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Evaluating Vocabulary Learning Strategies (VLS): Gender differences, the most and least used (VLS) among Angolan EFL Students at the Faculty of Arts (Luanda, Angola)

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Abstract

This study investigated the vocabulary learning strategies, motives and perceptions of Angolan EFL Undergraduate students at the Faculty of Arts at Agostinho Neto University. The study used between group research design. The participants included 30 male and 30 female students with an intermediate level of English of ages 18 to 21, all of them in the English program. To collect the data, Schmitt's (1997) Vocabulary Learning Strategy Questionnaire (VLSQ) with 3 point Likert Scale was administrated. To analyze the data an independent t-test was performed. Descriptive statistics and t- statistics were calculated to measure the influence of gender differences in vocabulary learning strategies. The results indicated that EFL students use a wide range of vocabulary learning strategies. There was no statistically significant difference in overall vocabulary learning strategies use and gender. The study detected statistically significant mean score difference in the use of memory strategies and metacognitive strategies, respectively.

Keywords: Angolan EFL students, vocabulary strategies, motives, gender, VLSO

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INTRODUCTION

Researchers in English Second Language (ESL) and English as a Foreign Language (EFL) agree that language acquisition cannot take place without an effective and long term commitment to vocabulary instruction (Takač, 2008). In the same vein, Kaya and Charkova (2014) pointed out that vocabulary is the cornerstone of all language learning process. In addition, Kaya and Charkova (2014) noted that "vocabulary building is one of the most important aspects of learning a second language" (p. 123). For this particular reason, it becomes obvious that to master a language one needs to develop lexical competence which is mostly dependent of vocabulary (Llach, 2011; Nation, 1990). Thus, in the context of English as a Foreign Language (EFL) explicit teaching of vocabulary and vocabulary learning strategies becomes fundamentally important because explicit teaching is one of the best ways that teachers can use to enhance learners vocabulary and lexical competence (Oxford & Scarcella, 1994).

Regarding the relevance of learners' motivation and learning in ESL/EFL it has been argued that well motivated students learn better than unmotivated ones. In fact, as Dörnyei (1998) pointed out, motivation is one of the most important factors that influences the success of ESL/EFL language learning. According to Dörnyei (1998), motivation is the springboard of any language learning process and that "without sufficient motivation, even individuals with the most remarkable abilities cannot accomplish long-term goals" (p.117). In foreign language contexts, this even more true. In this respect, Ringbom (1987), forcefully noted that foreign language learning is highly driven by integrative and instrumental goals. The relevance of vocabulary learning strategies and learners' motivation and students' learning goals in ESL/EFL contexts has been well documented (Dörnyei, 1998, 2001, 2009; Gardner & Lambert, 1972; Gilakjani, Leong, & Sabouri, 2012; Omaar, 2016; Schmitt, 1997, 2000, 2010). The focus of the present study was to investigate motives, goals, learners' perceptions of the English language, gender differences and the most and least used vocabulary learning strategies among Angolan English Language undergraduate students.

The Significance of the Study

English language is one of the most used languages in education worldwide. In Angola, English is learned from primary school up to secondary school. English is also taught at the university as a subject and language of instruction in many English departments. However, language learning strategies in the context of English as a foreign language (EFL) have not been investigated. In other words, although there have been a number of studies investigating gender and vocabulary learning strategies in different EFL contexts, no studies have ever attempted to investigate learning strategies in the context of English as a foreign language in Angola. This study aims at filling this gap and pave the ground for more surveys of vocabulary learning strategies. The insights from this pioneering study may help learners take responsibility for their own learning and improve their language proficiency (Oxford & Nyikos, 1989). This may also assist teachers devise better ways for explicitly teaching language, learning strategies and improve learning in EFL contexts.

LITERATURE REVIEW

Research on Learning Strategies

Language learning strategies is not a novel field of research in applied linguistics and English Language learning research. The role of learning strategies has been discussed by many scholars in the field of English language teaching and learning (O'Malley & Chamot, 1990, 2004; O'Malley, Chamot, Stewner-Manzanares, Russo & Küper, 1985; Oxford, 1990; Rubin, 1975). It is, however, important to stress that the most prevalent approach to learning strategies has had the influence of the cognitive theory (McLaughlin, 1990). In this perspective, cognitive theory sees second language acquisition as a conscious process that involves the deliberate use of learning strategies. O' Malley and Chamot (1990) pointed out that language learning cannot be understood without clear comprehension of the connection between language and cognition. According to them learning strategies are procedures that learners apply to language learning tasks. This put differently, the role of learning strategies is "to make explicit what otherwise may occur without the learner's awareness or may occur inefficiently during early stages of learning" (O'Malley & Chamot, 1990, p. 18). From a cognitive point of view, learning strategies involve mental processes that support language learning.

Oxford (1990) is another researcher who provides a taxonomy of learning strategies. According to Oxford (1990) in order to understand learning strategies one needs to understand the term strategy which has a Greek origin. In the original Greek term is "strategia" which means generalship or a plan for managing war activities (Oxford, 1990, p. 7). She defines learning strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, self-directed, effective, and transferable to new situations." (Oxford, 1990, p. 8). Takač (2008) notes that the concept of language learning strategy refers to "what learners do in order to make their learning manageable and efficient" (p. 2). In addition, he has suggested that language learning strategies are helpful for solving language learning problems and that they partly count for learners' successful language achievement. According to Oxford (1990) in language teaching and learning, strategies contribute to accomplish learning goals, solve problems, and are influenced by an interplay of factors. Such factors include learners' individual differences, attitudes, learning styles, motivations, social factors and cultural background (Burstall, 1975; Dörnyei, 2009; Gardner & Lambert, 1972; Liang, 2009; Rabadi, 2016; Skehan, 1991; Takač, 2008).

Vocabulary Learning Strategies

There is no doubt that vocabulary is a crucial part of language learning and teaching. For this reason, vocabulary learning strategies research has increased in the last twenty years. Laufer (1986) pointed out that language acquisition cannot take place without learning and mastery of words or vocabulary. Many scholars and researchers have attempted to define and proposed various classifications of vocabulary learning strategies (O'Malley & Chamot, 1990; Oxford, 1990; Schmitt, 1997, 2000, Takač, 2008). O'Malley and Chamot (1990), for example, define Vocabulary Learning Strategies (VLS) as "special thoughts or behaviors that individuals use to comprehend, learn or retain information (p. 1), while Takač (2008) refers to them as "specific strategies utilized in the isolated task of learning vocabulary in the target language" (p. 52).

In other words, VLS are techniques that facilitate language learning in a second language as well as in a foreign language. Researchers agree that vocabulary acquisition and vocabulary learning strategies constitute a great challenge for English as a Foreign Language learners, especially if the learners are bilingual/multilingual and /or different cultural backgrounds (Omaar, 2016, Nation, 2005). In respect to the complexities of vocabulary learning in non-native contexts, Nation (1995), for example, noted that although native speakers take years to develop vocabulary through reading activities, non-native speakers face even greater challenges in learning English due to the lack of vocabulary. Regarding the importance of learning strategies and variation in the use of vocabulary learning strategies by second language and foreign language learners, some researchers have pointed out that individuals who are active and successful language learners often use a wide range of strategies (Gu & Johnson, 1996). Looking at the above discussion, one may conclude that vocabulary learning strategies constitute an important subclass of language learning strategies, whose taxonomy remains widely discussed among the researchers in applied linguistics and vocabulary learning research.

Taxonomy of Vocabulary Learning Strategies

Oxford's (1990) taxonomy of learning strategies involves two types of strategies: Direct strategies include memory, cognitive and compensation strategies), while indirect strategies include metacognitive, social strategies, and affective strategies. Nation (2000) provides a taxonomy of vocabulary learning strategies that includes a general class of strategies and types of strategies. The general class strategy category includes planning, sources, and processes. Planning has to do with choosing words, strategies, and planning repetitions. Sources involve finding information about words, whereas processes involves establishing knowledge. The category of types of strategies includes analyzing the word using context, consulting a reference source in L2 and L2, using parallels L1 and L2. It is important to note that although Oxford's (1990) taxonomy has been widely used in ESL/EFL learning research, in the vocabulary learning strategies research Schmitt (1997, 2000) provides a more complete taxonomy that has been extensively used in vocabulary learning strategies research.

Schmitt (1997) used the taxonomy previously established by Oxford (1990) and added the discovery strategies that include determination strategies and social strategies and consolidation strategies which comprise memory strategies, cognitive strategies, and metacognitive strategies. It is widely accepted among scholars and vocabulary learning strategy researchers in particular that Schmitt's (1997) taxonomy of vocabulary learning strategies is more complete and precise. It is also widely accepted that memory strategy, determination strategies, cognitive strategies and metacognitive strategies are overlapping strategies in most vocabulary learning strategies taxonomies, especially if one looks at Oxford's (1990) (Letchumanan, Muthusamy, Govindasamy & Farashaiyan, 2016; Omaar, 2016; Rabadi, 2016). The role memory strategy in language learning and vocabulary learning in particular has been recognized (Carter, 2012; Takač, 2008). Referring to Oxford's (1990), Schmitt (1997) noted that memory strategies or mnemonic categorized as strategies that help organize mental information in a way that helps the learners to efficiently memorize it, constitutes an incomplete categorization. He instead posited that memory strategies "involve relating the word to be retained to previously learned knowledge using some form of imagery or groupings" (Schmitt, 1997, p. 211). In other words, Schmitt is suggesting that mnemonics are very optimal vocabulary learning strategies because they greatly facilitate the retrieval of learned words. Regarding the

use of cognitive and memorization strategies in vocabulary learning, researchers have found them to be among the most preferred strategies by the learners (Nation, 2010; O'Malley et al., 1985; Takač, 2008).

According to Oxford (1990) are mostly used by the learners receiving and sending messages, practicing through repetition, and analyzing words. Metacognitive strategies involve planning and arranging learning. They are very critical for conscious-overviewing of the learning process (Oxford, 1990, p. 16-17). Social strategies involve learners' interaction with other people, in order to discover the meaning of the words or improve vocabulary learning (Oxford, 1990; Nation, 2001; Schmitt, 2000). In short, vocabulary learning strategies are an important subclass of language learning vocabulary that are affected by many factors. Vocabulary learning strategies, specially memory, cognitive and metacognitive strategies are among the most used by learners in the process of vocabulary learning and instruction. While all language learning strategies are very important, these strategies contribute significantly to the vocabulary learning improvement in that they help consolidate learned vocabulary (Schmitt, 2010). To conclude, while all reviewed vocabulary taxonomies have contributed significantly to our knowledge of learning strategies and vocabulary strategies in particular, it is abundantly clear that Schmitt's (1997) inventory is one that has been extensively used in the foreign language investigation, and this justifies the adaptation of Schmitt's taxonomy in the present study.

Previous Research on Vocabulary Learning Strategies

According to Takač (2008) vocabulary learning strategy research can be approached from many different perspectives. He noted that vocabulary learning strategy can be researched from the view of general learning strategies and a research that explores the effectiveness of individual strategy in the process of learning. Despite the prevailing dominance of cognitive approaches to vocabulary education, vocabulary research as entered a new chapter. More recently, scholars have challenged the prevalence of cognitive views in favor of sociocultural approaches to vocabulary education. For example, Carter (2012) recognizes the contribution of cognitive theories of vocabulary learning, he does however, propose a sociocultural approach as a complement to the existing views of vocabulary and lexical learning. Macaro (2001) suggests a two dimension view for vocabulary learning strategies research. According to Macaro, studies in learners' strategies can be divided into two different types, that is, descriptive studies and intervention studies. Descriptive studies are those studies that describe the characteristics of a good learner (e.g. Rubin, 1975), studies that count the use of strategies and studies that compare the use of strategies between groups. Whereas intervention studies aim at discovering the possible changes in the use of learning strategies in leaners (Macaro, 2001, p. 71).

A number of studies have investigated vocabulary learning strategies. Vocabulary research has grown considerably both in second and foreign language learning contexts in the last two decades (Catalan, 1993; Carter, 2012; Gu & Johnson, 1996; Nation, 2001; O'Malley & Chamot, 1990, 2004; Omaar, 2016; Oxford & Nyikos, 1989; Takač, 2008; Schmitt, 1997, 2000, 2010). It is important to note that pioneering research on language learning strategy was related to the understanding of the characteristics of the learners. One of the most cited studies in this respect is, Rubin's (1975), paper Entitled "What the Good Language Learner can Teach Us" published in TESOL Quarterly. In this paper Rubin sought to define the characteristics of "good language learners" and established that good learners used a wide range of language learning strategies. Rubin established that good learners use learning strategies such as guessing meaning

of words in context which is one of the most used cognitive strategies in second and foreign language learning. Other characteristics of a good learner underlined by Rubin is that good learners practice words by pronouncing them several times. Different researchers have investigated vocabulary learning strategies in various contexts in relation to most and least used frequent vocabulary learning strategies (Amerian & Heshmatifar, 2013; Kaya & Charkova, 2014; Omaar, 2016), learning strategies, L2 proficiency and gender (Green & Oxford, 1995), vocabulary size and general English proficiency (Gu & Johnson, 1996), attitudes towards vocabulary acquisition (Laufer, 1986), determine whether the classification of strategies used with English as a Second Language (ESL) could be applied to English as a Foreign language learning (EFL) (O'Malley & Chamot, 1990). Some studies sought to compare the use of vocabulary learning strategies in relation to age (Schmitt, 1997) and gauge the effectiveness of vocabulary learning strategies (Rahimy & Shams, 2012).

For example, O'Malley and Chamot (1990) interviewed Spanish and Russian learners and found motivation for learning and studying English as one of the important factors influencing language acquisition in EFL contexts. The main thrust of the study was to investigate whether the classification learning strategies (metacognitive and cognitive) previously used in an ESL context could be used in foreign language learning context. They found that "the learning strategies of foreign language students could also be classified as metacognitive, cognitive, and social, affective (O'Malley & Chamot, 1990, p. 128). Gu and Johnson (1996) used a questionnaire to investigate advanced learners use of vocabulary learning strategies. They found that there was a high correlation between vocabulary size and English language proficiency. It is important to note that the relationship between the size of vocabulary and linguistic ability of the learner vary from learner to learners. In English language evidence shows that "there is a relatively close relationship between how many words you know, as measured in the standard vocabulary tests and how well you perform on reading tests, listening tests and other formal tests of your English ability" (Schmitt, 2010, p. 48). In other words, vocabulary constitutes the cornerstone of the any language learning, be it in the context of second or foreign language acquisition.

Schmitt (1997) study with Japanese learners compared the use of strategies at four age levels and found that learners tended to use meaning based processing strategies than memorization strategies. Suffice it to reiterate that the increasing number of empirical studies investigating vocabulary learning strategies can be justified by the growing and recognized importance of vocabulary learning strategies in second and foreign language acquisition (Albaechtsen, Haastrup & Henriksen, 2008; Bogaards & Laufer, 2004; Carter, 20012; Cusen, 2009; Rojananak & Vitayapirak, 2015; Xhaferi, 2008; Zare, 2012). In short, previous studies have considerably improved our understanding of vocabulary learning strategies. One of the most important findings from the cutting edge vocabulary learning strategies research is that there are variations in the use of language learning strategies. These variations are related to sex, age, beliefs, and motivation in strategy frequency and strategy development" (Macaro, 2001, p. 71). These variations become even more relevant in EFL contexts with learners who bilingual/multilingual or diverse cultural backgrounds such as the ones investigated in this study

Research on VLS and Gender

About two decades ago, Oxford, Nyikos and Ehrman (1988) bemoaned that although gender was a significant predictor in educational and linguistic research it had been neglected in most

vocabulary. However, as can be observed from the reviewed literature, there has been a great surge in vocabulary learning strategy research in the last twenty years or so. It important to note that the debate on the use of the term sex interchangeably with gender is discussed by Catalan (2003). Catalan (2003) noted that sex and gender are problematic and controversial terms. She argued that some scholars distinguish between the two terms "using 'sex' as a biological category that serves to differentiate males from females and 'gender' as a social category that refers to the social attributes given to men and women as well as grammatical distinction in language" (Catalan, 2003, p. 54).

For the purpose of this study, I use the term gender to capture both the biological and social aspects on men and women. In respect with gender Oxford et al, (1988), reported studies which have explored gender differences in the use of language learning strategies found that most surveyed studies report that females used more learning strategies than men. Catalan (2003) investigated Spanish speaking students to look at gender and second language learning with the purpose of finding out whether there were significant differences in the use of strategies by students of different genders. She found that higher strategy usage by female than male students. In addition, Catalan also found clear overall differences in the use of language learning strategies between the two groups. Lee and Oxford (2008), investigated the impact of strategy awareness of Korean EFL learners and found that students who considered English as important, were aware of the variety of language strategies and utilized language learning strategies in their own learning frequently. In respect to gender and awareness Lee and Oxford (2008) found that gender did not affect the use of language strategies and commented that promoting strategy learning based on major differences is not a realistic goal.

Green and Oxford (1995) took a look at learning strategies, L2 proficiency, and gender also found an important relationship between strategy use and gender. Again their finding indicated that women used significantly more strategies than their male counterpart. Omaar (2016) investigated Tuareg, Libyan university students regarding gender differences in the use of vocabulary learning strategies. In the overall use of vocabulary learning strategies, Omaar (2016) found no statistically significant difference between male and female students. However, he detected statistically significant difference in the mean scores in the overall use of social strategies favoring females. Gender difference in determination strategies individual items use, specifically in the use of bilingual dictionaries and word lists, revealed statistically significant difference in the mean score favoring females.

In another recent study Ansari, Vahdany and Sabouri (2016) investigated the relationship between the use of vocabulary learning strategies and gender of Iranian EFL university students and found that, the use of metacognitive strategies was slightly higher in favor of female learners. Likewise, Gu and Johnson (1996) examined the vocabulary learning used by advanced learners and found out that there was a relationship between the use of strategies, vocabulary size, and proficiency. Interestingly enough, although the pattern in most studies favors female learners, Wharton's (2000) and Phakiti's (2003) studies report findings in the opposite direction.

Wharton (2000) utilized Oxford's (1990) item strategy inventory for language (SILL) and examined self-reported language learning strategies of bilingual university students learning Japanese and French as a foreign language in Singapore. He investigated the use of strategy and proficiency and their relationship to gender. Wharton (2000) found that more learning strategies use among learners with higher proficiency and significant higher strategy use by male students. In the same vein, Phakiti (2003) examined gender differences in cognitive and metacognitive strategy use in the context of English as a foreign language reading comprehension with

university students. Phakiti found that males reported significantly higher use of metacognitive strategies than females. These latter findings reveal the complexity of vocabulary learning strategy investigation in different ESL/EFL contexts. To reiterate, research on gender and vocabulary learning strategies has revealed that gender constitutes an important variable that needs to be factored in language teaching education.

METHODS

Purpose of the Study

The aim of this study was to investigate Gender and vocabulary learning strategies (VLS) used by English as a foreign language (EFL) university students at the faculty of Arts of Agostinho Neto University, Angola. The study utilized mainly quantitative methods that were supplemented by two qualitative questions.

Research Questions

The study sought to investigate the following research questions:

- Is there any difference in the use of vocabulary learning strategies among male and female EFL students?
- What are the most and least used vocabulary learning strategies among EFL students?
- What are the students' motives and goals for learning English?
- What are the students' perceptions about the value of English?

Hypotheses

First, I hypothesized that there was no significant difference in the mean score between male and female students. The alternative hypothesis predicted that there was a difference in the mean scores (two tailed).

Participants

The participants in the study included 60 university students at the Faculty of Arts, of Agostinho Neto University. Participants were selected from a population of 325 students from the English department using random sampling methods. Participants were mostly 18-24 years old, and they were all intermediate proficiency levels determined through a placement test.

Instruments

The study utilized a vocabulary learning strategies questionnaire (VLSQ) designed by Schmitt (1997) and adapted by Omaar (2016) that included 42 items. The questionnaire was divided into two parts. The first part provided some instructions on how to complete the questionnaire and some demographic questions age, gender, years of study, goals, perceptions and motives for studying English. The second part included the questionnaire divided in two parts. One part containing Discovery strategies (13 items) and the other Consolidation strategies (29 items) as

shown in table 2. The validity of the instrument was established through reliability statistics with Cronbach's Alpha. The test showed that the instrument was reliable with (Cronbach's Alpha $\alpha = .980$).

Table 1: Cronbach's Alpha Reliability of Vocabulary Learning Strategies

	Reliability Statistics	
Cronbach's Alpha	Cronbach's Alpha Based on	No. of Items
_	Standardized Items	
.980	.980	42

The questionnaire was administered during the second semester of 2015-2016 academic year. Data collected by the means of the instruments were examined by using SPSS 22 statistical package for social sciences and humanities.

Procedures

To achieve the objectives of the study the following procedures were followed. The self-reported questionnaires were administered to male participants (N1= 30) and female participants (N2= 30). Participants were selected through random sampling methods. Participants were instructed before completing the questionnaires and instructions were given in Portuguese and English. The questionnaires were administrated during class time and completed during 2 hours. A semi-structured interview was used to elicit participants' experiences, help interpret, and understand the meaning behind the quantitative results in vocabulary learning strategies (Schmitt, 2010).

RESULTS

Table 2: The Distribution of 42 Items of Vocabulary Learning Strategies

No	Categories	Items	Total
1	Determination Strategies (DET)	1-8	8
2	Social Strategies (SOC)	9-15	7
3	Memory Strategies (MEM)	16-29	14
4	Cognitive Strategies (COG)	30-38	9
5	Metacognitive Strategies (META)	39-42	4
			42

Note. DET = determination strategies; SOC = social strategies; MEM = memory strategies; COG = cognitive strategies; META = Metacognitive strategies.

The results of the descriptive statistical analysis of the discovery strategies showed that the participants used both determination strategies and social strategies to discover the meanings of new vocabulary (See Table 3).

Table 3: Descriptive Statistics of Discovery Strategies

	No	Strategies	Min	Max	М	SD
DET	1	I analyze the type of new words; for example, whether it is a noun,	1	3	2.22	.715
		verb, pronoun, or adjective.				
	2	I analyze the affixes and roots of new words.	1	3	2.12	.783
	3	I analyze any available pictures or gestures accompanying the new	1	3	2.38	.739

		word.				
	4	I guess the meaning of new words from text or context.	1	3	2.32	.701
	5	I use a bilingual dictionary, for example, English-Portuguese	1	3	2.33	.729
		dictionary to find the meaning of new words.				
	6	I use a monolingual dictionary, for example, English-English	1	3	2.17	.827
		dictionary to find the meaning of new words.				
	7	I use word lists to find the meanings.	1	3	2.08	.850
	8	I use flash cards to find the meanings.	1	3	2.12	.804
SOC	9	I ask the teacher for Portuguese translation of new words.	1	3	2.15	.709
	10	I ask the teacher for paraphrase or synonym of new words.	1	3	2.17	.717
	11	I ask the teacher for a sentence including the new word.	1	3	2.12	.761
	12	I ask my classmates for the meaning of new words.	1	3	2.23	.673
	13	I discover the meaning through group work activity.	1	3	2.32	.725

Note. DET = determination strategies; SOC = social strategies.

For determination strategies, for example, the participants reported using items 1 (DET) "I analyze the type of new word; for example, whether it is a noun, verb, pronoun or adjective" 2.22 (.715), item 3 (DET) "I analyze any available pictures or gestures accompanying the new word" 2.38 (.739), item 5 (DET) "I use a bilingual dictionary, for example, English-Portuguese dictionary to find the meaning of new words" 2.33 (.729), and item 4 (DET) "I guess the meaning of the new word from text or context" 2.32 (.701). For social strategies, the students reported using items 13 (SOC) "I discover the meaning through group work activity" 2.32 (.725), item 12 (SOC) "I ask my classmates for the meaning of new words" 2.23 (.673), and item 10 (SOC) "I ask the teacher for paraphrase or synonym of new words" 2.17 (.717). The results indicate that students utilized a wide range of vocabulary strategies that were familiar to them to discover the meaning of new English vocabulary.

Consolidation Strategies

The statistical results revealed that the students used social, memory, cognitive, and metacognitive strategies to study, practice and remember the meanings of new English words (See Table 3). In the memory strategies category, for example, the students reported using item 21 (MEM) "I use the new word in a sentence." 2.40 (.741), and item 23 (MEM) "I study the sound of a new word" 2.38 (.761), item 22 (MEM) "I study the spelling of a new word" 2.32 (.770), item 18 (MEM) "I connect the word to a personal experience" 2.32 (.725). Besides this, for Cognitive strategies, the students reported using a variety of strategies such as item 34 (COG) "I take notes about new words." 2.40 (.718), item 30 (COG) "I verbally repeat new words several times." 2.35 (.732), item 38 (COG) "I keep a vocabulary notebook." 2.22 (761) and the category of metacognitive strategies item 42 (META) "I continue to study new words over time." 2.30 (.743), item 39 (META) "I use English social media (song, films)." 2.22 (.739), as shown in Table 4.

Table 4: Descriptive Statistics of Consolidation Strategies

	No	Strategies	Min	Max	M	SD
SOC	14	I study and practice the meaning of new words in pairs or a	1	3	2.07	.756
		group in a class.				
	15	My teacher checks my word lists for accuracy.	1	3	1.87	.833

representation of their meaning (e.g., images, and drawings with words). 17 I image word's meaning. 18 I connect the word to a personal experience. 19 I associate the word with its coordinates, for example, fruits 10 (apple, orange, peach). 20 I connect the word to its synonyms. 21 I use the new word in a sentence. 22 I study the spelling of a new word. 23 I study the spelling of a new word. 24 I say new words aloud when studying. 25 I image word's form to remember it. 26 I remember the affixes and roots of new words. 27 I remember the part of speech of new words. 28 I try to use my own language to explain, and remember the meaning of new words. 29 I use physical actions when learning a new word. 30 I verbally repeat new words several times. 31 I write new words several times. 32 I use wordlists, and revise them over time. 33 I use flash cards to remember words. 34 I take notes about new words. 35 I use the vocabulary section in my textbook. 36 I listen to a CD of word lists. 37 I put English labels on physical objects. 38 I keep a vocabulary notebook. 4 I a 3 2.22	MEM	16	It is easy for me to learn new words when they have pictorial	1	3	2.27	.710
words). 17	14117141	10		1	J	2.21	./10
17							
18		17	,	1	3	2.28	.783
19 I associate the word with its coordinates, for example, fruits (apple, orange, peach). 20 I connect the word to its synonyms. 21 I use the new word in a sentence. 22 I study the spelling of a new word. 23 I study the sound of a new word. 24 I say new words aloud when studying. 25 I image word's form to remember it. 26 I remember the affixes and roots of new words. 27 I remember the part of speech of new words. 28 I try to use my own language to explain, and remember the meaning of new words. 29 I use physical actions when learning a new word. 20 I use physical actions when learning a new word. 30 I verbally repeat new words several times. 31 I write new words several times. 31 I use wordlists, and revise them over time. 32 I use flash cards to remember words. 33 I use flash cards to remember words. 34 I take notes about new words. 35 I use the vocabulary section in my textbook. 36 I listen to a CD of word lists. 37 I put English labels on physical objects. 38 I keep a vocabulary notebook. 30 I verballary notebook. 40 Sexample, fruits 4 COS and 2.08 4 I put English labels on physical objects. 4 I and 2.28 4 I second word words in a sexample, fruits 4 I and 2.08 4 I put English labels on physical objects. 4 I and 2.28 5 I put English labels on physical objects. 5 I and 2.22 6 I put English labels on physical objects. 6 I and 2.22 7 I put English labels on physical objects. 7 I put English labels on playsical objects. 9 I word words in a sentence. 9 I word words words. 9 I word words words. 9 I word words. 9 I put English labels on playsical objects. 9 I word words. 9 I word word word words. 9 I word word word word word word word word							.725
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20		-	*				
21 I use the new word in a sentence. 1 3 2.40 22 I study the spelling of a new word. 1 3 2.32 23 I study the sound of a new word. 1 3 2.38 24 I say new words aloud when studying. 1 3 2.27 25 I image word's form to remember it. 1 3 2.22 26 I remember the affixes and roots of new words. 1 3 2.00 27 I remember the part of speech of new words. 1 3 2.00 28 I try to use my own language to explain, and remember the meaning of new words. 1 3 2.27 29 I use physical actions when learning a new word. 1 3 2.18 COG 30 I verbally repeat new words several times. 1 3 2.18 COG 30 I verbally repeat new words several times. 1 3 2.18 32 I use wordlists, and revise them over time. 1 3 2.12 33 I use flash cards to remember words. 1 3 2.05 34 I take notes about		20		1	3	2.08	.787
23 I study the sound of a new word. 24 I say new words aloud when studying. 25 I image word's form to remember it. 26 I remember the affixes and roots of new words. 27 I remember the part of speech of new words. 28 I try to use my own language to explain, and remember the neaning of new words. 29 I use physical actions when learning a new word. 29 I use physical actions when learning a new word. 29 I use physical actions when learning a new word. 30 I verbally repeat new words several times. 31 I write new words several times. 32 I use wordlists, and revise them over time. 33 I use flash cards to remember words. 34 I take notes about new words. 35 I use the vocabulary section in my textbook. 36 I listen to a CD of word lists. 37 I put English labels on physical objects. 38 I keep a vocabulary notebook. 31 I section of a new word. 32 I section of new words. 33 I we flash cards to remember words. 34 I take notes about new words. 35 I use the vocabulary section in my textbook. 36 I listen to a CD of word lists. 37 I put English labels on physical objects. 38 I keep a vocabulary notebook.							.741
23 I study the sound of a new word. 24 I say new words aloud when studying. 25 I image word's form to remember it. 26 I remember the affixes and roots of new words. 27 I remember the part of speech of new words. 28 I try to use my own language to explain, and remember the meaning of new words. 29 I use physical actions when learning a new word. 29 I use physical actions when learning a new word. 29 I use physical actions when learning a new word. 29 I use physical actions when learning a new word. 30 I verbally repeat new words several times. 31 I write new words several times. 31 I write new words several times. 32 I use wordlists, and revise them over time. 33 I use flash cards to remember words. 34 I take notes about new words. 35 I use the vocabulary section in my textbook. 36 I listen to a CD of word lists. 37 I put English labels on physical objects. 38 I keep a vocabulary notebook. 31 I 3 2.22		22	I study the spelling of a new word.	1	3	2.32	.770
24 I say new words aloud when studying. 1 3 2.27 25 I image word's form to remember it. 1 3 2.22 26 I remember the affixes and roots of new words. 1 3 2.00 27 I remember the part of speech of new words. 1 3 1.98 28 I try to use my own language to explain, and remember the meaning of new words. 1 3 2.27 29 I use physical actions when learning a new word. 1 3 2.18 COG 30 I verbally repeat new words several times. 1 3 2.35 31 I write new words several times. 1 3 2.18 32 I use wordlists, and revise them over time. 1 3 2.12 33 I use flash cards to remember words. 1 3 2.05 34 I take notes about new words. 1 3 2.00 35 I use the vocabulary section in my textbook. 1 3 2.08 37 I put English labels on physical objects. 1 3 2.22		23		1	3	2.38	.761
25 I image word's form to remember it. 26 I remember the affixes and roots of new words. 27 I remember the part of speech of new words. 28 I try to use my own language to explain, and remember the meaning of new words. 29 I use physical actions when learning a new word. 29 I use physical actions when learning a new word. 20 I verbally repeat new words several times. 30 I verbally repeat new words several times. 31 I write new words several times. 32 I use wordlists, and revise them over time. 33 I use flash cards to remember words. 34 I take notes about new words. 35 I use the vocabulary section in my textbook. 36 I listen to a CD of word lists. 37 I put English labels on physical objects. 38 I keep a vocabulary notebook. 30 I verbally repeat new words. 31 I section in my textbook. 32 I section in my textbook. 33 I section in my textbook. 44 I section in my textbook. 45 I section in my textbook. 46 I listen to a CD of word lists. 47 I put English labels on physical objects. 48 I keep a vocabulary notebook.		24		1	3	2.27	.756
26 I remember the affixes and roots of new words. 27 I remember the part of speech of new words. 28 I try to use my own language to explain, and remember the meaning of new words. 29 I use physical actions when learning a new word. 29 I use physical actions when learning a new word. 20 I verbally repeat new words several times. 30 I verbally repeat new words several times. 31 I write new words several times. 32 I use wordlists, and revise them over time. 33 I use flash cards to remember words. 34 I take notes about new words. 35 I use the vocabulary section in my textbook. 36 I listen to a CD of word lists. 37 I put English labels on physical objects. 38 I keep a vocabulary notebook. 30 I verbally repeat new words. 31 I verbally repeat new words several times. 40 I J J J J J J J J J J J J J J J J J J		25		1	3	2.22	.761
28 I try to use my own language to explain, and remember the meaning of new words. 29 I use physical actions when learning a new word. 1 3 2.18 COG 30 I verbally repeat new words several times. 1 3 2.35 31 I write new words several times. 1 3 2.18 32 I use wordlists, and revise them over time. 1 3 2.12 33 I use flash cards to remember words. 1 3 2.05 34 I take notes about new words. 1 3 2.40 35 I use the vocabulary section in my textbook. 1 3 2.00 36 I listen to a CD of word lists. 1 3 2.08 37 I put English labels on physical objects. 38 I keep a vocabulary notebook. 1 3 2.22		26		1	3	2.00	.803
The state of the		27	I remember the part of speech of new words.	1	3	1.98	.701
29 I use physical actions when learning a new word. 1 3 2.18 COG 30 I verbally repeat new words several times. 1 3 2.35 31 I write new words several times. 1 3 2.18 32 I use wordlists, and revise them over time. 1 3 2.12 33 I use flash cards to remember words. 1 3 2.05 34 I take notes about new words. 1 3 2.40 35 I use the vocabulary section in my textbook. 1 3 2.00 36 I listen to a CD of word lists. 1 3 2.08 37 I put English labels on physical objects. 1 3 1.98 38 I keep a vocabulary notebook. 1 3 2.22		28	I try to use my own language to explain, and remember the	1	3	2.27	.756
COG 30 I verbally repeat new words several times. 1 3 2.35 31 I write new words several times. 1 3 2.18 32 I use wordlists, and revise them over time. 1 3 2.12 33 I use flash cards to remember words. 1 3 2.05 34 I take notes about new words. 1 3 2.40 35 I use the vocabulary section in my textbook. 1 3 2.00 36 I listen to a CD of word lists. 1 3 2.08 37 I put English labels on physical objects. 1 3 1.98 38 I keep a vocabulary notebook. 1 3 2.22			meaning of new words.				
31 I write new words several times. 1 3 2.18 32 I use wordlists, and revise them over time. 1 3 2.12 33 I use flash cards to remember words. 1 3 2.05 34 I take notes about new words. 1 3 2.40 35 I use the vocabulary section in my textbook. 1 3 2.00 36 I listen to a CD of word lists. 1 3 2.08 37 I put English labels on physical objects. 1 3 1.98 38 I keep a vocabulary notebook. 1 3 2.22		29	I use physical actions when learning a new word.	1	3	2.18	.725
32 I use wordlists, and revise them over time. 1 3 2.12 33 I use flash cards to remember words. 1 3 2.05 34 I take notes about new words. 1 3 2.40 35 I use the vocabulary section in my textbook. 1 3 2.00 36 I listen to a CD of word lists. 1 3 2.08 37 I put English labels on physical objects. 1 3 1.98 38 I keep a vocabulary notebook. 1 3 2.22	COG	30	I verbally repeat new words several times.	1	3	2.35	.732
33 I use flash cards to remember words. 1 3 2.05 34 I take notes about new words. 1 3 2.40 35 I use the vocabulary section in my textbook. 1 3 2.00 36 I listen to a CD of word lists. 1 3 2.08 37 I put English labels on physical objects. 1 3 1.98 38 I keep a vocabulary notebook. 1 3 2.22			I write new words several times.	1		2.18	.725
34I take notes about new words.132.4035I use the vocabulary section in my textbook.132.0036I listen to a CD of word lists.132.0837I put English labels on physical objects.131.9838I keep a vocabulary notebook.132.22		32	I use wordlists, and revise them over time.	1	3	2.12	.739
35I use the vocabulary section in my textbook.132.0036I listen to a CD of word lists.132.0837I put English labels on physical objects.131.9838I keep a vocabulary notebook.132.22			I use flash cards to remember words.	1	3	2.05	.811
36I listen to a CD of word lists.132.0837I put English labels on physical objects.131.9838I keep a vocabulary notebook.132.22			I take notes about new words.	1		2.40	.718
37 I put English labels on physical objects. 1 3 1.98 38 I keep a vocabulary notebook. 1 3 2.22		35	I use the vocabulary section in my textbook.	1			.781
38 I keep a vocabulary notebook. 1 3 2.22		36	I listen to a CD of word lists.	1		2.08	.829
				1			.833
META 39 Luse English social media (song films) 1 3 2.22				1			.761
	META	39	I use English social media (song, films).	1	3	2.22	.739
,				1			.755
1 1				1			.642
42 I continue to study new words over time. 1 3 2.30		42	I continue to study new words over time.	1	3	2.30	.743

Note. SOC = social strategies; MEM = memory strategies; COG = cognitive strategies; META = metacognitive strategies.

For the cognitive strategies, the results revealed that the participants reported using all the items to study and remember the meanings of new vocabulary. Some of the items that were utilized by the students were item 30 (COG) "I verbally repeat new words several times" 2.35 (.732), item 31 (COG) "I write the new words several times to remember them" 2.18 (.725), item 34 (COG) "I take notes about new words" 2.40 (.718), and item 38 (COG) "I keep a vocabulary notebook." 2.22 (.761), respectively.

Regarding the metacognitive strategies, the descriptive analysis demonstrated that the students utilized a variety of self-regulated procedures to study and remember words such as item 42 (META) "I continue to study new words over time." 2.30 (.743), item 39 (META) "I use English social media, for example, listening to English music or watching TV" 2.22 (.739), and item 40 (META) "I test myself with word tests" 2.20 (.755). The descriptive statistical results indicate that the participants used a variety of consolidation strategies to practice and remember the meanings of new words after these had been encountered.

The Most and Least Frequently Used Vocabulary Learning Strategies

Having reported the results of discovery strategies and consolidation strategies in the previous sections, there was a need to map out the most and least used strategies, by looking at the highest and lowest mean scores reported in the statistical analysis of the results and rank them in order from the most used to the least used, as shown in Tables 5 and 6.

The Most and Least Frequently Used Discovery Strategies

Table 5: Descriptive Statistics of Most and Least Used Discovery Strategies

Rank	Item	Strategies	Category	M	SD
1	3	I analyze any available pictures or gestures accompanying the	DET	2.38	.739
		new word.			
2	5	I use a bilingual dictionary; for example, English- Portuguese	DET	2.33	.729
		dictionary to find the meaning of new words.			
3	13	I discover the meaning of new words when I work with others in	SOC	2.32	.725
		a class.			
4	4	I guess the meaning of new words from text or context.	DET	2.32	.701
5	12	I ask classmates for the meaning of new words.	SOC	2.23	.673
6	1	I analyze the type of a new word, for example, whether it is a	DET	2.22	.715
		noun, verb, pronoun, or adjective.			
7	6	I use a monolingual dictionary; for example, an English-English	DET	2.17	.827
		dictionary, to find the meaning of new words			
8	10	I ask the teacher to paraphrase or give synonym of a new word.	SOC	2.17	.717
9	9	I ask the teacher for a Portuguese translation of new words.	DET	2.15	.709
10	2	I analyze the affixes and roots of new words	DET	2.12	.783
11	11	I ask the teacher for sentence including the new word.	SOC	2.12	.761
12	8	I use flash cards to find the meaning.	DET	2.12	.804
13	7	I use word lists to find the meaning of new words	DET	2.08	.850

Note. DET = determination strategies; SOC = social strategies.

Table 6: Descriptive Statistics of Most and Least Used Consolidation Strategies

Rank	Item	Strategies	Category	M	SD
1	21	I try to use a new word in a sentence.	MEM	2.40	.741
2	34	I take notes about new words.	COG	2.40	.718
3	23	I study the sound of new words.	MEM	2.38	.761
4	30	I verbally repeat new words several times.	COG	2.35	.732
5	18	I connect the word to a personal experience.	MEM	2.32	.725
6	22	I study and practice the spelling of new words	MEM	2.32	.770
7	42	I continue to study new words over time.	META	2.30	.743
8	19	I associate the word with its coordinates.	MEM	2.28	.739
9	17	I image word's meaning.	MEM	2.28	.783
10	24	I say new words aloud when studying.	MEM	2.27	.756
11	28	I try to use my own language to explain, and remember the	MEM	2.27	.756
		meaning of new words.			
12	16	I study a word with a pictorial representation of its meaning.	MEM	2.27	.710
13	38	I keep vocabulary notebook.	COG	2.22	.761
14	39	I use English social media (song, films, and movies).	META	2.22	.739
15	25	I image word form.	MEM	2.22	.761
16	40	I test myself with new word tests.	META	2.20	.755
17	31	I write the new words several times.	COG	2.18	.725
18	29	I use physical actions when learning new words.	COG	2.18	.725
19	32	I use word lists, and revise them over time	COG	2.12	.739

20	20	I connect the word to its synonyms and antonyms.	MEM	2.08	.787
21	36	I listen to CD or tape of wordlists.	COG	2.08	.756
22	14	I study and practice the meaning of new words in pairs or a group	SOC	2.07	.756
		in a class.			
23	33	I use flash cards to remember words.	COG	2.05	.811
24	35	I use the vocabulary section in my textbook.	COG	2.00	.781
25	26	I remember the affixes and roots of new words.	MEM	2.00	.802
26	27	I remember the type of new words.	MEM	1.98	.701
27	37	I put labels on physical objects.	COG	1.98	.833
28	15	My teacher checks my word list for accuracy.	SOC	1.87	.833
29	41	I skip or pass new words when I read.	META	1.83	.642

Note. SOC = social strategies; MEM = memory strategies; COG = cognitive strategies; META =

The results presented in Table 6 suggest that the participants simultaneously used a variety of consolidation strategies to study and remember the meaning of new words. There sixteen most frequently used consolidation strategies identified from the statistical analysis, that is, items 21 (MEM) "I try to use a new word in a sentence" 2.40 (.741), item 34 (COG) "I take notes about new words." 2.40 (.718), item 23 (MEM) "I study the sound of new words." 2.38 (.761), item 30(COG) "I verbally repeat new words several times" 2.35 (.732), item 18 (MEM) "I connect the word to a personal experience." 2.32 (.725), item 22 (MEM) "I study and practice the spelling of new words" 2.32 (.770), item 42 (META) "I continue to study new words over time." 2.30 (.743), item 19 (MEM) "I associate the word with its coordinates." 2.28 (.739), item 17 (MEM) "I image word's meaning" 2.28 (.783), item 24 (MEM) "I say new words aloud when studying." 2.27 (.756), item 28 (MEM) "I try to use my own language to explain, and remember the meaning of new words" 2.27(.756), item 16 (MEM) "I study a word with a pictorial representation of its meaning" 2.27 (.710), item 38 (COG) "I keep vocabulary notebook." 2.22 (.761), item 39 (META) "I use English social media" 2.22 (.739), item 25 (MEM) "I image word form" 2.22 (.761), and item 40 (META) "I test myself with new word tests" 2.20(.755), respectively.

It can be observed from Table 5 that four out of the sixteen identified consolidation strategies were memory strategies (e.g., items 21, 23, 18, 22), and three were cognitive strategies (e.g., items 34, 30,38). The use of memory and cognitive strategies demonstrates that EFL students rely on memorization and repetitions to study and remember the meanings of words. Interestingly enough, Omaar (2016) found the same patterns in vocabulary learning strategies survey with Libyan students.

Surprisingly, although there were 4 items of vocabulary strategies in the metacognitive category in the questionnaire, 3 items (e.g., 42, 39, and 40) were reported among the sixteen most frequently used strategies for consolidating the meanings of new words. This is an interesting finding because it corroborates the findings in Omaar's (2016) study. It also demonstrates that English language learning in EFL contexts could to some extent be influenced by learners' goals, attitudes, and motives towards learning English. On the other hand, the least frequently used strategies reported for studying and remembering the meanings of new words in descriptive statistics were item 27 (MEM) "I remember the type of new words" 1.98 (.701), item 37 (COG) "I put labels on physical objects" 1.98 (.833), item 15 (SOC) "My teacher checks my word list for accuracy." 1.87 (.833), and item 41 (META) "I skip or pass new words when I read" 1.83 (.642). Interestingly, of the four least frequently used strategies one belongs to the category of discovery strategies (social strategies) and three to the category of consolidation strategies namely memory strategies, cognitive strategies, and metacognitive strategies. Although

there is evidence that EFL learners use a wide range of strategies, they also selectively choose which strategies to use for discovering and remembering new words. It is noteworthy that although the item 41(META) "I skip or pass new words when I read" 1.83 (.642) appears to be one of the least frequently used consolidation strategies, it was one of the items that revealed statistically significant different mean score in gender difference in the metacognitive individual items use (consolidation group) (See Table 15).

Gender Differences in Vocabulary Learning Strategies

The primary aim of the third research question of the study was to investigate whether or not there was any significant differences in the use of vocabulary strategies between male and female students. To this end, I conducted the Independent-Samples T-test to investigate whether there were any significant differences in the overall use of (1) the 42 items of vocabulary strategies, (2) the discovery strategies group, (3) the consolidation strategies group, followed by the analysis of the differences of individual strategies.

Gender Difference in the Overall Use of Vocabulary Learning Strategies

The analysis of the independent sample t-test revealed that there was no statistically significant difference in the mean scores associated with the overall use of vocabulary learning strategies between the male students (M = 94.33, SD = 24.41) and female students (M = 89.33, SD = 22.44) at the specified .05 level, t (58) = .826, p > .412, d = 0.21, 95% CI [-7.12, 17.12] (See Table 7).

Table 7: Gender Difference in the Overall Use of Vocabulary Learning Strategies

Strategy Group	Gender	n	М	SD	t	df	p
Overall Use of VLS (discovery &	Male	30	94.33	24.41	.826	58	.412
consolidation groups)	Female	30	89.33	22.44			

Gender Difference in the Overall Use of Discovery Strategies Group

Regarding the differences in the overall use of the discovery strategies group, the analysis of the independent sample t-test demonstrated that there was no statistically significant difference in the mean scores between the male students (M = 28.93, SD = 9.24), and female students (M = 28.50, SD = 7.18), at the specified .05 level, t (58) = .203, p > .840, d = 0.1, 95% CI [-3.84, 4.71], as shown in Table 8.

Table 8: Gender Difference in the Overall Use of Discovery Strategies Group

Strategy Group	Gender	n	M	SD	t	df	p
Overall Use of Discovery Strategies (Determination &	Male	30	28.93	9.24	.203	58	.840
Social Strategies)	Female	30	28.50	7.18			

Table 9: Gender Difference in the Overall Use of Determination Strategies, and Social Strategies

Strategy Group	Gender	n	M	SD	t	df	p

Overall Use of Determination Strategies	Male Female	30 30	17.93 17.53	5.67 4.32	.307	58	.760
Overall Use of Social Strategies	Male Female	30 30	15.06 14.76	4.97 4.17	.253	58	.801

Note. No significant difference in mean score.

As can be seen above the analysis of the independent t-test results of the overall use of determination strategies revealed that there was no statistically significant difference in the mean score between the male and female students at the specified .05 level, t(58) = .307, p > .760, d = 0.07, 95% CI [-2.20, -2.21].

Similar to the analysis of the determination strategies category, the analysis of the independent t-test results of the overall use of social strategies category revealed that there was no statistically significant difference in the mean score between the male and female students at the specified .05 level, t(58) = .253, p > .801, d = 0.06, 95% CI [-2.07, 2.67]. The results revealed no statistically significant mean score for male students (M = 15.06, SD = 4.97), for female students (M = 14.76, SD = 4.17). Cohen's d was estimated at 0.06 level, which is considered a very small effect size based on Cohen's (1992) guidelines.

Table 10: Gender Difference in Determination Strategies Individual Items Use

Determination Strategies Items	Gender	n	M	SD	t	df	p
I analyze the part of speech of new words.	M	30	2.23	.774	.179	58	.859
	F	30	2.20	.664			
I analyze the affixes and roots of new words.	M	30	2.06	.868	49	58	.625
	F	30	2.16	.698			
I analyze any available pictures or gestures.	M	30	2.40	.813	.173	58	.863
	F	30	2.36	.668			
I guess the meaning of new words from context.	M	30	2.37	.764	.549	58	.585
	F	30	2.27	.639			
I use a bilingual dictionary.	M	30	2.33	.802	.000	58	1.00
	F	30	2.33	.660			
I use a monolingual dictionary.	M	30	2.17	.912	.000	58	1.00
	F	30	2.17	.746			
I use word lists.	M	30	2.23	.971	1.38	58	.174
	F	30	1.93	.691			
I use flash cards.	M	30	2.13	.819	.159	58	.874
	F	30	2.10	.803			

Note. No significant difference in mean scores.

From the table above it can be observed that in the category gender differences in determination strategies individual items use there was no statistically significant difference in mean scores between the male and female students. The results from the category of determination strategies individual items use are similar to the ones from the social strategies individual items use category (see table, 11).

Table 11: Gender Difference in the Social Strategies Individual Items Use (Discovery Group)

Social Strategies Items	Gender	n	М	SD	t	df	p
I ask the teacher for Portuguese translation.	M	30	2.20	.761	.543	58	.589
	F	30	2.10	.661			
I ask the teacher for a paraphrase or synonym of new word.	M	30	2.16	.738	.000	58	1.00
	F	30	2.16	.783			
I ask the teacher for a sentence including the new words.	M	30	2.13	.819	.168	58	.867
	F	30	2.10	.711			
I ask my classmates for the meaning.	M	30	2.26	.691	.381	58	.705
	F	30	2.20	.664			
I discover the meaning through group work activity.	M	30	2.40	.770	.889	58	.378
	F	30	2.23	.678			

Note. No significant difference in mean scores.

Gender Difference in the Overall Use of the Consolidation Strategies Group

As mentioned earlier, there are four categories of vocabulary learning strategies in the consolidation strategies group: social, memory, cognitive, and metacognitive strategies. The analysis of the independent samples t-test of the overall use of the consolidation strategies group revealed that there was no statistically significant difference in the mean scores between the male students (M = 66.43, SD = 14.66), and female students (M = 59.80, SD = 17.50, at the specified .05 level, t(58) = 1.59, p > .117, d = 0.45, 95% CI [-1.71, 14.97], as reported in Table 12.

Table 12: Gender Difference in the Overall Use of Consolidation Strategies Group

Strategy Group	Gender	n	М	SD	t	Df	p
Overall Use of Consolidation Strategies Group	Male	30	66.43	14.66	1.591	58	.117
	Female	30	59.80	17.50			

Table 13: Gender Difference in the Use of Individual Items in Memory Strategies

Memory Strategies Items Use	Gender	n	M	SD	T	df	p
I study a word with a pictorial representation of its	F	30	2.36	.761	1.09	58	.279
meaning.	M	30	2.16	.661			
I image word's meaning.	M	30	2.40	.813	1.15	58	.252
	F	30	2.16	.746			
I connect the new word to a personal experience.	M	30	2.46	.730	1.62	58	.109
	F	30	2.16	.698			
I associate the new word with its coordinates.	M	30	2.40	.723	1.22	58	.224
	F	30	2.16	.746			
I connect the new word to its synonyms.	M	30	2.36	.764	2.96	58	.004*
	F	30	1.80	.714			
I use new words in sentences.	M	30	2.53	.730	1.40	58	.266
	F	30	2.26	.739			
I study the spelling of a new word.	M	30	2.40	.813	.836	58	.407
• •	F	30	2.23	.727			
I study the sound of a new word.	M	30	2.40	.813	.168	58	.867
•	F	30	2.36	.718			
I say new words aloud when studying.	M	30	2.26	.784	.000	58	1.00

	F	30	2.26	.739			
I image word's form	M	30	2.36	.764	1.54	58	.128
	F	30	2.06	.739			
I remember the affixes and roots of new words.	M	30	2.10	.844	.965	58	.339
	F	30	1.90	.758			
I remember the part of speech of new words.	M	30	1.90	.844	920	58	.362
	F	30	2.06	.520			
I paraphrase the meaning of a word.	M	30	2.33	.802	.680	58	.499
•	F	30	2.20	.714			
I use physical actions when learning new words.	M	30	2.26	.784	.889	58	.378
	F	30	2.10	.661			

Note. * = significant difference in mean score.

The analysis of the independent samples t-test results demonstrated that there was only one statistically significant mean score difference associated with "I connect the new word to its synonym" when studying new words. Male students reported statistically significant higher mean scores (M = 2.36, SD = .764), compared with Female students (M = 1.80, SD = .714), at the specified .05 level, t (58) = 2.96, p < .004, d =0.76, 95% CI [-.607, -.100]. Cohen's d was estimated at 0.76, which is considered as a large effect size. Interestingly, the difference in using the strategy of connecting new word to its synonym to remember and study the new words between female and male students is consistent with results found in Catalan 2003 research study. However, in Catalan's study the higher mean score for this strategy, that is, connecting new word to its synonym" was for female, from the table above it can gleaned that the results of this study favor males with higher mean score.

Regarding the gender difference in cognitive strategies item use, the analysis of the independent samples t-test analysis did not reveal statistically significant differences in the mean scores of cognitive strategies individual items use between male and female students, as shown in Table 14.

Table 14: Gender Difference in the Use of Individual Items in Cognitive Strategies

Cognitive Strategies Items Use	Gender	n	M	SD	t	df	p
I verbally repeat the new words several times.	M	30	2.55	.686	-1.51	58	.137
	F	30	2.16	.735			
I write the new words several times.	M	30	2.50	.667	-1.60	58	.117
	F	30	2.37	.659			
I use word lists to remember words.	M	30	2.19	.710	.469	124	.640
	F	30	2.13	.689			
I use flash cards to remember words.	M	30	1.78	.786	419	124	.676
	F	30	1.84	.751			
I take notes about new words.	M	30	1.98	.787	.467	124	.641
	F	30	1.92	.775			
I use the vocabulary section in my textbook.	M	30	2.09	.706	954	124	.342
	F	30	2.21	.656			
I listen to a CD of word lists.	M	30	1.78	.766	.429	124	.669
	F	30	1.73	.682			
I put English labels on physical objects.	M	30	1.83	.788	.658	124	.512
	F	30	1.74	.676			
I keep a vocabulary notebook.	M	30	2.23	.750	423	124	.673
	F	30	2.29	.733			
I use English social media.	M	30	2.33	.668	.331	124	.741

Concerning gender difference in the use of individual items in metacognitive strategies, the analysis of the independent sample t-test results demonstrated statistically significant differences in the mean scores associated with gender as an independent variable (See Table 15).

Table 15: Gender Difference in the Use of Individual Items in Metacognitive Strategies

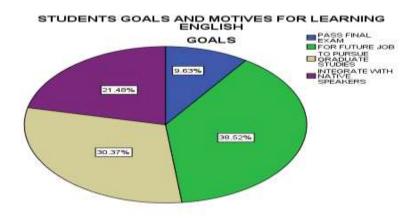
Metacognitive Strategies Items Use	Gender	n	M	SD	t	df	p
I use English Social Media to learn new words	M	30	2.33	.758	1.19	58	.238
	F	30	2.10	.759			
I test myself with word lists.	M	30	2.26	.827	.681	55.93	.499
	F	30	2.13	.681			
I skip or pass a new word.	M	30	2.63	.718	-2.51	51.19	.015*
	F	30	2.03	.490			
I continue to study new words over time.	M	30	2.36	.764	.692	58	.492
	F	30	2.23	.727			

Note. * = significant difference in mean score.

It can be observed from the above table there was only one statistically significant mean score regarding individual use strategy in the category "I skip or pass a new word" Male students reported statistically significant higher mean scores (M = 2.63, SD = .718), compared with Female students (M = 2.03, SD = .490), at the specified .05 level, t (51.19) = -2.51, p < .015, d =0.65, 95% CI [-.718, -.081]. Cohen's d was estimated at 0.65, which is considered as a moderate effect size.

From the above findings it can be inferred that gender as an individual variable does not have a significance influence on strategy use among EFL learners even though there were some significant differences reported in the individual use of consolidation strategies, specifically memory strategies and metacognitive strategies. Cohen's (1992) estimate of effect sizes indicated that the reported differences were from small to moderate.

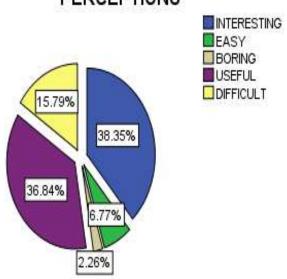
Regarding the students' goals, motives and perceptions towards English descriptive statistics revealed that 9, 6% of students study English to pass final exams, 38,5% answered that they learn for future jobs, 30,4% responded they study English to pursue graduate studies, and 21,5% responded that studying English would allow them to integrate with native speakers as shown in the chart below.



Students' Perceptions About English

Perceptions	Frequency	Percentage (%)
Interesting	51	38.3
Easy	9	6.8
Boring	3	2.3
Useful	49	36.8
Difficult	21	15.8
Total	133	100





From the table and chart above, it can be observed that regarding the perceptions of the students towards English, 38.4% responded learning English was interesting, 6.8% found English easy to learn, while 2.3% responded that English was boring. Surprisingly, about 37% answered that English was useful, and only 15.8% found English difficult. These results are interesting because to some extent they justify the wide use of vocabulary learning strategies by the students. Research on motivation and perception points out that motives and goals for studying a foreign language as a good predictor of students' success in foreign language learning. In fact research has shown that motivated students are more engaged and active in the process of learning (Dörnyei, 1998). The results also revealed that EFL students study English for instrumental and integrative motives (Gardner & Lambert, 1972). Qualitative questions also revealed that learners although they used a wide range of vocabulary learning strategies, they clearly showed preference in the use of metacognitive and memory strategies.

CONCLUSION

The present study has yielded insight into the use of vocabulary learning strategies by Angolan EFL students. The results indicated that male and female did not differ significantly in the overall vocabulary learning strategies use. Interestingly, the results revealed that male and female Angolan EFL students differ significantly in the individual use of metacognitive strategies "I

skip or pass a new word" and memory strategies "I connect the new word to its synonyms", respectively. Male students reported higher mean scores than female. This is an interesting finding given that in most VLS studies the pattern of use favors female learners. Regarding the students' perceptions and motives the results revealed that Angolan EFL learners value learning English for instrumental and integrative motives. However, because of the limitations of the study due to the sample size, one should be cautious in the interpretation of these results. Future studies should try to use bigger sample size to in order to increase the statistical power.

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