Vocabulary Learning Strategies Among Malaysian Arabic Foreign Language Learners With Different Gender

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Abstract

Having problems expanding vocabulary in a foreign language is one of the most common worries among students. Teaching students the right approach to learning is one way to assist them in overcoming this issue. Nevertheless, teachers must first be aware of the diverse vocabulary learning strategies used by students with varied preferences before disclosing the specific strategies to them. Therefore, this study was conducted to determine the types and levels of vocabulary learning strategies employed by students of different genders. Furthermore, it investigates whether there were significant differences in the use of strategies based on gender. The data was gathered using a vocabulary learning strategies questionnaire from 220 Arabic foreign language learners at Universiti Teknologi MARA (UiTM) Perlis Branch, Malaysia. The findings showed that male and female students used strategies at a moderate level. The dictionary strategy was the most frequently used among male and female students. However, these two groups of students utilized different least used strategies: metacognitive strategies for male students and practice strategies for female students. The findings also revealed no significant difference in the overall use of vocabulary learning strategies based on gender. This shows that the pattern of strategies used by male and female students was almost the same. Thus, educators can expose students to a variety of vocabulary learning strategies that serve as reinforcement from the beginning to help students' memory (memory strategies), improve their language skills (practice strategies), and manage their progression in vocabulary learning (metacognitive strategies).

Keywords: Vocabulary; Learning Strategies; Arabic; Foreign Language; Gender

INTRODUCTION

     Vocabulary plays a vital role in improving communication and comprehension abilities, boosting proficiency in reading, writing, listening, and speaking. As a result, developing a robust vocabulary is imperative for achieving mastery in any second or foreign language. In the past, vocabulary had often been overlooked in the process of teaching because it emphasised language skills rather than vocabulary itself (Ariffin, 2021; Kurniawan et al., 2020). But currently, it is receiving increased recognition within the language education curriculum (Shokrpour et al., 2019).

     In vocabulary learning, students can encounter various challenges, including understanding the definitions of new words, pronouncing them correctly, using them accurately, memorizing them, and spelling them accurately (Afzal, 2019; Ghalebi et al., 2020). While learning Arabic as a foreign language, students also often encounter difficulties in acquiring and retaining this new vocabulary. Lack of Arabic vocabulary is

the reason why students fail to communicate and produce good sentences or essays, and thus, it has also affected students' understanding of writing and speaking in Arabic (Jasni et al., 2020). Therefore, raising students' awareness of the importance of mastering vocabulary for acquiring a specific language is essential.

In Universiti Teknologi MARA (UiTM) Perlis Branch, Malaysia, there are still many students who are unable to master the new Arabic vocabulary that they have learned in class. Among the reasons are: they do not revise what they have learned; they lack knowledge on the use of vocabulary learning strategies; and there are some students who do not know the appropriate way of learning the vocabulary. Based on classroom observations, certain students also encountered difficulties in identifying different word types in Arabic, and they struggled to identify the root word when its usage varied across contexts. Similar issues are also observed among university English learners who faced difficulties in recognizing vocabulary and exhibited uncertainty when distinguishing adverbs, verbs, adjectives, and nouns (Andriani & Sriwahyuningsih, 2019).

According to Rubin and Thompson (1982), students need to rely on themselves rather than others to determine their success or failures in language learning. This is because students also play an important role in the process of teaching and learning, where they receive information from teachers (Rubin & Thompson, 1982). Therefore, researchers became interested in this field of study which had previously been concentrated on teachers, was shifted to students. As a result, some studies have recently begun to focus on vocabulary learning strategies rather than teaching strategies. This is because by using the vocabulary learning strategy, the students' language skills can be improved (Fan, 2020b; He & Luo, 2023; Sopian, 2019). Besides, students who use more vocabulary learning strategies will be able to enhance their vocabulary size (Agustianti et al., 2021; Baharudin & Ismail, 2014; Kamaruddin & Baharudin, 2017). Nevertheless, some students struggle to improve their vocabulary and reading comprehension due to their unconsciousness use of strategies (Heidari et al., 2012). Therefore, students should be aware of the effective use of certain vocabulary learning strategies, as they help them in mastering new vocabulary.

Each individual is different, and he or she has his or her own preference when learning vocabulary. This will cause students to have different understandings and actions when learning Arabic, both in and outside the classroom. In the study by Heidari et al. (2012), majority of students who were visually identified by the researcher claimed that it was particularly easy to forget words, especially multi-part words, if they cannot be seen or used in a sentence(Heidari et al., 2012). By knowing the students' differences, educators are able to know the students' habits, tendencies, and needs in the process of teaching and learning Arabic (Teng, 2022). This information can further help educators to improve their teaching quality and be aware of the individual differences in the classroom while teaching.

Based on the second language learning model developed by Ellis (1994), there are various factors that can influence the use of language learning strategies among students. These factors are divided into two (2) categories: a) individual difference factors (beliefs, affective statements, students, and learning experience); and b) situational and social factors (target language learned, formal or informal learning situations, specific tasks performed by students, and gender) (Ellis, 1994). Among these factors, the most noticeable difference among students is their gender.

Since the importance of mastering vocabulary is one of the factors that can help a student's mastery of Arabic, research in vocabulary learning strategies has greatly developed in Malaysia. Various studies were conducted to explore the types of Arabic vocabulary learning strategies among students. Among them are studies that examined the use of strategies to learn various types of vocabulary in general (Azrin & Baharudin, 2020; Basit et al., 2017; Hasim et al., 2018; Kamaruddin & Baharudin, 2017; Rahman, 2020), vocabulary with affixes (Ismail et al., 2016), and collocation (Asbulah et al., 2019). However, only several studies in Malaysia have examined the differences in the use of Arabic vocabulary learning strategies based on gender (Basit et al., 2017; Pisal & Teh, 2018; Rahman, 2020). In Malaysia, studies that have examined differences in the use of Arabic vocabulary learning strategies based on gender were quite limited. Hence, more studies of a similar nature should be conducted while taking into account the varying backgrounds and levels of Arabic education of Malaysian students. Okyar (2021) believed that not many studies have been conducted on the use of vocabulary learning strategies based on gender, either for second languages or foreign languages (Okyar, 2021).

A study by Basit et al. (2017) found that the level of cognitive strategies used in learning Arabic vocabulary for male and female Arabic language programme students at Universiti Sains Islam Malaysia (USIM) was at a moderate level. In addition, the study also found that there was no significant difference in the use of strategies based on gender, although there was a small difference in the mean value between male and female students. These findings are in line with several studies around the world that found no significant differences in overall strategy use between male and female students in learning English (Ansari et al., 2022; Manuel, 2017; Mustapha & Hatta, 2018) and Turkish (Göçen, 2020). Although there are no significant differences in the use of vocabulary learning strategies between male and female students in the above-mentioned studies, the mean value of female strategies used in most studies was still slightly showed more value than male students. Only Manuel (2017) and Mustapha and Hatta (2018) studies reported that the overall mean value of vocabulary learning strategies used by the male students has exceeded the female students.

There were other studies that focused on the differences between each construct strategy based on gender. The study by Mustapha and Hatta (2018) reported that there was no significant difference in the five constructs of English vocabulary learning strategies between male and female students at Universiti Teknologi MARA Kelantan Branch, Machang Campus. Nevertheless, there were 12 strategy items in the study, which showed that there were significant differences in the use of strategies based on the two groups of students. In addition, the findings were both groups of students, male and female revealed the most frequently used metacognitive strategies and the least frequently used cognitive strategies.

The insignificant differences in each construct in Mustapha and Hatta (2018) are also similar to the findings of Al-Khresheh and Al-Ruwaili (2020) and Muhammad Nur and Jusoh (2022). However, in the study of Al-Khresheh and Al-Ruwaili (2020), there was only one strategy construct out of five constructs, which showed that there was a significant difference in the use of strategies based on the students gender, such as memory strategy (Al-Khresheh & Al-Ruwaili, 2020). Female students were found to use more memory strategies than male students, with a mean value difference of around 0.22.

For the other four vocabulary learning strategy constructs, there were no significant differences in the use of strategies based on gender.

Muhammad Nur and Jusoh (2022) examined the English vocabulary learning strategies used by 183 Indonesian university students (89 males and 94 females) who were studying in Malaysia. Another important finding from this study showed that the most frequently used strategy was the metacognitive strategy, referring to 'trying to develop vocabulary knowledge by watching English TV channels (e.g., movies, songs, documentaries). Meanwhile, the least frequently used strategy by the students in the social category was 'ask the lecturer for translation of the new word into an L1 translation'. Although this study mentions specific strategies related to the most and frequently used strategies among their participants, this information still refers to the overall students and it is not based on different genders. Furthermore, a detailed investigation can provide a deep understanding of students' attitudes and preferred strategies between genders when learning vocabulary.

Next, according to the studies by Boonkongsaen and Intaraprasert (2014), Yilmaz (2017), Pisal and Teh (2018), Gul et al. (2021), and Okyar (2021), there were significant differences in the use of students' vocabulary learning strategies based on gender (Boonkongsaen & Intaraprasert, 2014; Gul et al., 2021; Okyar, 2021; Pisal & Teh, 2018; Yilmaz, 2017). These five (5) studies found that female students used more strategies than male students. The level of overall use of vocabulary learning strategies among students in Pisal and Teh (2018), Gul et al. (2021), and Okyar (2021) was at a moderate level. The mean values for Arabic vocabulary learning strategies used by secondary school students in Pisal and Teh (2018) are as follows: female students ($M = 3.05$; $SD = 0.62$) and male students ($M = 2.86$; $SD = 0.68$). Next, the study by Gul et al. (2021) reported the mean value of vocabulary learning strategies used according to gender among 400 students who were studying English as a second language at the higher secondary level in Pakistan, resulting; female students ($M = 3.42$; $SD = 0.44$) and male students ($M = 3.20$; $SD = 0.53$). On the other hand, English vocabulary learning strategies used by pre-university students in Turkey for Okyar (2021) were based on gender; female students ($M = 3.30$; $SD = 0.43$) and male students ($M = 2.96$; $SD = 0.53$).

Besides, the findings of Yilmaz's (2017) revealed that 79 Turkish graduate students also show the significance differences between male and female in all of the five vocabulary learning strategies categories. Female students outperformed male students in overall strategies and five (5) categories of vocabulary learning strategies. Both male and female students prefer to use triggering strategies most frequently and least frequently used reinforcement strategies. Similar to the findings of Okyar's (2021), his study also reported that there were significant differences in the use of vocabulary learning strategies between the groups of male and female students based on constructs. However, female students were found to use five strategy constructs more out of the six main strategy constructs, namely memory, cognitive, storage, metacognitive, and affective, compared to male students. Only one strategy construct, like social strategy, did not show a significant difference based on gender. This difference is assumed to occur due to the higher motivation of female students to learn the language (Okyar, 2021). Female students in the study were found to use metacognitive strategies most often, while male students mostly used affective strategies. The least used strategy by female students and male students is the social strategy. The use of this least-used social strategy is possible

due to cultural factors that can affect the tendency of students to learn individually or in groups (Okyar, 2021).

Different genders tend to use different language learning strategies (Shamsuddin, 2003). According to a study by Mahamod and Embi (2005), the different use of language learning strategies among students is more likely to relate to gender differences in the learning process outside the classroom, students' awareness of improving their language skills by doing various exercises, and usage of a variety of learning materials (Mahamod & Embi, 2005). From another viewpoint, the gender differences in this learning process are related to the cultural factor (Fan, 2020a; Hussin, 2011; Okyar, 2021).

Another example, Fan (2020) revealed that in Chinese learning culture, note-taking is used to emphasize memorization. Female students are more likely to use this strategy compared to male students, driven by their cognitive and motivational factors. This is due to their fear of forgetting important information. Additionally, social stereotypes are also contributed to the frequency of note-taking among female students, since they are more likely to be secretaries or clerks in which these positions are associated with careful documentation. Moreover, in Fan's (2020), female students significantly employed more socializing strategies. This is because female students have a natural inclination to ask their peers for help due to their psychological and emotional traits. Therefore, the differences in vocabulary learning strategies usage among students can be considered to have their own reasons. Educators can leverage these differences to aid the learning process based on the distinct needs of male and female students in their respective classrooms.

Based on the previous studies, most claimed that female students often use vocabulary learning strategies more than male students. However, the results that indicate a significant or insignificant difference between male and female students in the mean value of strategy use are still debating. Different results among researchers in this area may be due to several factors that can affect male or female students' tendencies to use certain vocabulary learning strategies. Unfortunately, there are limited studies that explore the reasons for the differences in vocabulary learning strategies used between male and female students. Besides these two factors, namely motivation and culture, which can influence the use of strategies by students based on gender (Fan, 2020a; Okyar, 2021), there are several other factors, such as vocabulary instruction in the class and vocabulary learning strategies knowledge which may also influence strategy use among students. Therefore, various factors should be taken into account when discussing certain research findings to identify the origins of any possible differences between students of different genders.

In conclusion, the use of strategy and its frequency can be different between male and female students because of many factors. It is worth filling the knowledge gap by helping educators to understand students' differences in vocabulary learning based on gender and this creates more opportunities to introduce different strategies among male and female students. Therefore, this study attempts to investigate the different uses of strategies that may exist in the two groups of students of different genders. The aims of this study are to identify the types and levels of vocabulary learning strategies used by students of different genders, determine the most frequent and least frequent strategies used by male and female students, and analyse whether there is a significant difference in the use of vocabulary learning strategies based on gender.

METHOD

This study used a quantitative approach through a survey design. The population of this study was represented by all students who took Arabic as a foreign language at Universiti Teknologi MARA (UiTM) Perlis Branch, namely Beginner Arabic III (subject code TAC501, Introductory Arabic Level III) in March–July 2021 semester. Arabic students at level 3 were selected as the sample for this study because they have more knowledge and learning experience related to Arabic as a foreign language compared to students who took the subjects of Beginner Arabic I and Beginner Arabic II at this university.

Based on the sample size determination table by Krejcie and Morgan (1970), if the study population consists of 365 people, a total of 191 students should be taken as the study sample (Krejcie & Morgan, 1970). However, the sample size of this study has been increased to 220 students (96 males and 124 females). This is because a larger sample size is better to describe a sample that represents a population (Fraenkel & Wallen, 1990). Data collection for this study was done using a questionnaire. There were 73 items adapted and modified from Al-Shuwairekh (2001), who found the Arabic vocabulary learning strategies of students. The reliability of this questionnaire was high, with a Cronbach's Alpha coefficient value of 0.96 for a total of 73 items. This Arabic vocabulary learning strategy questionnaire was divided into seven (7) main strategy constructs: (i) non-dictionary strategies; (ii) dictionary strategies; (iii) note-taking strategies; (iv) memorization strategies; (v) practice strategies; (vi) metacognitive strategies; and (vii) expanding lexical knowledge (Al-Shuwairekh, 2001).

There are three (3) objectives in this study. Descriptive analysis through mean values and standard deviations was used to identify the type and level of use of Arabic vocabulary learning strategies among students in order to achieve the first and second objectives. Then, it determined the top five (5) most frequently used strategies and the five (5) least frequently used strategies by male and female students. For the third objective of the study, inferential analysis through an independent sample t-test was used to analyse whether there were significant differences in the use of students' vocabulary learning strategies based on gender.

RESULTS AND DISCUSSION

The findings of this study are reported based on three (3) objectives; a) the type and level of vocabulary learning strategies used by male and female students; b) the most frequent and least frequent strategies used by male and female students; and c) differences in the use of vocabulary learning strategies based on gender. To determine the level of vocabulary learning strategies used by male and female students in this study, the table of mean score interpretation levels proposed by Oxford (1990) is used as follows:

Table 1. Interpretation Level Of The Mean Score For The Five-Point Likert Scale

Level	Min Score
High	Between 3.5 to 5.0
Moderate	Between 2.5 to 3.4
Low	Between 1.0 to 2.4

Source: Modified from Oxford (1990)

The Type And Level Of Vocabulary Learning Strategies Used By Male And Female Students

Based on the findings reported in Table 2 and 3, both groups of male and female students use overall strategies at a moderate level: male students (M = 3.01, SD = 0.68) and female students (M = 3.10, SD = 0.66). In addition, the level of strategies used based on the seven (7) main categories for male and female students is also at a moderate level. The mean value range of the main strategy used for the male students group range from a mean value of 2.89 to 3.10, while the mean value range of the main strategy used for the female students group range from a mean value of 2.92 to 3.26.

Previous studies also indicated the same finding when their participants from different genders used vocabulary at a moderate level (Basit et al., 2017; Gul et al., 2021; Mustapha & Hatta, 2018; Okyar, 2021; Pisal & Teh, 2018). Furthermore, the overall mean value of vocabulary learning strategies for the female students in this study was higher than the male students. These findings are in line with the previous findings by Boonkongsaen and Intaraprasert (2014), Ansari et al. (2016), Basit et al. (2017), Yilmaz (2017), Memis (2018), Pisal and Teh (2018), Göçen (2020), Rahman (2020), Gul et al. (2021), Okyar (2021), and Muhammad Nur and Jusoh (2022). In contrast, studies by Manuel (2017) as well as Mustapha and Hatta (2018) revealed different findings when the male students in both studies obtained higher mean scores than the female students. Several factors, such as effort, creativity, interest, and seriousness, may influence these differences indirectly between groups of students.

The most frequently use main strategy by the male students in Table 2 is dictionary strategy (M = 3.10, SD = 0.79), followed by expanding lexical knowledge (M = 3.03, SD = 0.88), note-taking strategy (M = 3.02, SD = 0.78), memorization strategies (M = 2.99, SD = 0.89), non-dictionary strategies (M = 2.99, SD = 0.71), practice strategies (M = 2.93, SD = 0.84), and metacognitive strategies (M = 2.89, SD = 0.79).

Table 2. Types And Levels Of The Main Vocabulary Learning Strategies Used By Male Students

Main strategy	Male (N=96)			
	Mean	SD	Level	Sequence
Non-dictionary	2.99	0.71	Moderate	5
Dictionary	3.10	0.79	Moderate	1
Note-taking	3.02	0.78	Moderate	3
Memorization	2.99	0.89	Moderate	4
Practice	2.93	0.84	Moderate	6
Metacognitive	2.89	0.79	Moderate	7
Expanding lexical knowledge	3.03	0.88	Moderate	2
Overall Vocabulary Learning Strategy Use	3.01	0.68	Moderate	

For the group of female students in Table 3, they mostly often use dictionary strategies (M = 3.26, SD = 0.81), followed by note-taking strategies (M = 3.13, SD = 0.77), memory strategies (M = 3.12, SD = 0.84), metacognitive strategies (M = 3.03, SD = 0.79), non-dictionary strategies (M = 3.02, SD = 0.69), expanding lexical knowledge (M = 3.02, SD = 0.81), and practice strategies (M = 2.92, SD = 0.84).

Table 3. Types And Levels Of The Main Vocabulary Learning Strategies Used By Female Students

Main strategy	Female (N=124)			
	Mean	SD	Level	Sequence
Non-dictionary	3.02	0.69	Moderate	5
Dictionary	3.26	0.81	Moderate	1
Note-taking	3.13	0.77	Moderate	2
Memorization	3.12	0.84	Moderate	3
Practice	2.92	0.84	Moderate	7

Metacognitive	3.03	0.79	Moderate	4
Expanding lexical knowledge	3.02	0.81	Moderate	6
Overall Vocabulary Learning Strategy Use	3.10	0.66	Moderate	

Based on the mean values of strategy used for the seven (7) strategy use constructs, female students were found to be more likely to use five (5) strategy categories (non-dictionary, dictionary, note-taking, memorization, and metacognitive), while male students preferred using two (2) strategy categories (practice and expanding lexical knowledge). However, the mean value difference for these two groups of students was not that great. For the five (5) strategy constructs, it was reported that the female students are higher than the male students; the highest mean value difference is at the dictionary strategy of 0.16. When comparing the two strategy constructs, the male students outperformed the female students, but the mean value difference is only 0.01. The results are too small when comparing these two groups of students.

Overall, the male and female students in this study most frequently used the dictionary strategies in learning Arabic vocabulary compared to other learning strategies. The findings of Göçen's (2020) study were not in line with this finding when the two groups of students of different genders in the study tended to use affective strategies and memory strategies more frequently than the other strategies. The tendency of male and female students using the highest strategy, like the dictionary strategy, indicated that both groups of students believed the main basic source to understand meaning in language learning is through a dictionary usage.

However, the least-used strategies by these two groups of students were different. Male students were found to be the least likely to monitor their own learning through the use of metacognitive strategies. However, this result was not coherent with the studies by Mustapha and Hatta (2018), Gul et al. (2021), and Muhammad Nur and Jusoh (2022). They found that metacognitive was the first most used strategy (Gul et al., 2021; Mustapha & Hatta, 2018) and the second most used strategy (Muhammad Nur, & Jusoh, 2022) among male and female students in their study. When the metacognitive strategy was the least used in this study, the male students seemed less likely to review lessons before and after learning took place. This finding is also supported by another finding in this study. It was found that 37.5% of male students only spent less than 1 hour a week learning Arabic outside the classroom, compared to 32.3% of female students. This information indirectly indicates that both groups of students did not allocate too much time to master the Arabic language learning material without supervision of lecturer. Students were unable to diversify their use of vocabulary learning strategies since they have limited time to review lessons outside the classroom.

Female students used the least practised strategies to master vocabulary. These practise strategies were also important to help students to use vocabulary that has been memorised or recorded in a notebook. Without practice, students could not master the use of words they have learned in sentence construction. This situation can be seen when the lecturer gave sentence construction practice to students, there were still students who did not understand the concept of simple sentence construction in Arabic. Even in a simple sentence that contained three or four sentences, there were still those who were not able to build sentences. This deficiency is expected to occur because some students were not accustomed to practising using the vocabulary that has been memorised in the form of sentences and they did not master the simple grammatical information that has been learned during Arabic levels 1 and 2.

The Most And Least Frequently Used Strategies By Male And Female Students

Next, Table 4 reports the five (5) most frequently used strategies by male and female students. The mean values of the five highest strategies used by male students are all at a high level, with a mean value between 3.50 to 4.01. For female students, the use of the top five strategies also shows that all of them are at a high level, with a mean value between 3.99 to 4.15. Overall, both groups of students have recorded similarities in the use of the four (4) highest strategy items, namely 'B9: I use Google Translate to find the meaning of new words', 'A5: When I find a new word, I check its meaning in Malay', 'C5: In class, I write the meaning of new words using textbooks only', and 'C1: I wrote down the meaning of each word in a notebook'. The fourth-highest strategy used by male students is item 'B7: I look up the meaning of new words in an online dictionary' which is not listed in the top five strategies of female students. By refering to the top five strategies of female students, the fourth highest strategy often used is not the same as male students, namely item 'A7: I look for new words in the word meaning list (glossary) section of the textbook'.

Table 4. The Top Five Most Frequently Used Strategies By Male And Female Students Groups

Item	Highest strategy	Mean	SD	Level
	Group of male students (N= 96)			
B9	I use Google Translate to find the meaning of new words.	4.01	0.96	High
A5	When I find a new word, I check its meaning in Malay.	3.79	0.93	High
C5	In class, I write the meaning of new words using textbooks only.	3.66	0.95	High
B7	I look up the meaning of new words in an online dictionary.	3.54	1.09	High
C1	I wrote down the meaning of each word in a notebook.	3.50	0.93	High
	Group of female students (N= 124)			
A5	When I find a new word, I check its meaning in Malay.	4.15	0.96	High
C5	In class, I write the meaning of new words using textbooks only.	4.12	0.92	High
B9	I use Google Translate to find the meaning of new words.	4.11	1.05	High
A7	I look for new words in the word meaning list (glossary) section of the textbook.	4.00	1.17	High
C1	I wrote down the meaning of each word in a notebook.	3.99	1.03	High

Table 5 lists the lowest-level strategies used by both male and female students. For male students, the five (5) lowest strategies used range from mean values of 2.30 to 2.55. This mean value indicates that the level of use of this lowest strategy is at low and medium levels. The top five (5) strategies least used by male students are items 'A2: When I come across a new word, I will ask the lecturer the synonym of the Arabic word', 'A3: When I come across a new word, I will ask the lecturer the antonym of the Arabic word (opposite)', 'A1: When I discover a new word in class, I ask the lecturer about its meaning', 'C8: I arranged the words in alphabetical order in the notebook', and 'G7: I learned new vocabulary found in a special Arabic column while reading a daily newspaper'.

The five (5) lowest strategies used by female students are all at a low level, with a mean value between 1.96 to 2.13. There are similarities in the lowest strategy that is the least used by these two groups of students, namely items A2, A3, C8, and G7. However, one of the lowest strategy items by the male students, which is item 'A1: When I discover

a new word in class, I ask the lecturer about its meaning', is not parallel with the female students. While the item 'G8: I learned new vocabulary found in a special Arabic column while reading a magazine' from the five (5) lowest strategies used by the female students is not parallel with the male students.

Table 5. The Five Least Frequently Used Strategies By Groups Of Male And Female Students

Item	Lowest strategy	Mean	SD	Level
	Group of male students (N= 96)			
A2	When I come across a new word, I will ask the lecturer the synonym of the Arabic word	2.30	0.99	Low
A3	When I come across a new word, I will ask the lecturer the antonym of the Arabic word (opposite).	2.33	1.04	Low
A1	When I discover a new word in class, I ask the lecturer about its meaning.	2.54	0.93	Moderate
C8	I arranged the words in alphabetical order in the notebook.	2.54	1.22	Moderate
G7	I learned new vocabulary found in a special Arabic column while reading a daily newspaper.	2.55	1.19	Moderate
	Group of female students (N= 124)			
A3	When I come across a new word, I will ask the lecturer the antonym of the Arabic word (opposite).	1.96	0.90	Low
A2	When I come across a new word, I will ask the lecturer the synonym of the Arabic word.	2.01	0.92	Low
G8	I learned new vocabulary found in a special Arabic column while reading a magazine.	2.05	1.25	Low
G7	I learned new vocabulary found in a special Arabic column while reading a daily newspaper.	2.12	1.23	Low
C8	I arranged the words in alphabetical order in the notebook.	2.13	1.17	Low

The use of the highest and the lowest strategy items show some similarities. The four (4) highest strategies tend to be used frequently while the four (4) lowest strategies tend to be used the least by both groups of students.. This preliminary information shows that both groups of students have a similar tendency towards the importance of the use of a strategy, so there were similarities in the use of strategies that were often and less often used in learning.

The similarities in the use of the two highest strategies for male and female students indicate they were highly focused on teacher teaching. They were found to often record the meaning of new words on textbooks (item C5) as well as notebooks (item C1). In addition, there are two other items that show the tendency of students to find the meaning of new words through Google Translate (item B9) and the online dictionary (item B7). The tendency of students to use this online dictionary might be due to the fact that the meaning of a word can be found quickly compared to the use of physical dictionaries. Students seemed to prefer simple strategies, and they did not require a lot of energy to understand a meaning. From another aspect, this physical dictionary was less used probably because online information today is easier to access anywhere, either through smartphones or students' laptops, with the availability of the Internet.

For the lowest strategy use, there were four (4) strategies that the students used the least. Two-item non-dictionary strategies were used by those who rarely asked the lecturer both synonyms (A2 item) and antonyms in Arabic (A3 item). This might be

because they did not have enough practise to construct various kinds of Arabic sentences. Thus, both strategies received less attention. Next, the other two item-less strategies used are referred to "the arrangement of words in the notebook in alphabetical order" (item C8) and "learning new vocabulary through a special Arabic column while reading a daily newspaper" (item G7). The use of strategies on this C8 item was less used probably because students were more comfortable arranging vocabulary according to the order of certain chapters or categories. Thus, the order of words alphabetically, like the order in a dictionary, was not their choice. As for the use of strategies on G7 items, time constraints as well as learning materials in a special section of Arabic might cause students to be less likely to use this strategy.

The Differences In The Use Of Vocabulary Learning Strategies Based On Gender

The results of the independent sample t-test in Table 6 show that the overall significant value of the strategy exceeded 0.05. These findings indicate that there are no significant differences in the use of vocabulary learning strategies based on gender as a whole.

Table 6. Differences In The Use Of Students' Vocabulary Learning Strategies By Gender. (N = 220)

Dependent Variable	Gender	N	Mean	SD	t	Sig.
Vocabulary Learning Strategies Used	Male	96	3.01	0.68	-1.027	0.305
	Female	124	3.10	0.66		

Other studies by Ansari et al. (2016), Basit et al. (2017), Manuel (2017), Memis (2018), Mustapha and Hatta (2018), Göçen (2020), and Muhammad Nur and Jusoh (2022) also obtained similar findings. However, the findings of this study are not in line with the findings of Boonkongsaen and Intaraprasert (2014), Yilmaz (2017), Pisal and Teh (2018), Gul et al. (2021), and Okyar (2021) because they found significant differences based on gender.

The insignificant differences in this study indicate that most students have similar tendencies and knowledge in the use of various vocabulary learning strategies. Moreover, the same information disclosure given by the lecturer to the students showed that the appropriate behavioural reactions were taken by all the students in a seemingly similar way to improve their vocabulary learning process. By allocating extra time to study outside the classroom, students can diversify learning strategies and opportunities by doing a lot of revisions and exploring a variety of learning strategies at an appropriate rate for remembering and practising new vocabulary.

CONCLUSION

The level of strategy use of both male and female students groups in this study was at a moderate level, either overall or based on the seven (7) main strategy constructs. Based on inferential analysis, the findings of this study show that there are no significant differences in the use of vocabulary learning strategies based on the gender of the students as a whole. The tendency of male and female students to use similar strategies is related to the lecturers' teaching methods. It seems that the exposure and guidance provided by the lecturers are indirectly well accepted by the students for their learning. However, the level of these modest strategies can be further enhanced by increasing the duration of learning time outside the classroom as well as the knowledge of various effective uses of strategies to learn more vocabulary.

Lecturers can provide early exposure to students about the importance of using certain strategies to add their vocabulary. Moreover, knowledge of vocabulary alone is not sufficient without being pinned in the mind through specific learning activities. Thus, exposure on how to use memory strategies can also be introduced to help students' memory, such as the use of mnemonic strategies, visualisation, keywords, repetition, and linking synonymous or opposite words. At the same time, each new word that has been learned also needs to be used to strengthen students' Arabic proficiency utilising practice strategies. Furthermore, to ensure the effectiveness of learning activities, students need to be exposed to the use of metacognitive strategies to ensure that they are able to plan, monitor, and evaluate the level of Arabic vocabulary mastery from time to time. From the students' perspective, they need to be creative in the process of learning Arabic vocabulary. In order to strengthen the students' self-learning process, firstly, they must have an awareness of their own strengths and weaknesses in mastering this Arabic vocabulary. Secondly, they can plan appropriate actions to strengthen vocabulary mastery through specific activities using appropriate learning strategies. The lecturer can be a facilitator, however, students themselves need to put in effort to master their vocabulary level.

Based on the findings and discussions, some suggestions for further research can be made in the field of vocabulary learning strategies. Since there are no significant differences in the use of vocabulary learning strategies based on gender in this study, several other factors can also be studied to see whether there are any differences or similarities in the use of strategies between these genders that can be attributed to learning motivation factors or specific learning styles. Further research using a qualitative methodology through interviews can be conducted, since this study only used a questionnaire instrument. This will allow for a more in-depth analysis of the factors that affect how both male and female students use strategies.

From another perspective, the results show that not many studies have investigated differences in the use of vocabulary learning strategies based on students' language learning levels (Göçen, 2020). Thus, studies on the differences in the use of vocabulary learning strategies based on gender can also be further explored on students' language learning levels (examples: level 1, level 2, level 3). The tendency of students to have different interests and experiences certainly provides a variety of interesting findings to be discussed in the field of education.

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