Students' Attitudes to the Implementation of Vocabulary Learning Strategies in Writing Task

Zuraina Ali[1], Samira Ahmadi Mehr[2], Shouket Ahmad Tilwani[3], Noraisah Nurul Fatwa binti Mohd Razali[1], Alia Najaa binti Md Nor[1] & Norsuhaily Abu Bakar[4]

[1] Center for Modern Languages, Universiti Malaysia Pahang, 26600 Pekan, Pahang, Malaysia

[2] Bahcesehir school, Halkali branch, Atakent, Kucukcekmece, Istanbul, Turkey

[3] Assistant Professor, Department of English, College of Science and Humanities, Al-Kharj, Prince Sattam Bin Abdulaziz University, Al-Kharj, 11942, Saudi Arabia

[4] Faculty of Applied Social Sciences, Universiti Sultan Zainal Abidin, 21300 Kuala Nerus, Terengganu, Malaysia

Correspondence: Norsuhaily Abu Bakar, Faculty of Applied Social Sciences, Universiti Sultan Zainal Abidin, 21300 Kuala Nerus, Terengganu, Malaysia.

Abstract

Vocabulary is paramount in language learning. Learners can strategize vocabulary learning using vocabulary learning strategies (VLS), namely memory, cognitive compensation, metacognitive, social, affective, and determination. If used appropriately, VLS can help learners in writing. The study investigates the level of students' attitudes and use of VLS in writing. Also, it examines the male and female students in their attitudes and the use of VLS in writing. Finally, it investigates students' attitudes in writing according to their English grades. A quantitative research method, namely a survey, was employed as the research design in the study. It employed 71 diploma students taking engineering majors in one of the technical universities on the East Coast of Malaysia. The study found that students demonstrated a moderately high attitude in writing but moderately low VLS scores. There was also no significant difference in the attitudes and use of VLS between genders. Finally, there was insufficient evidence to show a significant difference in attitudes and English grades. Nevertheless, the study implied a need to familiarize the students with VLS to improve their writing skills. However, students were not required to use all the VLS as some VLS might be appropriate for a particular task but not the others.

Keywords: Vocabulary learning strategies (VLS), vocabulary, writing task, attitudes, gender

1. Introduction

The term 'VLS' refers to Vocabulary Learning Strategies (VLS)- one of the most commonly researched learning strategies in language learning. There is a need to be explicit about what is meant by VLS as students need to know the strategies they use to learn new words (Gorjian et al., 2011), and it is one of the most interesting topics for researchers in the last two decades (Gu, 2003). In writing, researchers are actively searching for ways to understand second language learners' writing skills as they employ VLS. The reason is that learners with large vocabulary sizes can write better than those with limited vocabulary. Similar to speaking that requires good intonation and tone, students who speak well can use vocabulary appropriately in the message they want to convey to the audience (Ali et al., 2022). Moreover, Staehr (2008) describes a relatively strong relationship between language learners' vocabulary size and the quality of their written composition. Compared to reading, as a receptive skill, writing, as a productive skill, requires learners to use vocabulary more than reading.

Another critical factor for successful writing is students' attitude when using VLS, which eventually makes them become better writers. A study conducted by Lin (2019) showed that students demonstrated moderately positive attitudes toward learning vocabulary when asked to learn independently and with group members. It showed that attitudes played positive roles in assisting learners in learning vocabulary. In addition, students may demonstrate a favourable attitude if they are encouraged to play vocabulary games to enrich their vocabulary in writing. Ali et al. (2022) found that playing vocabulary games enabled students to retain their vocabulary in the short and long-term run. The friendly interface, ability to understand materials and ease in navigating are among the criteria that could aid

them in retaining words and eventually be used in writing tasks (Ali et al., p.718, 2022).

Moving on now to explain the purpose of this paper. It was conducted to identify students' attitudes about using vocabulary learning strategies when assigned a writing task, particularly a one-paragraph essay writing. Numerous studies showed the relationship between attitudes and success in writing (Ni'mah et al., 2017; Paker & Erarslan, 2015; Sarkhoush, 2013). For instance, learners' attitude toward writing skills positively impacted their proficiency in writing (Paker & Erarslan, 2015). Also, there was a significantly positive correlation between attitude towards writing and learners' writing performance (Ni'mah et al., 2017). Learners with positive attitudes performed considerably better than those who demonstrated negative attitudes on writing tasks (Sarkhoush, 2013). This study, therefore, extended the previous research in terms of adding vocabulary learning strategies as another variable to be investigated.

Based on the importance of VLS in vocabulary learning and enhancement as well as in discovering the relation of gender differences, the present study explores the students' attitudes and VLS in writing tasks having four (4) research questions. The first two research questions examine students' attitudes and VLS toward their writing tasks. The remaining research questions specifically investigate the difference in gender and attitudes when students are given the task of writing a one-paragraph essay. The research questions of the study are:

1. What are the levels of students' attitudes and VLS in writing a one-paragraph writing task?

2. Are there any significant differences between male and female students' attitudes regarding writing a one-paragraph task?

3. Are there any significant differences between male and female students' VLS writing a one-paragraph task?

4. Is there a difference in attitudes toward writing based on the students' English grades (super distinct, distinct, credit, pass and fail)?

2. Literature Review

The importance of vocabulary knowledge

Lexical learning has been essential to learning a second language over the last few decades (Jaikrishnan & Ismail, 2021). Moreover, lexical knowledge seems to prepare the learners for better oral skills and second language learning ability (Ghalebi et al., 2021). As lexis is a key to second language learning, it plays a fundamental role in interactions. In teaching and learning, vocabulary plays a central part in developing language skills (Elmahdi & Hezam, 2020). It should be mentioned that the second language learning process might not be achieved in four areas lacking lexical knowledge. Therefore, this knowledge is an integral part of four-skill development and can be regarded as a significant element of the language (Susanto & Halim, 2017).

Second language learners need to focus on lexis as a significant factor to obtain the mastery of the four skills, namely speaking, listening, writing, and reading - meaning that vocabulary knowledge will enable the learners to ease the comprehension of the English materials that are provided by their teachers (Maharani, 2020). Also noteworthy is that vocabulary helps them to express their thoughts in writing. It is reported by Permatasari (2021) that vocabulary aids learners in expanding their ideas based on the topic sentence they desire in writing. Also, it affects learners' understanding of the teacher's speech, class conversation, and other speeches. As a result, vocabulary is an area that should not be skipped when mastering a second language.

Gender differences in learning vocabulary

Hery and Abas (2020) investigated gender differences in learning vocabulary, showing gender differences in lexical acquisition among third-grade learners. Interestingly in another study, female students were better at phonological analysis and lexical understanding than their counterparts (Adams & Simmons, 2019). However, an investigation on the effect of serious gaming on EFL lexical acquisition showed the outperformance of males in serious game-aided English lexical acquisition (Zhonggen, 2018). Likewise, Kocaman et al. (2018) found that gender influenced VLS usage when technology was used in learning vocabulary. The study demonstrated that males were more inclined to use technology to acquire a second language. Interestingly, some facts showed that female learners outperformed male learners in the personalized or adaptive learning situation, and male learners outscored females in the non-personalized learning scenario (Xie et al., 2019).

Furthermore, Rogulj and Čizmić (2018) demonstrated that female learners tend to be more dominant in formal vocabulary learning and self-initiated vocabulary learning techniques considerably more often than male learners. However, the researcher did not obtain a statistically significant distinction between male and female learners regarding incidental vocabulary learning. Investigating self-initiated vocabulary learning techniques showed that students were able to write down the new vocabulary they learned while reading a book (Nami, 2020). It was found

that male learners employed the technique for learning words more frequently than their counterparts. In addition, according to Nami (2020, p.83), learners' judgments of language learning applications, including vocabulary skills, were unaffected by gender, while Harraqi (2017) demonstrated that gender influences vocabulary breadth and depth on the flip side.

Studies on VLS

Ghalebi et al. (2021) investigated the differences between high and low Iranian EFL learners in vocabulary and language acquisition techniques. The study showed that high vocabulary learners utilized higher cognitive and metacognitive strategies. However, it was found that low vocabulary learners mainly used determination and social strategy. In investigating the diploma students' use of VLS, it was found that they primarily employed guessing and dictionary strategies to learn the L2 vocabulary (Mokhtar et al., 2017). They added that learners might benefit from the two favoured techniques in learning English vocabulary.

Teachers can help their learners to develop their VLS. In assisting students to develop the metacognitive strategy, for instance, teachers can help their students achieve this goal by using vocabulary notebooks, reflection questions, frequent low-stakes testing, and learning journals (Rogers, 2018). Playing games can assist learners in employing their VLS accordingly. In addition, Massively Multiplayer Online Role-Playing Game (MMORPG) was used to gauge the VLS among experienced online gamers (Ng et al., 2021). The study found that the online game enabled players to use metacognitive, cognitive, memory, and activation strategies to learn vocabulary. The researchers concluded a few factors that helped the use of VLS in playing games. The factors were the ability for learners to interact with other players, collaborate among the MMORPG community, and enrich their learning experience. VLS also supports learning and can create a practical and fun learning environment (Holifah & Kurniasih, 2021). Their study found that the non-English majors showed good responses to VLS, namely memory strategy, note-taking strategy, guessing strategy, and dictionary strategy in learning English. Moreover, VLS encouraged the learners not to rely only on the input in the classroom. They could also use appropriate VLS outside classes accordingly.

The role of VLS in writing among language learners

VLS is related to the approaches to learning vocabulary and has its role in language learners' vocabulary acquisition (Ahmed, 2017). He further argues that using VLS is also related to learners' proficiency in that more proficient learners use different strategies than the less proficient learners. Since VLS is important, vocabulary is essential in improving learners' language skills in reading, listening, speaking, and writing (Yunus & Saifudin, 2019). Therefore, many researchers have focused on the impact of vocabulary size and knowledge on the four language elements. For instance, Horst et al. (1998) discovered a positive relationship between word knowledge in reading and writing. Also, Schmitt (2010) argues that compared to other strategies in integrated language skill development (reading, writing, speaking, listening, and grammar), VLS is more straightforward for learners to build their vocabulary size.

Nation's (2013) VLS taxonomy divides learning new lexical items into four (4) categories in writing related to vocabulary. First is planning, in which learners decide the focus of their writing as they select words and strategize before they write. The second is the sourcing strategy which requires learners to locate information about words. The third is the processing strategy when learners consolidate the gained knowledge about the word. Finally, skills in use in which learners conceive the ability to use the acquired strategies employing input (listening and reading) or output (speaking and writing).
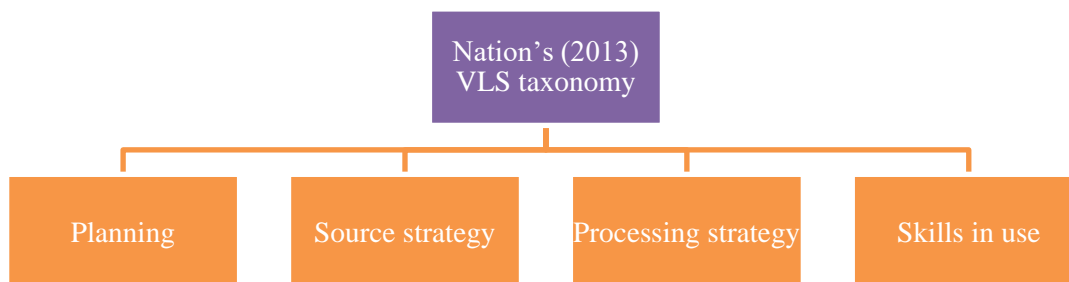
Nation's VLS taxonomy, Source: Nation (2013)

In using VLS, Maharaj (2017) suggests the Multi-Dimensional Vocabulary Acquisition (MDVA) method to enable students to learn new terms from various angles. The technique analyzes the target word and provides access to all word dimensions. It also improves learners' writing quality as they can write better paragraphs. The author also reported that they progressively become conscious of their writing errors after exposure to new words and

expressions in the target language. The MDVA can be a feasible alternative for teaching ESL writing as students could use new vocabulary according to relevant contexts. The method requires them to choose crucial keywords and concepts to retain the information in their long-term memory.

3. Research Method

Research Design

The study employed a quantitative research design in collecting its data. In particular, survey research was used to gauge the students' attitudes and use of VLS when students were assigned a writing task. Fraenkel et al. (2011) argue that survey research has these characteristics - data is collected from a group of people only, and a questionnaire is used to collect responses from samples instead of a population. In particular, a cross-sectional survey was used as the type of survey research in the current study. It gathers information from a sample decided beforehand (Fraenkel et al., 2012). Also, it was conducted at just one point in time, and after that, data were analyzed accordingly.

Research samples

The research samples comprised 71 diploma students, all 18 years old and taking the Preliminary Semester of 2021/2022. All participants were selected based on convenience sampling due to their availability during the data collection. Permission to conduct the study was obtained from relevant authorities, and all participants agreed to participate in the survey. Regarding gender, 47 of the samples are males, while 24 are female. Concerning race, the majority, i.e., 60, are Malays, two Chinese, four Indians, and five other races. All of them are 18 to 20 years old. The English grades information shows that most students passed their English subject in the previous semester. Eighteen students obtained high distinction and credit accordingly. Fifteen students scored a distinction in English in the last semester. In terms of using English at home, 51 of them used the language as a foreign language, while 16 used it as a second language. Only four of them used English as their first language. Table 1 shows the demographic information of the participants employed in the current study.

Table 1. Demographic Information of Samples in the Study

Items	Frequency	Percent	Cumulative Percent
Gender			
Male	47	66.2	66.2
Female	24	33.8	100.0
Total	71	100.0	
Race			
Malay	60	84.5	84.5
Chinese	2	2.8	87.3
Indian	4	5.6	93.0
Others	5	7.0	100.0
Total	71	100	
Age			
18-20 years old	71	100.0	100.0
Total	71	100.0	
English grades of previous semester			
High distinction	18	25.4	25.4
Distinction	15	21.1	46.5
Credit	18	25.4	71.8
Pass	20	28.2	100.0
Total	71	100.0	
Use of English at home			
Mother tongue	4	5.6	5.6
Second language	16	22.5	28.2
Foreign language	51	71.8	71.8
Total	71	100.0	

Research instrument

For the research instrument, a survey was conducted to find out about the students' demographic information. It was used as the data collection tool for this study to measure the students' attitudes and vocabulary learning strategies in writing tasks. The survey used a 1-5 Likert scale ranging from "Strongly Disagree" to "Strongly Agree" to determine the participants' attitudes and VLS.

Reliability of the research instrument

The reliability of this study is measured using Cronbach's Alpha (α). It measures the internal consistency or reliability between several items, measurements, or ratings. In other words, it estimates how reliable the responses or

domain of a questionnaire are. It also measures the rating of the item in the questionnaire, which will indicate the stability of the research instrument (Pallant, 2005). Moreover, Pallant (2005) states that values above .70 are acceptable, but values of .80 are preferable. Therefore, using the reliability in the analysis scales, the Cronbach alpha score for attitudes is .86, while for VLS, it is .85. Table 2 shows the Cronbach alpha values according to the variables measured, number of questions, and descriptions of the scores.

Table 2. Cronbach alpha values

Cronbach alpha	Variables	Number of questions	Descriptions
.86	Attitudes	6	Acceptable
.85	VLS	7	Acceptable

Validity of the research instrument

Face validity was employed to assess the validity of the research instrument to ensure the appropriateness of the questionnaire's content in the current study. The principal author's colleague was appointed to read and evaluate all the questionnaire items. She checked the items in the questionnaire to ensure that the variables, namely attitudes and VLS, measured what they were supposed to measure. In particular, she checked to ensure that the language used was simple and technical errors were taken care of before it was administered in the actual study.

Data Collection Procedures

The data collection started by asking students to write a one-paragraph essay about the university they were studying at in terms of the reasons for choosing the university, the facilities provided by the university, or other relevant topics they found interesting about the campus. Google Form was prepared for the assigned task in that they were required to complete their demographic information before writing the one-paragraph essay. The principal author of the paper cum principal researcher required her colleagues to distribute the online writing assignment to the students. WhatsApp messages were relayed to her colleagues, asking for their favors in relaying the online writing tasks to their students. Since classes were offline and online during the pandemic, the diploma students were instructed to write the paragraphs within a week in their free time. Later, the first researcher occasionally checked the number of respondents to ensure they completed the assigned task. When there were 85 responses, the principal researcher in charge of collecting the paragraph writing deactivated the online form. Such was to signify that responses were no longer accepted since the data analysis would take place after collecting the paragraph writing. After the students completed the writing tasks, they were required to fill up a questionnaire about their attitudes toward writing according to their VLS.

Data Analysis

Descriptive and inferential statistics were employed to analyze the data obtained in the current study. All research questions were analyzed using descriptive statistics in their preliminary stages. Also, descriptive statistics were used to answer Research Question 1 concerning the level of attitudes among students. Table 4 shows the interpretation of mean scores used to report the items in the questionnaire. In addition, inferential statistics were employed to analyze the data in writing the current study's findings for Research Question 2, Research Question 3, and Research Question 4. More specifically, a t-test was used to answer Research Question 2 and Research Question 3, while ANOVA was employed to gauge whether there were differences in attitudes among students with four grades in English (Research Question 4). Table 3 shows the interpretation of the mean scores used in the study.

Table 3. Interpretation of mean scores

Mean scores	Interpretation
1.00 – 2.00	Low
2.01 – 3.00	Moderately low
3.01 – 4.00	Moderately high
3.01 – 4.00	High

Source: Oxford (1990)

4. Findings and Discussion

The levels of students' attitudes and VLS writing the one-paragraph essay

Table 4 shows that students demonstrated a moderately high attitude in writing (Item 1, 4, and 5) but not in VLS scores. For the latter, the mean scores exhibited moderately low scores in all the items concerning VLS. The results implied that their attitude was positive when assigned the writing task. Yet, they did not show good VLS used in the assigned task. The results are especially true as students showed moderately low use of VLS in these categories –

cognitive (M=2.64, SD=.88), compensation (M=2.52, SD=.98), metacognitive (M=2.53, SD=.90), and affective strategies (M=2.55, SD=.95) when asked to complete the writing task.

Table 4. The level of students' attitudes and use of VLS

	Items	Mean	SD	Categories of VLS	Interpretation of mean scores	Classification
1.	I like writing down my ideas and sharing them with others	3.03	.96	-	Moderately high	Attitude
2.	Writing is fun and enjoyable	2.90	.97	-	Moderately low	Attitude
3.	I can write a one-paragraph essay at ease because I know the topic.	2.87	.92	-	Moderately low	Attitude
4.	I know most of my sentences are grammatically and structurally correct	3.38	.87	-	Moderately high	Attitude
5.	I understand how to write sentences using the correct tenses.	3.17	.93	-	Moderately high	Attitude
6.	I have no fear of my writing being evaluated.	2.79	1.08	-	Moderately low	Attitude
7.	I created mental images and sound as I wrote sentences in writing the one-paragraph essay	2.89	1.02	Memory	Moderately low	VLS
8.	I analyzed and used my rationale of the vocabularies I employed in the writing task	2.64	.88	Cognitive	Moderately low	VLS
9.	I guessed intelligently if I was not sure of the vocabulary that I wanted to use when writing	2.52	.98	Compensation	Moderately low	VLS
10.	I evaluated the vocabulary I wanted to use in sentences, and when I knew it was right, then only I used it to write sentences to compose the one-paragraph essay	2.53	.90	Metacognitive	Moderately low	VLS
11.	I asked questions to my teacher/ friends since I was not sure of the use of certain words, I decided to employ them in the assigned task	2.40	1.09	Social	Moderately low	VLS
12.	I encouraged myself to use a variety of vocabulary so that the paragraph I wrote would be interesting	2.55	.95	Affective	Moderately low	VLS
13.	I referred to the dictionary (online/ physical) in my attempt to select the best vocabulary writing the one-paragraph essay	2.27	1.16	Determination	Moderately low	VLS

Results from the table need to be understood that not all strategies are required in the assigned task (Rabadi, 2016). It is sufficient that they use certain VLS adequately relevant to the work that their teachers provide. Rabadi (2016, p.46) further argues that, more importantly, emphasis should be given to knowing that individual strategy (for instance, metacognitive, affective, etc.) is used at some points by learners as far as the implementation of VLS is concerned. His study reported that students moderately employed all five strategies: memory, determination, social, cognitive, and metacognitive. His analysis showed that the undergraduate students mainly employed memory strategies, while the least used were metacognitive strategies. It seems that metacognitive strategies were not only the not preferred strategies used by students in Rabadi's (2016) study. It was also the least used by students in Mokhtar et al.'s (2017) study. Their study found that students cared less about expanding their vocabulary knowledge and reading textbooks to enhance the strategy. In addition, the moderately low use of cognitive strategy in helping students to write in the current study was also demonstrated in Noprianto and Purnawarman's (2019) findings. Students in their study neither recorded vocabulary they learned nor practiced the target words to improve their vocabulary knowledge.

Cognitive strategies requiring students to make predictions, translate, summarize and guess the meaning from context can develop their higher cognitive strategies, i.e. metacognitive strategies (Khezrlou, 2012). Ali et al. (2020) recommend using gadgets to build students' cognitive strategy as an initial step to developing metacognitive strategies. Playing vocabulary games, for instance, scribbles and crossword puzzles online can help them enrich their vocabulary and use the newly learned words in their writing (Ali et al., 2020, p.7). In class, when they are required to write an essay, they can use their prediction to identify the meaning of the vocabulary they want to use in their writing. In doing so, the task requires them to plan, evaluate and comprehend how to use the targeted vocabulary in

their writing - a phase that is required when they use metacognitive strategies. Similarly, playing digital boards may enrich their vocabulary size. A study examining the use of digital board games for language learning showed that it enabled students at the tertiary level to widen their vocabulary choices (Ali et al., 2018).

Regarding the use of compensation strategy that was also used moderately among the students, Kocaman et al.'s (2018) found that male students tended to use the strategy better than female students. Although the current study did not compare VLS used between genders, their study was interesting in that male students who demonstrated a high level of English proficiency were better at using the strategies than their counterparts. Such was the result because compensation strategies require learners to comprehend the vocabulary they read and use based on a context. Therefore, more proficient learners tended to use the strategy better than those who were less proficient. In terms of affective strategy, Turkish as a second and foreign language learners demonstrated medium frequency of usage of the strategy. Specifically, the strategy was ranked fifth out of sixth strategies used to learn Turkish. Moreover, they tended to demonstrate low anxiety levels and be less motivated in learning and using vocabulary to improve their language skills. Reflecting on the current study, although the students scored high distinction and credit in their previous English exams, the study could not prove that they were good at using compensation strategy in the assigned writing task. A possible explanation is that they could not use words appropriately in their writing. For example, in the assigned task, one student demonstrated the wrong word choice in using 'mostly'. He wrote, "I like sports mostly *Sepak Takraw*", when the correct word that needs to be used in 'especially'.

Male and female students' attitudes toward writing

An Independent-samples t-test was conducted to compare the attitude scores of male and female students in the writing task. It was found that there were no significant scores for males (M = 2.94, SD = .69) and females (M = 3.17, SD = 0.80; t (-1.23) = 69, *p* = .22, two-tailed) in terms of their attitudes toward writing. Tables 5 and 6 show the results concerning male and female students' writing attitudes involving the descriptive analysis and independent samples t-test.

Table 5. Descriptive statistics of means attitude scores

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Mean Attitude Scores	Male	47	2.9468	.69514	.10140
	Female	24	3.1736	.80530	.16438

Table 6. Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Mean Attitude Scores	Equal variances assumed	1.02	.31	-1.23	69	.222	-.22	.18	-.59	.14

The findings of the current research are supported by Dhadhodara and Joshi (2017), who reported no gender differences in writing attitude among the students, while other external factors contributed to the insignificant results. These were students' social class category, the discipline of the study, parental educational status, and languages used. Nonetheless, in their research, the variant that affected the students' attitude was students' residential area. The current research did not investigate the factor, suggesting an area to be explored in future studies. Nevertheless, it is possible that students who realize the significance of improving their writing can also improve their VLS. The present study raises the possibility that students need to be taught the uses of VLS to make them write better. Although the effort is not a one-day or one-off task, the practice of asking students to use VLS may assist them in being better at writing. Relating the current study of the students' demographic details showed that English is used as a foreign language at home. Therefore, it was reasonable that their attitudes toward using VLS were not favourable in the assigned writing task.

Male and female students use of VLS in writing a one-paragraph task

Tables 7 and 8 show the results concerning male and female students' VLS used when they were assigned to write the paragraph. Results from the independent samples t-tests comparing VLS scores for male and female students showed that there was no significant difference in scores for male (M = 2.52, SD = .75) and female students (M = 2.72, SD =.67, t (69) = -1.13, p =.26, two-tailed).

Table 7. Descriptive statistics of VLS scores between genders

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Mean VLS Scores	Male	47	2.51	.75	.10
	Female	24	2.72	.66	.13

Table 8. Independent Samples Test of VLS between genders

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Mean VLS Scores	Equal variances assumed	3.33	.07	-1.12	69	.26	-.20	.18	-.56	.15

These findings aligned with that of Zokaee et al. (2012) since they found no statistically significant difference between the vocabulary strategy preferences or learning styles of the two genders among EFL learners at Tarbiat Moallem University majoring in English literature. In contrast to these results, some studies about gender differences in VLS proved otherwise. Gu (2002) found that gender is a potent variable in determining VLS and the outcomes of EFL learning. He asserted that the female adult learners outperformed their male counterparts in their vocabulary size and general proficiency. Yilmaz (2017) supported this, who claimed that female participants deployed significantly more VLS than males in her research on Turkish postgraduates studying different disciplines of studies. She found that the female participants employed all five categories of VLSs, triggering, resolution, determination, reinforcement, and retrieval, more frequently than male students. Finally, she concluded that gender is a much more potent factor in determining VLS than foreign language learners' discipline of studies.

Nevertheless, the background of the participants in the current research might be the variable that affected how male and female students employed VLSs in their writing. The present investigation studied first-year university students who had just registered to study at the tertiary level. As observed from Item 9, Item 10, Item 11, Item 12, and Item 13 (Table 5), the mean scores recorded were 2.52, 2.53, 2.40, 2.55, and 2.27, respectively (Average and closer to Strongly Disagree on the 5-point Likert scale). They could have little exposure or experience in employing these strategies compared to more mature adult learners. Since there was limited recent research that supports the current research finding, it is hoped that more researchers in the future could explore the use of VLS between male and female students, specifically in writing tasks.

Students' attitudes in writing according to scores of English grading

A way-one between groups analysis of variance was conducted to explore the impact of students' writing attitudes following their English scores. It was assumed that students who obtained high marks in English would demonstrate a positive attitude in writing and are good at completing the assigned task. Students, therefore, were divided into four groups according to their scores (Group 1: High Distinction, Group 2: Distinction, Group 3: Credit, Group 4: Pass). There was no statistically significant difference at the $p < .05$ in students' attitudes according to their respective scores in their English grades: $F = (3, 67) = .312$, $p = 0.1$. Tables 9 and 10 show the results based on the formulated research question.

Table 9. Descriptive Statistics of Grades in English

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
High distinction	18	2.78	.72	.16	2.42	3.14	1.50	4.17
Distinction	15	2.93	.85	.22	2.45	3.40	1.50	4.83
Credit	18	3.17	.67	.16	2.83	3.51	2.00	4.33
Pass	20	3.16	.69	.15	2.84	3.48	2.00	4.83
Total	71	3.02	.74	.08	2.84	3.19	1.50	4.83

Table 10. ANOVA of Students' Attitudes Learning Vocabulary According to Grades in English

	Df	SS	MS	F	p
Between groups	3	1.957	.652	1.214	.312
Within groups	67	36.004	.537		
Total	70	37.961			

Contrary to expectations, this study did not find a significant difference between students' writing attitudes and

scores in English grades (super distinct, distinct, credit, pass and fail). This outcome is contrary to that of Nyamubi (2016), who found that students' performances in English are positively related to their attitudes towards learning the language. More senior students tended to demonstrate a more positive inclination towards learning attitudes than junior students. The former showed utilitarian attitudes as they were about to complete their education. Their attitudes were driven by their immediate value to obtain job opportunities or further their studies. Likewise, the results of the current findings were in contrast with Paker and Erarslan's (2015) study, which showed a positive relationship between the attitudes of participants and their academic success in writing. Their study found that their attitudes towards the language empowered students' mastery of the skill. Therefore, the data in the current study must be interpreted with caution because the survey was administered for one-time only. It did not consider examining the progress of the students' writing over time compared to what was conducted in Nyamubi (2016) and Paker and Erarslan's (2015) studies discussed earlier. Therefore, it may be the case that these differences could be minimized if students had the proper training to write and use VLS simultaneously. Fundamentally, they are diploma students in their Preliminary Semester studying at the university. Providing more training on writing and teaching different use of VLS over time might produce more encouraging results.

5. Conclusion

The study found that students used all the VLS when assigned the writing task. Yet, they demonstrated moderately low cognitive, compensation, metacognitive and affective strategies. Regarding attitudes between genders in writing, there were no significant differences in this regard. Likewise, evidence was insufficient to prove gender differences in using VLS in the writing task. Also, the study could not support that a high score enables students to demonstrate positive attitudes in writing. The current data highlight the importance of introducing VLS among students to improve their writing. Knowing the appropriate VLS may assist students in exploring a particular strategy better, as not all the strategies are suitable for the assigned task. The present study lays the groundwork for future research into using technology to help students learn targeted vocabulary before embarking on the actual skill, i.e., writing. They can use the app by playing it frequently at their convenient times. It is also important to note that increasing vocabulary size can be done at the early learning stage among L2 learners. The various smartphone applications can be used to grow their vocabulary knowledge and size. Selecting the appropriate apps among the various smartphone apps in the market is necessary to assist the learning of English (Sukor & Ali, 2020).

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