

GENDER DIFFERENCES IN VOCABULARY LEARNING STRATEGIES AMONG EFL SENIOR HIGH SCHOOL STUDENTS

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Abstract

The purpose of this research is to identify the most and the least use of Vocabulary Learning Strategies (VLS) by Indonesian EFL tenth graders and to determine whether there are statistically significant gender differences in the strategies used by male and female students. In order to improve students' ability to understand and communicate in English, expanding their vocabulary is an essential part of language learning. But students may use different strategies for learning new words depending on characteristics about themselves, such gender. Thirty male and thirty female students from Al-Irsyad Senior High School made up the sample for this quantitative cross-sectional survey. A Vocabulary Learning Strategies questionnaire that incorporates determination, social, memory, cognitive, and metacognitive strategies was used to collect data, with the questionnaire being adapted from Schmitt's VLS framework. Descriptive statistics, an independent samples t-test, and the Shapiro-Wilk normality test were used to assess the data. With mean scores ranging from 2.86 to 3.21, the results demonstrated that students utilized vocabulary learning tactics to a modest degree. Out of the five categories, strategies for memory and metacognition were the least employed, while social techniques were the most commonly used. There were statistically significant variations between the sexes in the memory, social, and determination strategies, but no differences in the cognitive or metacognitive strategies. When given the choice between independent and collaborative or memory-based tactics, male students favored the former. We need more diverse and inclusive vocabulary learning activities in EFL learners classes because the results show that gender can affect some parts of how people acquire new words.

Keywords: vocabulary learning strategies; gender differences; EFL learners;

1 INTRODUCTION

Vocabulary is an essential part of learning a new language because it directly affects how well learners can understand others and express their own ideas. Even if students have a good grasp of grammar, communication will still be limited without sufficient vocabulary (Nation, 2022). This difficulty is particularly pronounced in EFL situations, such as Indonesia, where students have little exposure to English beyond the classroom. As a result, learning vocabulary depends largely on how students actively engage with the language and the strategies they use (Schmitt, 2019). Here, Vocabulary Learning Strategies (VLS) is especially vitals as they help learners to interpret the meanings of new words, retain them, and use them appropriately in different contexts.

Students' language development is closely related to the ways they employ to learn new words, according to several research. Students that make good use of methods often have a broader vocabulary, according to research by Alahmadi et al. (2018). Similarly, Fan (2020) stressed that the usage of strategies impacts the breadth and depth of vocabulary knowledge. Training students to adopt these tactics can enhance their vocabulary mastery and learn motivation, according to other studies. This shows that tactics for learning new words are essential to being fluent in a language and not just helpful tools.

However, not all students use these strategies in the same way. The strategy use can vary because of various factors such as motivation, learning experience, and gender (Lee, 2020; Rianto, 2021). Gender in particular has been much discussed in previous studies. Some studies suggest that female students tend to use a wider variety of strategies, especially those involving interaction and self-monitoring, while male students often prefer more direct and independent approaches (Ghalebi et al., 2020). On the other hand, some studies indicate that these differences are not always apparent, and may depend on the learning context or teaching approach (Lin et al., 2024).

Moreover, recent studies have demonstrated that the learning context also affects the use of vocabulary strategies by students. For example, the inclusion of technology and varied instructional methods can influence the selection and effectiveness of students' strategies (Ayana et al., 2024; Lin et al.,

2024). Previous research has highlighted that the integration of digital literacy and technology-enhanced learning environments can positively impact students' learning strategies, engagement, and behaviors in language classes (Sulistyawati et al., 2022). This suggests that strategy use is not only determined by individual differences but also by the design and support from teachers in the learning process.

Vocabulary learning strategies are developing in Indonesia, but studies analyzing gender differences at the senior high school level are limited. Most of the studies explain the general pattern only without deep statistical analysis to prove whether the difference is significant. Because of this, there is still a need for more detailed and data-based research in this area.

To fill this need, the current research compared male and female students' vocabulary acquisition processes and found that they differed significantly. The study will use quantitative analysis to portray how students use these methods and to provide more concrete evidence of how gender plays a crucial influence. The results should help educators gain a deeper knowledge of their pupils and design more engaging and accessible vocabulary-building exercises. Consequently, this study aims to determine which vocabulary learning strategies are most and least used by students, as well as whether there are significant differences in their usage between male and female students.

. Vocabulary Learning Strategies (VLS) in particular stand to benefit from the study's theoretical and practical implications for EFL instruction. By offering empirical evidence on the impact of gender on students' utilization of vocabulary acquisition strategies in a specific EFL setting, the current study contributes theoretically to prior research. Previous research on VLS and gender has employed samples from different cultural and educational contexts, leading to inconsistent conclusions. A statistical analysis of high school students in Indonesia is presented in this paper. More accurate and trustworthy information regarding the gender gap and language acquisition methodologies is provided by this source.

In practical terms, the findings may be of some help for English teachers to improve their teaching approaches. Teachers can recognize that male and female students may have different tendencies in learning strategies, which allows teachers to design more inclusive and balanced classroom activities. For example, teachers can incorporate group activities to encourage interaction and individual activities to promote independent learning. This approach can meet different learning needs and encourage students to develop a broader range of vocabulary learning strategies.

2 METHODOLOGY

The research used a quantitative cross-sectional survey approach, which entailed collecting data from a standardized questionnaire at a single moment in time. Following Schmitt's (2019) Vocabulary Acquisition Strategies (VLS) paradigm, which classifies strategies for learning new words into five broad categories (determinational, social, memory, cognitive, and metacognitive) the questionnaire was developed. The researchers decided to utilize a survey methodology because of its reputation for efficiently revealing learners' preferred strategies and patterns of behavior when learning a new language. The use of this strategy to study students' strategies for learning in various educational settings is common in EFL research (Okyar, 2021). A total of sixty students, thirty male and thirty female, enrolled in the tenth grade at Al-Irsyad Senior High School for the 2025–2026 school year were selected to participate in this research.

3 RESULTS

This research investigated if there were notable differences between male and female students in their overall application of Vocabulary Learning Strategies (VLS). A sum of 60 tenth-grade pupils from SMA Al-Irsyad Tegal engaged in the research, comprising 30 males and 30 females. The evaluation of the two groups was performed utilizing an Independent Samples t-test, following the fulfilment of normality and homogeneity of variance assumptions.

3.1 Assumption Testing

Before doing the Independent Samples t-test, the data were assessed for normal distribution via the Shapiro–Wilk test and for variance homogeneity by Levene's Test. The significance values derived from the Shapiro–Wilk test for both male and female cohorts, as illustrated in Table 1, exceeded 0.05, suggesting that the VLS scores followed a normal distribution. Furthermore, Levene's Test yielded a

significance value exceeding 0.05, indicating that the variances of the two groups were consistent. Consequently, the prerequisites for executing an Independent Samples t-test were satisfied.

Table 1. Normality Testing

Variable	Gender	N	Shapiro-Wilk (Sig.)	Interpretation
Determination	Male	30	0.614	Normal
	Female	30	0.371	Normal
Social	Male	30	0.192	Normal
	Female	30	0.000	Not Normal
Memory	Male	30	0.343	Normal
	Female	30	0.205	Normal
Cognitive	Male	30	0.529	Normal
	Female	30	0.544	Normal
Metacognitive	Male	30	0.889	Normal
	Female	30	0.400	Normal

Significance scores greater than 0.05 showed that most variables followed a normal distribution in the results. A significance value of 0.000 ($p < 0.05$) was obtained for the social approach variable among female students, suggesting that this dataset did not follow a normal distribution. Results indicate that, with the exception of one variable, the premise of normalcy was met, albeit to a lesser extent.

Table 2. Homogeneity testing

Variable	Sig.	Interpretation	Row Used
Determination	0.107	Homogeneous	Equal variances assumed
Social	0.004	Not homogeneous	Equal variances not assumed
Memory	0.879	Homogeneous	Equal variances assumed
Cognitive	0.371	Homogeneous	Equal variances assumed
Metacognitive	0.615	Homogeneous	Equal variances assumed

The assumption of variance homogeneity was tested before the Independent Samples t-test was executed using Levene's test. The four VLS categories, as shown in Table X, had significant values beyond 0.05. These categories include determination ($p = 0.107$), memory ($p = 0.879$), cognitive ($p = 0.371$), and metacognitive ($p = 0.615$). This indicates that the variances among male and female students are similar. This is why the Independent Samples t-test was employed to examine these variables; specifically, the row for Equal variances assumed.

Conversely, the social approach category produced a significance value of 0.004 ($p < 0.05$), suggesting disparities in variances between the two groups. As a result, the row indicating unequal

variances was utilized for analyzing the Independent Samples t-test outcomes for the social approach category.

3.2 Descriptive Statistical Analysis

Descriptive statistics were employed to find the mean, min and max, as well as standard deviation. It is important to identify the most and the least use Vocabulary Learning Strategies by identify the mean.

Table 3. Descriptive statistical analysis

Descriptive Statistics					
	N	Min	Max	Mean	Std. Deviation
VLS_Determination	60	1	5	3.03	.579
VLS_Social	60	2	4	3.21	.607
VLS_Memory	60	2	4	2.86	.596
VLS_Cognitive	60	1	4	2.88	.679
VLS_Metacognitive	60	1	4	2.86	.599
Valid N (listwise)	60				

Descriptive statistics were employed to analyze the students' overall use of vocabulary learning strategies and the findings revealed that the mean scores for all strategy categories fell between 2.86 and 3.21, which indicated that students used vocabulary learning strategies at a moderate level in general. The social strategies obtained the highest mean score ($M = 3.21$, $SD = 0.607$), suggesting that students were more prone to learn vocabulary through interaction and communication with others, such as asking friends or teachers for help. The metacognitive and memory strategies received the lowest mean scores ($M = 2.86$), suggesting that students did not apply these strategies frequently in their vocabulary learning process.

Figure 1. The rank of the most and the least used



The graphic illustrates the frequency of students' use of different types of vocabulary learning tools. Results showed that the students used the tactics at moderate level with mean scores between 2.86 and 3.21. The social techniques scored the highest average score of the five categories. This indicates that children preferred to learn language through interaction with others, including talking with friends or asking teachers for help. On the contrary, the lowest means were found on the memory and metacognitive strategies, which indicated that the students were less likely to use the strategies related to memorize and self-regulation. The graph clearly shows the students' preferences on different ways to vocabulary development.

3.3 Independent Sample t-Test

An Independent Samples t-test was performed to ascertain if there exists a statistically significant disparity in overall Vocabulary Learning Strategy utilization between male and female students. Table 3 explains the comparison of the two groups.

Table 4. Independent sample t-test

Variable	t	df	p-value	Mean Difference	95% CI	Result
Determination	2.502	58	0.015	0.358	[0.072, 0.645]	Significant
Social	-4.500	50.612	0.000	-0.613	[-0.886, -0.339]	Significant
Memory	2.391	58	0.020	0.354	[0.058, 0.651]	Significant
Cognitive	-0.448	58	0.655	-0.079	[-0.433, 0.274]	Not Significant
Metacognitive	0.751	58	0.455	0.117	[-0.194, 0.427]	Not Significant

An Independent Samples t-test was used to ascertain if there were significant differences between male and female students in their application of each Vocabulary Learning Strategy (VLS) category. The findings are displayed in Table X.

The examination uncovered statistically meaningful gender disparities across three VLS categories. The determination strategies revealed a notable disparity between male and female students, $t(58) = 2.502$, $p = 0.015$, with a mean difference of 0.358 (95% CI [0.072, 0.645]). In a comparable manner, memory techniques varied considerably between the two cohorts, $t(58) = 2.391$, $p = 0.020$, exhibiting a mean disparity of 0.354 (95% CI [0.058, 0.651]). The most significant disparity was observed in social tactics, $t(50.612) = -4.500$, $p < 0.001$, with a mean difference of -0.613 (95% CI [-0.886, -0.339]). The negative mean difference suggests that the second group in the analysis achieved a superior mean score compared to the first group.

Conversely, no notable gender disparities were observed in cognitive strategies, $t(58) = -0.448$, $p = 0.655$, or metacognitive strategies, $t(58) = 0.751$, $p = 0.455$, since both p-values surpassed the 0.05 threshold. Consequently, both male and female students exhibited similar utilization of cognitive and metacognitive vocabulary acquisition mechanisms.

4 CONCLUSIONS

This study examined gender differences in the utilization of Vocabulary Learning Strategies (VLS) among tenth-grade students in an Indonesian EFL context. The findings indicated that students predominantly employed vocabulary acquisition strategies at a moderate level, with social strategies being the most frequently utilized. The result showed that the pupils liked to acquire the language through contact and communication with others. By contrast, memory and metacognitive strategies were utilized less often, suggesting that students were less aware of methods related to self-regulation and independent learning. The study also found substantial gender differences in the use of determination, social and memory strategies, with male students tending to use more independent methods and female students tending to use more collaboration and memory strategies. However, no substantial changes were seen in cognitive and metacognitive methods. The findings imply that gender might influence some of the vocabulary learning strategies and indicate the importance of taking students' learning styles into account in the process of teaching English.

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