORMANCE CONNECT TO THEIR MATHEMATICS ANXIETY

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Abstract

Given that it is a required subject in both elementary and postsecondary education, mathematics has been identified by some students as being challenging. Numerous studies have been conducted on various facets of mathematics. However, further research on the psychological characteristics of males in math classes in secondary schools in Delta State is needed, which is why this study was conducted. The study aimed to determine if test anxiety levels among male secondary school students and their academic performance in mathematics are related. Two research questions and two hypotheses were used in the study. The study's design was a correlation. The research population consisted of all 1650 senior secondary year two (SS2) math students in Delta State. A sample of 771 male students was selected using a multistage sampling process. The Mathematics Test Anxiety Questionnaire (MTAQ), which was validated by three experts, was the instrument used to collect data. The reliability coefficient, calculated using Cronbach's alpha, was 0.69. The students' mathematics scores represent their academic performance. To analyze the data, Pearson product-moment correlation was employed. The study's findings demonstrated that test anxiety levels did not correlate academic performance of male students in secondary school mathematics. Furthermore, there was a sizable gap among male secondary students who had high and low anxiety in math.

Keywords: male, mathematics, performance, students, test anxiety

Introduction

Understanding mathematics is essential for educating students for their present and future professional careers since it forms the foundation for numerous other subjects, especially the sciences. Therefore, according to Dimarakis, Bobis, Way, and Anderson (2014), the mathematics curriculum provides students with the core abilities and information necessary for success both within and outside of the classroom. Mathematics is viewed as a scientific discipline that deals with numbers and mathematical operations as well as calculation, computation, and problem-solving (Roohi, 2012). Mathematics is the study of quantity, space, and structure, said Roohi. Casinillo et al. (2022) mention that "Mathematics is one of

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the subjects in senior high level with a high demand of complexity and difficulty as well as in the form of abstraction". It also displays the fundamental patterns that enable us to understand the environment. Consequently, math has been viewed as the basis for learning sciences, technology, and other calculation-related fields (Onoshakpokaiye, 2023b).

Many students experience tension or anxiety before an exam. However, the phrase "test anxiety" refers to the excessive amount of agony that students feel when it impairs their performance on an exam (Kendra, 2020). Test anxiety is one psychological factor that affects students' academic performance. A student's success is determined by their test or exam scores, and many students feel anxious or tense before, during, and after exams. Test anxiety of this kind might be a powerful motivator (Myrna & Aida, 2015).

Test anxiety is defined by a tense cognitive, physiological, emotional, and behavioral reaction to expecting failure in formal testing circumstances (Chapell et al., 2005; Kitsantas, Winsler, & Huie, 2008; Onoshakpokaiye, 2023a). Trembling, tension, and worry about probable failure or poor performance for the period of the test or an exam are test anxiety characteristics. Test anxiety is one of life's emotional issues. It occurs when a person feels helpless over their life and suffers from excessive anxiety (Okigbo & Onoshakpokaiye, 2023). This makes test anxiety, with its corresponding physical, emotional, and social symptoms, a widespread mental problem.

Olatoye (2009) defined test anxiety as a psychological illness that emotionally impacts people and manifests as tension and agitation in daily activities. Barrows, Dunn, and Lloyd (2013) assert that students who do poorly could perceive difficult circumstances as threats and attribute their failures to internal negative qualities. Students of all academic levels regularly feel test or exam anxiety. There is a possibility of high, moderate, or low. Since it is believed that every endeavor undertaken by a human being is accompanied by some level of anxiety, it is beneficial to have some level of worry before doing any big activities. Test anxiety makes students more prone to procrastinate and resort to repetitive memory tricks, both of which could negatively impact students' academic performance (Denwigwe & Jacks, 2020). Additionally, they are more inclined to employ less effective study methods.

According to Zakaria, Zain, Ahmad, and Erlina (2012), students' math performance is impacted by their test or mathematics anxiety. According to Zakaria et al. (2012), anxiety related to math exams is characterized by feelings of fear, avoidance, and dread while dealing with any math-related subject. The above authors as well observed that most math-challenged students worry about the test when attempting to apply their knowledge to a problem. Their study uses students' responses to hypothetical mathematical exam situations to identify test anxiety. Their entire perspective on the subject may affect how well students do in mathematics.

Ogheneakoke, Obro, and Diokpala (2021) conducted a study in Abraka, Ethiope East local government area, Delta state, Nigeria, to look at test anxiety and upper basic Social Studies students' learning outcomes. The findings showed a significant connection between gender and the academic achievements of students. This revealed that there exists a significant link between gender and the

achievement of students. The researchers concluded that the achievement of students is controlled by both gender and exam anxiety.

Okorodudu and Ossai (2012) performed a study in a psychology course for first-year Diploma students at Delta State University, Abraka, Nigeria, on the relationship between test anxiety and students' academic achievement, their study indicated that there was no statistically significant association between test anxiety of students and academic accomplishment in a psychology course. Furthermore, neither the students' gender nor the level of the study had a significant effect on their academic performance in the psychology course.

Yakubu, Bisandu, and Datiri (2019) performed a study in Kafanchan Educational Zone, Kaduna State, Nigeria to examine the connection between senior secondary school (SS3) students' test anxiety and performance. The results revealed a negative connection between test anxiety and students in mathematics. Owan (2020) investigated the effects of gender test anxiety and test item scrambling on students' mathematics performance among SS3 students in the Ikom Education Zone of Cross River State, Nigeria. A quasi-experimental investigation was used. Four hypotheses and four research questions guided the study. 1358 students were chosen from the SS3 sample using a proportionate sampling method. The findings indicated that there exists no significant difference among the gender's performance and test anxiety.

Okoh (2016) conducted a study to better understand the relationships between secondary students in public schools, in Delta Central Senatorial District, Delta State, Nigeria between anxiety, self-concept, motivation, and achievement. It made use of a correlation survey design. Six hypotheses and six research questions guided the study. A sample of 240 students was chosen from six secondary schools located in three Local Government areas through a simple random selection procedure. The instruments used to gather the data were the Test Anxiety, Self-Concept, Motivation Questionnaire, and students' final test results in English language and mathematics. The gathered data were examined using regression and multivariate analysis. The results indicated no connection between students' test anxiety and their academic performance at secondary public schools. The results further revealed that gender had no significant effect on test anxiety and academic performance.

Esuong, Uwase, and Udo, (2022) cited research by Vogel and Collins (2002) that examined the impact of anxiety on performance. The results demonstrated that both students who experienced moderate and severe exam anxiety underperformed academically. The findings also pointed out that student who experienced low test anxiety performed better on their math examinations. Additionally, Syokwaa, Aloka, and Ndunge's (2014) study revealed a connection between academic performance and levels of anxiety as well as evidence that high anxiety levels hurt the caliber of academic results reported by students.

Many researches have been conducted on the different areas of mathematics in different parts but none was carried out in the area of male secondary school students' test anxiety in Delta State. Considering the foregoing, it is crucial to determine if test anxiety impacts male students' academic performance in secondary school mathematics in Delta State of Nigeria.
The study specifically set out to look into:

1. The connection between secondary school male students' test anxiety and academic performance in mathematics in Delta State.
2. Whether there is a difference between the academic performances of secondary school male students with high and low test anxiety levels in mathematics in Delta State.

Statement of the problem

Despite Federal and State government attempts to enhance math education and learning, male secondary school students routinely and adversely do badly in mathematics. Numerous factors, like a lack of classroom space, a shortage of math teachers with the necessary training, student learning capabilities, and others, have been related to this poor student performance in math. Information from the National Bureau of Statistics (2016-2021) report on West African Examination Council (WAEC) results for Delta State, Nigeria shows that students' math proficiency has not improved. This may be a result of the students' dislike, fear, or aversion to mathematics. Many secondary school male students decide not to study or attend math lessons for different of reasons. They thus under-prepare for math tests, which negatively affects their mathematics performance.

Research Questions

The following research questions guided the study:

1. Is there a connection between math test anxiety and secondary school male students' academic performance in Mathematics?
2. Is there a difference between the academic performances of secondary school male students with high and low math test anxiety levels in mathematics?

Hypotheses

The following hypotheses were tested at a 0.05 level of significance:

1. There is no significant connection between math test anxiety and secondary school male students' academic performance in Mathematics.
2. There is no significant difference between the academic performances of secondary school male students with high and low math test anxiety levels in mathematics.

Method

The correlation survey design was adopted in this investigation. The population of the study consisted of 1650 senior secondary two (SS 2) students studying mathematics in 22 government secondary schools at Delta State. 771 male senior secondary school students were chosen from 22 secondary schools two (SS2) using the four Multi-stage Sampling method. The Mathematics Test Anxiety Questionnaire (MTAQ) was the instrument used to gather data. The (MTAQ) is a test anxiety measure that was modified by Dawood, Al Ghadeer, Mitsu, Almutary, and Alenezi (2016). This was designed such that in answer, the participants may select from four response categories: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD).

The mathematical performance of the students was evaluated using the three terms of the 2021–2022 academic session results. Three professionals verified the tool. A comparable sample of 150 students from Delta State secondary schools who were not included in the study were given the MTAQ. The reliability of the

MTAQ items was evaluated using Cronbach alpha statistics, and the alpha coefficient value was 0.69. A Pearson product-moment correlation was utilized for the analysis of the data. The t-test of relationship analysis was utilized to test the null hypotheses.

Findings and Discussion
Findings
Is there a connection between math test anxiety and secondary school male students' academic performance in Mathematics?

Table 1. Pearson product-moment statistics showing the relationship between male secondary school students' test anxiety and their academic performance

Variable	N	R	r^2	r^2%	sig(2-tail)
Male student's anxiety-academic performance	771	-0.064	0.0041	0.41	0.380

Test anxiety male students and mathematics academic performance have a moderately negative association, according to Table 1. The result indicates that the correlation coefficient between the two variables is -0.064, indicating a moderately negative association between male students' anxiety and mathematics performance. Test anxiety has a 0.41% impact on academic performance as shown in Table 1.

Is there a difference between the academic performances of secondary school male students with high and low math test anxiety levels in mathematics?

Table 2. Independent t-test analysis of male students' levels of anxiety, percentages, and mathematics academic performance (N = 771)

Levels	N	Percentage	t-value	P-value
High test anxiety	582	75.49		
			5.64	0.000
Low test anxiety	189	24.51		
Total	771	100		

Table 2 shows those 189 students, or 24.51% of the class, experienced low mathematics test anxiety, compared to 582 students, or 75.49% of the class, who reported severe test anxiety. This reveals that exam anxiety for mathematics was quite high for the majority of the secondary school male students.

Hypothesis 1: There is no significant connection between math test anxiety and secondary school male students' academic performance in Mathematics
To establish if there exists a significant correlation in hypothesis one, Pearson product-moment correlation statistics was used. The results are shown in table 1. There is no significant connection between math test anxiety and secondary school male students' academic performance in Mathematics since the significant value (Sig.2-tailed) of 0.380 is bigger than the significant value of 0.05. Therefore, it implies that there is no significant connection between math

test anxiety and secondary school male students' academic performance in Mathematics.

Hypothesis 2: There is no significant difference between the academic performances of secondary school male students with high and low math test anxiety levels in mathematics.

Since the p-value (0.000) in Table 2 is lower than the value of 0.05, there exists a significant difference. The null hypothesis, which states there is no significant difference between the academic performances of secondary school male students with high and low math test anxiety levels in mathematics, is therefore rejected. The findings indicated that students with high and low levels of mathematical anxiety differed significantly in their academic performance (t =5.64; p 0.05). This suggests that students with lower levels of anxiety performed better in math than male students with higher anxiety levels.

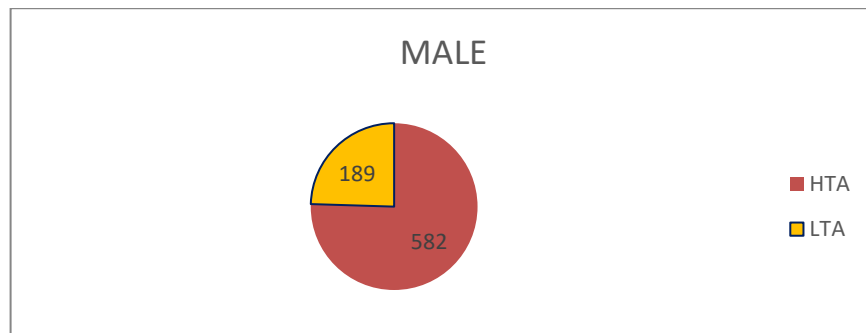

Figure 1. A pie chart of male students with low and high anxiety in math
*Note:
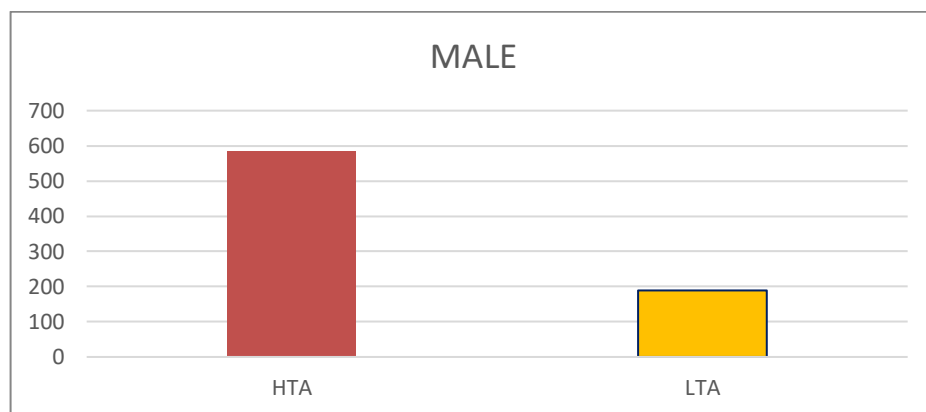HTA: High Test Anxiety
LTA: Low Test Anxiety

Figure 2. A bar chart of male students with low and high math anxiety

Figure 1 and Figure 2 depict the number of male students who had high and low test anxiety in mathematics.

Discussion
The connection between math test anxiety and secondary school male students' academic performance in Mathematics.

There was no significant connection between math test anxiety and secondary school male students' academic performance in Mathematics, according to Table 1, which revealed that there was no correlation between male students' test anxiety and their mathematics academic performance. It is implied that test anxiety has no impact on male students' academic performance since there was no significant correlation between male students' test anxiety and their math performance.

Contrary to the findings results of this study, Ementa and Onokpaunu's (2017) findings showed a strong link between male test students' anxiety and secondary school academic performance. Since there was no significant correlation between male students' performance in the mathematics exam and their test anxiety, test anxiety does not impair their mathematics academic performance. The findings of Okoh (2016) supported the study's findings since they demonstrated that there was no significant association between male students' test anxiety and their performance. This shows that gender does not significantly affect the anxiety level and math students' academic performance.

The study's results are consistent with those of Ndirangu, Muola, Kithuka, and Nassiuma (2008), who found no link between male students' academic success and test anxiety. This implies that factors like IQ, school resources, and discipline have a greater impact on academic accomplishment than traits like test anxiety. The results of the present study, which demonstrate that there was no significant correlation between test anxiety among male students in secondary school and their mathematics academic performance, are consistent with the results of Owan's (2020) study on the effects of test anxiety, gender and scrambling on students' mathematics performance, which revealed that there was no significant gender difference on performance and test anxiety. This implies that the correlation between their arithmetic ability and their test anxiety and gender is unrelated. Because of this, it appears that male students who are unconcerned about tests can nonetheless perform well in math.

Chukwu's (2014) research on senior secondary school students' test anxiety and academic performance contradicts the findings, indicating a modestly favorable association between male students' test anxiety and the academic achievement of students in geometry. Okorodudu and Ossai's (2012) findings concur with the present study that there was no significant difference between the genders of the students in the relationship between their test anxiety and academic performance. Hasimu (2016) found a relationship between the level of anxiety displayed and mathematics performance. This recommends that the score gained is inversely correlated with anxiety level: the lower the anxiety level, the higher the score.

Difference between the academic performances of secondary school male students with high and low math test anxiety levels in mathematics.

The null hypothesis, which contends that there is no significant difference between the academic performances of secondary school male students with high and low mathematics test anxiety levels, is rejected because Table 2 demonstrates

that there is a significant difference between male students with high and low test anxiety levels and their mathematics academic performance. It implies that there was a sizable gap between the academic performances of male secondary school students in mathematics who had high and low test anxiety levels. Students with significant test anxiety and those with moderate anxiety indicated deprived academic performance, according to Vogel and Collins (2002) research on the impact of anxiety on academic performance in Esuong, Uwase, and Udo (2022). Their findings, which are consistent with the results of this present study, also revealed that male students who reported little test anxiety performed better on mathematics exams.

The findings corroborate Kitsantas, Winsler, and Huie's (2008) findings that students with higher levels of test anxiety performed less than those with lower levels of anxiety. The findings revealed that male students with low test anxiety perform better in mathematics than those with high test anxiety. In contrast to the results of this present study, a study by Ozgan, Karaklç, Binici, Ustaoglu & Ayhan (2019) that looked at the correlation between university students' test anxiety and academic performance found that high levels of anxiety among male students not connected to academic performance.

The findings of Owonwami, Sakiyo, and Filgona (2017) on the effect of test anxiety on the academic performance of senior secondary school students in mathematics in the Dala educational zone of Kano state, Nigeria, showed a significant disparity in academic performance between male students with high and low levels of anxiety, which was consistent with the study's findings.

Conclusion

The study's results convinced the researcher that test anxiety among male students in secondary school and academic performance were connected. Additionally, it was revealed that male students with high test anxiety levels and low-test anxiety levels performed significantly differently academically in mathematics.

Recommendations

Based on the findings the following recommendations are made: Mathematics instructors should make sure that test conditions are comfortable for secondary school students to reduce cognitive examination anxiety.

The teacher should look at other potential reasons for the students' poor mathematics performance as there was no moderate or positive link between male students' test anxiety and academic performance.

Parents, guardians, and school administration should work together to lessen test anxiety in students, which is usually accompanied by higher anxiety and poor math performance among male secondary school students.

To lower test anxiety and increase students' confidence in mathematics, mathematics teachers should be provided with the materials they require through training. This would enhance the student's academic performance. Appropriate workshops and seminars should be prepared for the student's benefit to help them manage their exam anxiety.

Teachers, parents, and all stakeholders should make it a point of obligation to treat the students' test anxiety as being incredibly crucial since engaging with the children will assist reduce the test anxiety of the students in mathematics.

The male students' high levels of anxiety before and during exams should be addressed by the math teachers. The male students who have unfavorable attitudes about mathematics should be checked by the math teachers, who should support and encourage them.

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DEVELOPMENT OF A SELF-DIRECTION GAME HANDBOOK TO IMPROVE INHIBITORY CONTROL FOR 10–12-YEAR-OLDS

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Abstract
Elementary school-age children need increased inhibitory control to focus and put aside things that are not priorities. Inhibitory control helps children to stay focused, control behavior, think before they act, and manage emotions. However, efforts specifically to increase the ability of inhibitory control have not been made much. This study aims to develop a guidebook to improve inhibitory control in children aged 10-12 years through the game "Self-Steering". This research is development research with the following steps: First, conducting a needs analysis through teacher interviews and classroom observations. Second, planning the manufacture of products as a solution to research problems. Third, making the product. Fourth, testing the product through expert validation and limited trials. Fifth, improving the product based on suggestions for improvement at the product trial stage. The result of this study is a game guidebook containing 3 inhibitory control games that were declared feasible by expert validators. Based on the field trial results, this game guidebook is an interesting game guide to improve children's inhibitory control. Some things that need to be improved will be discussed further.

Keywords: games, guidebook, inhibitory control

Introduction

Inhibitory control is part of the executive function. The executive function helps individuals choose the most profitable options by controlling their thoughts and actions when faced with new or complex situations (Traverso, Viterbori, & Usai, 2015). The executive function is needed to stay focused and keep oneself from acting in ways that will later be regretted (Diamond, 2013). Executive function allows children to pay attention, follow instructions, apply what they have learned, generate ideas about how facts are related, think up creative solutions, and comply with social norms such as waiting their turn and not jumping in line or jumping out of seats, mentally build plans, remember what they have done so they can understand how it relates to later consequences, and much more (Diamond, 2014). When children have executive function, they will be

successful in everyday life, including at school. Meanwhile, if children do not have an executive function, there is a possibility that behavioral problems will arise that can have an impact on children's learning outcomes and social life (Wagner et al., 2019). Therefore, the executive function is very important for children to have.

Inhibitory control

One of the most important executive functions is inhibitory control. Inhibitory control is the executive function that has the most influence on the future (Diamond, 2014). With inhibitory control, a person can become disciplined to stay on task despite distractions by refraining from switching to a more interesting job or having fun. One aspect of inhibitory control is delaying momentary gratification for greater rewards later. Inhibitory control is very important because, without the discipline to finish what has been started and delay gratification, long tasks will not be completed. Without inhibitory control, individuals will get used to thinking or acting for a long time and are always distracted by attractive external stimuli. So inhibitory control allows a person to change and choose how to react and how to behave rather than being someone who is used to acting without thinking. With inhibitory control, there will be a possibility of changes for a better life (Diamond, 2014).

From the interview results with teachers and in-class observations conducted for three months in an elementary school, it was found that the problems experienced by children related to inhibitory control were (1) difficulty ignoring distractions around them, (2) impatient in waiting for their turn, (3) difficulty controlling anger when arguing with friends, and (4) difficulties to obey the teacher's orders. These problems can be solved independently by the children if their inhibitory control increases. With inhibitory control, children will be able to regulate behavior, attention, thoughts, and emotions to ignore things that are not priorities and choose things that are priorities (Diamond, 2013). Problems experienced by children are further classified into types of inhibitory control problems.

Table 1. Inhibitory control problem classifications

Problems	Type of Inhibitory Control
difficulty ignoring distractions[1]	cognitive inhibitory control[1]
impatient in waiting for turn[2]	behavior inhibitory control[2]
difficulty in controlling anger[3]	emotion inhibitory control[3]
difficulty in obeying orders[4]	motor inhibitory control[4]

Not all inhibitory controls are the same. Each type of inhibitory control has a variety of functional processes in carrying out its duties (Raud et al., 2020). The following are types of inhibitory control, namely (Otterson, 2022): Cognitive inhibitory control[1] i.e., the ability to control focus when there are disturbing stimuli. Inhibitory control of behavior i.e., the ability to control the urge to act and respond to situations when you know that the action is not appropriate to do. Inhibitory control of emotions i.e., the ability to control or regulate emotions. Inhibitory motor control i.e., the ability to control motor behavior such as remaining calm even when you are bored.

If ignored, inhibitory control problems will have a bad impact. Someone with impaired inhibitory control has problems completing daily tasks (Tomko et al., 2014). Without inhibitory control, a person will act impulsively, unable to refuse the wrong offer, allowing inappropriate and/or self-defeating actions. Considering the adverse effects of this inhibitory control disorder, increasing inhibitory control should receive high attention to reduce future adverse outcomes. Children who experience inhibitory control disorders have more difficulties than adults think. Often adults think children are naughty, when in fact children want to do the right thing but have no inhibitory control over doing it. Likewise in learning, children who fail the test are not necessarily because they do not understand the concept, rather they do not have inhibitory control to show their understanding of the test (Diamond, 2014). Children need inhibitory control to see something through to completion even though they are bored and frustrated, especially if there is a temptation to do something interesting (Diamond, 2014). Inhibitory control is an individual's ability to master and filter thoughts so that they become selective, focused, and able to think before they act. Inhibitory control can make someone silent when they have to be silent or speak at the right time. Inhibitory control helps control emotions, even in situations of haste, frustration, and/or stress. Children who have inhibitory control will be able to control emotions such as giving answers to questions posed by the teacher when their name is called and asked, resisting the urge to scream, refraining from hitting friends who accidentally bump into them, ignoring distractions, and being able to carry out tasks given properly (Zulherma, 2019). Encouraging increased inhibitory control in children will give positive results. There is a causal relationship between cognitive ability and inhibitory control (Biggs et al., 2015). Inhibitory control can reduce the regulation of performance-based behavior and physiological actions of emotional reactivity (Gil, Cohen, & Wienbach, 2022). In addition, inhibitory control allows individuals not to do or say something they will regret. Inhibitory control helps filter out what is irrelevant and distracting and allows you to focus on all tasks. Discipline and persistence can be seen as aspects of inhibitory control because they involve inhibiting all temptations. Children who have good inhibitory control abilities tend to have good social skills, less deviant behavior, better health, higher incomes, and better jobs. The problem of difficulty controlling anger[3] can be overcome by the children themselves when they have inhibitory control. This is because inhibitory control plays a central role in predicting social-emotional competence. Social competence can be trained along with interventions to increase inhibitory control to deal with everyday problems, one of which is through games, because by playing children learn to work together and respect each other. In addition, children with high inhibitory control have superior academic achievement than children with impaired inhibitory control (Liu et al., 2018).

Age 10-12 years

Each period of individual age development has different characteristics. Children aged 10-12 years need physical activity characteristics. For this reason, the teacher/facilitator must have a deep understanding of the basic characteristics and needs of children for physical activity (Hidayat, 2021). On the physical and motor aspects, children aged 10–12 years experience rapid growth in the muscles

of the body so they need physical exercises. At this age, children can coordinate fine motor skills well (Santrok, 2014). The age of 10-12 years is the golden period (the peak period of desire for physical activity) which is right for practicing a skill that is conveyed through physical movements so that both the desired skill and the need for movement are equally achieved (Weinberg & Gould, 2015). According to Piaget's theory of cognitive development, children aged 10-12 years are in the late concrete operational period and the early years of the formal operational period (Santrok, 2014). Characteristics of cognitive development in the operational period include being able to classify things, being able to think systematically about real objects, being able to find relationships between the whole and its parts, and actively solving problems (Rabindran & Madanagopal, 2020). Entering the beginning of the formal operational period, children begin to think abstractly and logically (Ahmad et al., 2016). As for the characteristics of the sociopsychological aspect, children show an interest in mastering organized physical skills such as games, enjoy dramatic, creative, imaginative, and rhythmic activities, and have an interest in individual achievement (Santrok, 2014). Developmental inhibitory control is latent in middle childhood, which is the critical period for the maturation of higher inhibitory processes compared to younger children. Through appropriate interventions, children aged 10-12 years become more self-controlled and can interrupt ongoing responses in isolation. In addition, compared to younger children, 10–12-year-olds are more efficient in their ability to cancel an initiated response, regardless of the strategy they choose. The increase in other impulses such as the ability to wait, the ability to be consistent, and the ability to increase intra-individual attention in children is higher at the age of 10-12 years. Therefore, it can be concluded that middle childhood is a milestone in important developmental aspects related to inhibition control (Perez et al., 2021).

Games

Intervention can improve inhibitory control, one of which is by playing games (Diamond, 2014). Game is a form of exercise functions that are very important in adult life later. Game is one form of social activity that is very dominant in childhood. Children spend more time outside the home to play with their friends compared to other activities. Games for children are a form of fun activity. In addition, games can be used by teachers/facilitators for learning by incorporating educational elements into them. Games can be interpreted as a reflection of reality, as an initial form of acquiring knowledge (Dyanrch, 2015). For children, play activities are the most important part of their age to develop mentally, socially, and emotionally (Granic, Lobel, & Engels, 2014). Indeed, we have the internet in the modern world which can be used to access various kinds of information. However, we need a generation that is creative, critical and has a leadership spirit with compassion in the future. Children learn these skills through play activities. For children aged 10-12 years the games chosen should be the ones that provide challenges and exercises related to executive function and inhibitory control. It is important for children aged 10-12 years to continue increasing the complexity of their games and activities. Any game that involves strategy provides the important exercise in keeping complex movements in mind, planning many steps, and then adjusting the plan both in response to the envisioned

outcome and to the opponent's moves. With practice, children can develop real skills in strategy games. Children aged 10-12 years also enjoy complex games involving fantasy. Games can be combined with music and movement patterns, as they can test children's selective attention and self-monitoring. This kind of game challenges the children's inhibitions. Movement while singing provides many opportunities for developing attention and self-monitoring because moving requires control in the mind to coordinate movement with music. Playing games develops gross and fine motor skills, social skills, cooperative skills, compromise, and affection (Nadolny & Halabi, 2016). Both free play and structured play build perspective, develop patience, and develop emotional intelligence as children interact with their world. By playing games, children practice both verbally and nonverbally to process difficult relationships and experiences until they can solve these problems (Willard, 2020). Structured games are designed to achieve certain goals, one of which is to increase inhibitory control. With games, children can be trained to block impulsive tendencies, reflect on situations, inhibit irrelevant thoughts, and find non-intuitive solutions (Crepaldi et al., 2020). Structured games can be new games or modified games. Modified games are games that already exist, but the steps of the game or the media of the game are changed in such a way that they can lead the game to achieve the game objectives.

Game guidebook

The importance of inhibitory control and games that can be a tool for increasing inhibitory control inspired this research to develop a game guidebook to answer the needs analysis. The product developed is a Self-Steering game guidebook that contains three Self-Steering games. The name Self-Steering game was chosen because children can direct themselves when they are in a difficult position to let things go that are detrimental and prioritize things that are priorities. The following details the Self-Steering game and the intended goal of increasing intended inhibitory control:

Table 2. "Self-steering" game

"Self-Steering" Game	Improved Inhibitory Control
Self-Steering 1: Concert Target Words 1 & Concert Target Words 2	cognitive inhibitory control[1]
Self-Steering 2: Mr. Budi Says	behavior inhibitory control[2]
Self-Steering 3: Feeling Thermometer	emotion inhibitory control[3] & motor inhibitory control[4]

The Self-Steering Game 1 consists of two games, namely the Target Concert Word 1 game and the Target Concert Word 2 game. Both of these games aim to train children not to move impulsively. The Target Concert Word 1 game is a concert-themed digital game. The child is challenged to press the letter Y when the singer mentions the target word and leave it alone when the singer mentions a non-target word. Digital games are made as a form of game variation because they get a lot of attention and interest from children. While Target Concert Word 2 game is a non-digital game to meet children's needs for body movement. In this game, you are given a challenge to move and stop according to instructions. The movements performed are usually performed during concerts. The instruction will

be mentioned by the facilitator in the form of a target word, namely the name of a certain body member. When the target word is mentioned, the child must move the body members according to the target word, but when the stop sign is raised, the child must stop making movements.

The Self-Steering Game 2 is the Mr. Budi Says game. This game is a modification of the Simon Says game in terms of game steps and game media. The purpose of this game is to train children to get used to queuing and waiting for their turn to speak. This game is combined with movement and songs, which include floor patterns, to support the achievement of the game objectives. This game is carried out by doing movements and singing a song about *Aku Ingin Menyalip, Tapi Kumenunggu* (I Want to Overtake, But I'm Waiting) then doing Mr. Budi's instructions about good queuing behavior. For training, children wait their turn to speak, it is done in the same order, namely, the children do the movements and sing a song about *Aku Ingin Menyela, Tapi Kumenunggu* (I Want to Interrupt, But I'm Waiting), then doing Mr. Budi's instruction about good speaking manners.

The Self-Steering Game 3 is the Feeling Thermometer. These games help children identify the feelings they are experiencing. This game directs children to be able to take the right attitude, one of which is when they are bored, they can do fun inhibitory control games, and when they are angry, they can do inhibitory control activities such as children's yoga. This game begins with the teacher/facilitator telling a story using paper dolls to give children an understanding of how to identify feelings. Inside the Feeling Thermometer, there are types of feelings, pictures of feelings, actions according to feelings, and ways of handling the feelings experienced. Specifically, the Self-Steering game guidebook discusses how to deal with feelings of boredom and feelings of anger. Handling the feeling of boredom is done by moving the ball with the group. The ball is placed on a tray tied with rope at the ends. Groups of children work together to move the ball from one point to another, but when music is played, they are not allowed to make any movements. Handling feelings of anger is done with children's yoga. The movements are simple, imitating the shapes of objects around the children.

Each game is equipped with reflection and follow-up activities to help children make sense of the games they have played. The game guidebook is prepared with several indicators, namely inhibitory control, contextual, stimulating, interesting, and varied. Contextual means that the game guidebook emphasizes the link between game guides and real-life conditions that can be seen and analyzed by readers. Stimulating means helping the reader to develop. The games in the manual are intended to train inhibitory control and other supporting aspects such as obeying rules, never giving up, focusing, working together, and being critical. Interesting means the book is not boring when read. Varied means that Self-Steering games are presented in different forms, namely digital games, non-digital games, games combined with movement and songs, and games combined with paper doll stories.

From the problem analysis results, it was found that children experienced inhibitory control disorders, namely difficulty in focusing, difficulty in waiting their turn, and difficulty in overcoming disturbing feelings. These problems can be solved independently by the children if they have inhibitory control. Games can

be a tool to improve inhibitory control in children aged 10-12 years. Therefore, this study aims to develop a game guidebook that contains self-direction games to develop children's inhibitory control.

Method

This research is development research carried out in five steps. First, the researcher conducts a needs analysis through a data collection process consisting of interviews and observations about inhibition control and play. Second, the researcher determines research objectives, plans product content, determines the order of games, plans playing strategy, and plans a game evaluation system. Third, researchers make products and develop product implementation guidelines. Fourth, researchers tested the product through validation by experts and trials with six children aged 10-12 years. Fifth, researchers make product improvements based on suggestions for improvements from the trial phase. This research method is based on research steps according to Borg and Gall (1989) in Sugiyono, 2017.

Research and Information Collecting	→	Planning	→	Develop Preliminary Form a Product	→	Preliminary Field Testing	→	Main Product Revision

The data analysis process was carried out in two ways, namely quantitative data analysis and qualitative data analysis. Quantitative data analysis is carried out by grouping data based on variables and performing calculations to answer the problem formulation (Sugiyono, 2018). Quantitative data is obtained from the results of product validation by experts. The score on the validation sheet is on a scale of 1 to 4. Score 1 is the lowest, while score 4 is the highest. The total score divided by the number of question items is equal to the results of the validation assessment.

$$Final\ Score = \frac{\Sigma\ score\ obtained}{\Sigma\ question\ items}$$

The final validation result score is then converted into qualitative data through the following table (Widyoko, 2014):

Table 3. Qualitative data conversion

Final Score	Classification
$3,26 \leq X \leq 4,00$	Very Good
$2,51 \leq X \leq 3,25$	Good
$1,76 \leq X \leq 2,50$	Enough
$1,00 \leq X \leq 1,75$	Not Good

Qualitative data analysis is the process of systematically compiling data obtained from evaluation results and field notes so that it is easier to understand. The process of data analysis in qualitative analysis techniques was carried out before entering the field, during the field, and after completion in the field. Researchers have conducted data analysis before researchers went into the field.

The analysis is carried out on data from preliminary studies or secondary data that will be used to determine the research focus (Sugiyono, 2018).

Findings and Discussion

This research is development research carried out with the following steps: First, the researcher conducts a needs analysis through interviews and observations. The results of the problem analysis showed that some children do not have sufficient inhibitory control. Individuals with inhibitory control problems mean they have not been able to regulate behavior, and give attention, thoughts, and emotions when facing non-priority situations (Diamond, 2013). Problems experienced by children interfere with the children's development which should be according to their development level. Therefore, the child should stop for a moment, and then use attention and reasoning to respond appropriately. For children, an experience will help them consider the future consequences that will occur of their choices. Therefore, teachers/facilitators need to provide experience of increasing inhibitory control for children.

Difficulty ignoring distractions[1] can occur when the sensory environment contains more information than the individual can process. To be able to overcome distractions, individuals need the ability to separate task-relevant information from irrelevant information. It is not just about focusing attention on the mechanisms that result in selecting the desired information, but about how disturbing information is ignored. Strategic information learned information, and passive information can contribute to better distractor ignoring (Geng, Won, & Carlisle, 2019). Impatience in waiting for turns occurs when there is a belief that waiting is too difficult or not worth it. The first step to teaching patience to children is to provide an understanding that waiting has value. Everyone has ever been tempted to jump in line or interrupt someone else's conversation. This happens because to be patient one must have strong determination. Children usually think they want to wait if the expected results are certain and valuable. But the value of waiting is not just the moment, but the result of later life skills such as inhibitory control. Therefore, to train children to have patience, teachers/facilitators should provide interventions to increase children's self-assumptions that they can wait (Roberts & Fishbach, 2022). Difficulty in controlling anger[3] occurs when one does not receive the expected reward, is treated unfairly, or the actions of others impact one's goals or plans. A study reports that anger and aggression can occur due to social rejection, frustration, provocation, and social stress (Lickley & Sebastian, 2018). Anger can often lead to aggression, which hurts individuals and society. Anger is important to treat. Lack of anger control negatively impacts mental health (Prabhu et al., 2014) and leads to poor and maladaptive decisions (Meissner et al., 2021). Difficulty in obeying rules[4] is experienced by children who have impaired inhibitory control. These children usually have difficulties in communicating, and interacting socially, as well as stereotypes and rigidity in hobbies and activities, so they experience many difficulties when participating in class and social settings. The attitude of not obeying the rules can cause someone not to be accepted in the group. Developing rule-abiding skills in the classroom has a significant role and meaning for children. The intervention provided can be in the form of a game that

teaches obedience to the rules to complete the game and be accepted by the group (Mai & Tran, 2022).

Second, the researcher determines the product to be developed based on the problem analysis results. The product developed is a Self-Steering Game Guidebook. Product development is carried out up to level 4 according to Sugiyono (2013), namely researchers researching to design new products, manufacture them, and test the products. There are various studies on games to increase inhibitory control in children aged 10-12 years. In executive function activities for 7-to-12-year-olds (developingchild.harvard.edu) games challenge attention, monitoring, and selective inhibition such as laser tag and paintball, and some video games that present inhibitory control skills training. In choosing the right game for children, the teacher/facilitator must ensure that the game does not contain violent content and must be careful in choosing the appropriate option and setting reasonable time limits.

In this planning step, the researcher determines the game objectives, product content, game order, game strategy, and game evaluation system. The contents of the product consist of two, namely "Knowing Inhibitory Control" and "Improving Inhibitory Control". "Knowing Inhibitory Control" contains an understanding of executive function, the importance of executive function for children, the meaning of inhibitory control, the importance of inhibitory control for children, and how to teach inhibitory control to children. While "Increasing Inhibitory Control" contains the meaning of the game and three "Self-Steering" games. The Self-Steering game is played in the order Self-Steering 1, Self-Steering 2, and Self-Steering 3. The Self-Steering game is designed with gradual follow-up activities starting from directing children to realize the importance of inhibitory control, guiding children to solve problems encountered with inhibitory control, and encouraging children to enter into an inhibitory control plan in the future.

Third, researchers develop products. The product creation stage consists of three parts, namely the beginning, content, and end. The first part of the book consists of a cover, preface, and table of contents. The following is the cover image of the game manual.

Picture 3. Book cover

The components of the cover are the title of the book which includes the variables of the Self-Steering game and inhibitory control, the author's name, and a picture of the Self-Steering game. The next section is the foreword which

contains an explanation of the importance of inhibition control for children aged 10-12 years in improving life skills used to overcome problems in life, and thanks to all parties involved in the preparation of the guidebook. In the game guidebook, a table of contents is written which includes the arrangement of subchapters and the pages of each sub-chapter in the contents of the book. The purpose of making a table of contents is to make it easier for readers to find each subchapter in the book. The contents of the book consist of two parts, namely "Knowing Inhibitory Control" and "Improving Inhibitory Control". "Knowing Inhibition Control" contains the importance of executive function in helping individual self-regulation effectively and activating positive individual behavior, the importance of inhibitory control in helping set aside things that are not priorities, and make responsible decisions when facing problems. In addition, it describes intervention methods to increase inhibitory control, one of which is a game. "Increasing Inhibitory Control" contains the Self-Steering games, each game is equipped with objectives, age, time, inhibitory control in the game, game benefits, game steps, reflections, video tutorials, and follow-ups. Apart from that, the Target Concert Word 2 game is equipped with musical instruments, concert moves, target words, and game equipment. Mr. Budi Says the game is equipped with game equipment, song lyrics one, song lyrics two, motion and song links, and game instructions. The Feeling Thermometer game is equipped with game equipment, ball-moving games with the group, accompaniment songs, yoga, the benefits of yoga, and yoga movements. The end of the book consists of the author's identity and back cover.

Fourth, the researcher tested the game manual through expert validation and a trial with six children. The trials of game guidebooks through expert validation were carried out by three validators, namely a PGSD Lecturer, a Primary School Principal, and a Counseling Guidance Teacher. Researchers make Terms of References (TOR), validation instruments, and validation permits before conducting product validation. The developed product was validated in April 2023. The following are the results of the game manual validation.

Table 4. Expert validation result

Validator	Total	Average	Criteria
PGSD Lecturer	73	3,32	Very good
Primary School Principal	68	3,09	Good
Counseling Guidance Teacher	76	3,45	Very good
Average	217	3,28	Very good

Based on the expert validation results, it can be seen that of the 22 aspects assessed from the game manual, the average is 3.28. This result is included in the range of $3.26 \leq X \leq 4.00$ with very good criteria and is suitable for use with revision according to suggestions for improvement.

The trial with six children was evaluated in three ways, namely reflection, follow-up, and field notes. From the reflection data, it can be concluded that children can understand every step of the game by being able to answer each reflection question correctly. The following is the children's understanding of the steps in the Self-Steering game, namely: in the Target Concert Word 1 game, to be able to finish the game, children must have an attitude of never giving up and

focus so they do not answer wrongly. In addition, children realize that it is important to control themselves so they do not press the wrong button by thinking before they act. In the Target Concert Word 2 game, to complete the game well, children must listen to the instructions from the facilitator so that their movements are carried out correctly. In addition, children must always focus so that they can immediately stop moving as soon as the stop sign is raised. This game also teaches self-control because children need to think about whether to move or stop. In the Mr. Budi Says game, children realize that a good attitude when queuing is to patiently wait, stop first, and think not to overtake. There are several ways mentioned by children about how to overcome the feeling of wanting to overtake, namely being calm, talking to yourself, standing up straight, and taking deep breaths. In the same way as having a good attitude when speaking, children say that when speaking, it is better to wait for the opportunity to speak, be calm, not emotional, and it is important for children to stop talking and think first. In the Feeling Thermometer game, children understand the importance of respecting friends and how to control themselves such as taking deep breaths, talking about things they like, singing, being patient, trying other ways to distract themselves, and thinking about the consequences of an action. The reflection activity is completed by children drawing a brain with facial expressions in it. Children can identify the types of feelings they have, namely disappointed, confused, anxious, angry, nervous, and worried. From identifying these feelings, the teacher/facilitator helps children overcome disturbing feelings by using a Feeling Thermometer.

Intervention intensity is directly proportional to the increase in inhibitory control. One way to increase the intensity of the intervention is to carry out follow-up activities. Playing games helps children improve their self-understanding. From the children's answers to the problem of following up on the Self-Steering Game 1, it can be concluded that after playing, children can realize the importance of inhibitory control in their lives. Children write down the consequences of actions without inhibitory control. The children write that if they watch HP and/or TV for too long, their eyes will hurt, and/or wake up late. After playing the Self-Steering Game 2, children can solve problems with inhibitory control. By playing, children practice both verbally and nonverbally to process difficult relationships and experiences until they can solve problems (Willard, 2020). The problem that was successfully overcome by the children was the problem of inhibitory control of behavior, namely, they succeeded in controlling the urge to act inappropriately, such as being able to control themselves not to respond to the friend's taunt, being able to restrain themselves from shouting as loudly as they could. After playing the Self-Steering Game 3 it can be concluded that the children have been able to enter into an inhibitory control plan in the future. The inhibitory control plans they plan include emotional inhibitory control and motor inhibitory control, namely the children's action plan when they feel emotional and/or bored.

Based on field notes data, the Self-Steering Game is a fun game for children. This is by the purpose of play, namely activities carried out for pleasure. Even though the game Self-Steering Game gives challenges to children, this game does not cause children to feel frustrated when playing. In addition, the Self-Steering Game fulfills the requirements of a good game, namely having goals and

safety controls, both physically and psychologically. By playing, children learn to work together. Based on the field note data, the children worked together on the Target Concert Word 2 game, Mr. Budi Says, and the Feeling Thermometer on the game of moving the ball with the group. Positive self-talk can shift the brain toward a solution-focused inner dialogue. The Mr. Budi Says game teaches children to use self-talk to teach calm in a fun way because the facilitator asks children to say whatever they are talking about in their hearts. Children learn not to give up by continuing to repeat the game when they failed before by understanding the instructions well so that they succeed on the next try. On several occasions, the teacher/facilitator invites children to play the role of facilitator. This creates enthusiasm and a sense of pride in the children so that they can play a good role as facilitators and get a positive response from their friends. Self-steering games that are arranged with various variations are one of the supporting factors for children's joy when playing, as in the Mr. Budi Says game, children quickly memorize songs and are cheerful when doing movements and songs. Even after playing, the children still sing the song. The Feeling Thermometer is the game the children like the most. In addition, children like paper doll stories. By listening to stories, children can answer questions of reflection and identify feelings critically. Children have so much fun playing the ball-moving game that they repeat the game over and over again. Yoga is also a fun activity for children. The field note data ends with the actions of children who can control themselves not to litter as before.

Fifth, the researcher revised the product. Based on the expert validation results and trials with children, the product is generally clear and complete but requires revision in several parts, namely: book components, page numbering, writing references and references, grammar, sentence structure, irrelevant sources, subchapter titles, appearance, pictures, video tutorials, and paper doll stories. In addition to improving some parts of the book, the researcher clarified the game steps and improved how to increase inhibitory control in the Target Concert Word 1 game.

The limitations of this research are the limitations of the trial locations because it is difficult to test the game at Kinderstation Primary School, the school where the problem analysis is carried out, in terms of licensing, the teacher as a game facilitator, and students whose study schedule has been determined so that the trial location is carried out in Ketep Village, Sawangan, Magelang. The formulation of the problem in this research and development research did not extend to the influence of game guidebooks on inhibitory control in children aged 10-12 years due to limited research time and the knowledge of researchers. Borg and Gall's development research was only carried out up to the fifth step of the 10 steps of Borg and Gall's research due to limited research respondents, research time, and research costs. Borg and Gall's preliminary field-testing steps were carried out in 1 to 3 schools with a total of 6 to 12 subjects, but in this study, it was only carried out in 6 subjects from 2 schools. Therefore, for the sake of progress, the next researcher can try to find the same trial location as the location where the problem analysis was carried out so that the trial data can be used to measure the effect of game guidebooks on inhibitory control of children aged 10-12 years, and Borg and Gall development research will produce better products if carried up to the tenth stage.

The games in the guidebook help children aged 10-12 years to make the right decisions so that the product can be said to fulfill the executive function requirements (Traverso, Viterbori, & Usai, 2015). The children's action when playing which show that they make the right decisions is when they play the Target Concert Word 1 game, namely whether it is time for me to press Y or not. Focus is needed to find the target word, but also caution to make decisions. This is by the executive function which is needed to stay focused and help make good decisions (Diamond, 2013). In the Target Concert Word 2 game, children learn to make the right decisions by thinking about whether now is the right time to move or not. In Mr. Budi's Says game, children are trained to make the right decisions related to their attitude when queuing and talking. Through movement and songs as well as floor patterns, children can make decisions to be patient in waiting their turn. Children consciously understand that inhibitory control is important in helping children pay attention, follow instructions, do what they have learned, and think of solutions to existing problems (Diamond, 2014). The Feeling Thermometer game trains children to make good decisions when they realize that the feelings they are experiencing are interfering with their activities. This is very important considering that disturbing feelings have the potential to cause problems (Wagner et al., 2019).

In the Concert Target Word 1 game, it was carried out by the children in turns, so that when a child is playing, the other children have the potential to become a distraction for the child who is playing. However, to be able to finish the Concert Target Word 1 game, children must focus so they will not miss the target word that appears so they no longer care about what other friends are doing and choose to be able to finish the game immediately without mistakes. This game can help children stay focused and disciplined to keep working on assignments despite pleasant distractions around them (Diamond, 2014). Children learn to delay gratification for a moment to be able to get pleasant rewards later, namely, children are very proud when they complete the game.

Children's inhibitory control will be able to regulate behavior, attention, thoughts, and emotions (Diamond, 2013). Behavior regulated by the child is the behavior of waiting in line, namely in Mr. Budi's Says game, and the behavior of children throwing garbage in the trash after playing the Self-Steering game. The attention regulated by the children is to stay focused on being able to complete the Concert Target Word 1 game and Concert Target Word 2 game. Children's thoughts and emotions are regulated through a Feeling Thermometer, namely through activities to identify feelings and make efforts to cure disturbing feelings. This regulatory action is by the tasks of each inhibitory control (Otterson, 2022). One of the disturbing thoughts is non-compliance with established rules. The attitude of not obeying the rules causes a person not to be accepted by the group (Mai & Tran, 2022). Children who are bored with learning are often preoccupied with themselves and do not listen to the teacher. These actions include actions that deviate from existing rules so in the Feeling Thermometer game one way to overcome boredom is to train in a structured game.

Inhibitory control is used to master the mind so that it becomes selective and able to think before acting (Zulherma, 2019). Selective thinking and thinking before reacting can be seen in every decision that is made by the children. One of the selective thoughts of children is when children identify feelings. Various kinds

of feelings may be experienced, but with the help of the Feeling Thermometer game, children can selectively choose which feelings they are currently experiencing because the Feeling Thermometer game contains behaviors that are often experienced when experiencing certain feelings. Through the intervention game of Self-Steering game, children can control themselves to remain silent when they should be silent and speak when asked to speak. Based on the follow-up data, children have managed to control themselves not to shout, hit friends, ignore distractions, and complete assignments well. Efforts to increase inhibitory control are also supported by the calm attitude of children while playing. This is the expert opinion that inhibitory control can reduce excessive behavior regulation (Gil, Cohen, & Wienbach, 2022).

Social competence can be trained along with increased inhibitory control, namely by playing (Liu et al., 2018). Through all Self-Steering games, children interact with friends and respect each other while playing. Children aged 10-12 years like to play with friends. Games that catch their attention are physical (Hidayat, 2021). Therefore, the Concert Target Word 2 game, Mr. Budi Says game and a Feeling Thermometer game contain physical activities that are favored by children. Children aged 10-12 years have an interest in grouping things according to their classification and can solve problems together (Rabindandran & Madanagopal, 2020). From the children's answers to the follow-up questions, it can be concluded that the children chose structured ways to answer the existing problems. Children aged 10-12 years are interested in games, stories, and music, and desire to achieve individually (Santok, 2014). Therefore, the Self-Steering game is equipped with stories and musical instruments. Although the games in the guidebook do not teach competitive attitudes to children, during the game trials it can be seen that children always do their best and want to stand out from other friends. Children consistently play until they complete a series of playing steps. This supports the theory that the age of 10-12 years can be said to be the right time for the development of important aspects such as inhibitory control (Perez et al., 2021).

Games can be used to convey knowledge to children (Dyanrch, 2015). Indeed, playing a Self-Steering game can help improve inhibition control, but other problems of inhibitory control that may arise require other interventions or other games. The development of this game guidebook is expected to motivate further research to improve children's inhibitory control which is very important for children. As is the case with this research which develops low-cost interventions where the products developed are contextual, stimulating, interesting, fun, and varied.

Conclusion

The results of the development of game guidebooks to improve inhibitory control for children aged 10-12 years show good results in terms of helping children recognize inhibitory control, solve inhibitory control problems, and plan for future inhibitory control. This game guidebook is contextually developed, stimulating, engaging, and varied. From the results of the validator's assessment and testing of the game guidebook, the game guidebook is very good and feasible to apply, although there are still shortcomings in the developed product.

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EXPLORING THE PERSPECTIVE OF UPTQ STUDENTS: SURPASSING LIMITATIONS WITH DIGITAL APPLICATIONS FOR MEMORIZING THE QUR'AN

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received 5 July 2023; accepted 26 January 2024

Abstract
The presence of 4.0 technological advancements and the transformative forms of globalization have significantly impacted various aspects of life for modern society. Changes in culture, mindset, activities, politics, economics, and even the field of education nowadays tend to diminish the spiritual values of individuals and groups, particularly among students. The existence of the digital Qur'an also contributes to their interest in exploring the depth and convenience of memorizing the Qur'an. This research aims to describe the perspectives of students in memorizing the Qur'an with the help of a digital Qur'an application. The research method employed is qualitative research with a descriptive approach. The research subjects consisted of 68 individuals who joined a WhatsApp group. Data collection techniques involved observation, and in-depth interviews with the subjects, and the obtained data were analyzed descriptively. The study's findings recommend that the students' perspectives on the application for memorizing the Qur'an are highly positive, including a high interest in using the digital Qur'an, the beneficial features it provides, the impact of the digital Qur'an's existence, and the functions it encompasses.

Keywords: digital Qur'an, Qur'an memorizer, student

Introduction

The position of the Quran holds a highly significant role in the Islamic faith. (Anam et al., 2022). Memorizing the Quran is an activity that is highly emphasized in the Islamic religion because it provides religious values and blessings to individual Muslims as well as the entire society. In line with the changing times and challenges faced by the Muslim community, it is crucial for the government and relevant institutions to implement policies that support and encourage the memorization of the Quran (Nurbaiti et al., 2021).

The Tahfidz al-Quran program aims to produce students or disciples who are not only intelligent in their knowledge but also possess good morals and character. (Frasandy & Nimah, 2019). Like any new program, especially in the context of evolving globalization, this program may be considered outdated and not aligned

with current trends. Consequently, in its implementation, the program faces various diverse challenges (Syarifuddin & Baso, 2020).

Studying, practicing, and memorizing alone is not sufficient when facing the Qur'an. Reciting the Qur'an from memory is one of the ways to preserve its sanctity and authenticity (Supriono & Rusdiani, 2019). In reciting the Qur'an, sincere intention is crucial. With a sincere intention for the sake of Allah SWT, a person who memorizes the Qur'an will experience joy in every effort made to memorize it. Obstacles will be easily overcome because their heart is bound to Allah, seeking His pleasure and reward alone (Maarif, 2019).

Memorizing the Quran is an act highly commendable in the sight of Allah (SWT). The process of memorizing the Quran significantly differs from memorizing a dictionary or a book because, to memorize the Quran, one must have a good understanding of tajweed and proficiency in recitation. If someone who wishes to memorize the Quran is unable to read correctly and has not mastered tajweed, they will face difficulties in the process of memorization (Hanifah & Hasanah, 2023).

Efforts to enhance the quality of Islamic education, particularly in Quranic studies, continue to evolve (Mahmudah & Putra, 2021). Because the Qur'an is the central reference for fundamental concepts that serve as a guide for all people, there is often a limited understanding of the meaning of Qur'anic education or learning, which is confined to merely reading or memorizing the Qur'an. However, Qur'anic education encompasses a broader meaning that includes all knowledge related to the Qur'an, such as Tajweed (proper recitation), Tafsir (interpretation), Ulum al-Qur'an (Qur'anic sciences), and so on (Hidayati, 2021).

The trend of memorization is a process that involves the entire body as a whole, including the eyes, ears, mouth, and mind (Syahid & Wahyuni, 2019). If a child consistently memorizes the Quran, it will have an impact on their growth and development (Rusdi, 2023) Children who cultivate the habit of memorizing the Quran will experience progress in their intellectual, emotional, and spiritual capacities, leading to positive behavioral patterns and noble character development (Hakim & Permatasari, 2020).

The process of memorizing the Quran also involves internalizing the letters, verses, and chapters of the Quran into the mind through repetition, both by reading and listening, to remember them consistently (Pohan & Sudarmanyah, 2021). Therefore, with the Tahfidz program, students can utilize their leisure time to memorize the Quran, which in turn will reduce their time for playing. (Hakim & Permatasari, 2020).

There are many scholarship opportunities available for those who have expertise in memorizing the Quran (Febryani & Permana, 2023). The purpose of these programs is to support and motivate the memorization of the Quran among the Muslim community while providing recognition and encouragement for their achievements in memorizing the holy book. Just like the Pasuruan Regency Government is committed to supporting and promoting quality education and equal opportunities in the pursuit of knowledge. There are no longer financial constraints that hinder access to education. Seize this opportunity and strive for a bright future, Regent of Pasuruan, HM Irsyad Yusuf, accompanied by the Head of the Department of Education and Culture, appreciates students and Quran memorizers for their

achievements. This is a form of recognition from the Pasuruan Regency Government (Rusdi, 2023).

This topic has garnered significant attention from researchers, and over the past three years, it has been discovered that memorizing the Quran is an important endeavor (Anggraini, 2019). To become someone who memorizes the Qur'an, it is not enough to merely memorize it; it is also important to understand the meanings and explanations of the verses of the Qur'an (Sulastini & Zamili, 2019). In memorizing the Qur'an, strategy becomes a crucial element, and memorization will reach its maximum level. If there is a lack of student achievement, it is not due to their lack of ability, but rather due to a lack of strategy in the learning process. (Mubarokah, 2019).

However, most tahfiz schools still adhere to traditional methods and teaching processes of the Quran, which are not aligned with the advancements in information technology. This is due to the lack of strategies and approaches to assisting huffaz (those who have memorized the Quran) in memorizing the Quran (Hassan, 2022). In the current era, technology has advanced rapidly, and with just a single grip, the world will be in our hands (Azhari & Saleh, 2023).

To reveal the novelty of the above research or study, it is evident that the issue of memorizing the Quran using digital applications among university students has not received attention or been explored. Therefore, the researcher aims to describe the perspectives of students in memorizing the Quran with the assistance of digital Quran applications.

Method

This research used a qualitative research design with a field study approach. The research method was designed using qualitative research with a descriptive qualitative type by presenting data from questionnaires distributed to 68 members in a WhatsApp group. The data was analyzed, and conclusions were drawn. The data collection technique used was brief observation and online interviews through WhatsApp chat with members of the UPTQ to validate the existing findings, thus utilizing an open-ended questionnaire. The research was conducted among students of UPTQ at UIN Sunan Ampel Surabaya.

Findings and Discussion
The high interest and usage of digital applications

One of the main findings is the increased interest of students in digital applications. They are more interested in using digital apps as a means to fulfill various daily needs and activities. Digital applications encompass various types, such as social media apps, e-commerce platforms, transportation services, financial services, and many more (Yadewani at al., 2020). This diversity provides users with the flexibility to choose applications that align with their preferences and needs, especially when it comes to memorizing the Quran, as described in the research findings illustrated in the diagram below.

Figure 1. Time of using digital Quran

The data in Figure 1 presents the findings of research conducted by students of UPTQ (Qur'an Memorization Development Unit) on the significant assistance provided by digital Qur'an applications in memorizing the Qur'an. The field results regarding the time spent using digital Qur'an applications varied among the students.

Several factors can explain the high interest and usage of this digital Al-Quran application (Yuyun, 2023). First, the advancement of technology and the widespread availability of smartphones and internet access have provided better accessibility for users to access the digital Quran. With the ease of downloading and installing Quran applications on their devices, users can quickly read and refer to Quranic verses whenever and wherever they are (Nuryana, 2019)

The second digital Quran application offers various features that facilitate users in studying and understanding the Quran (Hidayat, 2016). For example, the translation of the Quran into various languages, the interpretation of the Quran, searching for specific verses using keywords, as well as the ability to add bookmarks and personal notes. These features help users in gaining a better understanding of the content of the Quran and make the reading experience more interactive and personal.

The practicality of digital Quran applications is also a significant factor in the increasing interest of users (Andika et al., 2021). Users do not need to carry a large and heavy physical Quran everywhere (Arifin et al., 2020). Simply by opening an application on a smartphone or other devices, users can easily read the Quran. This is highly advantageous for individuals who frequently travel, are busy students or professionals, or simply desire quick and convenient access to reading the Quran. (Sriyanti, 2022).

Useful features in a digital Qur'an application

Digital Qur'an can be developed based on research findings to enhance the user experience in reading, studying, and understanding the sacred text of the Qur'an (Ida, 2023). With the presence of translation and interpretation, digital Quran applications can provide diverse language translations and comprehensive interpretations from trusted scholars (Istianah & Surya, 2019).

The proper use of punctuation and rules of Tajweed (the science of recitation) in reading the Qur'an can be implemented in digital Qur'an applications to assist users in reading correctly and respecting the appropriate pronunciation nuances (Faizah et al., 2020). This feature can include clear visual displays and correct audio pronunciation for each verse. Efficient Search In a digital Quran application, an

efficient search feature can help users quickly find specific verses or words. Research on indexing techniques and text processing of the Quran can be used to develop accurate and responsive search algorithms (Akbar et al., 2021).

Memorization and Progress Tracking allows users to track their memorization progress and monitor their development in memorizing the Quran can be extremely beneficial (Noorhidayati et al., 2021). Notes and bookmarks in digital Quran applications can provide features for creating personal notes and marking important verses with bookmarks. In addition, Night Mode and Customizable Text Size allow users to modify the text display, such as using night mode for reading in low-light conditions or adjusting the text size for user convenience (Richtig & Saifullah, 2023).

Having daily notifications in a digital Al-Qur'an application can help send notifications containing Quranic verses or beneficial lessons. This aims to enhance users' awareness, knowledge, and engagement with the Quran, as well as assist them in practicing their worship and living by the principles of Islam.

The impact on the progress of Quran memorization

The presence of the digital Al-Quran has made it easier for the community by eliminating the need to always carry a physical copy of the Al-Quran. One only needs to install a digital Al-Quran application on their smartphone and can access it anytime (Septiara et al., 2019). In the present era, most people are never separated from their mobile phones and always carry them wherever they go. This is evident, as supported by the field observations depicted in Picture 2.
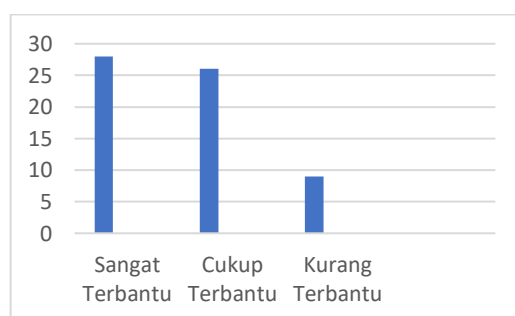
Figure 2. Benefits of using a digital Qur'an

Based on the field facts, 28 students stated that they were greatly assisted by using the Digital Quran application. The digital Quran facilitates users by providing easy and fast access to the complete text of the Quran. Users can easily read, search, and refer to Quranic verses through the installed application on their devices (Ramli et al., 2020). A digital Quran provides audio recordings by various renowned qaris, allowing users to listen to the melodious recitation of the Quran while simultaneously following the displayed text on the screen. This can help improve Quranic reading skills and deepen understanding and appreciation of the verses of the Quran (Pratama et al., 2021).

Eight students expressed feeling less assisted. The use of the digital Quran eliminates interaction with the physical Quran. Some individuals argue that experiencing and touching the physical pages of the Quran provides a deeper and

more spiritual experience than reading through a screen (Badaruddin & Zabidi, 2021; Riha & Agmawarnida, 2021).

The use of a physical copy of the Quran (mushaf Al-Quran) provides a sensory-engaging experience (Murjani, 2022), To kiss the aroma of the pages, to hear the sound of the paper being folded, and to treat it with special care in its storage. For some people, these sensory experiences are considered essential elements in building their relationship with the Quran (Nasir et al., 2022). The use of the digital Quran makes someone more dependent on electronic devices and internet access. If there is no access or the device's battery runs out, users cannot directly access the Quran (Musa & Ishak, 2021).

The functions of a digital Quran application

Students use the Al-Quran application in their daily lives, both during lectures and outside of lectures (Liyanti & Hakim, 2019). The application has customizable features to suit the users' needs. However, some weaknesses need to be considered, such as the possibility of spelling errors in the Quranic application due to the abundance of applications available on various platforms. Therefore, users need to be cautious in selecting a digital Quran application that has been certified by the Quranic Manuscript Improvement Agency (Lembaga Pentashihan Mushaf Al-Quran or LPMQ) (Puspitasari, 2021).

Field data shows that digital Quran applications are used for various functions. First, the application is used for reading the Quran. In this category, the author found that those who use this application as a substitute for a physical Quran because they do not carry a physical Quran or there is no Quran around them. In this context, those who read the Quran through the application also receive the virtues as described in the hadith.

"Whoever reads a single letter from the Book of Allah (the Qur'an) will earn one virtue, and each virtue will be multiplied ten times over. I do not say that "Alif Lam Mim" is one letter, but rather "Alif" is one letter, "Lam" is one letter, and "Mim" is one letter.." (HR. at-Tirmidzi, no. 2910) (Muhammad bin 'Isa at, 1998)

Secondly, for memorization purposes, the author discovered in the field that almost the entire digital Quran application is functional. They use this application as a substitute medium for the physical Quran (Istiqomah, 2022).

"Indeed, those who constantly read the book of Allah, establish prayer, and give out a portion of the sustenance We have bestowed upon them, both in secret and openly, are the ones who hope for a trade that will never incur loss. They seek for Allah to perfect their rewards and increase His blessings upon them. Indeed, Allah is the Most Forgiving, the Most Appreciative" (QS Al Fathir: 29-30)

Thirdly, in this category, it was found in the field that the digital Qur'an is utilized for murajaah (Maulida et al., 2021). This application is utilized to check the memorization of UPTQ students, whether the verses they have memorized are correct or not. Therefore, this application is very useful for them when they want to review but don't have a physical copy of the Qur'an. For respondents who have memorized, it is not appropriate for them to neglect their memorization. Lastly, it serves as a tool for learning and teaching (Atmaja & Sutisna, 2022), Digital Qur'an applications for learning or teaching. The features within the Qur'an application help save time in certain situations, such as when a Qur'an dictionary is needed and time is limited.

The fifth can listen to audio or murottal (Andika et al., 2021), In this category, the writer found that LPTQ students utilize a digital Al-Qur'an application to listen to MP3 audio or recitations within the application. The application offers numerous features and a wide range of options with famous reciters.

From the discussions above, students appreciate the convenience of access provided by the digital Al-Qur'an application (Oktapiani, 2020). Translate this sentence into correct English so that it can be accessed anytime and anywhere through a mobile device. This allows for efficient use of time to memorize the Quran. LPTQ students also benefit from the repetition and tracking features in the Digital Quran application. These features enable regular practice and repetition of the memorized verses of the Quran, while the tracking feature helps monitor and evaluate their progress in murajaah.

Conclusion

This research shows that students' perspectives on using applications to memorize the Quran are highly positive. Firstly, the high interest in using Digital Quran applications provides users with the flexibility to choose an application that suits their preferences and needs. Second, useful feature, this feature can be a clear visual display and correct audio pronunciation for each verse. Thirdly, many of the positive impacts of the digital Quran's presence have made it easier for people by eliminating the need to always carry physical Quran manuscripts with them. One just needs to install the digital Quran app on his smartphone and can access it at any time. Finally, the app provides significant help in terms of accessibility, interactive features, repetition and tracking, and variety and completeness of the material. In the context of Islamic education, the use of digital Quran applications can be a helpful tool in facilitating and improving the process of learning and memorizing the Quran for students.

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EFL PRE-SERVICE TEACHERS' SELF-EFFICACY BELIEFS DURING TEACHING PRACTICUM

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Abstract
The purpose of this study is to look into pre-service EFL teachers' self-efficacy beliefs about teaching English as they progress through their teaching practicum. The study's findings were gathered through a survey of 20 pre-service EFL teachers enrolled in the Faculty of Education at one of Cirebon's private universities. Teachers' Sense of Efficacy Scales of 24 questions were used to gather data, which evaluates pre-service teachers' self-efficacy on three subscales: student engagement, instructional strategy, and classroom management. The results were analyzed using descriptive statistics to determine which EFL pre-service teachers had the highest and lowest levels of self-efficacy. The study's findings revealed that their self-efficacy is at a medium level, and they are more effective in terms of instructional strategy. The study of self-efficacy regarding EFL students' practicum has significance for any institution involved in building higher-quality programs for future-generation teachers.

Introduction
The teacher is the deciding element in educational performance (Széll, 2013). Teachers' roles as educators are crucial in shaping a quality generation. However, before they can become professional instructors, they must first create their identity. Student teachers (also known as pre-service teachers) participating in teacher education programs will go through numerous phases of training to develop their teaching abilities. The process of teaching included developing their learning plans, teaching in small groups, and obtaining feedback from the lecturer (Arsal, 2014). Some pre-service teachers, however, are not yet competent in teaching in a classroom context during the teaching practicum program (Dolgun & Caner, 2018; Starinne & Kurniawati, 2018), which is connected to their low self-efficacy (Dolgun & Caner, 2018).

According to Megawati and Astutik (2018), teaching practicum may lower pre-service teachers' self-efficacy due to a lack of teaching experience and preparation, as well as a lack of knowledge about teaching strategies (Nugroho,

2017). Another study discovered that pre-service teachers are unable to communicate effectively in English (Sevimel & Subasi, 2018). They tend to be concerned about making a mistake and being called off by their supervisor (Merç, 2015). All of this reduces their self-efficacy (Sarfo et al., 2015). As a result, teacher education programs must provide more chances for pre-service teachers to practice for mastery and get feedback to increase their classroom self-efficacy (Tschannen-Moran et al., 1998).

Teachers' self-efficacy is an important topic to investigate since it influences both teacher and student learning outcomes (Kostić-Bobanović, 2020). Teachers' self-efficacy beliefs have also been highlighted as an essential component of their professional competence (Blomeke, 2014) since their efficacy beliefs will have a significant impact on their future work as teachers (Balci et al., 2019). Furthermore, the amount of self-efficacy belief is good in increasing motivation and achieving accomplishment (Yilmaz et al., 2016). According to other research, pre-service teachers who have moderate to high self-efficacy are more driven and inventive in their teaching (Moradkhani et al., 2017). Furthermore, people who have high self-efficacy have less fear when performing a task. Individuals with poor self-efficacy, on the other hand, regard their environment as terrifying, lack problem-solving abilities, and overestimate possible hazards (Yildirim, 2017).

Several studies have been conducted in Indonesia to investigate teachers' self-efficacy beliefs. Indahyanti (2016) investigated the effect of self-efficacy on EFL teachers' performance. Teachers with high self-efficacy levels, according to the study, are more likely to be creative and imaginative in their classroom management. Lailiyah and Cahyono (2017) did a case study to investigate EFL teachers' self-efficacy in utilizing technology. EFL teachers with high self-efficacy were shown to be capable of integrating technology into language education to meet teaching objectives. Megawati and Astutik (2018) also investigated pre-service EFL teachers' classroom self-efficacy. Pre-service teachers had a high level of self-efficacy in their teaching abilities, lesson design and implementation, assessments, and classroom management.

Despite several studies on self-efficacy, there have been few studies on pre-service EFL teachers' self-efficacy during teaching practicum, particularly in an Indonesian context. Thus, the present study aims to investigate EFL pre-service teachers' levels of self-efficacy in three areas (classroom management, instructional strategies, and student engagement) during their teaching practicum experiences, which were underrepresented in the previous study conducted by Megawati and Astutik (2019).

EFL pre-service teachers' self-efficacy

Self-efficacy can be viewed from a certain situation, which in this case is a teaching situation. Teacher self-efficacy is an individual's belief in her ability to teach (Yildirim, 2017) and to deal with challenges (Deneroff, 2016), as well as the quality of education that they can provide (Garvis, 2013). Teachers' sense of efficacy influences the amount of work they put into teaching, as well as the objectives they establish for themselves and their aspirations (Rupp & Becker, 2021). Furthermore, teachers' self-efficacy affects their decision-making when things do not go as planned, as well as their resilience in the face of failure (Shaukat & Iqbal, 2012). It can concluded that these beliefs influence task

selection, the amount of effort expended on a particular action, and how individuals persevere in the face of adversity (Fernandez et al., 2016; Pajares, 1997).

For measuring self-efficacy beliefs, individuals are provided with items illustrating varying degrees of task demands, and they estimate the level of their belief in their ability to execute the required actions. They rate their efficacy beliefs on a scale of 0 ("Cannot do"); 50 ("Moderately certain can do"); and 100; ("Highly confident can do"). The same scale structure and descriptors are used in a reduced answer style that uses single unit intervals ranging from 0 to 10. The structure of the sample efficacy scales varies based on the age of the respondents and the domain of efficacy being examined (Bandura, 2006). However, in this study, the author utilizes a scale of 1–5, as adopted by Bakar et al. (2012). A scale of 1 indicates they are not very confident when teaching English; a scale of 2 indicates they have very little confidence when teaching English; a scale of 3 indicates they are quite confident when teaching English; a scale of 4 indicates they are confident when teaching English; and a scale of 5 indicates they are extremely confident when teaching English in class.

Teachers' self-efficacy relates to their belief in their ability to organize and carry out the activities necessary to manage certain situations (Bandura, 1997), and it determines their judgments, behaviors, energy, and tenacity in the face of problems in the classroom (Cason, 2018). The emerging issue is not so much how capable teachers are as it is how capable teachers believe they are (Tschannen-Moran et al., 1998). Student engagement, classroom management, and instructional strategies are the three criteria used to assess pre-service teachers' levels of self-efficacy (Tschannen-Moran & Hoy, 2001). These three elements are essential for teachers to master to achieve their teaching goals.

Student engagement refers to a teacher's ability to encourage students and provide an optimal learning environment that is physically and psychologically present (Cocca et al., 2018). This domain is regarded as having one of the most significant impacts on students' academic and cognitive development (Bandura, 1997). According to research, efficacious teachers are much more likely to have a positive perception of student engagement and use specific teaching methods that engage students regardless of the student's desire to succeed (Caprara et al., 2006; Van uden et al., 2013; Mireles-Rios et al., 2019).

According to Bandura (1997), efficacious teachers commit more time to students' learning, help students achieve their goals, and promote their intrinsic desire. Furthermore, teachers who are skilled at managing the teaching and learning process and have a strong subject area feel more confident and competent, and they have better connections and communication with students and parents (Westergard, 2013). Furthermore, a high level of efficacy allows teachers to work longer with a student who is working hard to get high grades, give their students more options, transfer greater confidence, and provide a greater sense of control over their learning, all of which positively affect students' engagement in class activities, learning values, and confidence (Woolfolk Hoy et al., 2009).

Following that, classroom management relates to teachers' perceptions of their ability to conduct a pleasant class such as the learning process, social interactions, and student behavior (Martin et al., 1998) which highlights the

success of the instructional strategies used (Cocca et al., 2018). According to Bandura (1997), teachers' feelings of self-efficacy focus on their belief in their abilities to achieve desired student results, and this substantially impacts the learning environment they build to regulate student behavior. Effective classroom management seems to be critical in creating positive educational settings for both students and teachers (Darkwa et al., 2020). According to Oktan and Kıvanç (2015), effective teachers must be able to maintain a better environment in the classroom for their students. Therefore, teachers must consider classroom routines, rules, interactions, and discipline to keep the class effective. Nevertheless, when confronted with tough disruptive behaviors, less confident teachers are more prone to feel ineffectual in regulating classroom conduct and to give up (Brouwers & Tomic, 2000). Furthermore, they are more prone to being distrustful and angry toward unruly students as well as to having difficult students in their classrooms (Mireles-Rios et al, 2019).

Self-efficacy and the delivery of a teacher's instructional strategies are linked in the same way that self-efficacy and classroom management are. Instructional strategies are methods used by teachers to help their students understand a given topic and can influence creativity in developing learning approaches for students (Cocca et al., 2018; Tschannen-Moran & Hoy, 2001). The teaching approaches employed throughout the learning process are intended to increase students' enthusiasm for learning English (Yuliandasari & Kusriandi, 2015). According to the study, teachers who have a higher feeling of self-efficacy are more likely to experiment with their education and use a constructivist approach rather than a traditional lecture-style approach (Zee & Koomen, 2016). Teachers with a stronger sense of self-efficacy are not only more motivated and passionate about teaching, but they are also considerably more likely to be imaginative and disciplined in their instructional techniques (Allinder, 1994). Teachers with high self-efficacy indicated they could answer even the most difficult questions posed by learners in the classroom and believed they could gratify their students by providing appropriate explanations or examples when they appeared to be confused (Rodríguez et al., 2014).

Teachers' levels of self-efficacy may differ as well (Bakar, 2012). Teacher self-efficacy is highly contextualized and context-specific. According to Bandura (1997), teacher self-efficacy varies by subject or task. Beliefs in one's efficacy are similarly changeable and time-and place-dependent (Bong, 2006; Dellinger et al., 2008). Teachers who recognize their efficacy will be able to set more ambitious goals for themselves and their students.

Teaching practicum

A teaching practicum is a teaching practice that is applicable and integrated from previous learning experiences. Teaching practicum is one of the mandatory courses that must be carried out by students of the faculty of education in semester 7. This teaching practice takes place in a school setting, ranging from elementary to high school, for a certain amount of time established by the institution. Teaching practicums have long been an important component of beginning teacher preparation programs (Köksal & Genç, 2019). Teaching practicum refers to the practical experiences that pre-service teachers get in the classroom during their training program before taking over and beginning the actual teaching career

(Eğinli & Mehdi, 2021) as well as to measure the change within their self-beliefs (Debreli, 2012). The rich experiences gained throughout the practicum would undoubtedly contribute to the pre-service language teachers' teaching knowledge and skills, as well as to promote student-teachers professional learning and identity construction (Anderson & Stillman, 2013; Darling-Hammond, 2014; Eğinli & Solhi, 2021; Zhu et al., 2018; Zhu et al., 2020). According to a research study (Cohen et al., 2013), teaching practicum results are related to 1) teachers' beliefs and sense of efficacy, like as self-confidence in teaching and reflective skills; 2) teachers' instructional skills; and 3) students' academic accomplishments in certain courses.

Previous study

Alagözlü conducted a similar study (2016). The purpose of this study was to look into pre-service EFL teachers' perceptions of their abilities to teach English as a Foreign Language (EFL) and their levels of English language competency. According to the findings of this study, pre-service language teachers had strong beliefs in their teaching skills, classroom management skills, and instructional materials, all of which contribute to their self-efficacy beliefs. They also had a good impression of their language abilities and considered themselves capable of utilizing appropriate pedagogical approaches in language schools. MA and Cavanagh conducted another study in 2018. The goal of this research is to investigate the level of teacher self-efficacy as well as the factors that influenced their ratings.

The Teachers' Sense of Efficacy Scale (TSES; Tschannen-Moran & Hoy, 2001) assesses people's perceptions of their likelihood of success in the classroom. TSES is related to three teaching areas: efficacy for classroom management, efficacy for encouraging student engagement, and efficacy in using instructional strategies. In the study of Bakar, Mohamed, and Zakaria (2012), the adaptation version of TSES developed by Tschannen-Moran and Hoy (2001) was used to gain the data. The research seeks to assess the efficacy of student teachers at one of Malaysia's teacher training schools. According to the findings, the pre-service teacher was capable of competently handling classroom teaching activities. Their level of belief in each sub-scale was nearly identical for student engagement, instructional strategy, and classroom management.

In a related range for determining high or low levels of self-efficacy, Nedregård and Olsen (2014) conducted survey research to examine the health and well-being of students with academic self-efficacy in a broad sense, with a major emphasis on psychosocial conditions. They defined a mean score above 3.5 is defined as indicating high self-efficacy, a score between 2.5 and 3.5 is defined as average self-efficacy, and a score below 2.5 as low self-efficacy. The results of their study stated that most of the students in their study enjoyed meaningful lessons and mastered them in a good way. Furthermore, most students build and social network in the place of learning, and this is very important for coping and well-being.

Method

The present study applied a quantitative method in the design of the survey. According to Creswell (2014), a survey design describes the current situation,

mental outlook, or opinions of a population by looking at the sample of the population. The data was collected using a questionnaire. The writer used the Teacher Sense of Efficacy Scale (TSES) established by Tschannen-Moran and Hoy (2001) and adapted by Bakar et al (2012). The questionnaire's presentation of the scale was changed from a nine-point Likert scale to a five-point Likert scale: (1) Not at all confident; (2) Slightly Confident; (3) Somewhat Confident; (4) Confident; and (5) Very Confident, which indicate the level of pre-service teacher confidence in their teaching activities. The questionnaire contains 24 questions divided into three subscales (Student Engagement, Instructional Strategy, and Classroom Management).

Questionnaires were distributed to 45 pre-service EFL teachers from the English education study program who had completed their teaching practicum in semester 7 and had practiced teaching English in senior high schools. Based on 45 participants, only 20 of them filled it out. Of the 20 respondents, 13 (65%) are female, while 7 (35%) are males aged 21–24. The data were analyzed using Microsoft Excel and then served into the statistical package. Subsequently, find the mean values and standard deviation of all items. Lastly, conclude the result based on the data analysis. Average scores above 3.5 indicate high self-efficacy, scores between 2.5 and 3.5 indicate average self-efficacy and scores below 2.5 indicate low self-efficacy (Nedregård & Olsen, 2014).

Findings and Discussions

This section summarizes all of the data from the Teacher Sense of Efficacy Scale (TSES) questionnaire, which was completed by 20 survey participants. The writer calculated the statistics through Microsoft Excel using descriptive analysis statistical tools based on the data gathered by distributing questionnaires. The data is represented in the following figure:
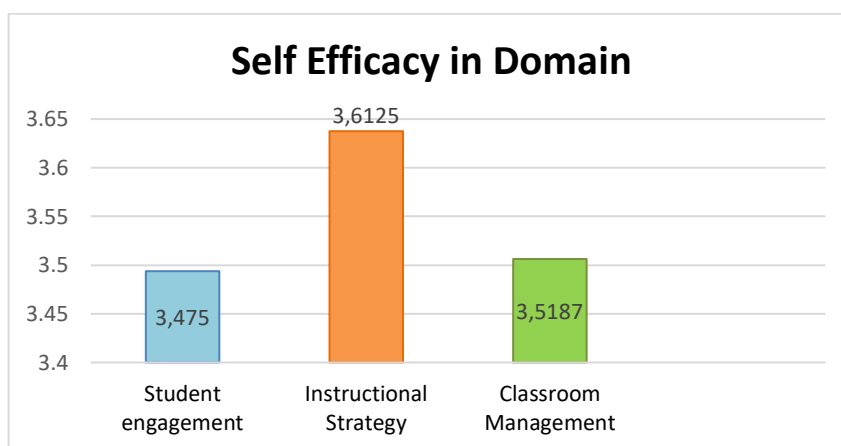
Figure 1. Chart of self-efficacy in domain

According to Figure 1 presented above, student engagement, instructional strategy, and classroom management are the three domains of pre-service teachers' self-efficacy according to Bakar et al. (2012). Sense of efficacy for instructional strategy has the highest value (M= 3.6125), then the second highest is classroom management (3.5187) and the lowest value is student engagement

with value (M= 3.475). The overall mean based on the data that has been obtained is 3.53.
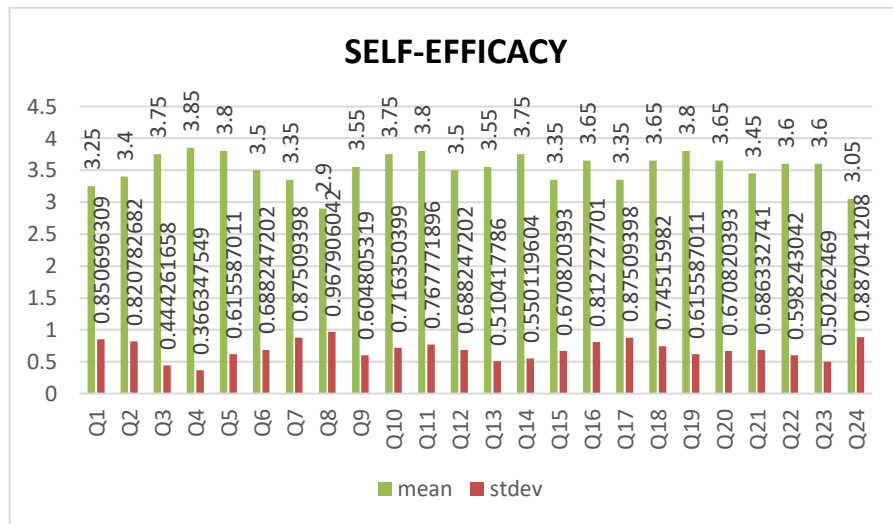
Figure 2. The mean and standard deviation of the entire questionnaire

According to the data obtained from 20 students as can be seen in Figure 2, question number 4 "How confident are you to get students to believe they can do well in school work?" (M = 3.85; SD = 0.36) had the highest mean value. Meanwhile, the lowest average in the chart above is question number 8 "How confident are you to assist families in helping their children do well in school?" with a mean value (M = 2.9; SD = 0.96).
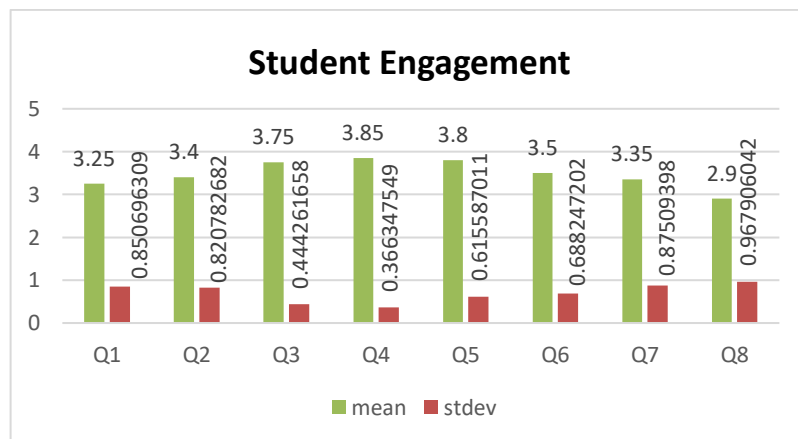
Figure 3. Chart of student engagement

In terms of data for each domain, figure 3 shows the results of domain student engagement. It is clear from this domain that question number 4 "How confident are you to get students to believe they can do well in school work?" with a mean score (M = 3.85; SD = 0.36) had the high mean score, while question number 8 has the lowest mean score, "How confident are you to assist families in helping their children do well in school?" with a mean of (M = 2.9; SD = 0.96).
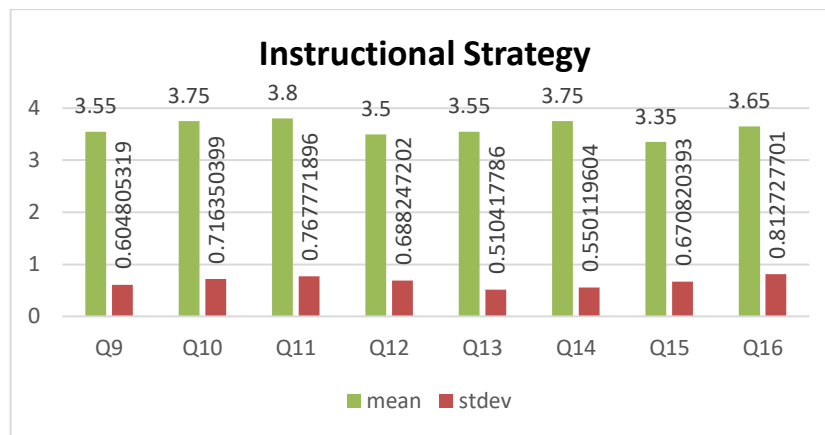
Figure 4. Chart of instructional strategies

Figure 4. shows a chart of domain instructional strategy with question number 11 "How confident are you to craft good questions for your students?" (M = 3.8; SD = 0.76) as the highest mean score while question number 15 "How confident are you to implement alternative strategies in your classroom?" (M = 3.35; SD = 0.58) as the lowest mean score.
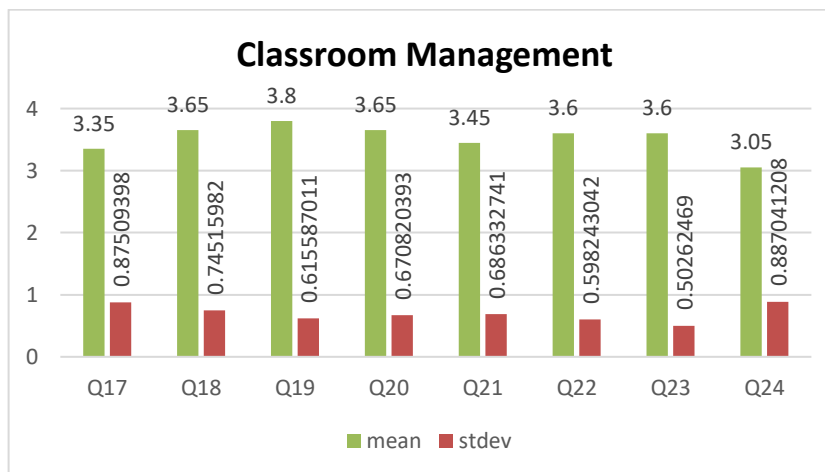
Figure 5. Chart of classroom management

The last domain was classroom management as shown in Figure 5. Question number 19, "How confident are you to get children to follow classroom rules?" (M = 3.8; SD = 0.61) has the highest mean value while question number 24, "How confident are you to respond to a defiant student?" with the mean (M = 3.05; SD = 0.88) has the lowest mean value.

These findings are in line with previous studies. In a study, Cankaya (2018) investigated self-efficacy beliefs among practicing teachers and student teachers. Participants included English language teachers and student teachers from the English Language Teaching Department (ELT). The study reveals that teachers are more efficacious than student teachers in terms of efficacy. Nonetheless, student teachers are more efficacious than teachers in terms of instructional strategy, and both teachers and student teachers have low self-efficacy in terms of student engagement. Another study from Balci, Şanal, & Üğüten (2019) reported

that in their study, pre-service EFL teachers perceived themselves as the most efficacious in instructional strategy and the least efficacious in student engagement. Furthermore, Eslami and Fatahi (2008) discovered that teachers were more efficacious in terms of instructional strategies. Their results are the same as the results of this study in terms of each subscale.

The last study came from Nugroho (2017). He conducted a study to investigate the relationship between English proficiency and self-efficacy among 65 pre-service EFL teachers. The findings of his study show that pre-service EFL teachers have medium-to-high self-efficacy in their EFL teaching. The findings of the previous study (Nugroho, 2017) differ slightly from those of this study; participants in his study are more efficacious in terms of classroom management but less efficacious in terms of instructional strategy, whereas in the current study, instructional strategy becomes the highest self-efficacy. Furthermore, the participants in the current study perceived themselves as the least effective for student engagement. Despite this, the results were consistent with earlier research by Bandura (1997); Bong (2006); and Dellinger et al. (2008), which emphasizes that teacher self-efficacy varies across different subject areas and tasks and that self-efficacy beliefs are both unstable and impacted by time and place.

Conclusion

According to the findings of this study, the student engagement domain has an average value (M: 3.47), indicating that pre-service teachers can motivate students to achieve their academic goals. The classroom management domain has an average score (M: 3.51), which indicates that pre-service teachers can manage the classroom environment during learning. The value in the instructional strategy domain (M: 3.61) indicates that pre-service teachers have medium-high self-efficacy in the process of making instructional methods appropriate for students during their teaching practicum. In this study, the third mean score showed a moderate level (M: 3.53), which means that pre-service EFL teachers who teach in high schools have a quite good sense of efficacy in teaching during teaching practicum. This is certainly inseparable from the provisions they get from universities before they finally carry out teaching practices in schools, and also guidance as well as direction from their supervisors while practicing teaching English in schools. Following the findings of this study, pre-service EFL teachers should improve their ability to apply instructional strategies in the classroom, skills to engage students in learning English, and classroom management skills to perform well when teaching English in the future. English education study programs can contribute to this effort by providing students with a wealth of practice rather than theory that is expected to increase the self-efficacy of pre-service EFL teachers and enable them to perform well in the classroom. For further research, it is expected to find out what factors enable them to have high and low self-efficacy.

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THE DIFFICULTIES AND STRATEGIES OF EFL STUDENTS IN IMPROVING THEIR ENGLISH SKILLS

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https://doi.org/10.24071/ijiet.v8i1.3375
received 14 May 2021; accepted 29 January 2024

Abstract
This paper aims to explain the difficulties of EFL students in learning English, the difficulties in writing skills, and the strategies used to improve their writing skills. The participants were 20 students of SMPK. St. Isidorus, Lewolema sub-district, East Flores, Nusa Tenggara Timur. A qualitative method was employed in this research using the interview as a data collection technique. The findings showed that the difficulties of EFL Students in learning English where they cannot (1) translate the English words, (2) read an English text, (3) write an English sentence, (4) pronounce, and (5) memorize the English sentence. Students have difficulties in writing such as lack of vocabulary, cannot write the word in English correctly, and translate the sentence in English. The strategies chosen by the students to improve their writing include learning how to translate the word, memorize the vocabulary, and learn to write the correct English sentence.

Keywords: difficulties, EFL students, English language, strategies, writing

Introduction
        English has been popular for each subject of human beings. The English language is used as an international tool for communication with other people around the world. English has been dominated in many various fields such as education, business, technology, research, tourism, medicine, and others. English language is spoken all over the world and attained as a global language (Amoah & Yeboah, 2021). English has become one of the requirements for recruiting a new employee in some foreign companies and having an international relationship with other countries. No matter what country a person goes to, they should communicate using the English language and it will help them to receive information. Each person has a unique way to learn the language. People can communicate verbally and in writing in their daily lives (Miranda & Wahyudin, 2023). Starting to learn the language, some of them already determine the level that will be effective for them (Zubaydullaevna et al., 2023).
        In learning the English language, we learn about listening, speaking, reading, and writing. The four skills of language will be improved to communicate effectively in English (Kashinathan, 2021). English as a foreign language, and each student has the challenge to master the language itself. Some of the students find it

easy to adopt the new language, but some of the others need more attention to motivate themselves to learn. English students still face challenges in spoken or written English (Ratnasari, 2020). All these skills are very important, but learning writing is a crucial skill that must be learned by the students (Yaumil et al., 2020). Especially, for writing skills, many students find difficulties when they try to write a sentence in English. Writing in English seems to be the most difficult skill among the other skills. This case does not happen only for EFL students but it also becomes a challenge for native speakers of English to produce good and well-structured writing (Sundrarajun, 2020). Language learners' luck of literacy and have different experiences of literacy (Alharbi, 2021). Each student has several ways to deal with writing challenges (Riadil et al., 2023).

In Writing skills, some activities involve several things to be mastered namely lexical and grammatical knowledge, coherence, cohesion, and mechanics. When we learn about writing skills, we learn how to think about ideas as well as the logical organization of ideas. Writing is one of the composing processes as a result of employing strategies (Listyani, 2018). In writing skills, all students are expected to develop a technical point of view toward writing and can increase their awareness of their responsibilities. The main factor that affects a writing skill is the writing strategy itself (Asmari, 2013). Writing is the productive skill that seems the most challenging, even for native speakers of a language since it includes coherence, grammar structures, and appropriate mechanics (Mouri, 2020). So, when we learn about writing, we should manage our writing strategies to get the idea of creating a sentence. Because English is a foreign language, many students still lack knowledge in developing and arranging their ideas and content to write.

Those problems become the factors that make the students are often faulted in improving their writing skills. Students might not be exposed to the writing process correctly or at all in some cases. Besides that, the students also do not know how to express their ideas when they are writing. The situation, annoys the students to come up with their brilliant thoughts, and most of them will end up abandoning those ideas which makes the writing dull and uninteresting for readers. Due to poor writing skills, the students" motivation and confidence were then hampered. This has then caused many to struggle to put ideas on paper every time they were told to write in the target language (Pek et al., 2019).

Related to writing skills, the students should also think about how to create what they thought and can make good writing. Writing always presents a huge barrier since students have difficulty producing good writing, This is why the students often still produce poor writing and have difficulty expressing their ideas through writing. Grammatically correct text and the application of knowledge to particular contexts and purposes are essential in writing. A genre focus can be a framework to help students improve their writing in particular communicative events (Purba, 2020). Good grammatical also has an important role in producing good writing. The students should master how to arrange the word to become a sentence. Writing is an essential language skill that is vital to academic success (Asmari, 2013), so it is important to teach the students how to produce good writing, and how to collaborate their ideas in writing. Developing the student's writing competence, and producing a good structure of writing are the goal of writing itself. Through writing, the students can create their ideas, organize, and write (Ceylan, 2019).

In writing, all students are expected to be more active during the learning process. The students should be active in arousing interest and curiosity, questioning, reflection, problem-solving, explanations of concepts, etc. are carried out with students for their active learning. Their prior knowledge is triggered and their mind is activated to ensure learning (Mehmet, 2018). The teacher should build the student's awareness in writing and also guide them to transfer their idea. The difficulties of students in learning a language may be related to the number of words, the structure, the characteristics of the language, and the level of students' readiness for the language. When the students learn the new word, they should make an association with the action. The students can forget the words but they will never forget the action (Mansoor et al., 2023).

The level of student's experience in learning the language can be directly proportional to their difficulties while learning the language itself. Besides that, the differences in student's character also affect the level of students in mastering the language (Tanir, 2020). Each student has a different problem in learning a language. Mostly, the students in internet-restricted areas find it difficult to find their partner to practice the English language and find their friends to correct their mistakes in writing an English sentence. Because English is still something new for them, they need other people to push them to know the language better. Based on the explanation above, the researcher considers to following research questions:

1. Why do EFL students have difficulties in learning the English language?
2. Why do EFL students have difficulties in improving their writing skills?
3. What are the strategies used by the EFL Students to improve their writing skills?

Method
Research design

To describe the result of the difficulties and strategies of EFL students in learning the English language and improving their writing skills, the researcher used the qualitative method. The data was collected through the interview and questionnaires to find out student's opinions. The researcher prepared some questions and asked the students about their difficulties in mastering the English language. The research aimed to know what kinds of students have difficulties in learning the English language, what their difficulties are in improving their writing skills, and what their strategies are to improve them. After collecting the data, the researcher concluded the result of the research itself.

Setting and participants

Figure 1. Map of East Flores, Nusa Tenggara Timur (the research location)

The participants of this research were 20 students of junior high school. They were second-grade students at SMP St. Isidorus, Lewotala, Flores Timur, and Nusa Tenggara Timur in the 2020/2021 academic year. From 20 students, the researcher found out their difficulties in learning the English language, their difficulties in writing the English language, and their strategies to solve their writing problems.

Data collection method

The researcher used the interview as the data collection technique, some questions were provided by the researcher. After collecting the data, the researcher divided the data based on the student's answers. There were some questions used by the researcher for the interview:

Table 1. List of interview questions

No	Questions
1	Apa kesulitan anda dalam belajar bahasa Inggris? *What are your difficulties in Learning English Language?*
2	Apa kesulitan anda dalam menulis sebuah cerita dalam bahasa Inggris? Jelaskanlah! *What are your difficulties in writing an English text? Explain it!*
3	Kesulitan apa yang paling mendasar sehingga anda tidak dapat menulis sebuah cerita dalam bahasa Inggris? *What is your big problem in writing an English text?*
4	Untuk mengatasi kesulitan anda menulis cerita dalam bahasa Inggris, apa cara atau strategi yang anda lakukan? *For solving your problem in writing an English text, what are your strategies?*

Data analysis

For analyzing the data, the researcher took some steps to analyze data from the participants. The first step was to transcribe the data interview into written documents. In transcribing, the researcher transcribed the data recording based on the student's answers to the questions given. The next step was coding the data, in this part, the researcher constructed the unstructured sentence into the right one. The next step was categorizing, in this step, the researcher classified the data that had a similar meaning and explanation. The last step was the conclusion, after categorizing the data (interview and questionnaire), the researcher made the conclusion based on the data result.

Findings and Discussion

Three points emerged from the analysis of the current data set, (1) the difficulties of EFL Students in Learning the English Language;(2) The difficulties of EFL Students in Writing an English text; and (3) Students' strategies in Improving their writing.

The difficulties of EFL students in learning the English language
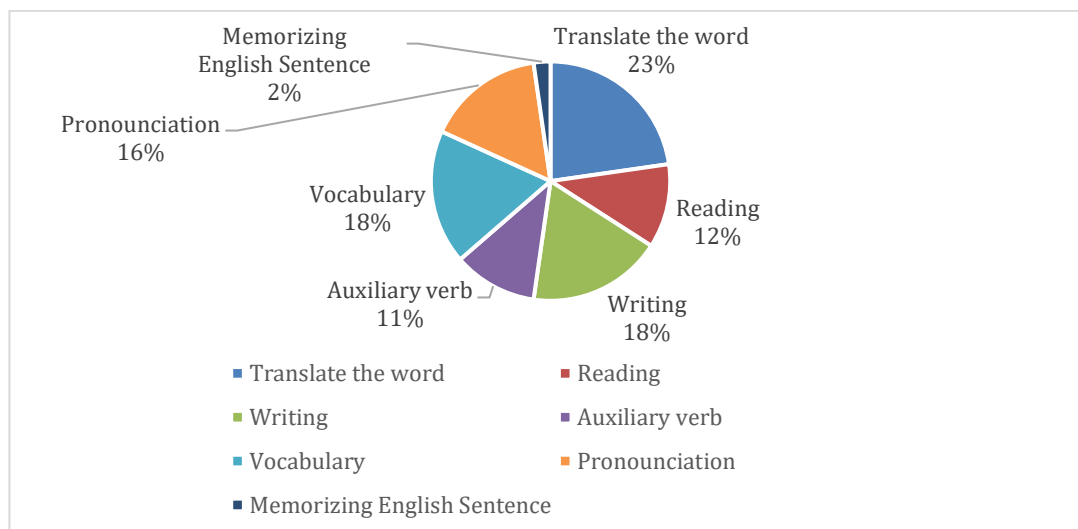
Figure 2. Student's Difficulties in Learning English

Translate the English word

Translating the English word becomes a higher problem for the students in learning English. It has 23 % of 20 students in a class. Most students complain that they have difficulties in translating English words to Indonesian or Indonesian to English.

> *"Kesulitan yang saya alami dalam belajar bahasa Inggris adalah belum bisa menerjemahkan kata dengan baik"* (***My difficulty in learning the English language is can not translate the words correctly)***
> ***"****kesulitan saya dalam belajar bahasa Inggris adalah dalam Menerjemahkan/memahami bahasa inggris. (**My difficulties in learning English language are in translating and understanding the English language).*

There are many strategies for translating the English word, but each student should realize how to improve themselves in learning before they go to the next level.

Writing in English

In learning the English language, there are still students who have difficulty in writing. Of 20 students, there is 18 % of students say that while learning English, they are difficult to write.

> *"Saya kesulitan dalam menulis kata-kata dalam bahasa inggris"(**My difficulty is in writing a word in English Language)***
> *"Kesulitan dalam belajar bahasa inggris terdapat dalam penulisan kata dan pengucapan kata"(**My difficulty in learning English language are in writing and pronouncing the words)***

Mostly writing became the common problem that often happens to the EFL students. The students realize that writing in English has become a problem that makes them unconfident in learning English.

Vocabulary

Vocabulary also became a problem for the students while learning the English language. There 18 % of 20 students mentioned that they have a problem related to the vocabulary.

> *"Saya tidak mengerti arti kata bahasa inggris"* **(I do not understand the English words)**
> **"***Tidak tau dalam menghafal kosakata"***(Can not know how to memorize the vocabulary)**
> *"Kalau dari saya kesulitan yang saya alami adalah penghafalan kosakata"***(My difficulty in memorizing the vocabulary)**

Having enough knowledge of vocabulary can help students in learning the English language. But, it still becomes a problem for the students. Some of them have no dictionary and do not have much time to memorize the vocabulary at home.

Pronunciation

Of 20 students, there is 16 % of students point out that they still have difficulty pronouncing the English word. They do not know how to pronounce the words correctly.

> *"Saya susah mengucapkan kalimat bahasa inggris"* **(I am difficult in pronounce the sentence in English language)**
> *"saya tidak mengerti dalam mengucapkan kalimat bahasa inggris**. (I do not understand in pronouncing an English sentences).*

As we know English is a foreign language for Indonesian students. Having many various dialects of language also becomes a problem for students to pronounce the English language correctly. Lack of confidence and practice in speaking the English language, the students have difficulty pronouncing the correct words.

Reading an English text

There 12 % of students have difficulty in reading an English text. The lack of practice in reading becomes a problem for students in improving their English.

> *"kesulitan saya selama belajar bahasa Inggris adalah bahwa saya tidak tau cara baca dalam bahasa inggris".* **(My difficult in learning English language is I do not know how to read in English).**

The utterance above, clearly shows us that most students have difficulty reading an English text. Having a limit of books and reading practice, makes the students confused about how to read an English text correctly.

Determine the auxiliary Verb

There 11 % of students have difficulty knowing about the auxiliary verb.

"*Kesulitan yang sering saya alami adalah dalam menentukan kata kerja bantu bentuk present dalam sebuah kalimat"*. **(*My difficult is to determine the auxiliary verb in a present form in a sentence).***

Having good grammar also became the foundation for the students while learning the English language. The students realized that determining the auxiliary verb in a sentence still became their problem.

Memorizing the English sentence
There 2 % of students have difficulty in memorizing the English sentence. One of the student statements:

"Menurut saya, kesulitan dalam belajar bahasa Inggris adalah dalam menghafal kalimat". **(*For me, my difficult in learning English is in memorizing the English sentences).***

Most students find it difficult to memorize English sentences, such as how to know which kind of simple present, simple past tense, or simple future tense. They can not guess the sentence correctly.

1. ***The Difficulties of EFL Students in Writing an English Text***
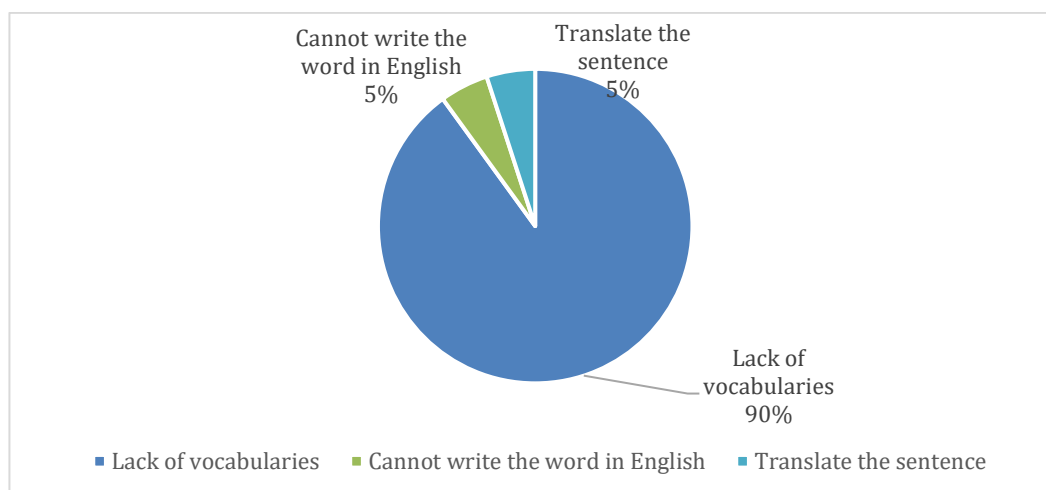
Figure 3. Student's difficulties in writing

Lack of vocabularies
Of 20 students, there are 82 % of students mentioned that vocabulary becomes their problem in writing English.

*"Saya susah menyebutkan kosakata bahasa inggris***". (*I am difficult in pronounce the English vocabularies)***
"Saya kurang tau kalimat atau kosakata bahasa inggris"(***I do not know the English sentences or vocabularies***)
"Saya belum menghafal beberapa kalimat atau kata dalam bahasa inggris".
(I have not memorize the sentence or words in English yet)

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Student competence in memorizing the vocabulary is still low. They do have not much time to learn the vocabulary at home. Having no dictionary still became their problem itself.

Translate the sentence

There is 5 % of 20 students mention that during writing in English, they have difficulty translating the sentence in English.

Ketiksa saya menulis dalam bahasa indonesia dan terjemahkan dalam bahasa inggris. (When I write in Indonesian Language and translate in English language).
Saya kesulitan saat membuat kalimat-kalimat dan menyatuhkan menjadi sebuah teks (I am difficult in making a setences and writing it)

Most students often have the same problems during writing in English. When writing in English, they usually write the sentence in the Indonesian language and then translate it into English.

Write the word in English

There 5% of 20 students still have problems writing English words correctly. Even though they know the vocabulary itself, they still make mistakes in writing the word correctly.

"Saya tidak bisa menulis kata bahasa inggris dengan benar"(I can not write the English word correctly).

2. Student's strategies for improving their writing skill
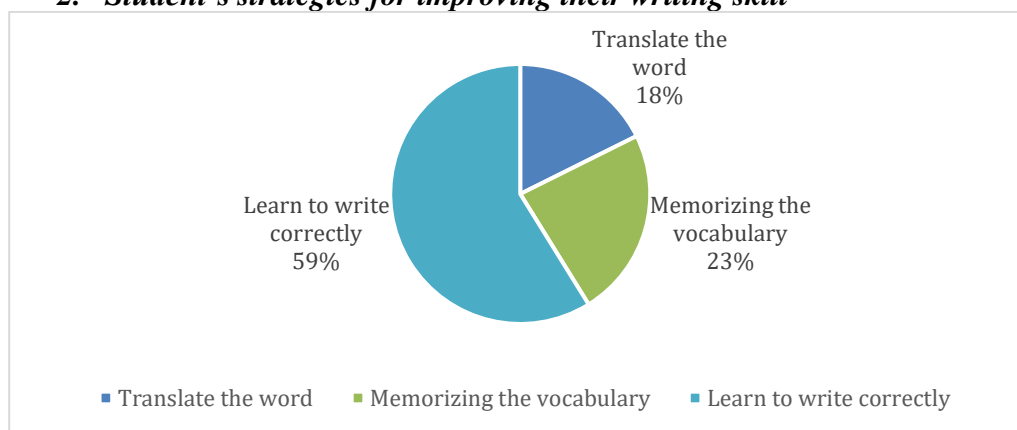
Figure 3. Student's strategies in writing skill

Based on the data, some strategies used by students in improving their writing skill such as:

Learn to write the correct English sentence

There is 59% of 20 students point out that learning to write the correct English sentence can help them improve their writing skills.

"Belajar menulis kosakata dengan lengkap"(***Learn to write the vocabulary completely***)
*"Menulis cerita yang pendek sesuai dengan kata-kata yang saya tau atau kalimat yang saya tau". (****Write a short story with the words or sentences that I know****)*

More writing practice can make the students have good writing in English. Having enough knowledge of vocabulary can help the students to write and build their ideas.

Memorizing the vocabulary
There is 23% of 20 students say that having enough vocabulary knowledge can help students in writing English.

"Belajar kembali yang diajarkan dan mengerti kosakata"(***Reviewing what have been learned and understand the vocabularies***)
"Menghafal kosakata dalam bahasa inggris".(***Memorizing the English vocabularies***)

Students need to learn more about vocabulary. When they have good knowledge, English will become easy to learn.

Translate the words
There is 18 % of 20 students confirm that learning to translate words can help them improve their skills in writing English.

"*Menterjemahkan kosakata***"(Translating the English vocabulary)**
Translating the word by word can help students in learning the new word and find the meaning of each word.

Discussion
Learning the English language will be necessary if, teachers and students can remove all barriers to communication. The teacher should design a concept in learning (Yashchuk et al., 2020). Students, still have a problem in mastering the language. Learning a language can done well if the learners are enjoy the class, and interested in challenging themselves (Khasawneh, 2023). As we know in learning the English language, four skills of language should be learned by the students, they are listening skills, speaking skills, reading skills, and writing skills. During learning the English language, most students have some problems in translating the English words, cannot read an English text, cannot write the correct sentence, cannot pronounce the English words, and others.

Based on the problems mentioned above, show us that many students still fail to find their way in learning the English language. When the students find it difficult to translate the words, it can be mentioned that they still have not vocabulary enough. Their vocabulary knowledge is still limited. If they have no more time to open a dictionary or learn to translate the English text, this problem cannot be solved by themselves. In reading an English text, the students need to practice. The teacher should guide them to read an English text. When the students have no time to practice their reading, they do not know how to read in English, or how to

understand the meaning of the text itself. When they say that they have difficulty reading an English text, it also shows us that they are still not confident with themselves. Lack of practice in reading, the students do not know how to write a correct English sentence. Most students mention that they often make mistakes in writing the correct English sentence.

English still becomes the biggest problem for students when they do not know how to learn the English language by themselves. When the students cannot pronounce the English words correctly, it shows that they are still rarely practicing the listening skill. The students are still afraid to speak using English because they do not how to pronounce the English word correctly. These problems almost happen to all the students that the researcher interviewed. When focusing on writing skills, most of the students still have problems improving their writing skills. The problems such as lack of vocabulary, inability to write the correct word in English, and inability to translate the sentence into English. Writing becomes very difficult for them because they do have not much vocabulary knowledge. When writing a text, most students still write in the Indonesian language first, and then they translate it into the English language. Writing is the most challenging skill for the learners. Students need extra activity in writing a text (Alghamdy, 2023). Although we say that it is their learning process, it is not easy for them. When translating the word into English, the vocabulary still makes them fault in writing. Vocabulary becomes the dominant problem for all the students in learning and writing the English language. When asked about their strategies for improving their writing skill, the students mentioned that they should practice more how to translating the word, memorize the vocabulary, and practice writing the correct English sentence. In memorizing the word, some students can enjoy learning the language through English songs (Isnaini & Aminatun, 2021).

As students, they should study hard, and each of them has a struggle in learning. But when learning English, they should be confident, and be brave to express their idea (Purnawati, 2021). There are many strategies for improving English skills but it depends on how the students choose and apply those strategies in their learning process. In educational programs, the teacher should focus on how to engage the students to have a meaningful task (Tamimi et al., 2020). Related to the student's problem in learning the English language, the process of learning should solve the problem. Students and teachers should work together to find out the information during the learning process (Zannan, 2023).

Conclusion

English is a foreign language, each student has their struggles to learn the language itself. The students are still influenced by their mother tongue. Many difficulties happen to the students when improving their English skills. As students, they should realize that English is very important to learn for their future or career later. The teacher should push the students to learn and practice their English every day. When learning without practice, their English skills cannot be improved. The student should review what they have learned from their teacher after class. Four skills of English (Listening, speaking, reading, writing) have an important role in learning English. Lack of reading, lack of listening, lack of speaking, and lack of writing, the students will have difficulty in learning English. The students should improve themselves with English every time. The students should have their

dictionary, through the dictionary, the students can read and memorize the English words. Each student has different strategies for learning, and the teacher should know how to guide their students when they are still teaching them. The teacher and students should cooperate in learning. The students should be brave to consult their English problems with their teacher and the teacher also can guide their students to find their solution in learning. Nowadays, English is still a problem, the students find it difficult to find their friends in practice, and their class is still dominant with the theory and lack of practice. When we learn a foreign language, we should learn to practice how to speak, how to read, and how to write in English. Living in internet-restricted areas, the students have a challenge to push themselves to learn English individually. Therefore, the teacher also has the responsibility of guiding their students to learn English. Mostly they are scared to pronounce English, and it makes their reading skills poor. So, the teacher and students should cooperate in learning the language.

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USING PODCAST CONTENT FOR ONLINE DEBATE TO HONE SPEAKING ABILITIES

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received 15 September 2023; accepted 29 January 2024

Abstract
Many EFL students find it difficult to participate in debates. They find it challenging to speak clearly due to their pronunciation and vocabulary challenges. Ten freshmen participated in the therapy to fix it. They are pupils in the English education program. In advance, the instructor created a WhatsApp group to use as a teaching resource. To begin the class, the instructor distributed URLs. Podcasting is the center of attention. The podcast's monologue and conversation are chosen by the teacher to present to the class. The pupils read the transcript while also hearing the voice. They go to their electronic dictionary to comprehend the information. After finishing it, each student was requested to share his thoughts and experiences with the class regarding the subject matter. After the speaker finished speaking, the crowd asked questions that the speaker would respond to. The teacher then provided feedback when the question-and-answer session was finished. To determine the results, all the data gathered during the treatment was quantitatively examined. It is claimed that the podcast lesson materials help students become more proficient public speakers. These kinds of discoveries can be used by educators to teach the relevant disciplines. It motivates other researchers to carry out relevant research.

Keywords: dialogue, discussion, monologue, podcast, speaking

Introduction
For EFL students in particular, speaking is a crucial part of language learning. EFL students can improve their oral communication skills, promote fluency and naturalness in their language output, increase their communicative competence, and expand their capacity for critical thought by actively participating in oral communication (Salendab & Laguda, 2023). As a result, speaking practice should be a top priority for EFL students who want to increase their overall language skills. EFL learners can develop confidence in utilizing English as a medium of expression via constant practice and exposure to real-life conversations, which enables them to communicate effectively and flourish in a variety of spheres of their personal and professional lives (Amelia et al., 2022). To improve speaking talents, listening abilities must be developed. Active listening helps with comprehension, vocabulary growth, pronunciation refinement, fluency development, cultural knowledge, and

critical thinking. People's capacity for meaningful and effective communication can be greatly improved by being attentive, receptive, and engaged listeners. So let's embrace the practice of active listening and start along a meaningful path of language growth (Lazokat, 2022).

Moreover, for effective communication, speaking vocabulary development is essential. One who has a command of vocabulary may communicate ideas, hold the attention of listeners, and establish a deeper connection. People can improve their spoken language abilities by using a variety of tactics, including reading, contextual learning, active listening, and vocabulary development exercises. People can improve their spoken communication skills by constantly devoting time and effort to vocabulary growth. This will increase their fluency, confidence, and eloquence (Uchihara & Clenton, 2023).

The way we consume media has changed as a result of podcasts and technology. For fans of podcasts, gadgets offer accessibility, democratization, and educational opportunities. However, to fully benefit from this amalgamation, it is crucial to recognize the limitations and practice self-control. Users can take advantage of the enormous wealth of material while also keeping a healthy balance with reality by using gadgets for podcast consumption properly (Damanik et al., 2022).

Speaking fluency can be greatly improved by listening to podcasts. With podcasts, language learners have a powerful tool to improve their speaking skills, from exposure to native speakers to help with pronunciation and intonation to vocabulary building and confidence building. By actively participating in podcasts, language learners can immerse themselves in authentic conversations, mimic native speakers, and gradually increase their fluency. It is obvious that including podcasts in language learning routines can have a significant impact on the growth and mastery of speaking fluency (Dewi, 3023).

For language learners looking to improve their vocabulary and listening comprehension, podcasts have become a useful tool. Podcasts provide a dynamic and immersive learning environment by exposing students to real-world language, giving interesting and contextualized learning opportunities, delivering a variety of content, promoting vocabulary growth, and improving listening skills. As technology develops, using podcasts as a tool for language learning can surely hasten the process of language acquisition and provide students with the abilities they need to speak effectively in the target language (Bozorgian & Shamsi, 2023).

Language obstacles, cultural disparities, and a lack of exposure to real language use are just a few of the difficulties associated with teaching English as a foreign language. To overcome these obstacles, educators must embrace cutting-edge teaching strategies that cater to the unique requirements of students, foster cultural awareness, and offer plenty of opportunities for real-world language practice. Students' desire, involvement, and general proficiency in learning English as a foreign language will all dramatically increase as a result.

For teachers looking to enhance classroom conversations and give students a dynamic learning experience, podcasts are a wonderful resource. Teachers can engage students with real-world perspectives, encourage active listening, support multimodal learning, cultivate critical thinking and conversation skills, and introduce varied voices and perspectives into the classroom by introducing podcast content into the curriculum. By incorporating podcasts into classroom

conversations, one can improve learning by giving them more depth, diversity, and authenticity (Олійник, 2023).

The purpose of the study is to determine how the instructor used the discussion approach by modifying the podcast content to improve speaking ability. A research strategy is required to achieve this goal. How does the teacher use the discussion approach to improve the student's oral communication skills while modifying podcast content? It is the direction to follow the study's course. It will be done to sift through the information for the teaching and learning process. It is the research's data. The purpose of the study will be met by qualitatively analyzing such data.

Method

Ten first-year students took part in the exercise. They were from the English education section. They all had trouble communicating their thoughts. The lecturer offered many solutions for such a mistake. He immediately created a WhatsApp group to serve as a venue for instruction and learning. Because of virtual learning, online education is crucial. The instructor projects a page of the podcast's transcript for a monologue on the screen while the students are getting ready. It was expected of the pupils to be absorbed. The students' electronic dictionaries helped them to understand the subject. They should examine the pronunciation, definition, and meaning again. The teacher assessed each student's readiness before asking them to share their thoughts on the passage. The students used personal examples from their own lives to bolster this point. The teacher provided them with feedback following the lesson. Additionally, the teacher led a conversation to encourage the exchange of ideas. The students can then hear the podcast speak which he then shares. It is crucial to assist students as they improve their verbal communication abilities. He advised everyone to get knowledgeable about the subject. He also told them to practice the conversation privately online with their partners. After the activity was over, the lecturer welcomed the students back to the forum. To encourage critical thinking, the teacher encouraged each student to express their views on the subject. It is encouraged to share relevant information and experiences. This kind of exercise led to the teacher's remarks. He answered by talking to the students as well. The results of the investigation are backed by information that was obtained through instruction and learning. To get the desired result, the qualitative data are examined.

Findings and Discussion

There must be an answer to the study's research question. To improve speaking abilities, it is requesting a process for developing online conversations using podcast content. Some evidence has to be improved to see how the teacher makes it. To accomplish the purpose of the study, it is crucial to understand every stage in depth.

Making interactive media

WhatsApp groups as a teaching tool have several advantages. Students and teachers can easily join in real-time discussions and exchange information thanks to the improved communication and collaboration capabilities. The technology makes it easier to create online study groups, which encourages collaborative learning and deeper comprehension. Additionally, the quick information-sharing

feature reduces the possibility of misunderstandings and guarantees that students have immediate access to pertinent course resources. Administrative procedures are streamlined through prompt notifications and reminders, which also help students stay organized and on top of their assignments. Moreover, students take charge of their education in an inclusive learning environment that is fostered through active learning and increased involvement. Consequently, using WhatsApp groups in the classroom can greatly improve learning and increase student achievement (Susilawati & Supriyatno, 2020).

The teacher chose to use a WhatsApp group as the teaching-learning medium to conduct flexible learning. With its help, teachers and students can communicate anytime, anywhere. Users can submit and download items in a variety of formats, including audio, video, text, and picture, using the options on the page. The format makes it possible for users to access the video conferencing menu. It allows the teacher and students to conduct e-learning like that of a traditional classroom (Haron et al., 2021). The instructor displayed the URLs on the screen, as seen in Figure 1. It makes using it easier for the users. The website address does not need to be typed in. To view the desired page, they merely click the written URL. It facilitates effective teaching and learning.
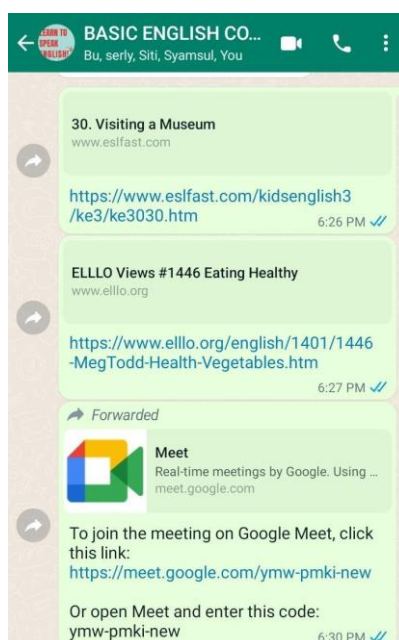
Figure 1. The page of WhatsApp group

Manipulating monologue podcast content

The use of podcasts as a medium of choice for those looking for educational and entertaining material has skyrocketed in recent years. The ability to understand and interact with the monologue offered in these audio broadcasts is an important skill because innumerable podcasts cover a wide range of topics. The value of understanding podcast monologues offers useful tips for improving understanding and participation (Sotlikova & Haerazi, 2023).

It involves selling lemonade, as may be seen in Figure 2. The requirement to purchase a ticket led to this type of activity. He works hard to make enough money to attend the basketball game. It is the first experience the students have ever had.

to engage in an activity to attain the desired result. The pupils are prompted to speak up by this perspective (Suvarnaphaet & Suvarnaphaet, 2023).

Each person views the provided information differently. The pupils can obtain a variety of similar materials. There are numerous options when they click the URL https://www.eslfast.com/studentsenglish3/ke3/ke3033.htm. Students learn the pronunciation, vocabulary, and sentence structure while studying such content. When they press the play button, they will hear the speaker's words. It improves their capacity for speaking and listening.
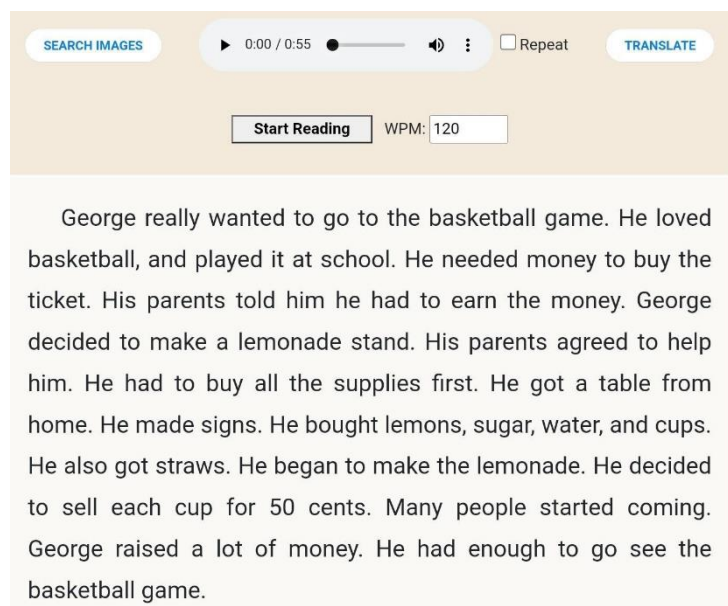
Figure 2. The page of the monologue script

Applying the electronic dictionary

By making daily vocabulary accessible, enhancing time efficiency, giving language learning support, and providing language learning assistance, electronic dictionaries have transformed language learning. These tools are created to meet the demands of language learners, improving the effectiveness, fun, and convenience of the learning process (Sarmila et al., 2023). Electronic dictionaries are expected to develop further as technology progresses, providing even more features and advantages to improve language learning.

The students use their electronic dictionaries to look up the definitions and pronunciations of the terms they come across to comprehend the content of the transcript shown in Figure 3. Their vocabulary and pronunciation grow as a result. Their capacity to talk more clearly is improved by their ability to sim. The student typed the word "thump" and hit the "enter" key, as seen in Figure 2. The translation page appears. English is offered in two varieties: US and UK. They merely select the play button they want to use. There is a phonetic symbol supplied to help explain the sound. It is a kind of second review to ensure that the pronunciation is clear. The meaning of this term as well as examples of sentences employing it are also available to the pupils. Additionally, the sentences are translated into the native dialect. It aids students in understanding the word's context-specific meaning. Other

sentences that use this term are used to demonstrate how well it was chosen in the first sentence (Alamri & Hakami, 2022).

Figure 3. The page of the electronic dictionary

Using dialogue podcast content

For language learners, listening to podcast dialogue has many advantages, including improved language competence, better cultural understanding, and the development of critical thinking abilities (Sianturi, 2023). Learners can enhance their listening abilities, pick up vocabulary and idioms used often in regular discussions, and develop more self-assurance as speakers of the target language by actively participating in podcast dialogues. Additionally, exposure to various accents, viewpoints, and issues creates global connections, promotes cultural understanding, and broadens learners' horizons. Incorporating podcasts into language learning practices can be a very efficient way to develop language abilities while enhancing one's knowledge and cultural awareness as their popularity continues to rise (Heidelberg & Have, 2023).

Someone needs to have a topic of conversation before they can start a conversation. Figure 4 illustrates the topic of conversation: nutritious food. Each participant had a unique perspective on eating well. The conversational model teaches people how to have a conversation that is sparked by something that has ever happened in life (Sengang et al., 2022). It aids students in developing sound judgment when conversing and exchanging views. The pupils can hear the right pronunciation and suprasegmental of the voice by pressing the play button. It aids them in adapting it as they practice speaking fluently. By doing this, the pupils can adapt their preferred method of discourse in their language. Students can access the resources by going to the following URL: https://www.elllo.org/english/1401/1446-MegTodd-Health-Vegetables.htm.

▶ 0:00 / 3:30 ●━━━━ ◄) ⋮

| Script | Quiz | Vocab |

Meg: Hey, Todd. Are you healthy? Do you eat lots of fruits and vegetables?

Todd: I guess I am healthy. I do eat lots of fruits and vegetables, but I also eat junk food, *sadly*. But I try to eat lots of fruits especially to stay healthy.

Meg: What kind of fruits do you like to eat?

Todd: Well, I like all fruits. I love all fruits except pineapple. I hate pineapple. I don't know why. I just don't like pineapple. I don't like the taste. I don't like to *chew* it. It just *feels funny*. But I love apples, I love bananas, I love oranges. I usually have an apple every morning for breakfast. It's very easy to eat. And I just love apples because you can take them to school. You can eat them quickly. They're very easy to eat.

I also like oranges, and I love orange juice. So sometimes, I make fresh orange juice in my kitchen. So oranges are great. But my favorite fruits are bananas and strawberries. I love bananas and strawberries. And I love to eat bananas and strawberries together, so my favorite snack is to cut up some banana and then cut up some strawberry and mix them together, and then eat them.

Meg: Well, it sounds like you really a lot of fruits.

Todd: Oh yeah, I do.

Figure 4. The page of the dialogue script

Conducting discussion

Participating in talks on Google Meet has many, substantial advantages. This platform transforms how people connect and communicate with one another by boosting engagement, information exchange, and collaborative learning. Google Meet is an invaluable tool for individuals and organizations in a variety of circumstances, whether it be for educational, professional, or personal goals, because of its accessibility, flexibility, and interactive capabilities. Individuals can improve their communication abilities, increase their knowledge, and accomplish group objectives by making use of this platform. So let's embrace Google Meet's benefits and take advantage of all the opportunities it presents for productive collaboration and learning (Alzabidi, 2022).

As seen in Figure 5, 4 out of 10 participants, as shown in Figure 5, joined the forum. It has to do with how easily internet discussion may be implemented. The involvement is open to the participants at their convenience. Students and the teacher discuss the podcast's content while incorporating it into monologue and dialogue (Pudjiati & Fitria, 2022). To convey the expression of the conversation, they face one another. They find it beneficial to respond to other participants and share thoughts. To encourage the pupils to participate, the teacher must be present in the forum. After the talk, the teacher provided feedback that clarified their viewpoint and manner of expression. The student's capacity to practice speaking improves with practice.
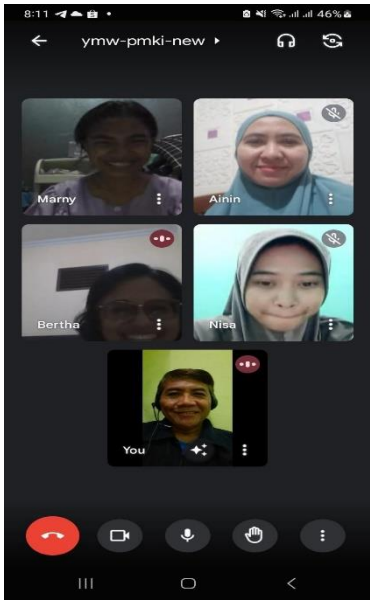
Figure 5. The page of a discussion screen

The flow of using podcast

The instructor used the podcast content sequentially to achieve the desired objectives. Figure 6 illustrates how the teacher organizes the class into a WhatsApp group. The media is in charge of carrying out the teaching and learning process. The teacher shares the speech script at the start of the lesson. The students helped themselves by consulting their electronic dictionaries. The teacher will then facilitate a conversation and provide feedback. After the lesson, the instructor released a dialogue script for students to study. The students checked the definition, meaning, and pronunciation using their electronic dictionaries. The instructor enhanced the conversation and comments by using that material. The progression of such education improves pupils' vocabulary-building skills and speaking fluency.

Figure 6. The flow of the treatment

Discussion
Making interactive media

Many scholars and educators have looked into the importance of using WhatsApp for English teaching and learning. WhatsApp is a well-known instant messaging service that enables users to communicate with people and groups via text, audio, image, video, and document messages. Status updates and audio and video calls are also supported. The motivation and involvement of the students in the teaching and learning process will be increased. The teacher and pupils can communicate the intended materials in a variety of formats, including text, audio, photos, and many more, by using such an application. It aids in the growth of the pupils' reading, speaking, listening, and writing skills. Additionally, the students' vocabulary and suprasegmental knowledge should be encouraged to improve speaking fluency. However, this application's use is heavily reliant on technology and internet access. The teacher and pupils both need to think about it. The preparation of such tools determines the outcome of the online teaching and learning process.

Manipulating monologue podcast content

A potential strategy for raising students' spoken English competence is to manipulate the content of monologue podcasts to improve speaking abilities. Podcasts with a monologue format have a single speaker talking in-depth about a single subject, such as news, stories, thoughts, etc. The students can learn how to utilize proper grammar, lengthier sentences, fewer slang words, and diverse expressions in various settings by listening to and mimicking these podcasts. The teacher gave the students the necessary materials so they could alter the monologue's voice and transcription. Next, they Try to comprehend the primary idea and specifics of the speaker's message by paying close attention as they listen to the podcast. They listened to the voice and read the transcript. The students used their electronic dictionaries to understand the material. It is how they can expand their vocabulary. These skills will be used by the students to explain their intentions to others (Bozorgian & Shamsi, 2023). They learn how to give a clear description of something by studying monologue materials. To conduct communication, it is crucial to assist them in explaining something. They avoid getting bogged down in the delivery by having this capacity. The students will discover how native speakers readily convey things to others. The act of mimicking is the process of learning a language. Copying the monologue's delivery style can help students adjust their ideas to the culture of the target language. The audience will have no trouble understanding what they are saying. By using the method of monologue material, students can communicate their ideas in both their mother tongue and the new language they are learning. When they practice narrating to someone else, it helps them speak more fluidly (Diphoorn & Leyh, 2023).

Applying the electronic dictionary

For language learners, using the electronic dictionary to improve comprehension of podcast content is a helpful tactic. A tool or piece of software known as an electronic dictionary enables users to look up the definitions, pronunciations, synonyms, antonyms, and instances of words in several languages. The students can enhance their vocabulary, grammar, and comprehension when

listening to podcasts by using an electronic dictionary. Students should make sure that the pronunciation is clear and that the words are defined correctly. Podcasts come in both audio and text formats. When a learner hears a word that sounds difficult to pronounce, he or she can pause the recording and check the pronunciation in an electronic dictionary. He will be guided by the phonetic symbol to understand the word's exact pronunciation. By tapping the audio icon, he can use the audio record to verify it once more. When used in a different context, a term may occasionally have a distinct pronunciation. For instance, the pronunciation of the term wind will change depending on whether it is used as a noun or verb. An electronic dictionary's examples of sentences using this word might help pupils find the right way to communicate what they mean. When they come across unfamiliar words in the transcription, the pupils can also verify the definitions. Using an electronic dictionary has the advantage of improving the precision of word pronunciation and definition. It aids in improving their public speaking skills and self-assurance (Hakobyan, 2023).

Using dialogue podcast content

One excellent technique to improve the students' conversational English competence is to use dialogue podcast content. Podcasts with dialogue are those in which two or more persons discuss a specific subject, such as news, stories, opinions, etc. The students can learn how to use conversational English in various settings by listening to and participating in these podcasts. similar to how they learned the dialogue, they study this kind of stuff. When learning, it's crucial to be familiar with expressions in a variety of contexts, including yes-or-no inquiries, instructive questions, colloquialisms, and others (Crisianita & Mandasari, 2022). They will discover that the expression they would use in their native tongue will be communicated differently in English. the adage "that's it." They are unable to translate it expression by expression rather than word for word. By studying the dialogue of podcasts, the students will encounter many similar expressions. When speaking with speakers of various languages, learning improves the naturalness of delivery. It protects them from miscommunication. The students naturally pick up on the pronunciation and definition of the words as they study the podcast discussion materials. They mimic how a native speaker might interact appropriately with other language speakers. It enables people to contextualize their beliefs. Their confidence and fluency also improved in tandem (Nadlifah, 2023).

Conducting discussion

The student's communication and critical thinking abilities could be improved by using podcast content to boost conversation. Podcasts are collections of audio or video content on various subjects. Students can learn new facts, viewpoints, and vocabulary by listening to and participating in podcasts. They studied podcast dialogue and monologue material to achieve this goal. They picked up conversational skills and the ability to describe specific situations to share information. They hold a debate to adjust the inputs they learned via the learning process. To put it into practice, they converse about their viewpoints on the material they have learned. It aids students in using the new language to communicate concepts related to the same subject. Their understanding of how the new vocabulary is utilized is strengthened. They become accustomed to doing delivery

as the natives do after using this technique. They are practicing a conversation they will have in real life. The ability to talk clearly and confidently will be developed in the students (Yuste & Peña, 2023).

The flow of using podcast

The teacher must help the students choose the right podcast because there are so many different kinds. It makes using podcasts to supplement in-class learning easier for the students. The teacher must create the learning flow to accomplish the purpose of using podcast content to teach learning. An electronic dictionary and devices with reliable internet access should be readily available, as should a Whatsapp group created for the class. It facilitates the accomplishment of the teaching and learning objectives. The students must be taught how to use the materials, such as podcast monologue and dialogue, once they have them. The teacher must ensure that the pupils are well-motivated to use the tools by providing clear instructions and guidance on how to use an electronic dictionary. It enhances their listening comprehension (Nisa et al., 2022). The teacher must guide the pupils in how to continue the discussion while incorporating the newly learned inputs to improve it. It's important to stress the pupils' capacity to employ their acquired vocabulary to achieve the objective of fluent communication. It aids in their practice of using natural expressions when having conversations (Andini & Burhanuddin, 2022). Last but not least, it is important to maintain the teacher's criticism of the pupils' work. They must improve their capacity for utilizing podcast content to increase the fluency of their speech. Speaking practice will be more successful if it is explicit and includes the stages of using podcast content. The student's participation in the teaching and learning process is made easier.

Conclusion

Students' grammatical, colloquial, cultural, vocabulary, and pronunciation skills are all improved by listening to podcasts. The students will require those items to carry out delivery. However, using an electronic lexicon to supplement this learning is crucial. The students' confidence grows as a result of their expertise. Regular involvement in online debates using podcast content can significantly boost a person's self-confidence in public speaking. As individuals gain expertise in convincingly presenting arguments, defending their beliefs, and articulating their thoughts, people develop more confidence in their speaking abilities. Online debates foster growth by offering a challenging yet supportive setting that aids students in overcoming stage fear, expressing themselves audaciously, and engaging in stimulating conversation. However, this kind of research could be successfully modified for internet-savvy adults. They must have access to reliable internet. The teachers might modify these findings to teach the pertinent topics. It also motivates other scholars to delve more into the pertinent fields.

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THE USE OF CHATBOTS IN THE ENGLISH LANGUAGE TEACHING TO PROMOTE MODERN LANGUAGE LEARNING: A LITERATURE REVIEW

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https://doi.org/10.24071/ijiet.v8i1.7321
received 10 October 2023; accepted 30 January 2024

Abstract
Our world continues to become increasingly connected. The use of technology has become a must in this modern era to live accordingly. The requirement to use technology also widens the world of teaching, especially in teaching English. Nowadays, all generations of educators, whether young or old generations are expected to utilize technologies in their respective classrooms in an attempt to facilitate students with the newest atmosphere of the teaching and learning process. Speaking of those, chatbots are one of the technologies that can be engaged in English language teaching and learning. Relying on the huge benefit and easiness of implementation, the use of chatbots could be the leading technology for teachers to promote modern language learning. In this literature review-based research paper, the writers would like to encourage the use of chatbots in English language teaching as a medium for teachers to promote modern language learning.

Keywords: chatbots, ELT, technology

Introduction

Our world continues to become increasingly connected. The use of technology has become a must in this modern era to live accordingly. There are a lot of people who are using technology in their everyday lives, which marks it as people's favorite to do their work (Kari, Kettunen, Moilanen, & Frank, 2017). The use of technology is believed to stimulate the students to become autonomous learners. Becoming autonomous learners will enhance the students to comprehend their abilities in relationship to both themselves and society to ensure that they are ready to meet the challenges of our global societal needs (Ambrose & Sternberg, 2016). With barely countable and so many technologies, students are expected to be able to utilize them to compete in the modern era like today. In this present day, it cannot be avoided that the use of technology has emerged as a potent instrument with significant contributions to inspiring and advancing students' motivation to enhance their academic accomplishments (Abachi & Muhammad, 2014).

Nowadays, all generations of educators, whether young or old generations are expected to utilize technologies in their respective classrooms in an attempt to facilitate students with the newest atmosphere of teaching and learning. Technology plays a significant part in facilitating pedagogical activity progress within the context of education. To facilitate learners' learning improvement, technology holds an essential part for teachers because they can utilize it in the classroom (Ahmadi, 2018).

Certainly, the requirement to use technology also widens the world of teaching, especially language teaching (Larsen-Freeman & Anderson, 2011). Technology serves as a teaching asset and it has been long associated with language teaching. There are numerous types of technologies that language teachers can utilize in this globalization era, and one of those is chatbots. Language educators utilize chatbots as a means of providing support for the implementation of mobile learning inside the classroom setting.

Chatbots are computer programs designed to have human-to-human interactions, which are becoming essential for language practice (Petrović & Jovanović, 2021). In the late 1960s, Joseph Weizenbaum (a German-American scientist) introduced a simple bot named "ELIZA" to the world. ELIZA functions as a virtual agent that generates responses by analyzing keywords provided by its users (Fryer & Carpenter, 2006). ELIZA could be considered the first chatbot ever created. At present, chatbots are made to be more human-like. Chatbots that resemble people take inputs other than text. From virtual assistants like Google Assistant, Siri, and Alexa to text-based chatbots that may be deployed in chat applications such as Facebook Messenger, Discord, and Telegram (Chuah & Kabilan, 2021).

Recent research on chatbots

There were studies done by some researchers regarding the utilization of chatbots in ELT. The first was research done by (Sarosa, Kusumawardani, Suyono, & Wijaya, 2020). The authors were engaged in the development of a chatbot that utilized social media platforms. This project started based on the growing presence of international companies that provide job opportunities. The chatbot was designed to assist job searchers in enhancing their proficiency in English. The research aimed to make job seekers become autonomous English learners. The development of the chatbot by the authors included Natural Language Processing (NLP) and expert systems. The findings of the research pointed out that the use of a social media-based chatbot was able to improve the participants' English skills. The determination of the question levels (easy, medium, hard) helped the participants to utilize the chatbot based on their cognitive abilities.

The second research was conducted by (Kim, 2018), who tried to find out how chatbots affected their ability to read and listen in English. The author set 46 college students as the participants of the study, where 24 of them were put into the experimental group and the rest were put into the control group. The findings of the study indicated that there was a considerable improvement in the listening and reading skills of both groups. However, on listening post-test, the experimental group's pupils outperformed the control group's students. The author claimed that the student's proficiency level in the experimental group had developed from intermediate to advanced level after engaging in chat with the chatbot. One year

later, the same author (Kim, 2019) continued her research on the use of chatbots in ELT. In this study, the researcher examined the impact of chatbots on students' proficiency in English grammar. The findings of this study corroborated the outcomes of the preceding study, which showed that the implementation of chatbots in ELT effectively enhanced students' proficiency in English grammar.

Not only investigating the effectiveness of chatbots for students, recent research also examined the perceptions of teachers in using chatbots in ELT. This research was done by (Yang, 2022), who put an effort into discovering whether the use of chatbots was effective or not based on teachers' perceptions. In this study, the researcher extended invitations to 28 pre-service teachers who were pursuing a degree in English education to engage with chatbots. The activity was done for a week under the guidance of the author himself. Subsequently, the author inquired with the participants regarding their perspectives on chatbots, specifically focusing on their perceived use, applicability, educational advantages, and limitations. The obtained data were analyzed qualitatively and the findings revealed that chatbots can play an important role as learning tools in an attempt to stimulate interactive communication in the target language.

About the huge benefits that chatbots offer to language teaching, especially ELT, the writers would like to encourage the use of chatbots in English language teaching as a medium for teachers to promote modern language learning. As a form of literature review-based research, this paper mainly attempts to explore the theoretical justifications for the use of chatbots in ELT and describe some practical issues of the utilization of chatbots.

Method

This research adopts a literature review as the research methodology. A simple literature review is a scholarly examination that documents analyzes, and develops conclusions about the existing knowledge on a certain issue, culminating in the expression of the writer's stance on the subject matter (Machi & McEvoy, 2016).
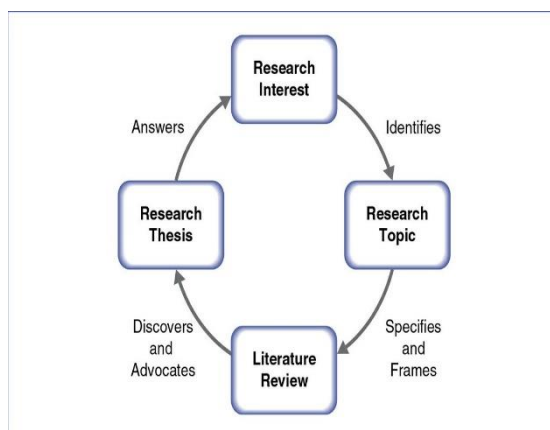

Figure 1. The simple literature review (Machi & McEvoy)

Literature review articles serve the purpose of connecting readers with the current state of knowledge on a particular issue, while also offering novel perspectives that contribute to the growth of knowledge (Galvan & Galvan, 2017).

In this research, the writers position themselves as the promoters of the application of chatbots as a teaching medium for English language teaching and learning. Initially, the writers conducted a comprehensive review of the relevant literature associated with chatbots. The sources primarily consisted of current research papers and articles. Furthermore, the writers assessed the gathered literature in terms of its findings and reliability. To ensure the quality of the data, the writers selected the relevant references that contribute directly to the topic. The chosen sources should offer facts, figures, theories, or insights that provide readers with in-depth knowledge. The reputation of the journals that provide the articles was also taken into account to protect the reliability of the data. Finally, the writers provided a rationale for incorporating chatbots into English Language Teaching (ELT) by highlighting their recent activity on the implementation of chatbots in the classroom.

The writers view chatbots as a fresh medium for English teachers to face millennial students. From birth, millennials are familiar with digital devices, such as mobile phones and tablets. They are digitally savvy compared to previous generations (Duh & Dabula, 2021). Hence, the writers would like to document and explore the origins of chatbots, the types of chatbots, and the benefits and practices of using chatbots in ELT.

Findings and Discussion

This part encompasses the findings and discussions about the relevant literature in the study, which focused on the use of chatbots as a medium for teachers in teaching English. There are three sub-chapters, including (1) The origins of chatbots, (2) Types of chatbots, and (3) Benefits and practice of using chatbots in ELT

The origins of chatbots

In the time when a computer was discovered, a brand-new technology named "chat" also followed. Since then, chat has emerged as a prominent mode of communication in recent decades. Nowadays, scientists have successfully developed the utilization of chat by integrating it with robotic systems, so that the term "chat" becomes "chatbot" as it at the same time remarks the successful integration between technologies. The chatbots are well-equipped, they are designed with goals. One of the most widely desired objectives is to strengthen the authenticity of interaction that such systems are capable of producing (Augello, Saccone, Gaglio, & Pilato, 2008).

As previously mentioned, Joseph Weizenbaum was the first who originally introduce a chatbot in the 1960's. The chatbot was named "ELIZA". ELIZA had the goal of simulating a therapist by employing open-ended questioning techniques. More than that, it could also even respond with follow-ups.
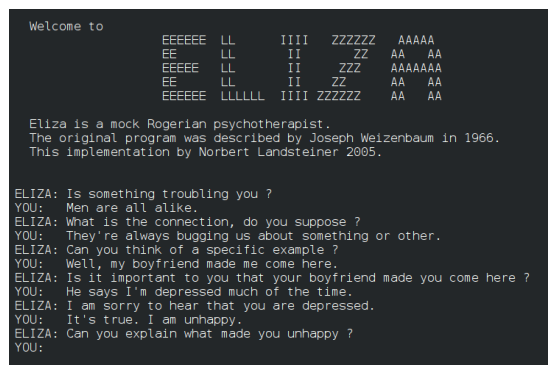
Figure 2. ELIZA chatbot by Weizenbaum

Although ELIZA was considered the first chatbot ever made, it was Michael Mauldin (founder of the first Verbot named Julia) who introduced the use of the term *chatterbot* in 1994. The term *chatterbot* was derived from the term *verbot,* which was the result of the combination of two words, *verse* (talk) and *bot* (robot). As time went by, the term *chatterbot* naturally shortened to *chatbot*. Unlike in kind with ELIZA which was used to impersonate a therapist, Julia's chatbot was an attempt to recreate human conversation more naturally. The utilization of chatbots serves as a means of facilitating human-computer interaction by creating a resemblance to natural human discourse (Lokman & Ameedeen, 2019). The program was also equipped with real-time animations to show expressions together with the speech responses.

Figure 3. Julia Verbot by Mauldin

A study conducted by (Yin & Satar, 2020) examined the quantity and structures of Negotiation for Meaning (NfM) by using two different types of chatbots, the first is called Pedagogical Chatbot Tutor Mike and the other one is the Conversational Chatbot Mitsuku. Both of the chatbots had their functions. The former incorporated a language educational framework dedicated to English learners, whilst the latter was specifically developed to facilitate general conversational interactions among English speakers. In terms of commonalities, both entities serve to fulfill general duties in diverse domains of daily life, such as geography, culture, weather, and other relevant areas. They both also have similarities in avatar image and language, where both are in the form of animated

figures that can blink as human-like and also use the same language which is English.

Figure 4. Pedagogical Chatbot Tutor Mike *(left)*
and Conversational Chatbot Mitsuku *(right)*

Addressing the history of chatbots would be inefficient without understanding the concept of chatbots itself. A *chatbot* refers to a computer software that accepts input in the plain English form by the user and generates responses that are intelligent and contextually suitable. These responses are then transmitted back to the user (Khan & Das, 2018). Chatbot was primarily empowered by rules-driven engines which were recognized as *Artificial Intelligent* (AI). This AI communicates with the users via a text-based interface. AI is a broad concept that encompasses the utilization of computational systems to simulate intelligent actions while requiring minimal human involvement. AI embodies itself as the beginning of the creation of robots (Hamet & Tremblay, 2017). Nowadays, chatbots have become a promising technology to enhance the quality of the teaching-learning process through digital learning (Wollny et al., 2021).

Types of chatbots

In the previous section, we have already examined some of the chatbots that are used by some practitioners. Started with ELIZA Chatbot (the first chatbot that was ever made) until the chatbots used to find out the quantity and structures of Negotiation for Meaning (NfM), such as Pedagogical Chatbot Tutor Mike and Conversational Chatbot Mitsuku. Meanwhile, (Haristiani, 2019) divided the types of chatbots based on their structure, purpose, and audience, as follows:

Table 1. Types of chatbots (adapted from Haristiani, 2019)

Category	Sub-category	Function
Structure	Flow chatbot	Has fixed responses set by the developer, and only responds to questions that are already in the database.
	Artificial Intelligence (AI)	Has the capacity to enhance one's knowledge and perception based on prior dialogues and users' experiences.
	Hybrid	Embodies as a combination of Flow and AI chatbots.
Purpose	Functionality	Facilitating learning, providing personal assistance, serving as a reminder, assisting online shopping, etc.
	Fun	Chatbot that is designed solely to provide entertainment and relaxation.

Category	Sub-category	Function
Audience	Generalist	Has a broad range of information that can be directly inquired about. For example: Cortana and Siri.
	Specialist	Concentrate on a single specific task and execute it with utmost proficiency. For example: Chatbots that were designed to assist clients during online purchase transactions.

From the table above, we can take into account that all of the types of chatbots that are categorized are made based on the necessity or the requirement of the developer himself/herself. In terms of education, the chatbot that tends to be used is Artificially Intelligent (AI), as it has the great ability to adjust itself to the users since it always updates their knowledge system. Hence, the students who are using AI for learning will be served a broad system of knowledge by AI so that they can have a great experience in using it.

In a study conducted by (Gupta, Hathwar, & Vijayakumar, 2020), chatbots were categorized according to criteria such as the level of user interface simplicity, the algorithms employed, and the underlying technology employed. The classification of the chatbots can be seen in the below figure.
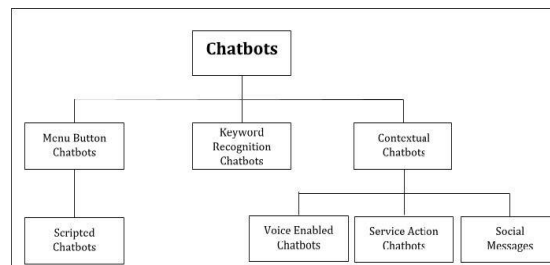
Figure 5. Classification of chatbots by Gupta et al. (2020)

Menu/Button-Based Chatbots are widely regarded as the most straightforward variant of chatbot systems. These chatbots have a ready-made knowledge base, with questions presented to the user in the form of buttons. Because of the very limited use of artificial intelligence in this type, the opportunity for users to perform an open conversation with the bot is also very limited. Obtaining the desired responses can be considered highly untrustworthy.

Keyword Recognition-Based Chatbots rely heavily on the user-entered keywords. The chatbots analyze the keywords and then respond accordingly. To utilize them maximally, the keywords must be clear and concise. The chatbots then will generate responses utilizing AI technologies and a tailored list of keywords.

Last but not least, the *Contextual Chatbots*, are the most sophisticated bots nowadays. Artificial intelligence in this type of chatbot can cover advanced technologies such as voice recognition and the conversion of speech to text. With the support of this kind of artificial intelligence, the opportunities for users to perform multiple variations of conversations will be widely opened.

Of those types of chatbots, it can be seen that the chatbots are varied based on their purposes. Some are used for learning and some are used for personal uses such as finding specific information or even online shopping. For learning purposes, it is highly recommended for the educator to choose the proper chatbots to be used

in his/her classroom. Make certain that the used chatbots provide benefits that are in line with learning expectations.

Benefits and practice of using chatbots in ELT
Benefits

As one of the newest technologies that ever existed in the world of ELT, chatbots are surely equipped with a lot of benefits for users. The study conducted by (Okonkwo & Ade-Ibijola, 2021) identified several benefits associated with the utilization of chatbots in the field of ELT. Initially, students have a chance to utilize these bots to inquire about various topics and receive prompt and immediate answers. The use of chatbots in ELT was able to enhance the effectiveness of online learning, where the students can access the learning materials anywhere and anytime. Second, chatbots were able to engage and motivate students to learn. This occurrence transpired due to the interactive system of chatbots, which enabled the students to stay engaged and motivated to learn and also allowed them to learn comfortably. In terms of administration, chatbots are also beneficial. AI-driven chatbots assist with administrative matters, including the provision of information regarding admission procedures, scholarships, and tuition expenses (Hwang, Xie, Wah, & Gašević, 2020).

Chatbots also provide benefits because of their practicality and ease of use. Students can engage with chatbots effortlessly due to their general availability on both web pages and mobile applications. Consequently, students do not have to install an additional application that could potentially consume significant storage capacity on their mobile devices (Huang, Hew, & Fryer, 2022). The usefulness of language learning is being enhanced as a result of the ease-of-use interface of the chatbot (Tegos, Demetriadis, & Karakostas, 2015).

Nowadays, chatbots and artificial intelligence systems are changing education (Pham, Pham, Nguyen, Nguyen, & Cao, 2018). The existence of chatbots is helping the learners in encouraging their motivation to learn. A certain number of students claim that they experience a greater sense of ease while engaging with a computerized response system rather than interacting with their peers or teachers. It indicates that chatbots could be considered as students' best friends in language learning. Hubert (Pham et al., 2018) highlights several effects of chatbots in the area of education. These effects include automatic essay grading, periodic interval learning, conversational course evaluations and student ratings, instructor support, and student-centered feedback.

Chatbots provide a lot of benefits for the users, not an exception for language learners. In the digitalization era like it is today, the existence of chatbots supports modern language learning. Not only that, chatbots also enable the students to be autonomous learners. The practicality of chatbots makes them easy to use and access by the students.

Practice

The recent practice of using chatbots in ELT was done by the writers (Jamiluddin, Khairul, Putri, & Eisenring, 2022) through public service activity at SMP Negeri 9 Palu. The activity was done in two days and took 30 students as the participants. The methods used by the writers were lecturing, discussing, questions and answers, and practicing.

Figure 5. A practice of using chatbots in ELT done by the writers

The training began by giving motivation to the students about the importance of English nowadays and how necessary for students to familiarize English in their daily lives. One of the ways is to use chatbots. The writers then explained the concept of a chatbot and how a chatbot could familiarize them with English. The writers also explained that the chatbot was easy for students to get to, as the majority of the students had smartphones. By using the chatbots, it was expected that the chatbots could boost students' passion for learning English because chatbots can be used anytime and anywhere in their daily lives.

After lecturing and introducing the chatbots to the students, the writers then let the students download the chatbot application and try it themselves. In the process of trying the chatbots, the writers mentored the students as some of them still did not understand how to download the application and also how to use it properly. In this case, the writers separated themselves from the students so that all of them could be fairly facilitated in terms of using chatbots.

The communication patterns while using the chatbots by the students were quite diverse. Some of them were chatting about personal information such as name, address, hobbies, etc. Meanwhile, some of them were just using it to improve their vocabulary in English by asking the bots about some English words that they were not familiar with. There were no significant problems found by the writers in mentoring the students as most of them were already capable of operating smartphones.

Figure 6. The process of mentoring the students

The training ended by asking one of the students to be the representative to give comments and testimony about the use of chatbots in ELT. The result indicated that the students were happy and enjoyed their moments in learning English through chatbots. They acknowledged that the chatbot was fun to use because it could answer anything that they asked. The accuracy of the answers was also good which made them feel that they just had a chat with their friends, not robots. The privacy of chatbots also made the students feel relaxed because they were not afraid anymore of having bad grammar in chatting, as the chatbot was always ready to answer anything even with bad usage of grammar. In other words, the students' testimony aligns with the study implemented by (Annamalai et al., 2023), who also considered that chatbots have sufficient benefits to fulfill the role of an interlocutor in the context of English language acquisition.

The findings indicated that chatbots had positive impacts on the students. Chatbots can help students to become self-sufficient learners, without the teacher's substantial assistance. Other than that, chatbots are also beneficial in terms of practicality. Since most of the students already own smartphones, they can be downloaded with ease. Moreover, chatbots can protect students' privacy in learning. What is meant by "privacy" here is that the students will have the freedom to type or ask anything to the bot, without having to be intervened by the teacher. Learning with a lot of intervention from the teacher will hinder students' creativity in utilizing the chatbots. Therefore, in the training, the writers position themselves as facilitators, rather than as active leaders in the class. By examining a lot of benefits that chatbots offer, the writers would like to suggest that teachers use chatbots in their respective classrooms. Teachers can employ chatbots to help students expand their English vocabulary, as the writers did. Apart from that, chatbots can also be used for teaching English productive skills such as writing and speaking. The difficulty of the materials can be freely adjusted with the level of the students.

Conclusion

This literature review-based research mainly attempts to explore the theoretical justifications for the use of chatbots in ELT and describe some practical issues of the utilization of chatbots. It aims to encourage the use of chatbots in English language teaching as a medium for teachers to promote modern language learning. Based on the findings of this study, it can be inferred that the integration of chatbots in English Language Teaching (ELT) has yielded numerous advantages for students, boosting their enthusiasm and motivation towards English language learning. Besides that, chatbots are also excellent in terms of practicality. Most chatbots are free to download and easy for the students to reach as the majority of them have smartphones and are proficient enough to run them. As the results indicate, this study has implications for both encouraging English teachers to employ chatbots in teaching the English language to their students and justifying the benefits that chatbots offer to the students. However, this study is mostly wrapped up in a literature review and needs more practical studies to follow up. Therefore, the writers suggest that future researchers implement more experimental-based research to uncover and justify the truth of the influence provided by chatbots on the development of English language teaching and learning in the future.

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USE OF FLIPPED CLASSROOM INSTRUCTIONAL STRATEGY FOR IMPROVING STUDENTS' ACADEMIC ACHIEVEMENT IN COLLEGES OF EDUCATION

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received 24 June 2023; 30 January 2024

Abstract
The increasing use of social media by students in tertiary institutions is posing challenges to the effectiveness of traditional lecture methods and students' learning outcomes. Students nowadays have become socially diversified and spend more time on social media at the expense of individual learning. Hence, there is a need for the incorporation of the internet-based means of communication into the teaching-learning process. Therefore, this study integrated social-media platforms into teaching-learning activities in the college of education through the use of flipped classrooms with the specific aim of determining its effect on students' academic achievement. The study adopted a quasi–experimental research design and a sample of 262 Economics students from two Colleges of Education was used. The experimental group was exposed to flipped classroom instruction while the control group was taught using the conventional lecture method. Data were collected with the use of an achievement test while descriptive statistics, t-test, and ANCOVA were used to analyze data. Findings from the study revealed a significant difference between the mean achievement scores of students taught Economics using flipped classroom instruction and those taught using conventional lecture methods ($p = 0.00 < 0.05$). Also, the ability was found to have a significant effect on the academic achievement ($p = 0.00 < 0.05$) of students in the flipped class. However, the study revealed that the effect of gender on the academic achievement of students taught with a flipped classroom instructional strategy was not significant ($p = 0.765 > 0.05$). Thus, it was concluded that flipped classroom instruction enhanced students' academic achievement more than the conventional lecture method based on these findings. Therefore, the study recommended the use of flipped classrooms in colleges of education for the improvement of students' academic achievement.

Keywords: colleges of Education, flipped classroom, quasi-experiment, students' academic achievement

Introduction

The teaching method plays an important role in the teaching process. It links the learners, the subject matter, and the teachers. Though there are different

instructional methods used by teachers to achieve desired learning outcomes, lecture is one of the oldest and most widely used. Even though, the lecture is mostly described as a one-way instructional technique, that is, a teacher-centered instructional method in which students play a passive role, the method remains dominant in post-secondary institutions. The method is believed to be more convenient with a larger class and more appropriate for meeting the needs of particular audiences especially those who learn by listening (Goffe & Kauper, 2014). However, students nowadays have become socially diversified with information and communication technology playing a major role in the way they learn. Specifically, the advent of social media poses more challenges to the use of traditional teaching methods. Some studies showed that much engrossment in the usage of social media by students harms class attendance, concentration in class activities, and overall academic performance. Consequently, education scholars are increasingly advocating for more flexible education deliveries that are student-centered, engage students actively, and integrate social media in teaching (Norman & Wills 2020; Tsai, Liao, Chang, & Chan, 2020). This quest has led to the development of several instructional strategies that are learner-centered and technology-driven.

The flipped classroom (FC) is one of the best innovative teaching approaches in recent. This is because, in a a flipped classroom, the onus of learning is being passed to the students while the teacher plays the role of resource provider. The FC is a teaching strategy where learners get exposed to new content outside the class through video or audio lectures mostly online while the class time is used for active learning activities with the teacher as a guide. Students view short video lectures outside the class before class time, while the class session is used for discussion, question and answer, exercises, and projects. Thus, those parts of a course that are used to be classified as homework are now been done in the class (Bergmann & Sam, 2012). Online video lectures make learning more personalized; provide the learners with more control over their learning and learners become more engaged actively in the teaching-learning process. Face-to-face class time addresses the communication gap between learners and instructors that characterizes most online learning. Also, a flipped classroom helps teachers to better meet learners' needs by moving learning from a group learning pace to an individual learning pace (Hamdan et al., 2013; Johnson & Renner, 2012; Norman & Wills, 2020). The flipped classroom instructional strategy essentially involves motivating learners to get ready for the lesson ahead of class. Hence, the class turns into a more productive setting in which learners get more detail on what they have already studied before the class time.

Various studies have been carried out on effects of the flipped classrooms at different education levels such as universities (Duygu & Ali, 2018), secondary schools (Atwa et al., 2016; Gambari, Shittu, Ogunlade, & Osunlade, 2017; Makinde & Yusuf, 2018) and KG-12 (Gerald, 2014). Findings from these studies revealed the potential of the flipped classroom to enhance learners' academic achievement (Al Naabi, 2020; Bhagat, Chang & Chang, 2016; Crouch, 2014; Gerald, 2014; Martinez-Jimenez & Ruiz-Jimenez, 2020; Palazon-Herrera & Soria-Vilchez, 2021; Van Alten, 2019), motivation, satisfaction and attitude towards learning (Duygu & Ali, 2018; Martinez-Jimenez et al., 2020; Sirakaya & Ozdemir, 2018; Tsai et al., 2020). Also, flipped classrooms ease the use of

technology-based learning, foster collaboration among learners, and encourage individual learning (Bachiller, & Badia, 2020; Bergmann & Sams, 2012; Chang & Chan, 2020; Parra-Gonzalez et al., 2021; Emine, 2018; Gladys & Cheta, 2015; Palazon-Herrera & Soria-Vilchez, 2021; Yutaka, 2016). However, some studies presented no significant effect on learning outcomes and showed that learners were less satisfied in flipped classrooms (Bachiller & Badia, 2020; Findlay-Thompson & Mombourquette, 2013; Talbert, 2012). Similarly, studies revealed that students' gender does not affect their academic achievement when taught using a flipped classroom (Gambari et al., 2016; Gerald, 2014).

The foregoing shows that the effects of flipped classrooms on students' academic achievement have not been sufficiently established in the reviewed studies. Also, there is a need to investigate the applicability and effectiveness of FC in Colleges of Education (CoEs). Additionally, examining the effect of students' ability in a flipped classroom approach is also required. These formed the basis for this study. Thus, the study intended to; establish the effect of flipped classrooms on students' academic achievement in Colleges of Education, determine what would be the effect of students' gender, and investigate whether students' ability would affect academic achievement when flipped classroom is used.

In Nigeria, CoEs are teacher training institutions responsible for training prospective teachers and awarding of Nigeria Certificate of Education (NCE), the country's minimum qualification for teaching. Over the years, these educational institutions have played a significant role in training and retraining of nondegree teachers for basic education. In the recent, the misuse of social media by CoEs' students has had a negative impact on their learning outcomes. This poses a serious challenge in our educational development because failure at this educational level amounts to failure of the whole education system. This unimpressive student's academic achievement implies that there are problems in the teaching-learning process at these institutions that are yet to be fixed. Previous studies revealed that the use of the teacher-centered method by the teachers and the negative influence of social media on students contributed to the persistent unsatisfactory learning outcomes in the locus of focus for this study (Adesegun et al., 2016; Oladebinu et al., 2018). Hence, there is a need for the introduction of instructional approaches that will be student-centered and as well integrate social media into teaching. The flipped classroom is one of the most recent innovative instructional approaches that is learner-centered approach and as well complied with the technology advancement. Flipped classroom promotes individual learning pace among students, fosters collaboration, and has a significant effect on academic achievement (Al Naabi, 2020; Bergmann & Sams, 2012; Goodwin & Milter, 2013; Mok, 2014; Palazon-Herrera et al., 2021; Parra-Gonzale et al., 2021; Yutaka, 2016). However, some studies on flipped classrooms revealed no significant effect (Bachiller & Badia, 2020; Findlay-Thompson & Mombourquette, 2013; Talbert, 2012; Tsai et al., 2020). In addition, most of the previous studies on this innovative instructional strategy were not conducted in Nigeria and the few ones that were carried out in the country focused on university and secondary education (Gambari, et al., 2017; Gambari et al., 2016; Makinde & Yusuf, 2018). Therefore, there is a need to study this innovative instructional strategy at the College of Education level, considering the

significance of these institutions in national development, especially in the education sector in Nigeria.

Method

Research design

The study adopted quasi quasi-experimental design without randomization. This was to prevent interruption of normal school activities. The study comprised two groups, the experimental group (EG) and the control group (CG). The EG was exposed to the use of flipped classroom instruction while the CG was taught with the use of the conventional lecture method. The design is illustrated as:

E: EO_1 X EO_2 EO_3
C: CO_1 - CO_2 CO_3
E = Experimental group, C = Control group, O_1 = Pretest, O_2 = Posttest, X = Flipped classroom, - = Conventional lecture method

Also, the research design has gender and ability as independent moderator variables. This enabled the researcher to control the effects of these variables. The design is represented in Table 1.

Table 1. Design of the study with gender and ability as moderator variables

Pretest	Ability Streaming	EG		CG		Dependent Variables
		M	F	M	F	
262 Students	High	20	24	16	17	Students' Achievement in Economics
	Average	25	35	23	26	
	Low	17	25	13	21	

Participants

A total of 262 students drawn from NCE II Economics students for the 2021/2022 academic session participated in the study. This comprised 114 males and 148 females. The experimental group had a total number of 146 students (62 males and 84 females) while the control group comprised 116 students (52 males and 64 females). Two public CoEs in Kwara state, Nigeria were selected randomly by lucky dip and assigned to experimental and control groups. The rationale was to control the possibility of the interaction effect. Table 3 shows the distribution of participants by gender.

Table 2. Distribution of participants by gender

S/N	Colleges	Group	Number of Students		Total
			Male	Female	
1.	CoE, Ilorin	EG	62	84	146
2	CoE, Oro	CG	52	64	116
Total			**114**	**148**	**262**

Data collection instrument

The Macroeconomics Achievement Test (MAT) was developed by the researcher to collect data. The test items were generated from Macroeconomics course content for NCE as approved by the National Commission for Colleges of Education (NCCE), (2012). The reliability of the instrument was determined with the use of the Kuder Richardson (K-R$_{21}$) statistical method and an internal consistency coefficient of 0.81 was obtained. The average item difficulty index was 0.47 while the average item discriminating power was 0.51.

Experimental procedure

Permission was obtained from departments of Economics in the two selected colleges before the experimental treatment. To control the extraneous variable (experimenter effect) and ensure homogeneity of the instructional and testing procedure, the teaching of the two groups was done by the researcher. The two groups were pretested by the researcher using MAT, to establish the same entry behaviour. The result of the pretest was analyzed using the t-test statistical method to determine similarity in students' abilities. The two groups had similar abilities before the treatment. Table 3 presents the mean, standard deviation, and t-test for the two groups.

Table 3. Mean, Standard Deviation, and T-test for students' pretest with MAT

Group	No	Mean	SD	Df	T	Sig
COE, Ilorin	146	10.53	4.405	2	11.527	0.125
COE, Oro	116	11.48	5.28			

Table 3 shows relatively close mean and standard deviation values for students of the two colleges in the pretest. This implies that the two groups were not far from each other in terms of academic ability before the treatment. Similarly, the p-value (0.125) is more than 0.05 alpha level which indicates a nonsignificant difference between the mean pretest scores of students in the two colleges. Thereafter, the assigning of students into experimental and control groups was done randomly. Also, students were classified into three ability groups (high, average, and low) based on the scores obtained from the pretest.

Students in the experimental group had two class meetings per week (Monday and Thursday) for an hour each. In the first class meeting (week 1: lesson 1), the class was grouped into smaller units, and students' phone numbers were collected. The researcher created a WhatsApp group named Macro Economics Flipped Classroom 2022 (MEFC22) and added the students' phone numbers as participants. Lecture videos were posted on the WhatsApp platform (MEFC22) for students to watch before the class. The choice of WhatsApp was informed by the fact that it is more popular among the subjects of the study, easier to access and the videos can be watched on multiple devices like a smartphone, iPad, or laptop.

A series of video lectures of 3-5 minutes were recorded by the researcher using the smartphone camera and the Inshot video editor application was used for necessary editing. The researcher decided to use this low technology because it is easier to use, straightforward, and saves time. The first video lecture (3 minutes 35 seconds) was on the nature and scope of Macroeconomics. It focused on the meaning of macroeconomics, macroeconomic objectives, and policy. The video

was posted online via MEFC22 two days before the second-class meeting. This was to give the students enough time to watch the video before coming to class. The class time (week 1: lesson 2) was used for active learning. Students gave their summary of the content watched and asked questions based on the topic. These summaries and questions were used to stimulate classroom discussion with the teacher as a guide. The second video lecture (4 minutes 10 seconds) was on national income and focused on the meaning of national income and some basic concepts and approaches to national income measurement. The video was also posted through MEFC22 two days before the third-class meeting for students to watch. The class time (week 2: lesson 1) was devoted to questions and answers and discussion based on the topic, the teacher played the role of facilitator. The third video lecture (3 minutes 52 seconds) was a continuation of national income and focused on problems of national income measurement and circular flow of income. The video was posted through MEFC22 two days before the fourth-class meeting while the class time (week 2: lesson 2) was used for discussion and questions and answers based on the topic. The fourth video lecture (4 minutes and 5 seconds) was on the theory of consumption and focused on the meaning of consumption, the relationship between consumption and national income, APC, and MPC. The video was posted online through MEFC18 for students to watch before class time. During class time (week 3: lesson 1), students explained the content watched in the video as they understood it. The teacher briefly gave further explanation on the topic and thereafter guided the students through the questions and answers session. The fifth video lecture (5 minutes 3 seconds) was a continuation of the theory of consumption and focused on Keynes's psychological law of consumption, absolute income hypothesis, and determinants of consumption. The video was posted through MEFC22 for students to watch two days before the sixth-class meeting while the class time (week 3: lesson 2) was used for discussion and questions and answers based on the topic with students at the center of the activities. The sixth video lecture (3 minutes 45 seconds) was on investment and focused on the meaning of investment, types of investment (fixed, inventory, and replacement), and determinants of investment. The video was also posted through MEFC22 two days before the class meeting for students to watch. The class time (week 4: lesson 1) was devoted to questions and answers and discussion based on the topic, the teacher played the role of facilitator. The seventh video lecture (3 minutes 40 seconds) was on inflation. It focused on the meaning of inflation, the causes of inflation, and the effects of inflation on the economy. The video was posted online via MEFC22 two days before the eighth-class meeting. In class time (week 4: lesson 2) students gave their summary of the content watched and asked questions based on the topic. Students' summaries and questions were used as the basis for classroom discussion with the teacher as a guide.

However, students in the control group had one class meeting per week (every Wednesday) for two hours each. They were taught the same macroeconomics topics (nature and scope of macroeconomics, national income, theory of consumption, investment, and inflation) by the researcher using the conventional lecture method. The treatment lasted for four weeks. Immediately after the treatment, MAT items were rearranged and administered to students both in experimental and control groups as posttest. The rearrangement of items was to

reduce the memory effect. The posttest was conducted to determine students' academic achievement in Economics after treatment.

Data analysis

Data were analyzed with the use of descriptive statistics (means and standard deviations) and ANCOVA with pretest as a covariate at 0.05 alpha with the SPSS 21 package.

Findings and Discussion

Findings

Students' pretest and posttest scores from the two groups were used to compute arithmetic means and standard deviations to find their academic achievement. The result is presented in Table 4.

Table 4. Descriptive statistics for students' academic achievement
for both experimental and control group

Groups	Treatment	No	Pre-test		Post-test		Achievement Gain
			$\overline{X}$	SD	$\overline{X}$	SD	
EG	Flipped classroom	146	10.56	4.41	46.85	12.96	36.29
CG	Control Group	116	11.48	5.28	31.62	13.86	20.14

Table 4 shows that students in the experimental group (EG) had a higher mean post-test score of 46.85 and a lower standard deviation of 12.96, while students in the control group (CG) had a lower mean post-test score of 31.62 and a higher standard deviation of 13.86. The experimental group's achievement gain is 36.29, while CG has an achievement gain of 20.14 as revealed in the result. This implies that the academic achievement of students in the flipped classroom is higher than those in conventional lecture classes. ANCOVA was used to determine whether the difference observed is significant. Table 5 presents the result.

Table 5. Differences between the two groups in terms of achievement mean scores

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	58004.810[a]	2	29002.405	2193.688	0.000	0.944
Intercept	3978.396	1	3978.396	300.919	0.000	0.537
Pretest	43013.797	1	43013.797	3253.484	0.000	0.926
Group	20046.503	1	20046.503	1516.280	0.000	0.854
Error	3424.198	259	13.221			

a.   R Squared = 0.944 (Adjusted R Squared = 0.944)

Table 5 shows that p = 0.000 is less than 0.05 alpha level, this indicates a statistically significant difference between achievement mean scores of students taught using flipped classroom instruction and those taught using the lecture

method in favor of flipped classroom. Also, the effect size value (0.854) implies that 85.4% of the difference in the mean achievement scores of students is attributed to the treatment.

Additionally, to determine the achievement of students in the flipped class based on gender, descriptive statistics for male and female students' scores were computed using the pretest and posttest scores. The result obtained is presented in Table 6.

Table 6. Descriptive statistics for students' achievement mean score based on gender (EG)

Groups	Gender	No	Pretest $\overline{X}$	SD	Posttest $\overline{X}$	SD	Achievement Gain
EG	Male	62	10.90	4.49	47.81	12.90	36.91
	Female	84	10.31	4.35	46.14	13.03	35.83

Table 6 shows that male students had a mean post-test score of 47.81 and an SD of 12.90 while their female counterparts had a 46.14 mean post-test score and 13.03 SD. Also, the male students had a 36.91 achievement gain while the female students had a 35.83 achievement gain. Thus, the male students had a slightly higher achievement gain than the female students.

To determine whether the difference is significant, ANCOVA was used to compare the mean achievement scores for male and female students. The result obtained is presented in Table 7.

Table 7. Test of ANCOVA for students' achievement mean scores based on gender

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	37966.451[a]	2	18983.225	209.553	0.000	0.618
Intercept	6677.130	1	6677.130	73.708	0.000	0.222
Pretest	37852.090	1	37852.090	417.844	0.000	0.617
Gender	8.144	1	8.144	0.090	0.765	0.000
Error	23462.557	259	90.589			

a. R Squared = 0.618 (Adjusted R Squared = 0.615)

Table 7 shows that p = 0.765 is more than 0.05alpha level. This indicates that the difference between male and female students' mean achievement scores in the flipped class is not statistically significant.

Also, descriptive statistics were used to estimate academic achievement based on students` abilities. The result obtained is presented in Table 8.

Table 8. Descriptive statistics for students' achievement mean scores
based on ability (Experimental Group)

Group	Ability	No	Pretest $\overline{X}$	SD	Posttest $\overline{X}$	SD	Achievement Gain
EG	H	44	16.09	1.97	62.95	4.83	46.86
	A	60	9.90	1.89	45.87	5.01	35.97
	L	42	5.71	1.37	31.38	2.88	25.67

Table 8 shows that high-ability students had a 46.86 achievement gain while that of average-ability students was 35.97 and the low-ability students had 25.67. This implies that the high-ability students gained more than average-ability and low-ability students. To determine whether the difference is statistically significant, achievement scores were compared using ANCOVA. The result obtained is presented in Table 9.

Table 9. Test of ANCOVA for students' achievement mean scores based on ability

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	42344.783[a]	3	14114.928	190.820	0.000	0.689
Intercept	9135.138	1	9135.138	123.498	0.000	0.324
Pretest	924.146	1	924.146	12.494	0.000	0.046
Ability	4386.477	2	2193.238	29.650	0.000	0.187
Error	19084.224	258	73.970			

a. R Squared = 0.689 (Adjusted R Squared = 0.686)

Table 9 shows that p = 0.000 is less than 0.05alpha level. This means that, in flipped classes, the differences in students' mean achievement scores based on ability are statistically significant.

Discussion

The study adopted a quasi–experimental research design specifically a non-randomized pretest, posttest, and control group design to investigate the effect of flipped classroom instructional strategy on students' academic achievement in colleges of education. The study showed that the academic achievement of students exposed to flipped classroom instructional strategy was significantly higher than that of their counterparts in lecture method classes. Thus, there was a statistically significant difference between the mean achievement scores of students taught Economics using a flipped classroom and those taught using the conventional lecture method. This aligns with previous findings (Al Naabi, 2020; Atwa et al., 2016; Bhagat et al., 2016; Crouch, 2014; Duygu and Ali, 2018; Gambari, et al, 2016; Gambari, et al., 2017; Gerald, 2014; Makinde & Yusuf, 2018; Martinez-Jimenez & Ruiz-Jimenez, 2020; Palazon-Herrera & Soria-Vilchez, 2021; Sirakaya & Ozdemir, 2018; Van Alten, 2019). However, this result contradicts the findings of Johnson and Renner (2012) and Emine (2018) who reported that there was no significant difference between the mean achievement scores of students in flipped classes and those in lecture method classes.

Furthermore, the study found a significant difference between the mean achievement scores of Economics students in flipped classes when segregated by ability. This means that ability has a significant impact on students' learning outcomes in flipped classroom instructional strategy. This improvement in students` academic achievement could be a result of the fact that the flipped classroom method enhanced students' active participation in the learning process. However, it was discovered that in flipped classrooms, mean achievement scores were not affected by students' gender. This indicated that the difference between male and female students' mean scores is not significant. This finding is

consistent with the reports of Gerald (2014) and Gambari, et al., (2016). This could be ascribed to the fact that there was no bias for gender as the instructional condition was relatively similar.

Conclusion

Based on the results, the following conclusions were drawn: The flipped classroom method is more effective in enhancing students' achievement in Economics than the conventional lecture method. This agrees with previous studies (Al Naabi, 2020; Bhagat et al., 2016; Gambari, et al., 2017; Makinde & Yusuf, 2018; Martinez-Jimenez & Ruiz-Jimenez, 2020; Palazon-Herrera & Soria-Vilchez, 2021; Van Alten et al., 2019). Similarly, a flipped classroom enhances students' active participation in Economics class. This as well concurs with the findings of Duygu and Ali, 2018, Sirakaya and Ozdemir 2018 and Atwa et al., 2016. Also, the ability was found to have a significant effect on students' achievement when exposed to flipped classrooms. However, students' learning outcome was not affected by their gender when using the flipped classroom instructional strategy. This finding is consistent with reports of previous studies (Gerald 2014; A. Gambari, et al., 2016). Based on the findings of this study, the researcher recommended that the use of flipped classroom instructional strategies should be encouraged in all teacher training institutions.

Acknowledgment

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ENHANCING STUDENTS' PROFICIENCY IN SUBJECT-VERB AGREEMENT USING "QUIZWHIZZER" AS A PEDAGOGICAL TOOL: CLASSROOM ACTION RESEARCH

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Abstract
This study examines the effectiveness of applying QuizWhizzer in enhancing students' proficiency in comprehending subject-verb agreements in the simple present tense. This study is crucial to improve Students' comprehension of subject-verb agreement in the simple present tense. This comprehension serves as a vital foundation for students to compose high-quality written work, ultimately enhancing their academic and professional capabilities in the future. The participants in this research consisted of 28 junior high school students. The research employed a collaborative classroom action research approach (CAR). Data collection utilized pre-test and post-test results conducted within each cycle, researcher-conducted observations, and assessment sheets completed by colleagues. The collected data were analyzed quantitatively. Quantitative results indicate a significant improvement during this study's pre-cycle, cycle I, and cycle II phases. The average score increased from an initial 6.1 to 39.6 in cycle I and further to 74.3 in cycle II. These findings indicate that the utilization of QuizWhizzer in learning English grammar, especially on the topic of Subject-Verb Agreement in Simple Present Tense, is effective in increasing students' comprehension.

Keywords: QuizWhizzer, subject-verb agreement, students' proficiency

Introduction

English is one of the foreign languages learned by students in Indonesia. Proficiency in English holds the potential to grant broader access to knowledge This is in line with the statement (Alfarisy, 2021) which states that being able to speak English will open opportunities for Indonesian people to develop and disseminate knowledge that is developing in Indonesia. Therefore, it can be concluded that mastery of English is essential for Indonesian students.

Within the realm of English education, there exist four key facets demanding mastery, one of which is the skill of writing. Proficient writing capabilities empower students to effectively communicate their ideas to others. Through writing, individuals can articulate their thoughts, emotions, and perspectives to a broader audience (Mantra, Handayani, & Widiastuti, 2021). Therefore, writing must attain

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a high standard to ensure the reader comprehends the intended message without any potential for misinterpretation.

However, to be able to produce good writing, students need to have a deep understanding of proper grammar and adequate vocabulary. This is in line with the statement (Jayanti, 2019) that writers must use good grammar and a complete vocabulary to write well. Therefore, having strong grammar skills is essential for students to be able to produce quality writing.

Mastery of grammar is an important part of learning a language because the true meaning cannot be understood without applying the correct grammar rules (Drahman & Hashim, 2020). One important aspect of grammar in writing is the Subject-Verb Agreement. To write good and grammatically correct sentences, students need to pay attention to the relationship between the subject and the verb (subject-verb agreement) in each sentence (Dinillah et al., 2021). Therefore, it can be concluded that mastering the subject-verb agreement is very essential for students as a basis for writing so that they can produce precise and good writing.

Several studies have shown that students have difficulty in terms of subject-verb agreement in the Simple Present Tense. Research conducted by (Rifki et al., 2019) found that when junior high school students wrote in the simple present tense, they often made mistakes, especially in connecting subjects and verbs correctly. Similar findings were also recorded in research (Kurniawan & Firdaus, 2020). It is not only students from junior high schools who experience difficulties in Subject-Verb Agreements but this is also found in students from senior high schools and students who also face similar difficulties. This was found by Goncalves (2018) and Fauzan et al. (2020) at the high school level, and was found in research conducted by Nurjanah (2017), Sholihah (2019), and Pandapatan (2020) at the university level. Based on previous research above, it can be concluded that students from various levels of education have similar difficulties in subject-verb agreement in Simple Present Tense. Consequently, within the realm of the learning process, it becomes imperative to underscore the enhancement of students' comprehension of subject-verb agreement in the simple present tense. This emphasis aims to empower students to compose paragraphs accurately and suitably, thereby averting potential misunderstandings.

In the realm of education, the incorporation of technology as a pedagogical medium can aid students in comprehending subject matter and enhance their academic performance. This is in line with research conducted by Bimo, Murni, and Dartani (2021) who found that the utilization of technology can increase students' values and motivation. It can be concluded that the utilization of technology can make the learning process more effective. Many technology-based learning media can be utilized, one of which is QuizWhizzer.

Several preceding studies employing QuizWhizzer have demonstrated the effectiveness of this tool in enhancing students' academic performance. A study conducted by Oktika et al. (2023) found that the use of QuizWhizzer to help the process of learning English vocabulary was effective in increasing students' vocabulary skills. In addition, other studies show similar results, namely the use of the QuizWhizzer game can significantly improve students' abilities and understanding in other subjects. In research conducted by Faijah, Nuryadi, and Marhaeni (2022); Sumandya and Saraswandewi (2023); Yanuarto and Susanti (2023) in the application of the QuizWhizzer game to Mathematics subjects found

something similar, namely the QuizWhizzer game to Mathematics subjects can improve understanding and student learning outcomes. In conclusion, the role of technology plays a substantial role in the educational process. For instance, through the utilization of technology like the QuizWhizzer game, students can receive effective support in enhancing their academic achievements. The QuizWhizzer game can be adapted to various subjects, providing efficient assistance to students.

Furthermore, aside from enhancing learning outcomes, prior research has also demonstrated that the utilization of QuizWhizzer can substantially boost student motivation. An investigation conducted by Oktavian (2023) in the application of the QuizWhizzer game to Pancasila and Citizenship Education (PPKN) subjects, shows that the use of the QuizWhizzer game in the PPKN learning process can help students improve learning outcomes and have a positive influence on responses learners. The results of other studies also show that the use of the QuizWhizzer game in the learning process can increase students' learning motivation. This finding was discovered by Alfianistiawati et al. (2022) and Efendi and Sutiyarti (2023). Consequently, it can be inferred from these findings that incorporating QuizWhizzer into the learning process can contribute to an increase in student motivation.

With increased student motivation in the learning process, they will be more likely to achieve high scores. Students who have high learning motivation have a great opportunity to achieve better learning outcomes. This motivational factor is also in line with research Abidin (2018) and Skolastika et al. (2022) which found a significant relationship between learning motivation and student learning outcomes. In conclusion, students' motivation has a significant impact on the achievement of their academic scores. Therefore, in the learning process, it is important to encourage students' motivation to help them achieve high scores.

Based on observations made by researchers at partner schools, it can be seen that in the learning process, the use of technology has not been optimally applied. Teachers only use LCD projectors as a tool to display e-books and speakers to help with listening activities in class. In addition, based on the results of the diagnostic assessment conducted by the researcher, shows that students have difficulty in subject-verb agreement in the Simple Present Tense. Based on the statement above, it is known that there is a gap between expectations and reality in students' understanding of the subject-verb agreement in Simple Present Tense which is the basis for being able to write sentences accurately and well-structured sentences.

Then, based on observations, results of diagnostic assessments, previous research, and the gaps described above. This study will implement the interactive game 'QuizWhizzer' in the subject-verb agreement learning process in the Simple Present Tense. Thus, this study aims to examine how QuizWhizzer can effectively enhance students' proficiency in subject-verb agreement within the simple present tense.

Subject-verb agreement in simple present tense

Subject-verb agreement is an essential aspect of grammar that students must grasp to construct accurate sentences and compose paragraphs of high quality. The statement of Simanjuntak (2019) is in line with this, stating that to produce good writing, a student must also have good grammar skills. Therefore, students need to have a strong and deep understanding of grammar to produce accurate and correct

writing. However, mastering the Subject-Verb Agreement poses a challenge for students when producing paragraphs (Amnuai et al., 2021). This difficulty is faced when students' mother tongue has rules that are different from English, so they need to understand new rules that were previously unknown. The difficulty arises due to the absence of subject-predicate agreement in the Indonesian language, leading to considerable obstacles for Indonesian language learners when attempting to translate into English (Simanjuntak, 2019).

Therefore, students need to understand and learn the Subject-Verb Agreement which is a new thing for them to be able to construct well-formed paragraphs in English. According to English grammar rules, subject and verb phrases must be in proper agreement concerning numbers and persons. To elaborate, a singular subject must correspond with a singular verb, while a plural subject should be followed by a plural verb (Budiharto, 2019; Kuswoyo & Susardi, 2018). Thus, students need to be meticulous in identifying the number of subjects to appropriately use the corresponding verbs.

QuizWhizzer game

QuizWhizzer is an e-learning platform that can be integrated into the educational process. It is designed to foster collaboration and communication, enabling students to actively engage in learning through interactive games (Susanto & Ismaya, 2022). The utilization of QuizWhizzer enables students to engage with the learning material proactively, leveraging a variety of interactive games available on the platform. Beyond its role as a content delivery tool, QuizWhizzer serves as an engaging and enjoyable assessment instrument as well (Septiani & Santi, 2022). As such, QuizWhizzer adapts to users' requirements and purposes.

Initially introduced in 2019 with a modest array of three question types, QuizWhizzer has since evolved to encompass eight distinct question types that users can employ (Wahyuningsih et al., 2021). The platform's question menu provides various question formats that can be easily generated by educators or content creators. These formats encompass multiple choice, multiple responses, numeric, short answer, true or false, open-ended, drag and drop, and ordering questions. Additionally, users can enhance their questions by incorporating audio, recordings, and videos. To facilitate the question-creation process, QuizWhizzer offers several available templates (Iskandar et al., 2023).

Method

This research presents a collaborative classroom action study aimed at enhancing students' proficiency in subject-verb agreements in the simple present tense through the implementation of the interactive game QuizWhizzer. Research involves collaboration between researchers, supervisors, tutors, and colleagues. Classroom collaborative action research (CAR) is chosen as the preferred method, in which researchers act as facilitators while other teachers or others act as observers, using field observations or notes (Rukminingsih, Adnan, & Latief, 2020). Consequently, the adoption of collaborative classroom action research ensures the thoroughness of the research process and minimizes the likelihood of overlooking any pertinent aspects.

The study employed Kurt Lewin's model, consisting of four stages: planning, action, observation, and reflection (Machali, 2022). Each cycle consists of planning,

action, observation, and reflection. In this study, two cycles were conducted, with two meetings held in each cycle. The first cycle took place on March 10 and 13, 2023, followed by the second cycle on March 17 and 21, 2023. Before planning, the researcher conducted a diagnostic assessment to determine the student's initial abilities. This helps researchers design learning processes that are tailored to the characteristics of the students. This diagnostic assessment consists of 10 questions, covering the material that students will learn. To facilitate the process, the researcher distributed diagnostic assessments to students via the Google form.
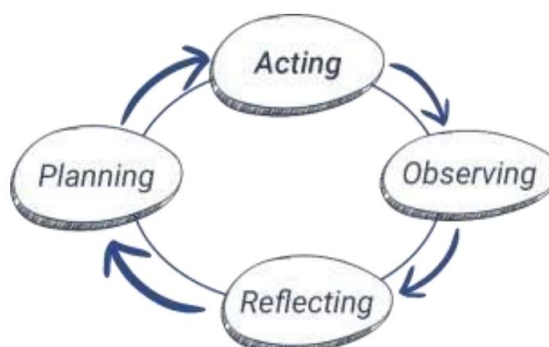
Figure 1. Kurt Lewin model CAR cycle (Machali, 2022)

The research included 28 participants (16 male and 12 female) from grade 7 at SMPN 121 Jakarta during the 2022/2023 academic year. Data collection techniques utilized in this study involved pre-tests and post-tests conducted in each cycle, observations made by the researcher, and peer observation sheets. The collected data was analyzed through quantitative analysis.

Findings and Discussion

Before initiating the Classroom Action Assessment, the researcher conducted a diagnostic test before introducing a new chapter. The objective was to obtain a comprehensive understanding of the initial state of the student's knowledge. This is in line with the statement by Wahyuni (2023) emphasizing the need for regular diagnostic assessments at the commencement of each instructional unit to identify students' learning challenges and aid teachers in directing their focus toward areas where students require additional support. Diagnostic assessment plays a crucial role in planning and comprehending the initial circumstances before implementing corrective measures. The researcher administered a Diagnostic assessment comprising 10 questions that pertained to descriptive text content relating to directions and subject-verb agreement in the simple present tense. This test was distributed to students through a Google Form, which they were required to complete. The outcome of the diagnostic assessment revealed that the majority of students possessed skills at the lower-middle level of English proficiency, and a significant 80% of students encountered difficulties when addressing questions related to Subject-Verb Agreement.
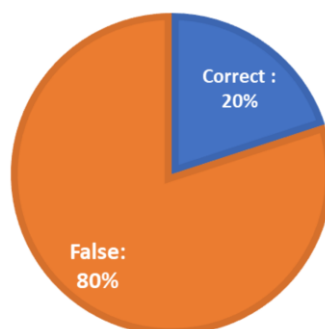
Figure 2. Percentage of initial ability in subject-verb agreement

Based on the findings from the diagnostic assessment, the researcher formulated a comprehensive lesson plan and organized students into groups. The classification of students as heterogeneous was undertaken, considering their diverse abilities. This approach was adopted to facilitate mutual support among students.

In cycle I, at the first meeting on March 10, 2023, before students started the learning process, they were asked to work on the questions individually first. The researcher distributed the questions to students via the Google form. This question consists of 10 questions about the Subject-Verb Agreement in the form of negative and positive sentences. The results of this work will then be used as a pre-cycle step.

The outcomes from the pre-cycle phase indicated an average student score of 6.1. The highest individual score attained was 50, whereas the lowest score was 0. Notably, the school's established Minimum Completeness Criteria (KKM) was 77, and no student reached the level of completeness.

Table 1. Students' pre-cycle scores

Criteria	Pre-Cycle
Average Student Grade	6.1
Student's Highest Score	50
Student's Lowest Score	0

After the participants completed the pre-cycle, the learning process for the first meeting in cycle I was implemented. In the core part of learning, students work in groups to work on the exercises that are distributed by the teacher through the QuizWhizzer game. Before commencing the game, the teacher provided a clear explanation of the game's instructions: correct answers would advance a player by one step, while incorrect answers would maintain the player's current position. The form of the game in QuizWhizzer resembles a snake and ladder and the practice questions that need to be completed by students consist of 5 questions in each game.

Figure 2. Display of the QuizWhizzer game

After completing all the questions in the game, students were able to review and verify the correct answers. After all groups finished doing the exercises, students and researchers discussed their work together. This setting also provided students with the opportunity to seek clarification on any aspects they found unclear.

During the second meeting of Cycle I, the learning process followed a similar pattern to the preceding session. The central activity involved students collaborating within their groups to complete the assigned exercises facilitated through the QuizWhizzer game. Subsequently, joint discussions were conducted by students and researchers. Towards the conclusion of the learning session, students individually undertook a post-test provided by the researcher via a Google form. The post-test results at this meeting revealed an average score of 39.6. Meanwhile, the highest score obtained by students was 80, and the lowest score reached 0. The number of students who scored above 77 was 1 child. So, it can be concluded that students who complete the learning process are 1 child with a percentage of 4% while those who have not completed are 27 children with a percentage of 96%.

Table 2. Students' cycle 1 scores

Criteria	Cycle 1
Average Student Grade	39,6
Student's Highest Score	80
Student's Lowest Score	0

Based on the observations conducted by researchers, observations made by colleagues, and the feedback obtained from students through reflection sheets after the learning process, a discernible conclusion can be drawn. The learning process has demonstrated positive progress, albeit with opportunities for further enhancement in subsequent cycles. Students have exhibited a notable degree of engagement and motivation throughout the learning process. This is evident through their enthusiastic participation and active involvement in the learning activities. The learning environment has been characterized by comfort and a lack of undue stress.

Moreover, students have taken the initiative to provide feedback, both verbally and in writing through reflection sheets. The integration of QuizWhizzer into the learning process has been positively received by students. Their feedback indicates a sense of contentment and enthusiasm for using QuizWhizzer as an educational tool, with a collective eagerness to continue engaging with the platform and its exercises in future sessions.

In cycle II which was held on March 17 and 21 2023, the structure of the learning process remained largely consistent with that of the first cycle. However, there were modifications in lesson plans and learning approaches. Notably, Cycle II saw the learning process transition to an individual mode, foregoing the use of groups. Nevertheless, students were still allowed to engage in discussions and interactions with their peers. This alteration was informed by the insights derived from observations and student reflections from Cycle I. The intent behind this adjustment was to address the shortcomings and weaknesses identified in the initial cycle, with the aspiration of fostering improvements in Cycle II

At the second meeting in cycle II, a post-test was carried out by students with individuals via the Google form. Based on the results of the Cycle II post-test, it can be seen that there was an increase. The results show an average student score of 74.3. Significantly, the highest individual score attained was 100, while the lowest score achieved was 30. Notably, 12 students scored above 77, indicating an achievement rate of 43%. Conversely, 16 students did not achieve this benchmark, reflecting a rate of 57%.

Table 3. Student cycle II scores

Criteria	Cycle 2
Average Student Grade	74,3
Student's Highest Score	100
Student's Lowest Score	30

Based on the classroom action research that has been carried out in 2 cycles, the researcher has uncovered two significant findings. Firstly, students show high motivation in the l learning process through the integration of technology, particularly via QuizWhizzer. T Evidently, students actively participate in various learning activities, displaying their willingness to volunteer answers, solve problems in front of the class, and engage in discussions with peers to collaboratively tackle challenges. This is in line with the findings that have been found by Susanto and Ismaya (2022) and Efendi and Sutiyarti (2023) both of whom assert that the utilization of the QuizWhizzer game amplifies students' motivation during the learning process.

Secondly, students' learning outcomes increased significantly in using the QuizWhizzer game in Subject Verb Agreement material. The average value of students has increased, namely in the pre-cycle of 6.1, in the first cycle of 39.6, and the second cycle of 74.3. Based on the table below, it can be seen that the increase did not only occur in the average student score but also occurred in the highest student score. Specifically, the highest score among students ascended from 50 in the pre-cycle to 80 in Cycle I and an impressive 100 in Cycle II. With the school's established Minimum Completeness Criteria (KKM) set at 77, there was a notable increase in the number of students who met this criterion. Initially, there were no students who met the KKM requirement. However, this number rose to include 1 student in the subsequent cycle, and significantly, 12 students in the second cycle successfully achieved the KKM benchmark. Even though not all students reached the school's established Minimum Completeness Criteria (KKM) of 77, the implementation of QuizWhizzer significantly aided students' comprehension of the material. In essence, the utilization of QuizWhizzer was instrumental in enhancing

students' academic performance. This conclusion is consistent with research findings by Juhaeni et al. (2023), Malik (2022), and Khoirurrozikin (2023) which found that the use of QuizWhizzer can improve student learning outcomes.

Table 4. Comparison of pre-cycle and post test results in cycles 1 and II

Comparison	Pre-Cycle	Cycle I	Cycle II
Average student grades	6.1	39.6	74.3
Student's Highest Score	50	80	100
Student's Lowest Score	0	0	30
Number of Completed Students	0	1	12
Number of Students Not Completed	28	27	16
Completeness Presentation	0%	4%	43%

This finding also supports research conducted by Prabowo (2021) and Zaitun et al. (2021) which have demonstrated that the incorporation of technology (e-learning) within the learning process contributes to improved student learning outcomes. Consequently, the integration of technology into the learning process is strongly advocated as it serves to enhance students' comprehension of subject matter. Contemporary students possess distinct characteristics compared to their predecessors.

Today's learners belong to Generation Z, a cohort that has grown up experiencing the pervasive and immersive nature of technology in their daily lives. Technology and information have become an inseparable part of their lives. The use of technology and access to information have become integral aspects of their existence. Raised in an era where information accessibility, particularly via the Internet, is a global norm, this generation's values, attitudes, and aspirations have been profoundly influenced (Fitriyani, 2018). Therefore, the teacher has to adapt the learning approach, both in terms of strategies, models, and media, so that it is by the characteristics of these students and can capture their interest in the teaching-learning process.

This is in line with the statement (Puspitarini, 2022) which emphasizes the need for teachers to always innovate and be creative while continuing to hone and update their knowledge and skills to provide an interesting learning experience for students. One effective way to achieve this is through the use of technology, especially through online learning platforms. This is in line with the findings in research conducted by Izlin and Widiyati (2023)

Conclusion

The Classroom Action Research conducted by the researcher underscores the affirmative impact of technology, specifically QuizWhizzer, in enhancing student learning outcomes about the comprehension of Subject-Verb Agreement within the Simple Present Tense. These findings have the potential to serve as a valuable resource for readers, educators, and stakeholders within the educational domain. They can contribute to collaborative efforts aimed at enhancing the quality of student learning experiences. However, it is important to acknowledge the limitations inherent in this research. One notable constraint is the time constraints faced by the researcher during the research process. Consequently, the increase in student scores didn't reach a significant level. Therefore, it is strongly anticipated

that future classroom action research studies may involve students in a wider range of learning activities utilizing QuizWhizzer to achieve more substantial results.

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International Journal of Indonesian Education and Teaching
http://e-journal.usd.ac.id/index.php/IJIET
Sanata Dharma University, Yogyakarta, Indonesia

THE IMPACTS OF FIRST LANGUAGE ON STUDENTS' ENGLISH PRONUNCIATION

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Abstract

This study aims to investigate how and why the first language impacts English Pronunciation Errors. The research design was a case study in the form of qualitative research using contrastive analysis principles to analyze the data. The participants selected were five students from various regions in Indonesia, that was Sunda, Batak, Jakarta, and Java. Each participant in this research studied English as a foreign language in the fourth semester at the Department of English Education at Universitas Tidar. Recorded pronunciation tests and interviews were used to collect data. Online phonetic transcription was used to find errors and transcribe them into phonetic symbols in this study. The finding of this study was the problems of long vowels, consonant sounds, words, and emphasis at the beginning, end, and middle have their respective differences according to their region. Even though the influence of the mother tongue on English pronunciation is quite strong, several methods and techniques can be applied to reduce problems in pronouncing English words.

Keywords: dialect, first language, pronunciation error

Introduction

Language is an inseparable part of human life because, with language, one can convey intentions and desires to others. According to Chaer and Agustina (2004), language is a system, meaning that it can be formed by several components that have a fixed pattern and can be calibrated. A language is a communication tool owned by humans, namely in the form of a sound symbol system originating from the human speech organ or mouth. Language is also a unifying tool of the nation. The role of language in human life is very large; almost all activities carried out by humans require language. Language can help to get information, increase knowledge, and help in communicating (Delimasari, 2023). According to Santana (2016), there are many types of language, roughly sortable into three classes of ontologies, one psychological, one social, and one abstract.

Indonesia is known as a country that has various tribes and languages. The diversity of languages in Indonesia is caused by differences in cultural background, history, and geographical location in Indonesia. The influence of language diversity causes the linkage of one language to another. According to Arevi and Ratmanida (2020), Indonesians are used to pronouncing words the same way they are spelled, which creates vowel sounds. The language has different dialects. Gormandy (2022) assumes that there is very often interference in communication caused by these different dialects. The particular word used, characteristic syntactic construction, certain ways of expressing negatives, plurals, tense, and so on (Miller, 2002). Dialects are defined as branches of a language. In this branch, different terms are used for different things. Dialects are formed in a particular region, and each region has different dialects. So that everyone who occupies a certain area will have a different dialect from someone who occupies another area. According to Siregar (2017), dialect refers to distinctive features at the level of pronunciation vocabulary, and sentence structure. Pronunciation is one of the most important considerations when communicating so that communication can be understood and run well (Rahayu et al., 2019; Suryaleksana et al., 2022). According to Sakul (2013), pronunciation skills are of great substance for successful oral communication to take place since it is a prominent feature of communicative competence. Based on the description above, it can be stated that dialect is a variation of the language of a group of speakers in the form of local speech, which is an assessment of the results of comparison with one of the other isolects, which is considered superior.

According to Putra (2017), English-speaking ability embodies the correct pronunciation and intonation and directly affects proper communication in conversation. The definition of a vowel is the pronunciation produced by humans when the breath flows out through the mouth without being obstructed by teeth, tongue, or lips (Cambridge, 2003). Pronunciation is the act or manner of pronouncing words, the utterance of speech, a way of speaking a word, especially a way that is accepted or generally understood, and a graphic representation of the way a word is spoken, using phonetic symbols (EnglishClub, 2023). Gilakjani (2016) assumes that pronunciation is a set of habits for producing sounds. According to Devarakonda (2022), when speaking the same language, everyone's pronunciation is just right. This allows people to distinguish one another through their voices, dialects, and accents. The habit of producing sound is acquired by repeating it over and over again by being corrected when it is pronounced wrongly. The ability to achieve correct pronunciation is a challenge for learners of English. One important factor that influences pronunciation acquisition is the learner's first language. This literature review aims to explore the impact of the first language on English students' pronunciation skills. One important factor that influences pronunciation acquisition is the learner's first language.

The first language always affects the second, even a foreign language, English. As a Lingua Franca, English has the function of bridging communication between two parties with different cultural and linguistic backgrounds in the context of international relations (Arochman et al., 2023). This makes English the most widely used language in the world. If someone masters English, they can communicate with people in various countries easily. However, not everyone can speak English well, like a native speaker, especially if that person has a distinctive dialect. Someone's dialect is very attached to their first language. According to Uy

(2023) the term "first language" refers to the language that a person is most familiar with and speaks most often. According to Dictionary.com (2023) typically, the first language is the language that a person hears and learns in the years following birth.

The term first language is largely distinguished from other terms, such as "mother tongue," as this generally refers to the language of a collective group rather than that of an individual. The term "mother tongue" refers to a traditional/conventional family situation where the mother is the person who transmits the language to the child and is the main provider of input in that language for the child in their first years (Arniatika, 2023; Limacher-Riebold, 2021). According to BIS HCMC (2016), the importance of a first language, mother tongue, or home language is the language spoken by parents at home. The first language is also distinguished from the "second language," which pertains to the language that a person speaks less fluently. According to Blanco (2022), some accents are easier to pronounce or understand for some people, but it's all about the person`s personal language experience. So, it is very difficult to get rid of the dialect when speaking in a foreign language, such as English. In English pronunciation, often, people whose dialect is very attached will find it difficult to pronounce English properly (Wahyuningsih et al., 2023). This results in misunderstandings and communication not running smoothly.

As happened in Indonesia, the first language of people in Indonesia varies depending on the regional language. There are those whose first language is Javanese, Sundanese, Batak, and others. Each of these languages has very different dialects, different languages, and different pronunciations. This is quite interesting to study because there are often differences between the several languages. According to Purwaningrum and Pangestu (2021), the difference can be seen in the phonological and lexical elements. To realize a meaning, there are differences in pronunciation and choice of words used by each speaker. Sometimes speakers of language dialects do not fully understand each other's language. According to Junaidi et al. (2016), a dialect is a variation of the language of a group of speakers whose number is relative, which is in a certain place, region, or area. It can be concluded that a dialect is a variation of the language of a group of speakers that can be compared with other dialects. Therefore, this study aims to investigate how and why the first language impacts English Pronunciation Errors.

Method

The design used in this study was a case study approach. This was consistent with the goal of a complete and deep understanding of one or more cases. The instrument used in this study was a test. Research instruments are tools needed or used to collect data (Alhamid & Anufia, 2019; Arochman et al., 2023). In this study, researchers used English pronunciation tests and recordings of each participant's performance to generate data. In the next step, the researchers described the process of obtaining the data for this study. The first step was for the researchers to determine the type of research method to be used. In this study, data collection was done through interviews and tests. After that, the researchers determined the interview and test materials. The researchers used the reading text, which was the test material for the sample, and for the interview instrument, the researchers asked several questions. The reading text chosen by the researchers was the text from the internet, which the researchers thought was sufficient test material for the sample.

In addition, researchers asked questions based on the objectives of this study. After determining the instruments and materials, the researchers began by looking for research subjects. The subjects of this study were fourth-semester students studying English teaching at Universitas Tidar. Sampling techniques were used to select native speakers from students in the dark regions of Java, Sunda, Sumatra, and Jakarta. Subjects were then named JAV1, S1, SM1, and JKT1. Then, after all the instruments, materials, and subjects were ready, the researchers began processing the data. Interviews and tests were carried out in rotation from the first sample to the last. For example, subjects were asked to read a text from the British Council Reading Comprehension.

Recordings of the subject's pronunciation were then analyzed using an error analysis procedure. The pronunciation test was designed to measure students' errors in phonetic and phonological aspects. It consisted of four parts: consonants, vowels, stressed words, and intonation. There were voiced and voiceless consonants. Vowels consist of short vowels, long vowels, and diphthongs (Learning Academy, 2016). Word stress consisted of initial, middle, and final stress for each word. Finally, there was falling intonation and rising intonation. In this study, researchers recorded the results of interviews and tests that have been carried out on the sample. The results of the recording were then analyzed by the researchers. Finally, it later produced data for this study. Due to the different regions of the subjects, researchers mispronounced them in interviews to get more information. Two results were transcribed, coded, and analyzed to answer the research question.

Findings and Discussion

Based on the data analysis result, it is possible to obtain data that students in the Java region have difficulties pronouncing English on vowels, consonants, stressed words, and intonation. Researchers found that subjects made, on average, several mistakes in reading comprehension tests given by researchers. Of the four students, the researchers found that the students had different ways of articulation in producing English sounds. After the observation, the researchers conclude that the most common mistakes Java students make.

English vowel

A vowel is a sound/sound that doesn't block air through the mouth, or in Indonesian, it's closer to a vowel sound, but it's a little bit surgical. Example of vowel sounds: / ɪ / i: / ʊ / u: / e / ɜ: / ə / ɔ: /. According to George (2022), the vowel in English is divided into two groups: short vowels and long vowels. A short vowel is noticeably shorter than a long vowel. The example of short vowel is /ɪ/, /e/, /æ/, /ʌ/, /ʊ/, /ɒ/, /ə/. Meanwhile, the example of a long vowel is /i:/, /u:/, /ɑ:/, /ɔ:/, and /ɜ:. Meanwhile, all letters that are not included in the vowel are called consonants, which are where the air is blocked somehow before leaving the mouth. Despite only a few letters, these vowels are very important in spelling, pronunciation, and grammar. Whereas consonants are, A consonant is a sound that we make by blocking air through the mouth or nose. We hold it in with our lips, tongue, teeth, upper mouth, and back of the throat. Examples of consonant sounds are /p/, /f/, /θ/, /t/, /s/, /ʃ/, /ʧ/, /k/. The modification of the English Vowel can be seen in Table 1 as follows.

Table 1. Modification of English vowels

No.	English vowel	Modification (Javanese, Sundanese, Bataknese, Betawinese)	Words
1.	/ə/mid-central sound	/ɛ/ mid front lax unround vowel /ə/mid central stressed vowel /ɛ/ mid front lax unround vowel /ɛ/ mid front lax unround vowel	Oxygen
2.	/i:/ high front unrounded vowel	/ɪ/ high front lax unround vowel /i:/ high front unrounded vowel /i:/ high front unrounded vowel /i:/ high front unrounded vowel	Teams
3.	/aʊ/ low central unrounded vowel- high back lax round vowel	/ɔʊ/ low back round vowel- high back lax round vowel /ɔʊ/ low back round vowel- high back lax round vowel /ɔʊ/ low back round vowel- high back lax round vowel /aʊ/ low central unrounded vowel- high back lax round vowel	Mount
4.	/æ/ low front unrounded vowel	/ʌ/mid-central unstressed vowel /ʌ/mid-central unstressed vowel /ɛ / mid front lax unround vowel /æ/ low front unrounded vowel	Mask

From the data analysis in Table 1, it can be concluded that the average research subject makes mistakes in pronunciation. From all the existing vowels, the research subject made mistakes in several vowels, as in vowels /ə/ mid central sound, /i:/ high front unrounded vowel, /aʊ/ low central unrounded vowel- high back lax rounded vowel, /æ/ low front unrounded vowel. From the findings data on vowels, the research subject made a lot of mistakes in pronouncing the vowels /ə/ and /aʊ/.

On the vowel /ə/, especially for the word "oxygen" which is in the text, on average, the subject thinks of a different pronunciation than it should. The subject uses the vowel /ɛ/ in the word "oxygen" even though the vowel /ə/ is supposed to be used. This can cause the listener to misunderstand what the subject is talking about. In the vowel /i:/ used in the word "teams," one of the subjects made a mistake in pronouncing it. the subject uses the vowel /ɪ/ in pronouncing the word "teams" In that word, you should use the vowel /i:/ because, in this pronunciation, you should use a long vowel instead of a short vowel. Likewise, for other vowel errors. On average, the subjects made mistakes because they replaced what should have short vowels with long vowels and vice versa. When they should have used long vowels, they used short vowels. However, not all subjects make mistakes. There are subjects whose pronunciation is correct.

English consonant

Consonants are one part of linguistics that is easy but more complicated to understand. According to Vocabulary.com, the notion of a consonant is a letter that is not a vowel. So, every letter that isn`t A, E, I, O, U, and sometimes Y is a consonant. A consonant is a speech sound that is not a vowel. It also refers to letters of the alphabet that represent those sounds: Z, B, T, G, and H are all consonants. In

the following Table 2, there was an analysis of consonants that was conducted by researchers.

Table 2. Modification of English consonants

No.	English vowel	Modification (Javanese, Sundanese, Bataknese, Betawinese)	Words
1.	/z/ voiced alveolar fricatives	/s/ voiceless alveolar fricative /z/ voiced alveolar fricatives /z/ voiced alveolar fricatives /z/ voiced alveolar fricatives	Easily
2.	/ð/ voiced fricative	/t/ voiceless, alveolar /t/ voiceless, alveolar /t/ voiceless, alveolar /t/ voiceless, alveolar	With
3.	/ʃs/ voiceless alveolar fricative	/k/ voiceless velar /c/ voiceless vocal tract /s/ voiceless alveolar fricative /k/ voiceless velar	Ascend

In the consonant section in Table 2, some subjects also made the mistake of substituting another consonant. As an example of the word "easily"; there is a subject replacing it with the consonant /s/, so the pronunciation becomes /ˈisəli/, while the correct pronunciation should be /ˈizəli/; doing so can result in miscommunication when interacting with other people. Likewise, with other consonants. The subject also made a mistake by replacing it with another consonant so that their pronunciation was difficult to understand. Likewise, with the other consonant. In the table of consonants, the researcher found the same error as the previous consonant. It is the consonant /ð/. In this consonant, the subject has to pronounce which tongue is in a wide part of the upper teeth all the way around. The very tip of the tongue comes out between the upper and lower front teeth. The tongue is relaxed. But the subject always pronounces this consonant /ð/replaces it with this consonant /t/. So, changing the pronunciation of the word will result in someone not understanding what someone is saying. All the subjects pronounce the word "with" with the pronunciation /wɪt/ when they should say it with the pronunciation /wɪð/.

Discussion

The results of this study show that most students make mistakes in English pronunciation. Pronunciation is one of the important things for someone learning English, especially if taking English courses. If they make mistakes in pronunciation, they can also be wrong with others. Based on the results of observations related to pronunciation made by several English students who come from different regions, 4 of them often make mistakes in the pronunciation of vowels and consonants. The researcher identified the difficulties faced by students by identifying the test results and through field notes made by the researcher during the research activities. The results can be used as the main points of difficulties faced by students in English pronunciation as follows:

Difficulty in eliminating the influence of the mother tongue which is still strong.

Some students experience the following problems, namely problems when eliminating the influence of the mother tongue. This mother tongue influence causes students to feel difficulty when pronouncing English more naturally. When they pronounce English, the words that are heard tend to be more characterized by the mother tongue, for example, the research subjects who come from Java, Sumatra, Jakarta, and Sunda. According to the interviews, they tend to use their accent when speaking English. According to them, it is a difficult thing to get rid of, but by saying English with their accent, their communication partner still understands what they are saying.

Difficulty in pronouncing consonants and vocal sounds correctly

Often, students mispronounce consonant and vocal sounds in English. This is due to the difference in pronunciation of sounds, especially in some different regions. In the subject of the study, the researcher provided several examples of subjects who came from several different regions to analyze their English pronunciation and whether it would be the same as the accent in the region or not. As the results of the research conducted, all subjects still use accents that are in their respective regions. The consonants and vowels they pronounce are also the same as the accents in their respective regions. For example, female students from Java. In the sample who came from Java, on average she was wrong in the pronunciation of vowels. For example, the vowel /ə/, in the word "oxygen" in the text, should be pronounced using the vowel /ə/, but the subject instead uses the vowel /ɛ/. So that the resulting pronunciation will be wrong. This is due to the habit of pronunciation in Indonesian with the word "gen", but in English, it should be pronounced as "gèn".

The previous study in this research was conducted by Haryani et al. (2020). They confirmed that students have not been able to pronounce the correct words. They pronounce them using their feelings. They also assumed that there were no mispronunciation errors due to the level of college students who have a basic understanding of pronunciation if there are still pronunciation errors. It is also supported by Megariani et al. (2020) that many students did mispronunciations commonly when they did presentation projects. This has a relationship with the research conducted by the researcher, namely, students still use dialects in their home regions in English pronunciation. In addition, there are previous studies related to this research, namely research conducted by Ambalegin and Suryani (2018), who examined how the mother tongue affects the pronunciation of English vowels in adults in Toba Batak.

Conclusion

In conclusion, this study aimed to investigate how and why the first language influences English pronunciation errors. The research design employed a case study approach using qualitative research methods and contrastive analysis principles to analyze the data. The participants were students from different regions in Indonesia, including Sunda, Sumatra, Java, and Jakarta, studying English as a foreign language. Pronunciation tests and interviews were conducted, and online phonetic transcription was used to identify and analyze pronunciation errors. The findings revealed that the first language of the participants had a significant impact on their English pronunciation. The specific errors varied depending on the region and the

participants' first language dialect. In the Javanese area, errors were observed in sounds such as /d/, /b/, /p/, /g/, /t/, and /r/. The Sundanese region showed mistakes in /b/ and /d/, while the Sumatra region exhibited emphasis on the middle and end of sentences. The Jakarta area demonstrated clearer pronunciation, deviating from the local accent. The Lampung area still retained the accent from the region in their pronunciation.

The study highlights the strong influence of the first language on English pronunciation, especially in terms of phonetic and phonological differences. However, it is important to note that individual learner characteristics, such as age, motivation, and aptitude, also play a role in pronunciation acquisition. Based on the findings, it is recommended that language teachers and educators be aware of the potential challenges arising from the influence of the first language on pronunciation. Furthermore, further research is needed to deepen our understanding of the impact of the first language on pronunciation, including specific language pairs and additional factors such as sociolinguistic and pragmatic aspects. Overall, while the influence of the first language on English pronunciation errors is significant, employing appropriate methods and techniques can help mitigate these challenges and improve learners' pronunciation skills in English.

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READING STRATEGIES APPLIED BY BENGKAYANG STUDENTS TO OVERCOME THEIR COMPREHENSION PROBLEMS

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Abstract
Reading is one of the language skills that learners must acquire. However, many students experience difficulties because they lack English knowledge. There are strategies that students can use to overcome their reading difficulties such as translating, asking questions, and using other references. Research about English reading strategies has been conducted in several regions in Indonesia such as in Aceh Besar and Medan, but in Bengkayang, there has never been any research done on that topic. Thus, this study aimed to find out Bengkayang senior high school students' strategies to overcome their English reading difficulties. The participants of this study were 90 first-grade senior high school students from four senior high schools in Bengkayang. This study uses a quantitative descriptive method by using a questionnaire as its data collecting instrument. The questionnaire contains three open-ended questions and sixteen closed-ended questions. The findings showed that Bengkayang students faced some problems in reading English texts such as lack of vocabulary and grammatical mastery. The strategies to overcome the difficulties are divided into three categories Support, Problem-solving, and Global strategies. Based on the findings, Problem-Solving strategies are the type of strategies that the students often use while comprehending reading texts.

Keywords: difficulties, reading, strategies

Introduction

Reading is one of the skills in learning English that is important to learn. However, reading activities are not as easy as expected. Every reading activity has its difficulties which need to be overcome by students depending on each student's appropriate reading techniques to make it easier for them to understand the contents of the reading texts. Thus, reading comprehension includes activities to understand a text by making a new meaning that is more relevant by using previous knowledge. Furthermore, reading comprehension is linked to learners' capacity to recognize and rectify grammatical faults (Jarrah & Ismail, 2018). Besides that, understanding a reading text is an activity that must be carried out carefully so that the results in concluding the contents of the text do not leave the context of the reading.

Senior high school students in Indonesia need the knowledge to understand reading texts because reading texts at the tertiary level is more complex. To prepare students' knowledge in the field of more critical reading, it is necessary to develop reading skills. Reading comprehension is an activity to understand the content of the text. However, in terms of reading, there must be problems in understanding the contents of the reading text. Hasibuan (2018) said that students still struggle to extract information from texts, and there are a variety of reasons why they are unable to complete reading tasks, including a lack of vocabulary, failure to grasp the main idea, difficulty pronouncing words, a lack of interest in reading and reading comprehension was previously difficult to achieve.

Besides that, there is also research on difficulties in understanding the text experienced by remote area students even though the numbers are not many. Dini (2020) states those in rural locations typically do not have the same resources as students in suburban or urban areas. Because this rural area is far from the city center, it is not developed enough. In this case, students in rural areas face several problems caused by two factors, namely external and internal. Based on Dini's research, physics, cognition, and psychology are all internal factors. Family and school environment are examples of external variables. However, research on reading comprehension difficulties in remote areas is important because it can help students solve problems in understanding reading texts better.

Many of the existing studies have discussed difficulties in reading and understanding the contents of the reading text. However, very few of the existing studies discuss the strategies used by students in overcoming difficulties that arise when reading or understanding the contents of reading texts, especially in Bengkayang where students may have the same problems as previously mentioned. Thus, this study aims to find out the strategies of senior high school students in Bengkayang to overcome their difficulties when comprehending English reading texts. The research questions underlying this study are "What are the strategies to overcome the difficulties faced by Bengkayang senior high school students in comprehending English texts?".

The results of this study are expected to help students, especially from remote areas, to know that there are strategies that they may apply to overcome difficulties in understanding the contents of the reading texts.

Reading and reading comprehension
Among the four language skills in English, reading is the most popular skill to teach (Pramono, 2018). Pramono argued that reading, which entails the receipt and comprehension of language, may be quite beneficial to the instructor in assisting pupils in efficiently adapting to English. Reading also can be a skill in English that can be used for mastering English by learning reading English theories. In reading, students must persevere to read a text because reading is not just a monotonous activity but a pleasurable activity. Students usually look for their reading materials according to the reading text that they enjoy as a beginning to draw their attention to reading. This can also be supported by the existence of visual aids that aim to make students enjoy their reading texts more. Students are more likely to read books with interest when visual aids such as photos, videos, and projectors are used, making it simpler for them to comprehend the abstract ideas in the writings (Yunus, Salehi, & John, 2013).

Understanding a book is a complex process in which the text's meaning is derived from a combination of state, literal meanings of words and phrases, as well as inferred meanings that can be formed uniquely by the readers (Lestari, Fitriani, & Erdina, 2017). In this activity, students may use their language to interpret the meaning of words and phrases that are in the texts to be more easily understood by readers. Reading comprehension is a remarkable achievement of balancing and organizing several abilities in a complicated and fast-paced system of routines that makes understanding appear to be a simple and joyful activity for proficient readers (Wulandari, 2018). When a student can master the ability to read, is it said that the student has already passed through a lengthy process of reading. Because reading requires consistency in improving the ability to decipher a text publication. In the reading process, there is a cognitive process which is a repository of information that has been previously obtained for a long period. This process can help students remember the information contained in the text and easily develop that information with new theories according to the context of the reading.

Senior high school students' English reading difficulties

In reading, there are certain difficulties in understanding reading texts. This arises because students do not have sufficient mastery of vocabulary in English and also sentence structure or grammar. According to Zuhra (2015), many terminologies in the texts were unfamiliar to the students, and the phrases or sentences were lengthy. Mastery of vocabulary is very necessary if the students want to master a foreign language, especially English. Vocabulary knowledge is one of the finest measures of one's ability to read well and pick up new information from texts (Moghadam, Zainal, & Ghaderpour, 2012).

Sentence structures or English grammar can make students' understanding of English texts seem more difficult because when they do not have prior knowledge of the sentence structures or English grammar, they will find it difficult to make guesses about the meaning of unfamiliar words in the texts. Based on the result of research by Akbari (2014) grammar skills suggest improved comprehension and can be used as a predictor of reading success. Negara (2016) stated that grammar is used to convey a clear meaning or intent in a sentence. With the mastery of grammatical knowledge, can help students to find out the relationship between one sentence and another.

Motivation in reading is also needed for students to improve their reading skills because by having good motivation in reading students can gain more information about what they want to know in this world. However, some students do not have an interest in reading which makes them have difficulties in comprehending the English reading text. Akmal, Dhivah, and Mulia (2020) said that students should be encouraged to read more since strong motivation and sufficient topic knowledge will substantially assist in reading comprehension. Therefore, improving students' interest in reading is needed.

English reading ability in 3T areas

Pramono (2018) said that however, the country continues to struggle to provide equal access to education, particularly in rural areas. This can be supported by several factors, namely the students who do not have the background to study English which makes it difficult for students in rural areas to capture English

knowledge easily. As they go toward mastery, the students must construct a framework of knowledge that will act as a scaffold for additional learning (O'Reilly, Wang, & Sabatini, 2019). Another factor is learning material, which is because some rural areas cannot be accessed easily due to not having the infrastructure to get to the target area. By looking at these considerations, the distribution of learning materials requires a long process. So, adequate access is needed to distribute learning materials so that students are quickly fulfilled.

There are also perspectives from people in rural areas about learning English. Shahnaz and Gandana (2021) said that many individuals in rural regions still regard English as a foreign language that does not necessarily provide immediate advantages to their lives. A perspective like this can affect students' interest in learning English because the language is not used as the main language in their daily communication. Another perspective is from the students' parents. So, it is necessary to change the point of view of students and parents that learning English can also be beneficial for students' future.

Strategies in reading comprehension

Mokhtari and Sheorey (2002) said reading skills are used in the context of reading strategies, which are defined as "an interactive process that aims to gain meaning from the related text". He also grouped the reading strategies into three strategies such as global strategies, problem-solving strategies, and support strategies. For global strategies, it can be seen from the actions taken by readers intentionally to understand the contents of certain texts such as the use of instructions that are by the reading context to better understand the reading text. Tuyen and Huyen (2019) stated that contextual clues help readers understand a word's place in a sentence as well as the ideas being discussed there. Bolukbas (2013) said that the objectives of pre-reading techniques are to motivate students, activate their past topic knowledge, spark their interest through early assessments, and concentrate their attention on unfamiliar words. To gain more information in reading text requires knowledge mastery. Children can be helped to understand the topic by using visuals in pre-reading activities by relating their past knowledge to the text (Phuong & Trang, 2021).

Next is problem-solving strategies which can be interpreted as actions that readers take directly to understand the reading text, such as stopping directly and thinking about what they read. By stopping from time to time, the students can gain a more detailed understanding of the text. Cardenas (2020) as cited in Mart (2012) stated that in a teacher-led classroom context where vocabulary and grammar are given in bite-sized portions, intensive reading enables the reader to carry out an in-depth study. In the problem-solving category, reading speed is also needed to know the level of students' reading skills. The text could be read very quickly if speed-reading software is used (Kukkonen & Oslo, 2021). In that research also mentioned about the read slowly that said about close reading is like slow reading.

The last strategy is the support strategy which is defined as a support action taken by the reader to meet the needs of the reader in understanding the contents of the reading text, such as paraphrasing the information obtained from the text in the reader's own words. Ilter (2017) said that the goal of paraphrasing is to encourage the use of full sentences, allow students access to the specific content being taught, and make it simpler for readers to understand paraphrases in texts. Support

strategies also mention that asking questions is one of the useful strategies used by students to improve their reading skills and also add more knowledge. Blything and Cain (2020) stated that if teachers place a strong emphasis on word-reading skills development, confirmatory questions may keep younger kids interested in a book. Dwiningtiyas, Sofyan, and Puspita (2020) said that teachers play a crucial role in children's mastering of reading comprehension.

Method

This research was conducted in four senior high schools in Bengkayang, West Borneo. The research was conducted to answer the research question "What are the strategies to overcome the difficulties faced by Bengkayang senior high school students in comprehending English texts?". To answer the research question, this study used a descriptive quantitative method. According to the University of Southern California Libraries (n.d.), quantitative approaches focus on precise measurements and statistical, mathematical, or numerical analysis of data gathered by surveys, polls, and other forms of data collection, or by modifying historical statistical data using computational methods.

The participants were 90 students who answered the questionnaire. The participants of the study were first-grade senior high school students who were expected to know and apply strategies for comprehending English texts. The questionnaire that was used was developed by adapting from Mokhtari and Sheorey's (2002) study. The questionnaire used to collect data using two types of questions, namely closed-ended and open-ended questions. The sixteen closed-ended questions were in the form of yes/no, often/seldom, and multiple-choice questions. Then, the open-ended questions asked about the reasons for the participants' answers to the closed-ended questions. The questionnaires which were created by using Google Forms were shared with the students in the four schools in Bengkayang through a link that was sent to all of the participants' Whatsapp numbers.

After the data were collected, they were filtered according to the questions. Next, the data were grouped into several categories through several stages where for closed-ended questions, the same number of answers was calculated for each question that was still in the same domain. After the data were analyzed, the next step was to calculate the amount of data for each statement by finding the average number of 'sometimes' and 'often' answers in each closed-ended question and also calculating the total percentage of each open-ended question. Then, the results of these calculations were sorted starting from the statement that gets the highest percentage to the lowest percentage to see the level of frequency of students using reading strategies and also to see the students' greatest difficulties in reading. After that, the step taken was to conclude the survey results by looking at concluding that the top three of the statements in each category were the main strategies or the main difficulties that students do and experience in reading. This activity was also carried out to form clear findings.

Findings and Discussion

The data analysis results revealed the students' difficulties in reading English texts and also the strategies that they used to overcome the difficulties. Besides using the three main strategies of Support, Problem-Solving, and Global Strategies,

the students also used other strategies in their reading. The findings of this study are presented below.

Students' difficulties in reading English texts

Table 1. Students difficulties in reading English texts

Difficulties in Reading English Texts	Total Number of Respondents Choosing the Answer	Percentage
Lack of vocabulary	63	**70%**
Lack of grammatical mastery	35	**38.90%**
Lack of background knowledge of English.	16	17.80%
Lack of interest in reading English texts	15	16.70%
Lack of pronunciation	3	3.30%
Poor Pronunciation	3	3.30%
Lack of comprehension	2	2.20%

From Table 1 above, it can be seen that the two biggest problems that the students faced when reading an English text were a lack of vocabulary and grammar mastery. Moghadam, Zainal, and Ghaderpour (2012) stated that one of the best indicators of reading aptitude and the capacity to learn new information from texts is vocabulary knowledge. By looking at this statement, vocabulary mastery in learning a language is very important and is one of the main things that must be learned. However, in this research, there are 63 respondents (70%) stated that the problem of insufficient vocabulary knowledge caused them to have difficulties in understanding English texts. This happened because their background knowledge of English is not enough. It can be proven by the students' answers which stated that they began to learn English when they were in junior high school (see Table 2 below). A total of 36 students (40%) had just started learning English in junior high school.

Table 2. Students' English background

School Level	Total Number of Respondents Choosing the Answer	Percentage
Junior high school	36	**40%**
Senior high school	11	12.20%
Elementary school	10	11.10%

Two of the participants stated that their vocabulary insufficiency problem appeared due to their late English learning.

Excerpt 1:
"Because when I was in elementary school, no one taught me English."
(P1's statement collected from the Questionnaire on February 13, 2023, translated by the researcher)

Excerpt 2:
"In my school, there was no English subject."
(P2's statement collected from the Questionnaire on February 13, 2023,
translated by the researcher)

The second biggest problem which was faced by the students in understanding English texts was their lack of grammar knowledge. As can be seen in Table 1 above, there are 35 students with a percentage of 38.90% who chose lack of grammar mastery as their problem in understanding English texts. Negara (2016) said that to communicate a distinct meaning or intent in a statement, grammar is utilized. In reading, grammar is essential for students to overcome their comprehension problems because mastering grammar can assist them not just in communicating well but the most important thing is that the students can gain the information from the text correctly without misunderstanding the content. Hence, the students need to learn grammar in an enterprising and deep way to master the grammar of the English language.

The other problems that the students faced when reading English which got the medium positive responses from the respondents with the percentage of between 16% to 17.79% are a lack of interest in reading English and a lack of knowledge about English. Based on the percentage in Table 1, there are 15 students (16.70%) who are not interested in reading English. Looking at this problem, the students need more motivation to increase their interest in reading, especially English texts. Akmal, Dhivah, and Mulia (2020) stated that students should be given greater motivation to read because mastering reading will be greatly aided by strong motivation and adequate subject knowledge. Students also do not have enough knowledge of English which makes them unfamiliar with English. There are 16 students (17.80%) who chose the statement of not having background knowledge of English. Therefore, the learners must build a framework of information that will serve as a scaffold for further learning as they progress toward mastery (O'Reilly, Wang, & Sabatini, 2019).

The difficulties that get the lowest score are the lack of understanding and lack of pronunciation. Students with major pronunciation issues who do not address them right away will experience difficulty with understanding, which will prevent them from achieving the primary aim of language study (Tejeda & Santos, 2014). Based on that statement, it can be said that students need to have a behavior to practice their English pronunciation. 6 students have poor pronunciation with a percentage of 6.70%. About 2.20% of the students (two of them) have a lack of understanding in their reading comprehension activity.

The strategies used by students to overcome their comprehension problems
Support strategies

Table 3. Support strategies used by students

Support Strategies	Never	Seldom	Sometimes	Often
I ask myself questions I like to have answered in the text.	4	10	19	57
	4.40%	11.10%	**21.10%**	**63.30%**

Support Strategies	Never	Seldom	Sometimes	Often
I go back and forth in the text to find relationships among its ideas.	3	12	24	51
	3.30%	13.30%	**26.70%**	**56.70%**
When reading, I translate from English into the Indonesian language.	6	11	19	54
	6.70%	12.20%	**21.10%**	**60%**
When reading, I think about information in both English and Indonesian.	6	13	27	44
	6.70%	14.40%	**30%**	**48.90%**
I underline or circle information in the text to help me remember it.	13	8	26	43
	14.40%	8.90%	**28.90%**	**47.80%**
I paraphrase (restate ideas in my own words) to better understand what I read.	4	18	34	34
	4.40%	20%	**37.80%**	**37.80%**
I use links to reference materials (e.g. a dictionary, or other related texts) to help me understand what I read.	4	18	37	31
	4.40%	20%	**41.10%**	**34.40%**
I take notes while reading English texts to help me understand what I read.	14	17	32	27
	15.60%	18.90%	**35.60%**	**30%**
When text becomes difficult, I read it aloud to help me understand what I read.	31	11	27	21
	34.40%	12.20%	**30%**	**23.30%**

Based on Table 3 above, it can be seen that for Support Strategies, three common strategies are used by the students to help them comprehend English texts. Those three strategies of 'Asking questions which they like to have answered in the text', 'Going back and forth in the text to find relationships among its ideas', and 'Translating from English into the Indonesian language'. Those three strategies get the top three highest positive responses of 'Often' and 'Sometimes' (84.40%, 83.40%, and 81.10% respectively). The strategy of asking questions can benefit both students and teachers where both parties become more intense in understanding reading texts. Blything, Hardie, and Cain (2020) stated that confirmatory questions may help younger children stay interested in a book, especially when teachers emphasize the development of word-reading skills.

The next strategy which gets the second highest positive responses from the respondents is 'Going back and forth in the text to find relationships among its ideas'. This strategy may be chosen by the respondents as the strategy that they often used when they faced difficulty in understanding the English text that they were reading because by using this strategy they wanted to ensure that their understanding of the text was correct. The findings of a study conducted by

Madhumathi and Gosh (2012) found that the supportive method was the one that the students favored. His research also found out that the strategy of 'Going back and forth the text to find the relationships among its ideas' was chosen as the eleventh most chosen strategy among all other strategies.

The third highest positive response from the respondents is 'Translating English into the Indonesian language'. This strategy was used by the students when they faced difficulty in English reading comprehension. About 81.10% of students chose the 'Sometimes' and 'Often' options when they were asked about using this strategy to overcome their difficulties in comprehending English texts. Owji (2013) believes that it is possible to define translation as a decision-making and problem-solving process. Seeing this statement, it can be said that students often use translation techniques as one of the best solutions for understanding an English reading text.

The five other Support Strategies get medium positive responses from the respondents with a percentage of between 60% to 79.99%. Those five strategies are 'Thinking about information in both English and Indonesian', 'Underline or circle information in the text', 'Paraphrase the information', 'Using links to reference materials such as dictionaries', and 'Taking notes while reading English texts'. Atiullah, Fitriati, and Rukmini (2019) said that when taught behavior is not relevant, higher-order thinking techniques are utilized to find a solution. Because of this, in reading, students need high thinking skills to create and analyze ideas from the information contained in the text using Indonesian and English. The next strategy is to underline or circle information which can help students easier in finding out new information and improve their understanding of the text. Reading studies on underlining, which authors employ to assist readers in discovering points in a book like headers, previews, and enumeration, has had conflicting outcomes (Mahdavi & Azimi, 2012). Paraphrasing strategy is also utilized by the students to overcome their difficulties in reading. Ilter (2017) said that the purpose of paraphrasing is to make it easier for readers to grasp paraphrases in texts, give students access to the specific knowledge being taught, and encourage them to utilize full sentences. Madhumathi and Gosh (2012) stated that reading is an interactive, meaningful building process in which readers apply a variety of ways to understand information from many accessible sources, according to studies on second language reading. It can be said that references from other sources can help the learners to gain more information which can impact their understanding of the reading text. The last strategy is taking note of the information in the text. Students who use note-taking tools focus more on key information and less on unimportant stuff (Rahmani & Sadeghi, 2011). Based on that statement, it can be concluded that note-taking is one of the helpful strategies for students to increase their reading comprehension.

The Support Strategy which gets the lowest positive responses from the respondents is 'Reading the text aloud to understand it when the text is too difficult to understand'. This strategy gets only 53.30% of positive responses 'Often' and 'Sometimes'. By employing this method, the students' hearts may be brought back to life, which can help them feel less drowsy and motivate them to read and think (Huda, Zakaria, & Kartanegara, 2015). Therefore, this strategy can build students' motivation in reading and they cannot feel bored by using this strategy during reading activities.

Problem-solving strategies

Table 4. Problem-solving strategies used by students

Problem-Solving Strategies	Never	Seldom	Sometimes	Often
When the text becomes difficult, I re-read it to increase my understanding.	1	9	26	54
	1.10%	10%	**28.90%**	**60%**
I try to get back on track when I lose concentration.	5	6	20	59
	5.60%	6.70%	**22.20%**	**65.60%**
When text becomes difficult, I pay closer attention to what I read.	4	9	18	59
	4.40%	10%	**20%**	**65.60%**
I read slowly and carefully to ensure I understand what I read.	3	11	19	57
	3.30%	12.20%	**21.10%**	**63.30%**
I adjust my reading speed according to what I am reading.	3	13	19	55
	3.30%	14.40%	**21.10%**	**61.10%**
I stop from time to time and think about what I am reading.	5	11	20	54
	5.60%	12.20%	**22.20%**	**60%**
When I read, I guess the meaning of unknown words or phrases.	7	16	16	51
	7.80%	17.80%	**17.80%**	**56.70%**
I try to visualize or picture information to help me remember what I read.	10	16	30	34
	11.10%	17.80%	**33.30%**	**37.80%**

Based on Table 4 above, It can be seen that in Problem-solving Strategies, three strategies are mostly used by the students to assist them in comprehending English texts. Those three strategies of 'Re-read the texts when it becomes difficult', 'Get back on track when losing concentration', and 'Pay closer attention to the text'. Those three strategies get the top three highest positive responses of 'Often' and 'Sometimes' (88.90%, 87.80%, and 86% respectively). Ahilbekovna (2020) argued that students' understanding could be improved by increasing their reading speed through repeated, timed reads of literature at their instructional level. The research also said that accustoming students to re-read the same text at a certain time helps them to find their mistakes in reading vocabulary. Judging from this, it can also be said that students can indirectly enrich their vocabulary to more easily understand an English text.

The second highest strategy is to get back on track when losing concentration which can assist the students to be more focused on reading. It can be said that most students might focus on their reading text and put a significant effort into reading to assist them in getting the important information in the texts. Sorqvist and Marsh (2015) Stated that higher concentration levels do not always need more work, even though effort and concentration frequently go hand in hand when compensating for

a more challenging activity. This statement proves that having a high level of concentration makes it easier for students to be able to understand reading texts without too much effort but still requires effort. Therefore students are expected to be able to refocus so that reading activities are not easily distracted which results in errors in understanding the reading text.

The next strategy is to pay closer attention to the text which can help students to gain more detailed information on the text. Reading pay closer to text is related to closer reading which can impact the students' reading comprehension skills. Dakin (2013) stated that students may accurately identify the reading goal, the meaning, and the primary concept by carefully examining the various text elements and text structures using the close reading method. By the closer reading method, the students know about their purpose in reading and can enhance their attention to the new information in the text. Therefore, this strategy is usually used by the students in their reading comprehension activity.

The four other strategies get medium positive responses from the respondents with a percentage of between 74% to 85%. Those three strategies are 'Read slowly', 'Adjust the reading speed', 'Stop time to time', and 'Guess the meaning'. In reading, speed is needed for learners to know the level of their reading skills. The strategy of reading slowly can help the students pay attention to the information in the text to gain a good comprehension of the content of the text. In other words, slow reading is similar to close reading (Kukkonen, 2021). The same researchers also said that Utilizing speed-reading software could result in reading text incredibly quickly. Looking at this statement, it can be seen that many tools of reading speed can support students in increasing their reading skills. The next strategy is to stop from time to time, which is a technique usually used by students to find out about the information they just found in a reading text. With a stop from time to time, students are more able to explore new information intensively to gain a better understanding. Cardenas (2020) as cited in Mart (2012) stated that intensive reading enables the reader to perform a thorough analysis in a teacher-led class setting where vocabulary and grammar are covered in brief chunks.

The last strategy which gets medium positive responses from the students is to guess the meaning which can build students' ability in reading. Hardanti, Sutarsyah, and Yufrizal (2015) stated that the guessing approach of the surrounding words, images, experiences, and imagination contributed to the context strategy's meaning and led to improved accomplishment. Guessing the meaning of a vocabulary or content is also useful for students to be able to take advantage of their background knowledge to understand the contents of the reading text. Besides that, this technique can be used to train students' way of thinking to be more critical.

The Problem-solving strategy which gets the lowest positive responses from the respondents is 'Visualize or picture information'. This strategy gets only 71.10% of positive responses of 'Often' and 'Sometimes'. Byrne, Angus, and Wiles (2019) believe that by including images within the information, visualization offers the potential to increase the overall amount and type of information that is communicated, not just to increase abstract information. Based on that research, it can be said that visualizing information can assist students with more complex information.

Global strategies

Table 5. Global strategies used by students

Global Strategies	Never	Seldom	Sometimes	Often
I check to see if my guesses about the text are right or wrong.	5	11	15	59
	5.60%	12.20%	**16.70%**	**65.60%**
I think about whether the content of the text fits my reading purpose.	6	11	27	46
	6.70%	12.20%	**30%**	**51.10%**
I think about what I know to help me understand what I read.	3	16	24	47
	3.30%	17.80%	**26.70%**	**52.20%**
I check to see if I understand when I read new information.	5	16	34	35
	5.60%	17.80%	**37.80%**	**38.90%**
I use context clues to help me better understand what I am reading.	1	22	21	46
	1.10%	24.40%	**23.30%**	**51.10%**
I check my understanding when I come across new information.	3	21	30	36
	3.30%	23.30%	**33.30%**	**40%**
I like an overall view of the text to see what it is about before I read English texts.	5	22	21	42
	5.60%	24.40%	**23.30%**	**46.70%**
I try to guess what the content of the text is about when I read.	13	14	28	35
	14.40%	15.60%	**31.10%**	**38.90%**
I review the text first by noting its characteristics like length and organization.	6	24	27	33
	6.70%	26.70%	**30%**	**36.70%**
I have a purpose in mind when I read an English text.	11	21	32	26
	12.20%	23.30%	**35.60%**	**28.90%**
When reading English texts, I decide what to read closely and what to ignore.	9	23	21	37
	10%	25.60%	**23.30%**	**41.10%**
I use typographical features like boldface and italics to identify key information.	15	20	28	27
	16.70%	22.20%	**31.10%**	**30%**
I use tables, figures, and pictures in the text to increase my understanding.	16	24	24	26
	17.80%	26.70%	**26.70%**	**28.90%**
I critically analyze and evaluate the information presented in English texts.	11	32	30	17
	12.20%	35.60%	**33.30%**	**18.90%**

Table 5 above shows that for Global Strategies, three strategies are used by the students to assist them in English reading comprehension. Those three strategies of 'Check the guesses', 'Think the content of the text fits with the reading purpose', and 'Think about the students' know' get the top three highest positive responses of 'Often' and 'Sometimes' (82.30%, 81%, and 78.90% respectively). In guessing the text, the students need to have good vocabulary mastery to make it easier for them to guess the contents of the text. It means that students can learn vocabulary by guessing the content of the text. Guessing from context helps improve reading efficiency. The capacity to deduce a word's meaning without consulting a dictionary saves time and permits the reader to keep reading uninterrupted (Mart, 2012). Therefore using guessing techniques the students can enhance their vocabulary knowledge.

The next technique is thinking about the content with the percentage 81% of students utilizing the technique to support them in their reading comprehension development. To fit with students' reading purposes, the students need to think critically to gain the content of the text. Based on Marboot, Roohani, and Mirzaei (2020) as cited in Aghajani and Gholamrezapour (2019) stated that The process of learning, effective information seeking, and cognitive development all depend on critical thinking (CT). Because of this, critical thinking needs to be taught to students so that their level of reasoning increases.

The third highest positive response from the respondents is 'Think about what the students' know'. About 78.90% positive responses of 'Often' and 'Sometimes'. McNeil (2011) said that numerous studies show that background information related to the text's subject matter aids understanding. With background knowledge, the students can understand the content of the text easily. Based on the statement above from the expert shows that background knowledge is important and needed for students' reading comprehension skills.

The nine other Global Strategies get medium positive responses from the respondents with a percentage of between 61% to 77.99%. Those nine strategies are 'Check the new information', 'Use context clues', Check the understanding of the new information', 'Overall view of the text', 'Guess the content', 'Review the length and organization of the text', 'Have a purpose in mind', 'Decide what to read closely', and 'Use Typographical features'. One way to check new information in the reading text is to discuss the meaning of the vocabulary or phrases in the text. Puspitasari and Sari (2020) stated that discussing meaning can teach students how to question, summarize, restate, and add comments to one another to deepen their understanding. The following strategy is to use context clues that are related to the vocabulary used in the text. In using context clues, the students are trained to be active in guessing the content by the clues in the context. Tuyen and Huyen (2019) stated that contextual cues reveal how a word fits in a phrase and the concepts being explored within. The overall view of the text before reading also has a part in comprehending the English text. Fisher (2016) said that to obtain a sense of what will be in the text before reading, one needs to preview it first. Hence, the students can prepare their skills to understand the text. In reading, the guessing activity is usually done before the reading activity starts. It can be said that there is a need for pre-reading like guessing the content of the text which can motivate students to be more interested in reading activity. Bolukbas (2013) said that the goals of pre-reading strategies are to excite pupils, activate their prior knowledge of the subject,

pique their interest through early assessments, and focus their attention on unfamiliar words. Review activity in reading also can assist students to know the characteristics of the text which can help them decide whether to read the text or not. As mentioned before by Fisher (2016), discovering what readers are going to read before it is read is the goal of previewing. It can be said that previewing the length and the organization of the text is needed to interact with students to read the text with enthusiasm. Another strategy is to decide what to read closely. Hinchman and Moore (2013) said that reading closely entails delving as deeply as you can into the particular points that make up a literary piece. In this strategy, students are intended to be wise in reading by being able to determine which parts of the text need to be read intensively. It aims to develop students' understanding abilities. The last strategy is to use typographical features which is the technique that students utilize to help them in their comprehension problems. Lonsdale (2014) as cited by Lonsdale (2016) stated that to achieve high readability, it is crucial to take into account, mix and alter each typographic component individually.

The two Global strategies which get the lowest positive responses from the respondents are 'Use tables, figures, and pictures' and 'Analyze and evaluate the information critically'. These strategies get only 55.60% and 52.20% of positive responses of 'Often' and 'Sometimes'. Phuong and Trang (2021) stated that by connecting their prior knowledge to the text, children may be guided to absorb the material by employing visuals in pre-reading exercises. It can be said that pictures, tables, or others can catch students' attention which can make students easier in understand the text. The second strategy is to analyze and evaluate the information critically. Analyzing and evaluating are related to critical reading which can train students' thinking skills in reading. Liu (2019) claimed that critical reading is a high-level knowledge of written content that calls for interpretation and assessment abilities that allow readers to discriminate between relevant and irrelevant information, separate facts from views, and ascertain the author's aim and tone. Therefore, students need to enhance their critical reading skills to have a good understanding of English reading text.

Other strategies to deal with comprehension problems

Table 6. Other strategies to deal with comprehension problems

Other Strategies	Total Number of Students Choosing the Answer	Percentage
Translate using a dictionary and Google Translate	44	**48.90%**
Learn a lot from books or other references	16	**17.80%**
Repeat the vocabulary	13	14.40%
Ask the teacher and friends	11	12.20%
Clues from pictures or other English books/texts	3	3.30%
Read slowly	1	1.10%
Watch English film	1	1.10%

From Table 6, it can be seen that the two other strategies that students utilize to assist them in reading comprehension are translating using a dictionary and learning from books or other references. The first point is about translating. Stepanova (2017) stated that translation is commonly understood to mean converting a text "word-for-word" from one language into another while preserving the original's meaning. About 44 students (48.90%) stated these techniques were likely used by the students for their understanding of the English text. This happened because most of the students lack vocabulary and then they like to use Google Translate to find the meaning of some words in the text. It can be proven by the two students' answers which stated that they have difficulty in vocabulary and using Google Translate to overcome their difficulties.

Excerpt 3:
"When I encounter difficulties while reading English texts I immediately open the internet like Google to overcome these difficulties." (P3's statement, Questionnaire on March 8, 2023, translated by the researcher)
Excerpt 4:
"I usually use an English dictionary or Google Translate to be able to understand what the English text means." (P4's statement, Questionnaire on March 8, 2023, translated by the researcher)

The second point is learning from books and other references. This strategy is not far from the word literacy which is also called reading activities. By using this strategy, students can accustom themselves to liking reading activities through books or other references so that students' comprehension skills in reading continue to increase if done continuously. Ganie, Deliana, and Rangkuti (2019) said that students' reading comprehension has to be improved to aid in the study of English as well as to raise the level of their general knowledge. Therefore, students need to learn from other books or references to gain more knowledge of all aspects of reading.

There are 16 students (17.80%) who are learning with the references. It means students need support to assist them in reading. So, the students can improve their comprehension with guidance from other references. Looking at this statement, there is some evidence from the students in doing their strategies.

Excerpt 5:
"By reading articles from other books." (P5's statement, Questionnaire on February 22, 2023, translated by the researcher)
Excerpt 6:
"Seek information from English subject teachers." (P6's statement, Questionnaire on February 13, 2023, translated by the researcher)

The other strategies that students utilized when reading English which got medium positive responses from the respondents with a percentage of between 12% to 14.50% are 'Repeating Vocabulary' and 'Asking the Teacher and Friends'. Naeimi and Foo (2014) said that to increase their lexical knowledge and reading comprehension, students should use a vocabulary learning technique. Based on the statement above, it can be said that vocabulary is needed to make it easier for students to understand the contents of the text. The repetition of vocabulary also

makes it easier for students to remember new vocabulary in the text which can indirectly increase vocabulary in their language learning. Furthermore, asking activity in reading also can improve students' knowledge in understanding the reading text. The role of the surrounding people in learning is also needed because apart from written sources such as books, knowledge from people around can also help students improve their reading skills by asking questions about things they do not know. Dwiningtiyas, Sofyan, and Puspita (2020) also said that for kids to successfully master reading comprehension, teachers are crucial. Therefore, teachers or friends are needed to help students gain new information about the reading text.

The three strategies that get the lowest score are 'Seeing clues from pictures or other English books', 'Reading Slowly', and 'Watching English Films' with the percentage of positive responses of 'Often' and 'Sometimes' 3.30%, 1.10%, and 1.10% respectively. The first strategy of using clues from pictures or other books is necessary for the students to do. By using pictures from the textbook, students can see the information in the pictures. Triwinarsih (2023) stated that with pictures, students can more quickly understand concepts than they might be able to with text. Hence, pictures or other English books can support students' learning process in increasing their reading comprehension. The second one is reading slowly which is still related to the speed of reading. Fast or slow reading can determine the accuracy of students in understanding the contents of the text. Muchtar (2019) stated to extract specific information from the text, students often read slowly. Therefore, each student has his reading speed according to the student's ability and expertise in understanding the reading text. The last one is watching an English film which has a relation with reading by reading a subtitle in the film. When watching a movie and seeing a word they don't understand, students can pause the film and look up in a dictionary to determine its definition and they can also take note of new words to improve their English (Roslinda, Raja, & Prayuda, 2021). By gaining a new vocabulary, it can make it easier for students to understand the text without misunderstanding.

Conclusion

The findings of this study found that the major problems that the students faced while reading English texts were related to vocabulary and grammatical mastery. Most of the students (70% of them) faced these difficulties when they were doing their reading activity which made it hard for them to understand the reading texts. The students' answers to the open-ended questions asking about their reasons for having such difficulties revealed that some of the students mentioned their late learning of English. It is indeed known from the demographic information of the participants of this study that about 40% of the participants started learning English when they were in junior high school. Based on this finding, it can be said based on the participants' perception the older a person is, the more difficult it will be for them to learn a foreign language, especially if they do not have a good English background as a guide for further learning.

This study also finds out the strategies under the three types of reading strategies (i.e., Support Strategies, Problem-solving Strategies, and Global Strategies) which are commonly done by the students to overcome their comprehension problems. For Support Strategies, most of the students utilize

asking questions, going back and forth, and translating which those three strategies get above 80% of positive responses from the students. For the Problem-solving Strategies, the strategies that get above 85% of positive responses are re-reading the text, getting back on track when they lose concentration, and paying closer attention to the text. As for the Global Strategies, the strategies that get above 77% of positive responses from the students are checking guesses, thinking the content of the text fits with the reading purposes, and using students' background knowledge. There were other strategies that students used to overcome their reading difficulties. Those strategies are translating using a dictionary and Google Translate and learning a lot from books or other references. Students use translation techniques by using a dictionary or Google Translate because students want to find out the meaning of the words in the reading text and also the words' pronunciation. As for the strategy of learning from books or other references, students use it to enrich their vocabulary, so it makes it easier for them to understand the content of reading texts and increase students knowledge in learning English grammar.

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