The Impact of Reading English Academic Articles in the Development of Vocabulary Among EFL Student's

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ARTICLE INFO	ABSTRACT

ABSTRACT

This study examines the relationship between vocabulary learning strategies and vocabulary size among EFL students, focusing on the impact of reading English academic articles. Using a quantitative approach with a correlational descriptive design, this research involved EFL students at IAIN Palangka Raya. Participants completed two instruments: Schmitt's (2000) Vocabulary Learning Strategies Questionnaire (VLSQ) to identify the strategies students use, and Beglar and Nation's (2013) Vocabulary Size Test (VST) to measure vocabulary knowledge. The results indicate that reading English academic articles positively influences vocabulary development, particularly in acquiring high and medium-frequency words with an average of 78/100. Social Strategy emerged as the most widely used approach, followed by Determination and Metacognitive Strategies. These strategies help students understand new vocabulary through discussions with peers or lecturers, analyzing context, and utilizing resources such as dictionaries or glossaries. The correlation analysis between Vocabulary Learning Strategies and Vocabulary Size (r = 0.336) shows a moderate positive relationship, suggesting that these strategies play a role in enhancing vocabulary size. However, the findings also imply that other factors may contribute to vocabulary acquisition. Overall, this study highlights the importance of frequent reading and targeted vocabulary learning strategies for improving EFL students' vocabulary knowledge, providing valuable insights for more effective language instruction.

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INTRODUCTION

Reading is an important part of English language teaching, especially in the context of learning English as a foreign language (EFL). Reading facilitates students' learning process and increases their knowledge. In addition, they can communicate and interact verbally and non-verbally. In other words, reading is a process in which readers and writers communicate through written language. Having good reading skills means being able to understand the text well (Castle et al., 2018). Since the purpose of reading is to understand ideas from written text, reading will not be meaningful without comprehension (Parwati et al., 2021). Moreover, reading is a key classroom activity for formal language development (Ibhar, 2022).

As a complex process involving visual perception and cognitive comprehension, reading enables students to acquire information and strengthen understanding of language concepts (Sulaiman et al., 2020). Thanaset et al. (2019) emphasized that reading skills are indispensable for academic success, especially for EFL students, as a good comprehension of English texts is a foundation that supports college studies.

One method that has proven to be effective in vocabulary learning is extensive reading, which provides abundant exposure to language, allowing vocabulary learning to occur incidentally and gradually (Pellicer-Sanchez, 2020). This method is flexible, giving students the opportunity to choose reading materials according to their level of proficiency and interest, thus increasing motivation and positive attitudes towards reading (Jiren et al., 2018). Extensive reading is relaxed, informal, and allows students to choose materials based on their English proficiency level and interests. In addition, it involves reading a large amount for general comprehension with the aim of enjoyment, and includes independent reading that gives students the opportunity to choose materials based on their interests without discussing the text in class (Chen et al., 2013).

This study highlights the importance of reading English academic text articles as a more effective way of vocabulary development for English language education students. Vocabulary knowledge is indispensable for EFL students who intend to pursue higher education because a good command of vocabulary enables them to improve their language skills. With an extensive vocabulary, all four language skills (listening, speaking, reading and writing)

can be developed more optimally, which supports effective communication. Without vocabulary, nothing can be understood from reading or listening, and nothing can be conveyed through writing or speech. Therefore, vocabulary acquisition is an important factor to help students make better progress in their language learning.

Vocabulary mastery is also one of the indicators of academic success at university level, as vocabulary is used to determine university level and a correlation was found between word frequency and material difficulty (Ishikawa et al., 2024). Vocabulary is a person's ability to understand and use words or terms in communication and connect these words in various concepts. Someone who has an extensive vocabulary will find it easier to learn a foreign language because vocabulary helps in language understanding (Lestari et al., 2024).

In addition to improving communication, having a broad vocabulary also deepens comprehension, thus allowing students to engage more fully with the language. To overcome the challenges in mastering vocabulary, it is important for learners to adopt appropriate learning strategies. Schmitt (1997) states that vocabulary learning strategies can help students develop vocabulary knowledge more easily. Language learning strategies, as outlined by Goundar (2019), are methods that students use to improve their own learning. Learners who use appropriate strategies will show greater proficiency and confidence (Oxford, 1990). There are a wide variety of vocabulary learning strategies and Schmitt's Taxonomy categorizes these strategies into social, memory, cognitive, metacognitive, and determination strategies, all of which play an important role in building a strong vocabulary foundation. This study investigates the impact of reading English Academic articles on vocabulary development among EFL students. By analyzing the impact of academic reading on vocabulary acquisition, this study aims to identify the strategies that best support vocabulary growth in an EFL context.

METHOD

Our study used a quantitative research approach and a correlational descriptive design. According to Creswell (2019), this design allows the researcher to assess the strength and direction of the relationship between variables, which is in line with our objective of investigating the relationship between reading English articles and increasing new vocabulary. This study was conducted at IAIN Palangka Raya.

The data obtained were analyzed using descriptive and inferential statistics to identify the impact of reading academic articles on students' vocabulary development. In this study, we adapted two previously developed instruments: (i) the Vocabulary Learning Strategies Questionnaire (VLSQ) by Schmitt (2000), and (ii) the Vocabulary Size Test (VST) by Beglar and Nation (2013). This adaptation was also based on the use of these instruments in a previous study by Alaa Alnan and Hasliza Abd Halim in their article entitled 'Examining Vocabulary Learning Strategies and Vocabulary Size Among Syrian EFL Learners' to measure vocabulary learning strategies and vocabulary size of EFL students. To analyze the data results from VLSQ and VST we used the Jamovi Application.

In this study, vocabulary learning strategy was used to find out what strategies are most and least frequently used among EFL students. the test consisted of 15 items covering five strategies namely memory, cognitive, metacognitive, social and determination. This questionnaire uses a five-point scale, where participants can indicate how much they agree with each statement using the following scoring system: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. Therefore, a higher score on the scale indicates that the participant agrees with the given statement, while a lower score indicates disagreement with the statement.

In this study, we also used the Vocabulary Size Test (VST) originally developed by Beglar and Nation (2013) as a tool to assess students' written receptive vocabulary size in English. The main purpose of the test is to estimate whether learners have sufficient vocabulary to complete a given task. We chose to simplify the test by using only 10 items representing high and medium frequency word groups, mainly in the frequency range of 1000 to 4000. This choice was based on several considerations. First, with a smaller number of items, we can optimize the time it takes participants to complete the test, as the full version of the VST usually takes about 40 minutes. Second, based on previous research, we found that Syrian EFL students generally have limited vocabulary knowledge, especially at a frequency of 4000 words or more (Daaboul & Nimehchisalem, 2017). By focusing the test on 10 relevant

questions from this word group, we hope to obtain more specific and reliable data on the size of the participants' vocabulary, without overwhelming them with too many questions. This study sought to provide insight into students' vocabulary acquisition after engaging in reading Academic articles, so this adjustment in the use of the VST was deemed appropriate and relevant to our research objectives.

FINDINGS

Vocabulary Learning Strategy Among EFL

This study aims to examine the types of vocabulary learning strategies used by Syrian EFL students to learn new English vocabulary. To this end, we used the VLSQ questionnaire which examined five types of learning strategies learning strategies: memory, cognitive, metacognitive, social, and determination. We examined their frequency by conducting a descriptive analysis that calculated the mean and standard deviation for each learning strategy.

Table: 1 The most widely used vocabulary learning strategy

Vocabulary Learning Strategy	Mean	SD
Memory Strategy	3.43	1.24
Cognitive Strategy	3.34	1.28
Metacognitive Strategy	3.45	1.10
Social Strategy	3.66	1.21
Determination Strategy	3.52	1.21

Memory Strategy

Among EFL learners, memory strategies are often used when they learn to remember and retrieve words (Nation 2013). This study aims to find out how often English language education students of IAIN Palangka Raya use these memory strategies. By investigating these strategies, this study can provide insight into the specific memory strategies used by students in vocabulary learning. To illustrate the findings, table 2 provides a summary of the research results.

Table: 2 Frequency of Memory Strategy of EFL Students

No	Memory Strategies	Mean	SD	Level
1.	I Try to Remember a New Word by Connecting It to a Relevant Concept or Image.	3.40	1.30	Medium
2.	I Write Down the New Word From the Article to Help Me Remember It.	3.23	1.10	Medium
3.	I Repeat the New Word I Learned to Make it Easier to Remember.	3.67	1.30	Medium

The table shows that the use of memory strategies is at the medium level among English education students of IAIN Palangka Raya. In his research,

Schmitt (2000) stated that memory strategy is part of the consolidation strategy, which is an attempt to strengthen the memory of new words learned. With this strategy, when someone encounters new words and tries to memorize them, they try to understand the meaning of the words more deeply. This makes it easier for them to remember and use the words appropriately. In accordance with our results, students use this strategy to repeat the new words they learn, making them easier to remember. By repeating new words, they strengthen their memory and understanding of the words (M = 3.67, SD = 1.30). In contrast, the least used strategies among students were try to remember a new word by connecting it to a relevant concept or image (M = 3.40, SD = 1.30) and write down the new word from the article (M = 3.23, SD = 1.10). The low use of these strategies suggests that students may not be familiar with or aware of their benefits in helping vocabulary comprehension. This could be due to the limited guidance they receive regarding the application of these strategies in the learning process.

Cognitive Strategy

According to Schmitt (2000), these strategies include saying words aloud, repeating words both by speaking and writing them down, and taking notes in class. The purpose of these activities is to help students understand new words better and remember them longer.

Table: 3 Frequency of Cognitive Strategy of EFL Students

No	Cognitive Strategy	Mean	SD	Level
1.	I mark or note down new words when reading Academic articles.	3.60	1.22	Medium
2.	I make a list of new vocabulary words that I fin3.d during reading.	3.00	1.26	Medium
3.	I use apps or study aids to practice new vocabulary.	3.43	1.36	Medium

Table 3 shows that the use of cognitive strategy is at the level of medium among English education students of IAIN Palangka Raya. In this strategy, students often use the technique of marking or noting new words when reading articles. This is in accordance with the results of our research with evidence (M = 3.60, SD = 1.22), on the other hand, other strategies that are little used are using apps or study aids to practice new vocabulary (M = 3.43, SD = 1.36) followed by making a list of new vocabulary words during reading (M = 3.00, SD = 1.26). This shows that students find this strategy effective for

remembering vocabulary by recording new words and assisted with applications to improve the new vocabulary. But on the other hand, make a list of new vocabulary words during reading is relatively low used to improve English vocabulary.

Metacognitive Strategy

Schmiit (2000) says that it is important for students to be truly involved in planning, managing and evaluating their own learning progress. In this case, metacognitive strategies make students more active to self-regulate how their language learning process so that they can take responsibility for their education.

Table: 4 Frequency of Metacognitive Strategy of EFL Students

No	Metacognitive Strategy	Mean	SD	Level
1.	I plan a specific time to read Academic articles in English regulary.	3.20	1.06	Medium
2.	I monitor my understanding of new vocabulary while reading the articles.	3.70	1.02	High
3.	I look for additional resources to understand difficult new vocabulary.	3.47	1.22	Medium

Table 4 shows that the use of metacognitive strategy is at the level of medium among English education students of IAIN Palangka Raya. In this metacognitive strategy, it can be seen that students monitor their understanding of new vocabulary when reading articles is in the highest rank (M = 3.70, SD = 1.02) which means they can evaluate their own understanding as said by previous research. In addition, students also seek additional sources to understand difficult new vocabulary (M = 3.47, SD = 1.22) which shows that students take responsibility for their learning process. However, plan a specific time to read articles in English regularly is relatively low in use (M = 3.20, SD = 1.06). The low use of this strategy shows that students tend not to set a specific schedule to read in English regularly, even though this activity can help improve their vocabulary comprehension and reading skills on an ongoing basis.

Social Strategy

Social strategies are ways of learning that involve talking to classmates and interacting with teachers to find out the meaning of words they are not

familiar with (Oxford, 1990). So when students do not understand a word, they can ask friends or teachers for an explanation, which helps them learn and understand new vocabulary better.

Table: 5 Frequency of Social Strategy of EFL Students

No	Social Strategy	Mean	SD	Level
1.	I discuss with friends or teachers about the new words I encounter in the articles.	3.33	1.18	Medium
2.	I ask other for help when I do not understand the meaning of a word in the articles.	3.83	1.18	High
3.	I look up definitions of new word in forum or online study groups.	3.83	1.02	High

Table 5 shows that the use of social strategy is at the level of high among English education students of IAIN Palangka Raya. In this strategy, it can be seen that looking up the definition of new words in online learning forums or groups shows a fairly high rate (M = 3.83, SD = 1.18) followed by asking others for help when do not undersatand the meaning of a word in the article (M = 3.33, SD = 1.18) and discussing with friends or teachers about the new words in the article (M = 3.33, SD = 1.18). This shows that students actively use social resources to improve their understanding of new vocabulary. Their involvement in seeking information and discussing with others reflects an attitude of initiative in language learning, as well as their ability to utilize social networks as a tool in the learning process. Thus, this social strategy can be an effective means to enrich their vocabulary and improve their language skills.

Determination Strategy

In Schmiit's (2000) research on this strategy, students usually use their own ways to figure out the meaning of unfamiliar words. They can try to guess the meaning of the word based on the context of the sentence, or they can use a dictionary to see the real meaning. So, students try to be independent in understanding new vocabulary by utilizing the resources they have.

Table: 6 Frequency of Determination Strategy of EFL Students

No	Determination Strategy	Mean	SD	Level

1.	I try to guess the meaning of a new word from the context of the article I am reading.	3.80	1.24	High
2.	I use a dictionary to look up the meaning of a word I don't understand when reading a Academicarticle.	3.47	1.17	High
3.	I look up synonyms or antonyms to help me understand a difficult a new word.	3.30	1.32	Medium

The table shows that the use of determination strategy is at the level of high among students of English education IAIN Palangka Raya. In this strategy, it can be seen that try to guess the meaning of a new word from the content of the article (M = 3.80, SD = 1.24) where students try to find the meaning of the word based on the context so that it can be said that they are independent in understanding new vocabulary to increase vocabulary.This is followed by using a dictionary to look up the meaning of words that are not understood when reading the article (M = 3.47, SD = 1.17) which shows that they also seek reassurance through more formal sources. This is followed by looking up synonyms or antonyms to help understand the new word (M = 3.30, SD = 1.32) which shows that students use various ways to improve their understanding of new vocabulary. By utilizing context, dictionaries, and synonyms and antonyms, they demonstrate a comprehensive and creative approach to language acquisition, which can help them become more effective learners.

Vocabulary Size Test

This study used Beglar and Nation's (2013) vocabulary size test. Vocabulary size refers to the number of words a person has in their lexicon and can understand and use effectively in their language. Vocabulary size is usually measured by conducting an assessment or test that measures the approximate number of words a person has in their vocabulary. We chose to simplify the test by using only 10 items representing high and medium frequency word groups, mainly in the frequency range of 1000 to 4000. This choice was based on several considerations. First, with a smaller number of items, we can optimize the time it takes participants to complete the test, as the full version of the VST usually takes about 40 minutes. Second, based on previous research, we found that Syrian EFL students generally have limited vocabulary knowledge, especially at a frequency of 4000 words or more (Daaboul & Nimehchisalem, 2017). By focusing the test on 10 relevant questions from this word group, we hope to obtain more specific and reliable data on the size of the participants' vocabulary, without overwhelming them with too many questions. This study sought to provide insight into students' vocabulary acquisition after engaging in reading Academicarticles, so this adjustment in

the use of the VST was deemed appropriate and relevant to our research objectives.

The test consisted of 10 questions, with the minimum achievement score being 0 and the maximum being 100. The analysis showed that the participants, on average, scored 78 out of 100 (M = 78, Median = 80, Range = 40-100). To better understand each participant's performance on the vocabulary test, achievement scores were categorized into groups: scores of 0-49 were considered as "Low," 50-79 as "Medium," and 80-100 as "High".

Vocabulary Size Test

Descriptives

	N	Missing	Mean	Median	SD	Minimum	Maximum
Score	30	1	78.000	80.00	19.010	40	100
1. Choose the most appropriate meaning for the following word i	30	1	0.967	1.00	0.183	0	1
2. Choose the most appropriate word to complete the following s	30	1	0.633	1.00	0.490	0	1
3. Academic Word Synonyms Choose a synonym for the word " Analyze "in the context of a scientific article.	30	1	0.867	1.00	0.346	0	1
4. Academic Phrase Context In the context of a scientific article, choose the most appropriate meaning for the following phrase: "Control group"	30	1	0.633	1.00	0.490	0	1
5. Choose the most appropriate meaning for the word method in the context of the research."	30	1	0.800	1.00	0.407	0	1
6. Data Interpretation Choose the most appropriate word to complete the following scientific sentence: "This data has been carefully checked to ensure accuracy."	30	1	0.800	1.00	0.407	0	1
7. Understanding Phrases in Scientific Articles. What does the phrase "literature review" mean in a scientific article?	30	1	0.900	1.00	0.305	0	1
8. Synonyms in Academic Contexts. Choose the most appropriate synonym for the word "Significant" in the scientific article.	30	1	0.667	1.00	0.479	0	1
9. Meaning in Context of Scientific Sentences. Choose the meani	30	1	0.867	1.00	0.346	0	1
10. High Frequency Word Usage in Academic Writing Choose the most appropriate meaning for the word "Variable" in scientific research.	30	1	0.667	1.00	0.479	0	1

Figure 1: Descriptive of vocabulary size test.

When analyzing each question, some trends emerged. For example, Question 3 (choosing a synonym for "analyze") had the highest average performance with a mean score of 0.867 and a relatively low standard deviation of 0.34, indicating that most participants answered this question correctly. On the other hand, Questions 2, 4 and 6 showed a slightly lower mean score of 0.633, indicating that these questions were more challenging for the participants. These questions involved choosing the right meaning or completing phrases in scientific and academic contexts.

In addition, Questions 5, 7 and 10, which tested participants' knowledge of common academic terms such as methods, literature review and variables, had a high mean score of 0.900, indicating that participants had a high familiarity

with frequently used scientific terms. This pattern highlights the participants' proficiency in recognizing high-frequency academic vocabulary. However, the slight drop in performance for certain questions emphasizes the need for further vocabulary reinforcement in less frequently used contexts. Overall, the results of this test provide valuable insights into the strength of the participants' vocabulary and areas for improvement in academic language.

Table: 9 Score data of vocabulary learning strategy and vocabulary size test

Students	Vocabulary Learning Strategies	Vocabulary Size Test
1	2	70
2	4	70
3	2	80
4	4	100
5	1	60
6	3	100
7	3	70
8	4	100
9	5	100
10	3	60
11	5	90
12	4	90
13	1	100
14	5	100
15	1	60
16	4	80
17	5	50
18	5	90
19	1	40
20	3	60
21	5	100
22	4	100
23	4	60
24	5	70
25	4	80
26	3	40
27	4	70

28	4	90
29	5	60
30	5	90

The table above is the overall result of vocabulary learning strategies and vocabulary size test by 30 students of English education IAIN Palangka Raya. number 1 is memory strategy, number 2 is cognitive strategy, number 3 is metacognitive strategy, number 4 is social strategy, and number 5 is determination strategy. based on the results above, social strategy is the most widely used strategy by English education students with a total of 10 students. second place is strategy determination with a total of 8 students. third place is metacognitive strategy with a total of 4 students. fourth place is memory strategy with a total of 3 students and the last is cognitive strategy with a total of 1 student.

To identify the correlation between vocabulary learning strategies and vocabulary learning size test, we used Spearman correlation.
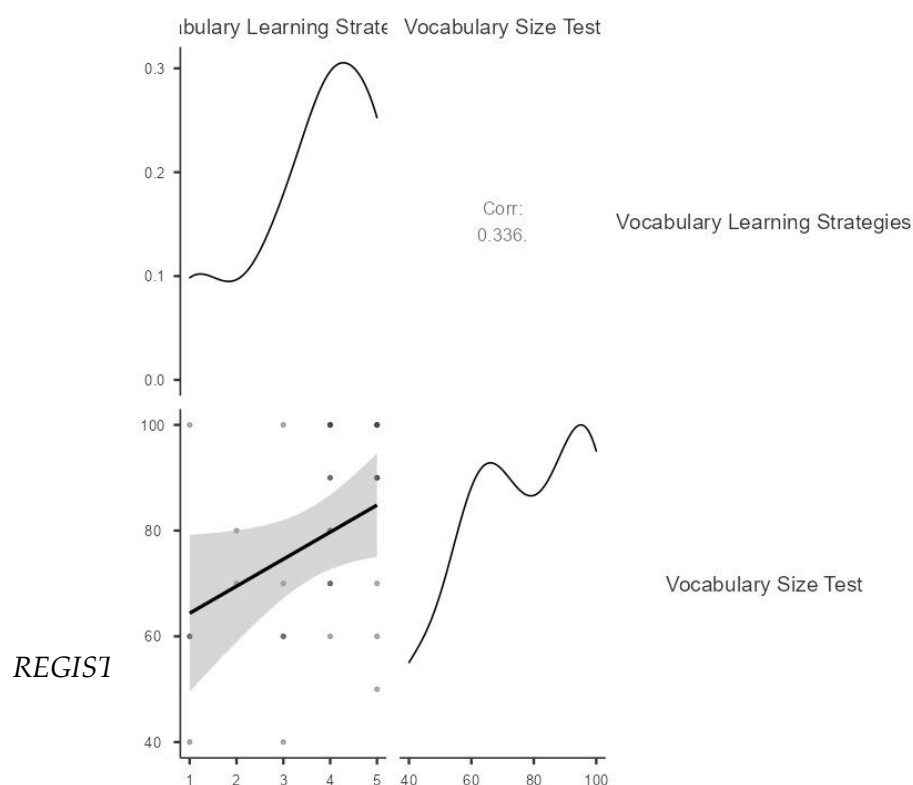
Figure 2: Correlation graph between vocabulary learning strategies and vocabulary size test

From this graph, we can identify the relationship between Vocabulary Learning Strategies and Vocabulary Size Test. The correlation value of 0.336 indicates a positive relationship, although it is not very strong. This means that the more often students use vocabulary learning strategies, the more their vocabulary size tends to increase, but the effect is not large. The distribution of points on the graph shows a general pattern that supports this relationship, although not all points are close to the trend line. The gray area around the line indicates possible variation in the relationship. Overall, vocabulary learning strategies do have a positive effect, but there are other factors that also affect students' vocabulary size.

DISCUSSION

An analysis of the vocabulary proficiency of fifth-semester students in IAIN Palangka Raya's English Education Department shows good results, with an average vocabulary test score of 78 and a median of 80. The distribution of participants' scores, divided into three categories of mastery levels-Low (0-49), Medium (50-79), and High (80-100)-shows that most students are at a good level of vocabulary mastery, approaching or already falling into the category of "High." However, the wide range of scores, from 40 to 100, indicates considerable variation among participants. However, the wide range of scores, from 40 to 100, shows that there is considerable variation among participants. While most students have reached a level of vocabulary mastery that is sufficient to support their English comprehension, there are also some students who are in the "Low" category and need more practice to improve their vocabulary.

This result is in line with the relationship analysis between Vocabulary Learning Strategies and Vocabulary Size Test shown in the previous graph. The correlation coefficient of 0.336 indicates a weak to moderate positive relationship between the use of vocabulary learning strategies and vocabulary size. This means that students who use learning strategies more often tend to have larger vocabulary sizes, although this relationship is not very strong. The distribution of scores in the graph also shows variation, as the data points are not fully aligned with the trend line. The confidence interval, represented by the gray area around the line, indicates that this relationship is still influenced by other factors and has a certain degree of uncertainty.

In addition to general vocabulary ability, the vocabulary learning strategies

used by students were also analyzed. Memory Strategies had an average score (M = 3.67, SD = 1.30) and were used by students at a moderate level, although some techniques such as associating new words with relevant concepts or images (M = 3.40, SD = 1.30) and recording new words (M = 3.23, SD = 1.10) were still rarely used. Cognitive Strategies also had a medium score (M = 3.60, SD = 1.22), but the use of apps or tools to practice new vocabulary (M = 3.43, SD = 1.36) as well as making lists of new words while reading (M = 3.00, SD = 1.26) were still less frequently practiced.

On Metacognitive Strategy (M = 3.70, SD = 1.02), students often evaluate their understanding and seek additional sources to understand difficult vocabulary (M = 3.47, SD = 1.22), which shows that they are responsible in the learning process. However, planning specific time to read English articles regularly is still rarely done (M = 3.20, SD = 1.06). Social Strategy has the highest score (M = 3.83, SD = 1.18), where students tend to ask for help when they have difficulty understanding the words in the article (M = 3.33, SD = 1.18) and discuss with friends or lecturers about new words (M = 3.33, SD = 1.18).

Determination strategy was also widely used (M = 3.80, SD = 1.24), which shows that students often look up the meaning of words based on context, reflecting independence in understanding new vocabulary. They also frequently used dictionaries to find the meaning of words not understood in the article (M = 3.47, SD = 1.17), as well as using synonyms or antonyms to aid understanding (M = 3.30, SD = 1.32).

The graphical analysis further confirms that vocabulary learning strategies have a positive influence on vocabulary size, although this relationship is not very strong. The distribution of scores reflects individual differences in strategy use and effectiveness. This finding emphasizes the importance of encouraging students, especially those in the "Low" category, to adopt and expand their learning strategies in order to improve vocabulary development.

In general, these results reflect a fairly independent and diverse approach to vocabulary learning. The use of diverse strategies shows students' ability to choose techniques that suit their needs, although some strategies are still less popular and need to be promoted more to improve overall vocabulary development.

CONCLUSION

This study shows that reading English Academic articles can have a positive impact on the vocabulary development of EFL students. Students who frequently read Academic articles tend to have a richer vocabulary, especially in high and medium frequency words. In addition, the analysis of vocabulary learning strategies revealed

that Social Strategy is the most widely used strategy by students, followed by Determination Strategy and Metacognitive Strategy. These strategies help students understand new vocabulary by discussing with friends or lecturers, using context, and utilizing external resources such as dictionaries.

The correlation analysis between Vocabulary Learning Strategies and Vocabulary Size Test (r = 0.336) further supports these findings, showing a positive relationship between the two. This indicates that while vocabulary learning strategies contribute to vocabulary size improvement, the effect is moderate, and other factors may also play a role.

This study is supported by previous research by Ali and Anwar (2021), which showed that social strategies have a positive relationship with vocabulary learning. This is also supported by previous research Amirian and Heshmatifar, Z. (2013) which found that the most widely used strategy for students to learn new vocabulary is determination strategy, because this strategy is more accessible and direct. For example, students can guess the meaning of the word from the context of the sentence or directly look up the meaning in the dictionary. Meanwhile, Cognitive and Memory Strategy tend to be underused.

The study reveals that vocabulary learning through academic reading can support more effective vocabulary improvement, especially when combined with relevant vocabulary learning strategies. Lecturers and researchers are expected to encourage the use of Academic articles in language teaching, by facilitating the use of various vocabulary learning strategies to help students optimize their language skills.

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