

## **Effect of in-Class Activities Based on Vocabulary Learning Strategies on Saudi EFL Learners' Achievement and Perspectives**

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doi: <https://doi.org/10.37745/ijellr.13/vol11n3138>

Published May 30, 2023

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**Citation:** Alamri H.R.H (2023) Effect of in-Class Activities Based on Vocabulary Learning Strategies on Saudi Efl Learners' Achievement and Perspectives, *International Journal of English Language and Linguistics Research*, Vol.11, No 4, pp.1-38

**ABSTRACT:** *Current pretest-posttest Classroom Action Research (CAR) attempted to examine the effect of in-class activities based on VLSs on vocabulary achievement and their perspectives on using them. The research sample consisted of 43 female Saudi EFL students in Community College at Taibah University. Participants were assigned to an experimental group (N=23) and a control group (N=20). Data were collected via five research instruments: a vocabulary achievement test, three vocabulary subskills quizzes, a final course exam, a questionnaire, and reflection cards. Results showed that the EFL students in the experimental group enhanced vocabulary learning in VAT, the final course exam, and the scores of the vocabulary sub-skills quizzes. Results also revealed positive perspectives toward implementing vocabulary activities. These results suggested that using the in-class activities based on the different VLSs significantly affected Saudi EFL female students' vocabulary achievement.*

**KEYWORDS:** in-class activities, vocabulary learning, vocabulary achievement, vocabulary learning strategies (VLSS), perspectives, reflection

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### **INTRODUCTION**

Vocabulary is essential for effective language communication. Learning vocabulary is considered undoubtedly necessary for the comprehensibility of first, second, and foreign languages. In addition, words are the core components of any language, serving as the unit of meaning from which more extensive language structures are produced

Publication of the European Centre for Research Training and Development -UK (Abdel-Rahman et al., 2021; Al-Qunayeer, 2021). In the language literature, vocabulary is defined as "the words of a language, including single items and phrases or chunks of several words which convey a particular meaning, the way individual words do" (Lessard-Clouston, 2013, p. 2). Additionally, vocabulary is defined as "a list of words as a fundamental component of language proficiency, which contains the word's meaning, form, and use" (Rohmatillah, 2014, p. 72).

Nation (2001) claimed that vocabulary is a core component of language proficiency that students may utilize to promote other language skills. According to Hunt and Beglar (2002), Kaivanpanah et al. (2021), and Manik and Christiani (2016), vocabulary is strongly related to reading, listening, speaking, writing, and grammar. Tran (2020) stated that it cannot be denied that learners who lack vocabulary cannot convey their ideas, thoughts, or feelings and cannot comprehend the meaning of written and spoken texts. As a result, vocabulary learning is a substantial domain for acquiring satisfactory language proficiency.

Schmitt (2008) states that an individual needs to employ five to seven thousand words for compelling speech and eight to nine thousand words for comprehending reading and written texts. Thus, as Tilfarlioglu and Sherwani (2018) indicated, vocabulary is more significant than grammar when evaluating communication efficacy in a foreign language. Similarly, Elder and Ellis (2009) agreed that lexical problems might be more detrimental to comprehension than grammatical issues. Moreover, English as a Second Language (ESL) and English as a Foreign Language (EFL) students sometimes claim that vocabulary development could improve their communication skills.

Laufer (1998) claims that the receptive vocabulary sizes of non-native speakers are more extensive than their productive vocabulary sizes. Similarly, Nation (2001) confirmed that learners acquire and use receptive vocabulary more successfully than productive vocabulary. Laufer (1998) and Nation (2001) believe that increasing productive vocabulary knowledge necessitates ESL/EFL learners blend information effectively and produce language structures. Moreover, Nation (2001) claims that sometimes the receptive vocabulary, for specific reasons, became passive rather than active and described as low-frequency words due to their rare productive use.

On the other hand, Topkaraoğlu and Dilman (2014) explained that an ESL/EFL learner needs to know no clear-cut number of words to utilize the target language efficiently and successfully. However, learners with extensive productive vocabulary can communicate their ideas more fluently. Therefore, vocabulary instruction in language

Publication of the European Centre for Research Training and Development -UK classrooms is required to enhance ESL/EFL learners' receptive and productive vocabulary. Additionally, purposely-designed vocabulary exercises and activities can help ESL/EFL learners become efficient and successful language users.

Accordingly, well-planned classroom learning can help ESL/EFL learners make sure of specific strategies throughout their vocabulary development. Rezaei et al. (2013) stated that using multiple language learning strategies (LLSs) promotes ESL/EFL students' competence in English. Moreover, it is claimed that vocabulary learning strategies (VLSs), a subset of LLSs, assist ESL/EFL learners in making significant progress toward mastery of their target language (Al Zahrani & Chaudhary, 2022; Fu, 2021; Goundar, 2019).

Furthermore, some educators have highlighted the significance of VLSs since they promote self-directed learning and increase self-confidence (Oxford, 1990), overcontrol and more responsibility for learning (Nation, 2001), and an increase in learners' vocabulary size (Hamzah et al., 2009). Also, using VLSs leads to better mastery of the L1 (Schmitt, 2008), and it might encourage language learners to acquire and use newly learned words (Asgari & Mustapha, 2011). For example, Astika (2014) argued that direct VLSs such as dictionaries, context cues, or recognizing elements of words could increase autonomous learning. Amiryousefi (2015) suggested five VLSs for EFL students to acquire vocabulary: paying attention to the vocabulary forms, mechanical tasks like repeating words, guessing context meaning, and vocabulary production. Ta'amneh (2021) also added that guessing, note-taking, word lists, repetition, association, imagery, visual, auditory, and rehearsal were also considered VLSs.

Thus, vocabulary instruction is a challenging task that ESL/EFL instructors encounter during the teaching-learning process. Therefore, much research has been done on vocabulary teaching and learning since the late 1980s beside the recent literature (Amiryousefi, 2015; Cortés, 2015; Dobao, 2014; M. Hunt & Feng, 2016; Sanchez, 2017), which has also emphasized the importance of VLSs. However, there is still some debate over how to teach vocabulary efficiently.

### **Statement of the Problem**

In the past, vocabulary was overlooked since grammar was regarded as the most critical aspect of language learning and teaching, and vocabulary was deemed secondary (Amiryousefi, 2015). However, over the last few decades, vocabulary has been considered a primary resource for L1 and L2 acquisition and proficiency. Hence, EFL

Publication of the European Centre for Research Training and Development -UK learners frequently realize that their difficulty retaining and producing English is related to insufficient vocabulary. (Guo, 2011). Therefore, according to past reviewed works (Kaivanpanah et al., 2021; Malmström et al., 2018; Raungsawat & Chumworatayee, 2021; Topkaraoglu & Dilman, 2014), EFL learners' vocabulary knowledge widely affects one's overall performance and proficiency in acquiring the L2 skills.

In the Saudi context, EFL learners lack an authentic English environment and only contact with English during in-class instruction. After leaving the classroom, they are engaged in their L1 environment, offering little exposure to English vocabulary and few chances to use them in natural settings. Thus, many L2 learners see vocabulary learning as immensely complex and challenging because they must memorize unlimited words and utilize them in constructive language structures (Al-Qunayeer, 2021).

Thus, more recent focus in Saudi EFL classrooms has been laid on it (Al-Malki, 2022; Alharbi, 2021; Ali, 2020; Alshammari, 2020; Alsharif, 2022; Ta'amneh, 2021). Al-Masrai and Milton (2012) presumed that Saudi university students have a vocabulary size of 2000-3000 words on entry and 5000 words near graduation, which is far short of the level of fluency in EFL. Alshammari (2020) discovered that language abilities depend on word meaning and subject/context knowledge. College students in Saudi Arabia need help to achieve the required English competence, making it difficult for stakeholders to identify the most effective VLSs for Saudi learners.

Like other Saudi contexts, first-year EFL students in the Community College at Taibah University struggle to find an adequate vocabulary for producing meaningful English structures. They study the reading and writing skills from the book "Q: Skills for Success: Reading and Writing INTRO" and learn 4 hours per week for each language skill. Vocabulary is learned through reading, while students focus primarily on the information in passages or texts. Saudi EFL faculty members use standard procedures for teaching vocabulary, such as writing a list of new English words on the board, providing Arabic translations, modeling pronunciation, and asking the students for repetition.

Regarding writing class, the researcher found that Saudi EFL students in the Community College are uninformed of the meaning of the unit's new vocabulary, leading to a reluctance to write the unit composition or incoherent lines with inappropriate words. The instructor realized the necessity to implement various in-class activities from different VLSs to enhance their understanding and engage them to practice the new vocabulary before writing the required composition. Based on Laufer

Publication of the European Centre for Research Training and Development -UK and Hulstijn (2001), maximizing students' engagement in activities is critical in vocabulary learning. According to Almusharraf (2021), because Arabic students struggle with English grammar, phonetics, spelling, and vocabulary, active vocabulary development necessitates learning the language inside and outside the classroom.

Research on vocabulary learning (Amiryousefi, 2015; Asgari & Mustapha, 2011; Aydoğan et al., 2013; Hamzah et al., 2009; Tilfarlioglu & Sherwani, 2018) has emphasized how students learn new vocabulary, specifically how learners use specific VLSs to acquire new vocabulary. Recent Saudi research (Al-Harbi & Ibrahim, 2018; Al-Malki, 2022; A. Alghamdi & Al-Ahmed, 2018; Alharbi, 2021; Alshammari, 2020; Elashhab, 2019; Ta'amneh, 2021) has explored the significance and effectiveness of VLSs in learning the English language.

Thus, effective VLSs may help resolve EFL learners' difficulties when developing and learning English vocabulary. Thus, VLSs intuitively appeal to instructors and learners and have become popular research topics among researchers in the last two decades. The present study investigates the effect of in-class activities based on VLSs on Saudi EFL female students' vocabulary achievement and perspectives.

### **Research Questions**

The questions addressed in this study are:

1. How do in-class activities built upon VLSs affect Saudi EFL female students' overall vocabulary achievement?
2. How do in-class activities built upon VLSs affect Saudi EFL female students' final course exam in reading and writing skills?
3. How do in-class activities built upon VLSs affect Saudi EFL female students' learning of vocabulary subskills?
4. What are Saudi EFL female students' perspectives on using in-class activities to improve students' vocabulary learning?
5. What are the reflections of Saudi EFL female students on using in-class activities for more successful vocabulary learning?

### **Statements of Hypotheses**

The following null hypotheses are tested at a 0.05 level of significance:

- H01. There is no significant difference between the mean scores of Saudi EFL female students in the experimental and control groups regarding their pre-test vocabulary achievement.
- H02. There is no significant difference between the mean scores of Saudi EFL female

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Publication of the European Centre for Research Training and Development -UK students in the experimental and control groups regarding their post-test vocabulary achievement.

H03. There is no significant difference between the mean scores of Saudi EFL female students in the experimental and control groups regarding their pre- and post-test vocabulary achievement.

H04. There is no significant difference between the mean scores of Saudi EFL female students in the experimental and control groups regarding their scores in the final course exam.

H05. There is no significant difference between the mean scores of Saudi EFL female students in the experimental and control groups regarding their learning of vocabulary subskills (i.e., spelling, meaning, and grammatical use of new words).

## LITERATURE REVIEW

This study highlights the significance of vocabulary knowledge/learning and provides a background of VLSs and related studies on their use in language classrooms.

### **Importance of vocabulary knowledge/learning**

Vocabulary is essential for foreign and second language comprehensibility because they are the basic building block of language (Al-Qunayeer, 2021; Manik & Christiani, 2016). Vocabulary is "the words we need to know to communicate effectively, and can be oral or reading. Oral vocabulary refers to words we use in speaking or recognize in listening, while reading vocabulary refers to words we recognize or use in print" (Armbruster et al., 2001, p. 34). Thus, vocabulary is a challenge for learners that requires mastering multiple aspects, such as polysemy, connotation and usage, part of speech, frequency, and collocation (Folse, 2008).

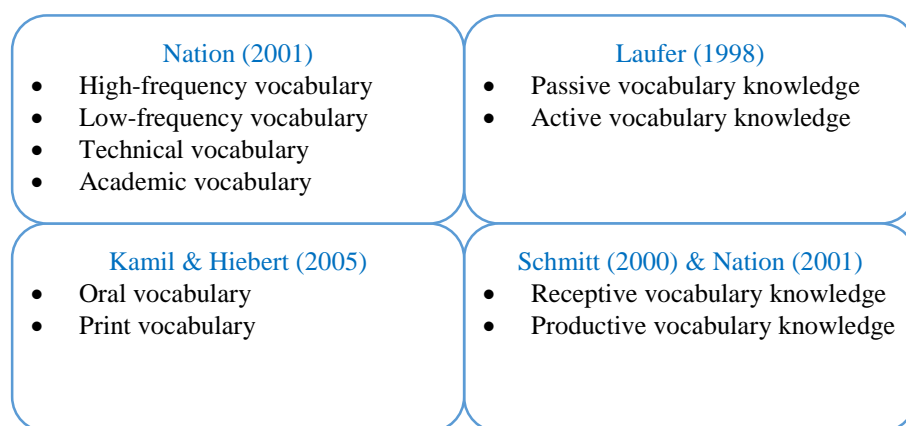
The significance of vocabulary in developing foreign and second language literacy is widely recognized (Laufer & Nation, 1995; Schmitt, 2000; Webb & Nation, 2017). Vocabulary is essential for understanding written and oral work, promoting comprehension, precise speaking and writing, and understanding ideas. It also shapes thinking. Precisely, vocabulary knowledge is essential for verbally or in writing expressing ideas, acquiring and changing information into knowledge, and using any structure of linguistic knowledge in communication (Trujillo et al., 2015).

However, academic discourses often challenge EFL students due to their lack of vocabulary knowledge (Malmström et al., 2018). Vocabulary knowledge is defined as "knowledge of individual word meanings. Moreover, the meaning of a word is often



Publication of the European Centre for Research Training and Development -UK associated with a learner's real-life experience, and its exact meaning depends on the context in which it appears" (Raungsawat & Chumworatayee, 2021, p. 255). Topkaraoğlu and Dilman (2014) argued that the number of words an L2 learner must know in the target language is not enough to be an efficient and effective language user. Vocabulary teaching must be included in foreign language instruction to improve L2 learners' vocabulary knowledge at both the receptive and productive levels. Likewise, Bavi (2018), Kaivanpanah et al. (2021), and Rahmani et al. (2022) believed that vocabulary knowledge is an essential factor in language acquisition, as language learners must develop proficiency in the four macro skills. Moreover, Al Zahrani and Chaudhary (2022) found that a lack of vocabulary leads to stress and demotivation, Raungsawat and Chumworatayee (2021) found that insufficient vocabulary knowledge is a significant problem for EFL language learning, Boontam (2022) argued that a lack of vocabulary knowledge could limit the number of sentences learners can produce, and (Alsharif, 2022) found that inadequate vocabulary knowledge can lead to poor reading comprehension and the inability to establish a natural conversation.

Vocabulary knowledge is a complex system consisting of several types, including meaning and form, and can be divided into different types, as illustrated in Figure 1.



*Figure 1. Types of vocabulary knowledge*

Generally, Nation (2001, p. 27) argued that vocabulary knowledge is divided into three main categories: form, meaning, and use. Form includes spoken, written, and word parts. Meaning includes concept, referents, and associations. Use includes grammatical functions, collocations, and constraints.

For the current study, vocabulary knowledge/learning is discussed according to three

Publication of the European Centre for Research Training and Development -UK aspects: (a) the spelling of vocabulary (morphological knowledge), (b) the meaning of vocabulary (semantic knowledge); (c) the grammatical use of vocabulary in sentences (syntactic knowledge. Saudi EFL female students are exposed to in-class activities emphasizing active, productive, oral, and print vocabulary to write correctly and coherently.

### **Types of Vocabulary Learning Strategies**

O'Malley and Chamot (1995, p. 1) defined strategies as "the thought processes learners use in apprehending, learning, and retaining new information." Oxford (1990, p. 8) defines strategies as "the actions they take to facilitate and catalyze learning and make it self-directed regarding transfer objectives." On the other hand, Chamot and Kupper (1989) described VLSs as the specific methods and practices that students use to help them grasp, store, and recall information about the learned language. According to Asgari and Mustapha (2011), VLSs are steps language learners take to acquire new English words. Also, they facilitate vocabulary learning and may encourage learners to discover the meaning of words and consolidate them.

Schmitt (2008) argues that vocabulary learning is a cyclical process where self-regulation of learning leads to more involvement with and use of VLSs. Other factors that facilitate vocabulary learning include increased frequency of exposure, attention, noticing, and manipulation of the lexical item, time-allotted, and interaction with the lexical item.

Saudi EFL learners must be addressed to help instructors and students understand the importance of vocabulary acquisition and integrating VLSs. Careful application of VLSs helps EFL learners achieve their primary goal of acquiring L2 and resolve their difficulties when developing and learning English vocabulary. According to Derakhshan and Khatir (2015), activities allow learners to remember the target words more easily. More significantly, VLSs can help Saudi EFL learners become more engaged and self-directed. According to Altalhab (2016), vocabulary learning is a social practice influenced by teaching techniques, VLSs, the prescribed textbook, learners' beliefs, attitudes, interests, cultural values, and English competence levels.

Sanchez (2017) argued that activities used in the classroom are essential for learning and can influence the decision to attend class willingly. Including learners' preferred activities and tasks can create a more interactive environment, which both teachers and students can enjoy. Moreover, Al Al Zahrani and Chaudhary (2022) highlighted the need for Saudi EFL learners to communicate effectively in English, and VLSs would



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help them increase their vocabulary size.

VLSs have many classifications, with Oxford (1990) dividing them into direct and indirect categories, O'Malley and Chamot (1995) classifying them into Metacognitive, Cognitive, Social, and Affective. Schmitt (1997, 2000) identified the overlap of cognitive, metacognitive, memory, and social functions in 58 VLSs. Oxford (1990), Schmitt (1997, 2000), (O'Malley & Chamot, 1995), and Nation (2001) suggested the most comprehensive taxonomies of VLSs, encouraging students to follow personal plans to expand their vocabulary size. As Letchumanan et al. (2016, p. 177) indicate, Table 2 describes the activities and exercises that fall under each category.

*Table 1. Categories and types of VLSs*

Categories of Strategies	Types of Strategies	Categories of Strategies	Types of Strategies
Memory Strategies	<ul style="list-style-type: none"> <li>• Creating Mental Images</li> <li>• Applying Images and sounds</li> <li>• Reviewing</li> <li>• Making associations</li> <li>• Employing Action</li> </ul>	Metacognitive Strategies	<ul style="list-style-type: none"> <li>• Centering Learning</li> <li>• Planning Learning</li> <li>• Evaluating Learning</li> </ul>
Cognitive Strategies	<ul style="list-style-type: none"> <li>• Practice</li> <li>• Receiving and Sending Messages</li> <li>• Analyzing and Reasoning</li> <li>• Creating Input and Output</li> <li>• Repetition</li> <li>• Recognizing patterns</li> <li>• Recombining</li> <li>• Relating new information to other concepts</li> </ul>	Social Strategies	<ul style="list-style-type: none"> <li>• Asking Questions</li> <li>• Cooperating</li> <li>• Empathizing</li> <li>• Translation</li> <li>• Synonym</li> <li>• Paraphrasing</li> </ul>
Compensation Strategies	<ul style="list-style-type: none"> <li>• Guessing Intelligently</li> <li>• Overcoming Limitations</li> <li>• Synonym</li> <li>• Miming</li> <li>• Gestures</li> </ul>	Affective Strategies	<ul style="list-style-type: none"> <li>• Lowering Anxiety</li> <li>• Encouraging</li> </ul>
		Determination Strategies	<ul style="list-style-type: none"> <li>• Analyzing speech, affixes</li> <li>• Contextual Guessing</li> <li>• Check L1 Cognate</li> <li>• Consulting Dictionary</li> <li>• Word lists</li> <li>• Flashcards</li> </ul>

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Taxonomies of VLSs are incomplete and do not provide a clear picture of the various VLSs learners can use (Schmitt, 1997, 2000). Moreover, the choice of VLSs depends on several factors, such as teacher expectations, awareness, task requirements, stage of learning, learning styles, age, gender, nationality, motivation levels, and purpose for learning the L2 (Oxford, 1990, p. 13). Culture is another learner characteristic that determines vocabulary choice (Schmitt, 1997).

### **Previous Studies**

In language classrooms, research has shown that vocabulary is an essential component in the learning process, and VLSs are of great significance to language learning. For example, Gu (2010) found that 100 Chinese EFL students studied in a six-month pre-university English language enhancement program in Singapore used varieties of VLSs and had more consistency between beliefs and strategies. VLSs correlated significantly with passive vocabulary size and active vocabulary.

Moreover, Dobao (2014) found that groups produced more lexical language-related episodes (LREs) than pairs and could correctly solve a higher percentage of these LREs. However, the number of participants did not negatively influence learners' retention rate of lexical knowledge co-constructed in interaction. Small group interaction also resulted in considerably more occurrences of L2 vocabulary learning.

Karimi and Saadatmand (2014) also studied the relationship between self-confidence and academic achievement in Isfahan, using academic motivation questionnaires and self-confidence. Results showed that these two variables have significant relationships in predicting academic achievement.

Topkaraoğlu and Dilman (2014) investigated the difference between the two groups regarding vocabulary production levels. The Productive Vocabulary Levels Test (PVT) administered to 88 male second-grade students revealed a statistically significant difference in favor of the experimental group.

Amiryousefi (2015) explored the beliefs of Iranian EFL learners and teachers about the usefulness of different types of VLSs. Results showed that strategies such as considering vocabulary forms, functions, and semantic relations could help discover and consolidate the meaning of new words. However, the participants conveyed concerns about using L1, bilingual dictionaries, and mnemonic devices.

Cortés (2015) focused on elementary students who lack vocabulary and the

Publication of the European Centre for Research Training and Development -UK implementation of three VLSs. The findings indicate that the intervention positively affected students' vocabulary acquisition, but other problems need further investigation, including lack of motivation and teaching training on how to teach VLSs.

Hunt and Feng (2016) performed research to offer professional development to teachers in vocabulary teaching strategies and analyze the vocabulary acquisition of EFL students. According to the results, students' test scores improved, and teachers gained expertise and confidence during direct vocabulary instruction.

Teachers should reconsider the role of all types of activities based VLSs to improve vocabulary learning in Saudi Arabia as part of Saudi Vision 2030. In response to this demand, recent research attempts were conducted to investigate using VLSs to improve vocabulary learning. For example, Alghamdi and Al-Ahmed (2018) studied the impact of new VLSs such as context drills, word-onboard games, flashcard games, mini-presentations, role-playing, and dictionary use on EFL learners' vocabulary acquisition. Results revealed that students using the new strategies performed better in vocabulary test scores than those using the conventional method.

Al-Harbi and Ibrahim (2018) explored the VLSs employed by Saudi English major students. Results showed that students preferred cognitively less demanding strategies than those requiring deeper cognitive processing. The Social strategies were the most frequently employed, while the Memory strategies were the least often used. Males favored social strategies over females, while two strategies (Cognitive and Memory strategies) revealed substantial gender differences.

Elashhab (2019) examined the attitudes and evaluations of several strategies on L2 vocabulary learning of a group of Umm Al-Qura University preparatory year students. The study discovered that while EFL students consider vocabulary a branch of language acquisition, skilled learners favor all strategies except word cards.

Ali (2020) investigated the vocabulary discovery strategies employed by Saudi undergraduate students to find unknown word meanings. The findings revealed that EFL Saudi students tend to guess word meanings through different sub-strategies, and their vocabulary test scores significantly correlated with their strategy.

In his study, Alshammari (2020) compared 85 male and female students' academic achievement and standardized test scores with their strategies for language learning. He found that high achievers gave equal importance to all strategies, while low achievers

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focused on meta-cognitive and memory strategies.

Ta'amneh (2021) conducted a study to identify VLSs used by EFL university students. Findings displayed that Memory strategies had the highest rank, followed by Social, Determination, and Cognitive strategies. Besides, the Metacognitive strategies had the lowest mean scores.

Al-Malki (2022) investigated the impact of an integrated method based on the Key-Word Strategy (KWS) and Mind-Mapping Strategy (MMS) on learning and retaining English vocabulary. Results revealed an outperformance of the experimental group over the control group in the post-test.

Alsharif (2022) investigated the types of VLSs used by Saudi female EFL learners and the effects of particular learning strategies on vocabulary knowledge. The findings revealed that participants use metacognitive strategies to learn vocabulary, with no difficulties with high- and mid-frequency terms.

Al Zahrani and Chaudhary (2022) explored VLSs among EFL university students studying ESP courses. Data were gathered through a questionnaire, interviews, and classroom observations. Results demonstrated that VLSs positively impacted English language learners' performance.

## **RESEARCH DESIGN AND METHODOLOGY**

The study employed Classroom Action Research (CAR): specifically, a pretest-posttest repeated-measures design. The purpose of this study was to increase EFL students' vocabulary learning.

### **Participants**

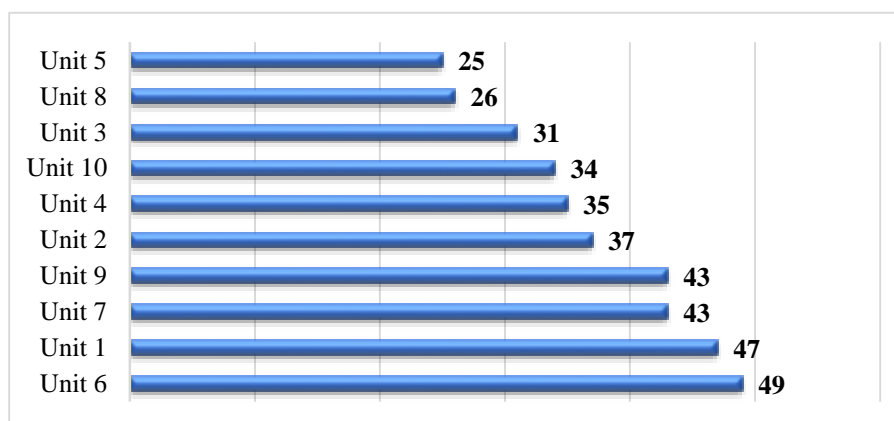
Data for the present study were collected from two classes in the Community College at Taibah University in Saudi Arabia. The participants were 43 Saudi EFL female students. Their ages ranged from 17 to 20 ( $M = 18$ ). According to their Grade Point Average (GPA) in the final year of secondary school, most participants were in level A1: Beginner/Elementary corresponds to primary language users who can communicate in everyday situations with commonly used expressions and vocabulary. They could understand and use familiar expressions and phrases, introduce themselves and others, ask/answer questions, and interact easily (The British Council, 2023). One class was randomly assigned to the experimental condition ( $N = 23$ ), and one class acted as a control group ( $N = 20$ ). Both groups received a five-week treatment session. To

Publication of the European Centre for Research Training and Development -UK exclude confounding variables, the researcher ensured that the participants in the experimental and control groups had never studied any unit included in the research treatment. All participants have the same instructional schedule (two hours per week). Moreover, participants follow the same schedule, subject-specific learning guidelines, and curriculum. Participants provided informed consent forms and were informed about the research objectives, data collection stages, and confidentiality of personal information.

### Materials

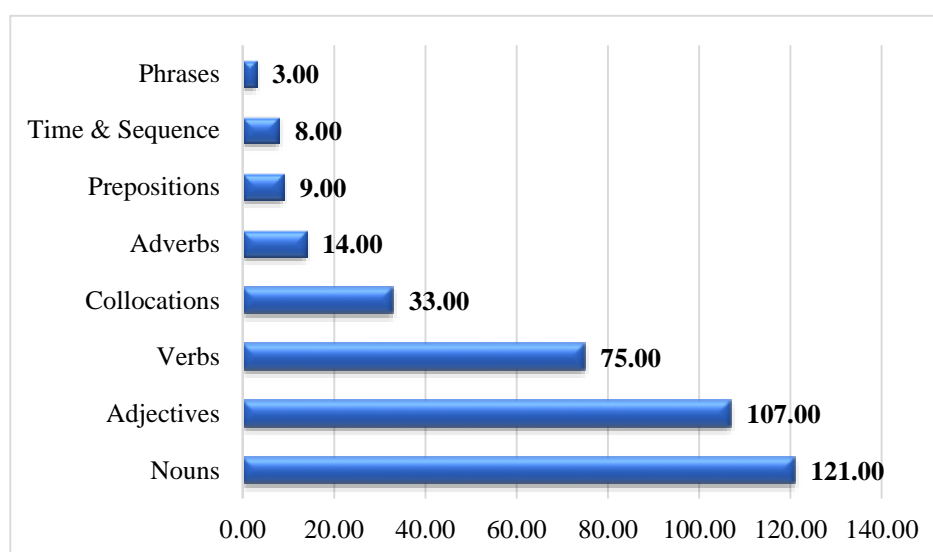
The vocabulary for the intervention was selected from textbook content assigned for the first-year EFL students in the Community College at Taibah University "Q: Skills for Success: Reading and Writing INTRO (Oxford University Press-Special Ed.), Jennifer Bixby & Joe McVeigh, 2012, 2013, 2014, 2015, 2016." Students study writing skills with the researcher, which is 2 hours a week. In this course, students are expected to learn the basic structures of the English sentence, tenses, and auxiliaries. In addition to forming Yes/No and WH questions.

The course aims at developing writing skills in various topics. Upon course completion, students are also expected to write answers to questions in complete sentences, plan before writing an outline, revise different topics, edit different topics, use capitalization and punctuation correctly, and use subject-verb agreement. They should also show limited control of a few simple grammatical structures and sentence patterns in a learned repertoire, copy out single words and short texts presented in standard printed format, and write simple topic sentences and simple paragraphs about themselves and imaginary people. The course book is the teaching material consisting of ten units taught to both groups. The research experiment covered five units (6 to ten). The number of new vocabulary included in the ten units was 370. The highest number of new words was in units 1 and 6 (n=47), and the least was in unit 5 (n=25) (see Figure 2).



Publication of the European Centre for Research Training and Development -UK*Figure 2. The number of new vocabulary included in the ten units*

Moreover, the five units of the treatment period comprised 195 new vocabulary items with a percentage of 52.70%. Regarding the distribution of the new vocabulary, they covered eight parts of speech. The highest number was nouns (n=121), and the least was phrases (n=3) (see Figure 3).

*Figure 3. The distribution of the new vocabulary based on parts of speech in the ten units*

The researcher designed 14 in-class activities to be divided over the five-week treatment period. The activities cover three vocabulary sub-skills, i.e., the meaning, the grammatical use, and the spelling of the new words. Besides, the activities represent five VLSs, i.e., cognitive, compensation, determination, memory, and metacognitive (see Table 2). Besides being well-designed, colorful, engaging, and creative, the activities focused on the new vocabulary in the five units (6-10) but also included some vocabulary from the five units (1-5) that have been taught. Some vocabulary activities, such as *finding od words*, *word puzzles*, *matching them up*, *blank is blank*, and *vocabulary quizzes* require including previously learned vocabulary.



*Table 2. Description of the activities-based VLSs*

Week No.	Types of Activities	Vocabulary Sub-skills	Types of VLSs
Week 1	Related Words	Grammar	Cognitive
	Vocabulary Quiz	Meaning	Compensation
Week 2	Make it right	Grammar	Metacognitive
	Find odd word	Meaning	Cognitive
	Word puzzle	Spelling	Memory
Week 3	Segmenting	Grammar	Determination
	Combining words	Meaning	Cognitive
	Letter jumble	Spelling	Compensation
Week 4	Match them up	Grammar	Cognitive
	Blank is blank	Meaning	Compensation
	Completion	Spelling	Cognitive
Week 5	Sentence jumble	Meaning	Cognitive
	Addition	Spelling	Compensation
	Combination	Spelling	Determination

Oxford (1990) and Schmitt (2000) argued that cognitive and compensation strategies are the most preferred strategies among language learners. Metacognitive strategies help learners make decisions, take responsibility, and practice as much as possible to improve their vocabulary. Schmitt (2000) claimed that Memory strategies entail elaborative mental processing that assists long-term retention. Schmitt (1997) revealed that Determination strategies help learners discover the meaning of unknown words.

In the current study, teaching both groups was conducted by the researcher, who is also an EFL faculty member. Though both groups used the same teaching materials, their in-class activities differed, and the worksheets used by the experimental group were designed to encourage extensive vocabulary learning.

### **Data Collection Techniques**

Five research instruments were designed and employed in this study. The first instrument was a Vocabulary Achievement Test (VAT). It is a pre/post-test targeted at

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the participants in the experimental and control groups. The test was a multiple-choice item format, each with four alternative answers, of which only one is correct. It was designed by the researcher and consisted of 30 items based on the content of the ten units. The items covered the three vocabulary sub-skills, i.e., the spelling (10 items), the meaning (10 items), and the grammatical use of the new words (10 items).

The second research instrument was three in-class quizzes. The researcher designed three 15-minute quizzes based on the vocabulary in the five selected units. The first quiz covers the spelling, the second covers the meaning, and the third covers the grammatical use of the new vocabulary. Each quiz consists of 10 multiple-choice items with four alternative answers. The quizzes targeted the experimental and control group participants.

The third research instrument was the final course exam that was designed and employed by the Department of Humanities, Science, and Technology in the Community College. It is designed as a combination of grammar, vocabulary, and composition. The exam is submitted to all the students in the first year. The score on the exam is 40 marks.

The fourth research instrument was a three-point Likert scale questionnaire. It comprised 15 items and was built upon some selected previous studies (Alsharif, 2022; Boontam, 2022; Raungsawat & Chumworatayee, 2021; Ta'amneh, 2021). It was written in L1, Arabic, and translated to L2, English. The Arabic version targeted the study sample, while the English version was sent along with the Arabic one to the jury members for validation. It aimed to discover the participants' perspectives on using in-class activities to improve students' vocabulary learning.

The fifth research instrument was a reflection card. The students were asked to write their reflections on the experiment. Hence, the researcher assisted them in writing down their reflection by answering the following question: what do you think of using vocabulary activities to increase interests, communication among team members, linguistic advantages, eliminating boredom and routine, and changing the regular classroom environment? The experimental group participants were guided to respond to the reflection card using L1 to express themselves freely and authentically.

#### **Validity and reliability of the data**

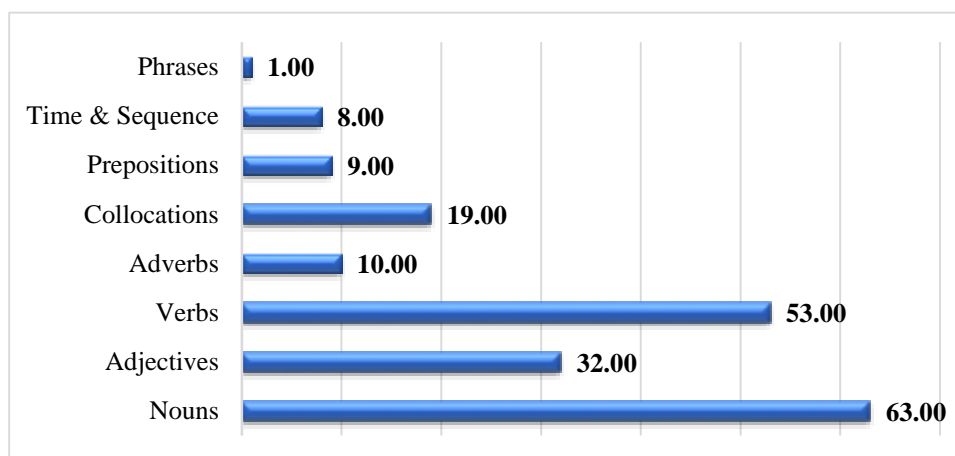
To validate the VAT, the researcher sent it to three EFL instructors who are considered experts in the Department of Humanities, Science, and Technology at the Community

Publication of the European Centre for Research Training and Development -UK College. They checked face and content validity for feasibility, readability, style and formatting consistency, and clarity of items. They made some language changes to five items and content changes to two items. The researcher then computed the reliability coefficients of the study instrument to ensure its clarity. The pilot research sample (n=13) was randomly selected from students in the second level who had studied the identical coursebook the previous semester. The Cronbach's alpha coefficient of VAT was 0.875 for all items (n=30). Cronbach's alpha coefficient values for the spelling sub-skill was (0.661), for the meaning was (0.773), and for the grammatical use was (0.671) with ten items for each subskill. The questionnaire was sent to three EFL instructors to establish construct and content validity. Their suggestions included reducing the number of items from 18 to 15. Some language changes were made in the L2 copy. The questionnaire's reliability and internal consistency were then calculated in pilot research with 10 Saudi EFL female students. The Pearson correlation results revealed a direct, positive, and significant relationship between the total and the 15 items, with values ranging from ( $r = .214-.900$ ). Cronbach's alpha found that all fifteen items (0.789) had acceptable internal consistency as well as reliability.

### Procedures

The procedures of the experiment go through the following steps. The following is an illustration of each step.

Step 1: Excluding vocabulary. The researcher excluded the vocabulary items in the units from 6 to 10, which were 195 new vocabulary items with a percentage of 52.70% of the total vocabulary of the ten units (370) (see Figure 4), to focus on them during teaching and designing the activities.



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*Figure 4. The distribution of the new vocabulary based on parts of speech in the five units*

Step 2: Planning, designing, and validating VAT. First, the researcher planned the test items to cover the three vocabulary subskills (i.e., spelling, meaning, and grammatical use). Then, the researcher designed a 30-item multiple-choice test with four alternatives. Finally, EFL experts validated it from September 2<sup>nd</sup> to 9<sup>th</sup>. The experts' valuable comments helped in developing the final VAT version.

Step 3: Designing vocabulary quizzes. The researcher designed three 15-minute quizzes to test the new words' spelling, meaning, and grammatical use, targeting experimental group participants. Each quiz consists of 10 multiple-choice items with four alternative answers.

Step 4: Designing the teaching materials. In addition to the content of the writing lessons in each unit, the researcher designed 14 in-class activities over a five-week treatment period, covering three vocabulary sub-skills and five VLSs. The activities focused on the new vocabulary in the five units (6-10) and included some vocabulary from the already taught units (1-5). They were designed using colors, pictures, figures, and tables to attract students' attention.

Step 5: Piloting the VAT: To check the VAT reliability, the researcher applied Cronbach's alpha coefficient after randomly selecting EFL students from the second level who studied the same coursebook a semester ahead. The pilot study was conducted on October 4<sup>th</sup>.

Step 6: Preparing EFL students in the experimental group. Before the experimental group's research treatment sessions, the EFL female students were familiarized with the techniques for teaching writing skills and the vocabulary tasks related to each treatment session. They were also encouraged to practice their new roles in the newly formed groups. Besides, they were provided with sufficient information about the research and later were asked to sign informed consent as one of the founding principles of research ethics.

Step 7: Administration of the pre-VAT. To measure EFL students' pre-existing vocabulary knowledge baseline and determine the difference between control and experimental groups, the researcher administered the pre-VAT to both groups on October 17<sup>th</sup>, 2021. The VAT consisted of 30 items covering the three vocabulary sub-skills: spelling, meaning, and grammatical use.

Step 8: The instructional treatment. As the instructor of both control and experimental groups, the researcher started the treatment intervention on October 25th, 2021, during the writing class of unit 6. Usually, in reading class, the new words were introduced using strategies such as guessing the meaning from context by providing clues. Additionally, instructors usually emphasize the pronunciation of new words during the reading lessons. Brassell and Furtado (2008) indicate that one of the biggest challenges preventing ESL/EFL students from grasping new vocabulary is the lack of time teachers devote to vocabulary instruction. Hence, due to the multiple activities included in the reading lessons in the coursebook, EFL instructors do not have plenty of time to involve students in vocabulary activities. Thus, meaning and pronunciations are mostly the sub-skills in focus during the reading classes. In writing class, EFL students should be thoroughly familiar with the meaning, pronunciation, spelling, and grammatical use of the new vocabulary items in each unit to be able to finalize all the writing activities and write the composition.

Hence, the instructor started each writing class for the experimental group by doing the grammatical exercises in the coursebook and then asked students to form pre-assigned groups to engage in vocabulary in-class activities focusing on the new words' spelling, meaning, and grammatical use. They could also connect the previously introduced vocabulary in the pre-five and new units. As noticed by the instructor, the EFL students showed acceptable levels of motivation and participation in the activities. Even though instructions preceded each activity, the researcher also read and clarified what students should do in each activity. Students were given enough time to do the activities before moving to participate orally and receive appropriate feedback and reinforcement.

For the first week, related words and vocabulary quiz activities which represent cognitive and compensation VLSS were employed. The activities were designed based on different VLSs. During the second week, three activities (i.e., make it right, find the odd word, word puzzle) that belong to metacognitive, cognitive, and memory VLSs were utilized. For the third week, segmenting, combining words, and letter jumble representing determination, cognitive, and compensation VLSs were employed. In the fourth week, match them up, blank is blank, and completion activities representing the cognitive and compensation VLSs were applied. While in the last week, sentence jumble, addition, and combination in-class activities were employed. To conclude, five VLSs were adopted and represented using different vocabulary in-class activities during the treatment period. They belong to cognitive, compensation, and determination VLSs.

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Finally, the instructor moved to the unit composition instructions to discuss them, give oral examples, write one or two sentences, and review the new vocabulary appropriate to the required paragraphs. Then, students should do the unit assignment and write the composition for the next class in the same week. Based on the instructor's correction, it was noticed that the number of mistakes in compositions decreased, and the EFL students in the experimental group gradually improved in sentence form and word choice.

The same procedures were used for the control group except for the vocabulary in-class activities. The instructor applied regular instruction and moved immediately to composition instructions after doing the grammatical exercises in the coursebook. Students in the control group should also do the unit assignment and write the composition for the next class in the same week.

Step 9: Administration of the vocabulary quizzes. The researcher designed three 15-minute quizzes to test new vocabulary's spelling, meaning, and grammatical use, targeting experimental and control group participants. Each quiz consists of 10 multiple-choice items with four alternative answers. The first quiz on spelling subskill was administered after the second treatment week on November 1<sup>st</sup>. The second quiz on meaning was given after the fourth week of the treatment on November 15<sup>th</sup>. Finally, the third quiz on the grammatical use of the words was submitted one week after the end of the treatment period on December 1<sup>st</sup>.

Step 10: Administration of the post-VAT. After a five-week treatment period (from October 10<sup>th</sup> to November 22<sup>nd</sup>), the researcher administered an identical pre-VAT as a post-VAT for the control and experimental groups on December 5<sup>th</sup>.

Step 11: Administration of the questionnaire. On December 13<sup>th</sup>, the participants were asked to respond to the 3-point Likert scale questionnaire inside the classroom.

Step 12: Reflection Card. On December 15<sup>th</sup>, the participants were asked to write their reflections on the experiment and were guided to respond to the reflection card using L1 to express themselves freely and genuinely. The researchers assigned preliminary codes to the responses of the reflection card to reduce the gathered data into categories. For example, increase interests, enhance communication, boost linguistic advantages, eliminate boredom and routine, and change the regular classroom environment.

## **Data analysis**



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The study used Independent Sample T-Tests to compare the vocabulary achievement between the experimental and control groups on the pre-test, post-test, vocabulary subskills, and final exam scores. Paired Sample T-Tests were used to compute any statistically significant differences between the pre-and post-VAT of the experimental group. The participants' perspectives were analyzed using descriptive statistics (i.e., frequencies, means, and standard deviations).

## FINDINGS

The Independent Sample and Paired-Sample T-Tests were used to answer four research questions and test five null hypotheses. Table 1 shows the pre-test vocabulary achievement between both groups.

### Results of vocabulary learning

*Table 3. Results of the Independent Sample T-Test of the pre-test vocabulary achievement*

Groups	(n= Experimental=23; Control group=20)								
	Mean	S.D	Std. Error Mean	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Eta square
Experimental group	14.57	4.84	1.01	2.497	41	.017	3.37	1.35	.132
Control group	11.20	3.85	0.86						

As displayed in Table 3, there was not a significant difference between the mean scores for the experimental group (M=14.57, SD=4.84) and the control group (M=11.20, SD=3.85) regarding pre-VAT;  $t(41) = 2.497$ ,  $p < .017$ ;  $d = 0.132$ . This result suggests that the groups were homogeneous before the research period at the pre-test level. Consequently, the first research null research hypothesis (H01) was accepted.

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*Table 4. Results of the Independent Sample T-Test of the post-test vocabulary achievement*

Groups	(n= Experimental=23; Control group=20)								
	Mean	S.D	Std. Error Mean	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Eta square
Experimental group	19.09	5.43	1.13	5.326	41	.000	7.29	1.37	.409
Control group	11.80	3.00	0.67						

The results in Table 4 illustrated that there was a significant difference in the mean scores in favor of the experimental group (M=19.09, SD=5.43) and the control group (M=11.80, SD=3.00) regarding pre-post-VAT;  $t(41) = 5.326$ ,  $p < .000$ ;  $d = 0.409$ . The magnitude of the differences in the means was large (eta squared=.409). This result suggests that using the in-class activities based on the different VLSs significantly affected the vocabulary achievement of Saudi EFL female students. Thus, the second research null research hypothesis (H02) was rejected.

*Table 5. Results of the Paired Sample T-Test of the pre and post-test vocabulary achievement*

Groups	Paired Sample T-Test							95% Confidence Interval of the Difference		Eta square
	N	Mean	S.D.	Correlation	t	df	Sig. (2-tailed)	Lower	Upper	
Pre-test	23	14.57	4.84	.793	-6.462	22	.000	-5.97	-3.07	.655
Post-test	23	19.09	5.43							

Based on the results in Table 5, it can be concluded that there is a significant difference in the mean scores of the participants in the experimental group between the pre-

Publication of the European Centre for Research Training and Development -UK (M=14.57, SD=4.84) and post-VAT (M=19.09, SD=5.43)  $t(22) = -6.462, p.000; d = 0.655$ . The effect size of the mean differences was large (eta squared=.655). This result suggests that using the in-class activities based on the different VLSs significantly affected the vocabulary achievement of Saudi EFL female students. Accordingly, the third research null research hypothesis (H03) was rejected.

*Table 6. Results of the Independent Sample T-Test of the final course exam*

Groups	(n= Experimental=23; Control group=20)								
	Mean	S.D.	Std. Error Mean	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Eta square
Experimental group	26.57	7.89	1.65	2.974	41	.005	6.57	2.21	.177
Control group	20.00	6.36	1.42						

Moreover, the results in Table 6 demonstrated that there was a significant difference in the mean scores in favor of the experimental group (M=26.57, SD=7.89) and the control group (M=20.00, SD=6.36) regarding the final course exam in reading and writing skills;  $t(41) = 2.974, p < .005; d = 0.177$ . The magnitude of the differences in the means was moderate (eta squared=.177). This result suggests that using the in-class activities based on the different VLSs significantly affected the overall achievement of the experimental group. As a result, the fourth null research hypothesis (H04) was rejected.

*Table 7. Results of the descriptive statistical tests of vocabulary sub-skills*

Vocabulary Sub-skills	Groups	N	Mean	S.D.	Std. Error Mean
Spelling	Experimental group	23	7.35	1.39	0.29
	Control group	20	5.40	1.67	0.37
Meaning	Experimental group	23	7.28	2.23	0.47
	Control group	20	5.74	2.17	0.49
Grammatical use	Experimental group	23	8.02	0.91	0.19
	Control group	20	5.11	1.32	0.30

Table 7 shows the mean scores in the vocabulary sub-skills favored by the experimental group.

*Table 8. Results of the Independent Sample T-Test of vocabulary sub-skills*

Vocabulary Sub-skills	Groups	N	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Eta square
Spelling	Experimental group	23	4.163	41	.000	1.94783	.46788	.297
	Control group	20						
Meaning	Experimental group	23	2.292	41	.027	1.54511	.67417	.114
	Control group	20						
Grammatical use	Experimental group	23	8.496	41	.000	2.90924	.34241	.639
	Control group	20						

The results in Table 8 displayed that there was a significant difference in the mean scores in favor of the experimental group ( $M=7.35$ ,  $SD=1.39$ ) and the control group ( $M=5.40$ ,  $SD=1.67$ ) regarding the spelling quiz;  $t(41)=4.163$ ,  $p < .000$ ;  $d=0.297$ . The effect size of the mean differences was substantial (eta squared=.297).

Likewise, the results in Table 8 also showed that there was a significant difference in the scores for the experimental group ( $M=7.28$ ,  $SD=2.23$ ) and the control group ( $M=5.74$ ,  $SD=2.17$ ) regarding the meaning of vocabulary quiz;  $t(41)=2.292$ ,  $p < .027$ ;  $d=0.114$ . The magnitude of the differences in the means was moderate (eta squared=.114).

A similar significant difference in the scores also was presented in the results for the experimental group ( $M=8.02$ ,  $SD=0.91$ ) and the control group ( $M=5.11$ ,  $SD=1.32$ ) regarding the spelling quiz;  $t(41)=8.496$ ,  $p < .000$ ;  $d=0.639$ . The magnitude of the differences in the means was large (eta squared=.639). These results suggest that using the in-class activities based on the different VLSs significantly affected the overall achievement of Saudi EFL female students. As a result, the fifth null research hypothesis ( $H_05$ ) was rejected.

**Results of Students' Perspectives**

The students' perspectives on using in-class activities to improve their vocabulary learning were calculated with frequencies, means, and standard deviations.

*Table 9. Results of EFL female students' perspectives on vocabulary learning*

Statements	The Scale			Mean	S.D.	Level
	Most of the time	Sometime	Never			
1. I am confident when answering using L1 in the classroom.	1 (4.3%)	13 (56.5%)	9 (39.1%)	2.91	0.42	Most of the time
2. I think positively while participating in vocabulary activities.	15 (65.2%)	5 (21.7%)	2 (8.7%)	2.83	0.39	Most of the time
3. I am afraid of making mistakes while participating in classroom activities.	8 (34.8%)	11 (47.8%)	4 (17.4%)	2.65	0.57	Most of the time
4. I frequently participate in activities even with committing mistakes.	10 (43.5%)	8 (34.8%)	5 (21.7%)	2.65	0.65	Most of the time
5. We rely on each other to participate actively in vocabulary activities.	8 (34.8%)	12 (56.5%)	2 (8.7%)	2.61	0.66	Most of the time
6. I only participate when I am sure of the answers.	3 (13.0%)	12 (52.2%)	8 (34.8%)	2.57	0.73	Most of the time
7. I continue thinking about failing during English class.	15 (65.2%)	4 (17.4%)	4 (17.4%)	2.52	0.73	Most of the time
8. My confidence decreases when the teacher calls upon my name to participate in activities.	16 (69.6%)	6 (26.1%)	1 (4.3%)	2.48	0.79	Most of the time
9. I am confident in asking questions about mysterious vocabulary.	5 (21.7%)	9 (39.1%)	9 (39.1%)	2.48	0.79	Most of the time
10. I feel anxious while participating in vocabulary activities.	13 (56.5%)	6 (26.1%)	4 (17.4%)	2.30	0.63	Sometimes

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11. I gain more enthusiasm in class due to my teacher's frequent encouragement and appreciation.	22 (95.7%)	-	1 (4.3%)	2.22	0.80	Sometimes
12. I feel optimistic about my vocabulary performance.	17 (73.9%)	4 (17.4%)	2 (8.7%)	2.17	0.72	Sometimes
13. I gain vocabulary knowledge when participating in vocabulary activities.	19 (82.6%)	4 (17.4%)	-	1.83	0.78	Sometimes
14. I handle positively any comments regarding my vocabulary performance.	16 (69.6%)	4 (17.4%)	3 (13.0%)	1.78	0.67	Sometimes
15. I maintain eye contact with the teacher during activities.	16 (69.6%)	5 (21.7%)	2 (8.7%)	1.65	0.57	Never

Table 9 shows that nine items received the most considerable consideration from Saudi EFL students considering utilizing in-class activities to promote vocabulary learning. In-class activities demonstrated that Saudi EFL students are more confident when replying in their native language (Item 1,  $M=2.91$ ;  $SD=0.42$ ). The findings also revealed a substantial consideration (Item 2,  $M=2.83$ ;  $SD=0.39$ ) among Saudi EFL students on their positive perspectives when engaging in vocabulary activities. Furthermore, equal mean scores (Item 3 & 4,  $M=2.65$ ) revealed that Saudi EFL students were most afraid of making mistakes when engaging in vocabulary activities, although they valued participation even if they made mistakes. Conversely, participants valued depending on one another to engage actively in vocabulary activities (Item 5,  $M=2.61$ ;  $SD=0.66$ ).

Besides, the results reveal that the participants perceived that they participated when they knew the answers (Item 6,  $M=2.57$ ;  $SD=0.73$ ), and they kept thinking of failing during the class (Item 7,  $M=2.52$ ;  $SD=0.73$ ). Furthermore, equal mean scores (Item 8 & 9,  $M=2.48$ ) showed that Saudi EFL students conveyed that their confidence decreases when the teacher calls upon their names to participate in activities, whereas it increases while asking questions about mysterious vocabulary.

According to the results in Table 9, Saudi EFL students reported that using in-class activities to increase vocabulary learning made them anxious at times (Item 10,  $M=2.30$ ;  $SD=0.63$ ). On the other hand, they value encouragement and appreciation during



Publication of the European Centre for Research Training and Development -UK activities, which makes them more enthusiastic (Item 11,  $M=2.22$ ;  $SD=0.80$ ). Furthermore, the results revealed that participants felt confident in their vocabulary performance during the exercises (Item 12,  $M=2.17$ ;  $SD=0.72$ ). The data also demonstrated that when Saudi EFL students participate in classroom activities, they can acquire higher vocabulary knowledge (Item 13,  $M=1.83$ ;  $SD=0.78$ ). Furthermore, participants valued favorably addressing any comments about their vocabulary performance (Item 14,  $M=1.78$ ;  $SD=0.67$ ). However, Table 9 revealed that Saudi EFL students never made eye contact with the teacher during exercises (Item 15,  $M=1.65$ ;  $SD=0.57$ ).

## **RESULTS OF THE REFLECTIONS CARD**

Participants responded to the reflection card, and the researcher collected their reflections on the research experiment. They have expressed themselves in L1 and have written freely about their experience with the in-class activities, quizzes, and the massive change in the classroom atmosphere. Then, the researcher translated their writings into English and quoted some expressions and sentences. The following are some quoted examples:

### **Reflections on the implementation of in-class activities:**

- The activities positively impacted the student's academic performance.
- They raised the level of enthusiasm, killed the routine during classes, and simplified the rules for the student.
- They also increased the vocabulary yield through communication between team members.
- They also helped the student to stabilize the information and motivate them to participate.
- The activities were excellent in terms of good writing, reading, and knowledge of grammar.
- The activities helped students to understand the subject more, develop their English language, grasp the meanings of English words and sentence structure, kill boredom and routine among students, increase the participation of students, and learn more during group activities.
- The in-class activities made them communicate, grow abilities and skills in cooperation, change the atmosphere enthusiastically, and raise the spirit of responsibility, self-confidence, and hard work.
- The exciting activities encouraged students to participate and confirm information more, motivating them to participate and entertaining them.

### **Reflections on the classroom environment:**

- The course instructor's continuous communication with the students excited them to study and learn more.
- She was also targeting raising enthusiasm and communication skills among students.
- The course instructor changed the atmosphere of the lecture and cultivated the spirit of competition among the students.
- The students' enthusiasm was very high in the class, and there was no usual routine.
- The course instructor organized activities to kill boredom and routine. These classroom activities increased the students' enthusiasm for the subject, encouraged competition between students, promoted participation, and created opportunities for them to express their opinions.
- The lecture was two hours, and the student never felt bored, and their view of English changed because of the exciting activities.

### **DISCUSSIONS**

The study revealed significant findings about the effect of in-class activities based on VLSs on vocabulary learning in the Saudi setting. It reaffirms that the experimental group performed better than the control group on the vocabulary achievement test, the final exam for the course, and the three quizzes. The significant shift in the teaching-learning process that students experienced throughout the therapy time may be one explanation for these results. These significant results in achievement are confirmed by the results of Topkaraoğlu and Dilman (2014), who reported an improvement in the students' vocabulary production levels. Moreover, Amiryousefi (2015) reported that using different types of VLSs can help discover and consolidate the meaning of new words and increase vocabulary acquisition. Similarly, Hunt and Feng (2016) proved that students' scores, vocabulary knowledge, and confidence improved after using VLSs. In the Saudi context, Alghamdi and Al-Ahmed (2018), Al-Harbi and Ibrahim (2018), Ali (2020), Al-Malki (2022), and Alsharif (2022) reported that students taught using innovative approaches and practical VLSs outperformed those taught using the conventional way in terms of vocabulary performance and achievement.

The Saudi EFL female students might consider the diverse activities, inspiring classroom environment, and opportunities for participation and communication as supporting tools for improving their vocabulary. The engaging method that the in-class exercises were introduced in the writing class might allow students to interact with the instructor, with one another, and with the subject matter, which may be another

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factor in the significance of the finding. These findings supported Dobao (2014) 's when he reported that using VLSs developed small-group interaction.

Another interpretation is that students' performance was improved. Their ability to learn new words arose due to the numerous activity types, vocabulary sub-skills, and VLSs offered each week. These results match those observed by Bavi (2018), Kaivanpanah et al. (2021), and Rahmani et al. (2022), who reported that vocabulary knowledge is essential for language learners' proficiency development in the four macro skills and is the most critical variable in language learning. The treatment group students' attention may be captured by creating engaging, interactive, and creative in-class activities, which may also improve their understanding and ability to use the new language.

Another interpretation might be that the ample time allotted in the English language course for the writing class may positively impact the student's performance when employing activities based on VLSs to teach writing skills, notably composition. The researcher thinks splitting the questions into smaller chunks and having students concentrate on one sub-skill at a time would enhance students' performance and achievement on the three quizzes.

In terms of the Saudi EFL female students' perspectives on utilizing activities-based VLSs to improve vocabulary learning, fourteen out of fifteen items received positive responses. Participation in class activities produced the most promising results and replies. These results are consistent with Trujillo et al. (2015), who found that improving vocabulary knowledge is essential for enhancing communication. Moreover, Raungsawat and Chumworatayee (2021) stated that insufficient vocabulary knowledge is a significant problem for EFL language learning, and acquiring vocabulary via various activities enhances students' secure feelings.

Based on the researcher's experience, EFL students prefer to use L1 when answering questions, engaging, and conversing in Arabic, as they feel safe when given opportunities to speak their language. This result is not surprising as EFL students feel safe when given opportunities to speak their language.

On the other hand, participants demonstrated positive, enthusiastic, and non-threatening participation throughout vocabulary activities. They also emphasized that, despite their anxiety about making errors during the exercises, they were encouraged to engage, answer, ask questions, and overcome their fear. This might be ascribed to the interacting classroom environment and the regular encouragement and support. These findings might also be attributed to the participants' enthusiasm for and acceptance of a

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unique classroom environment, as seen by their replies on the reflection cards. These findings are compatible with Al Zahrani and Chaudhary (2022)' findings, who discovered that a lack of vocabulary causes stress and demotivation. Furthermore, according to Boontam (2022), a lack of vocabulary knowledge might limit the number of sentences learners can compose, leading to dissatisfaction and frustration.

Similarly, the findings demonstrated participants' positive attitudes toward the cooperative nature environment they were exposed to while participating in vocabulary activities. This could be attributed to the cooperative learning environment's critical role in increasing student achievement, fostering positive student relationships, promoting a learning community that values diversity, providing experiences that develop oral communication skills, and promoting social interactions and skills. These results agree with Gu (2010), who revealed that many VLSs correlated significantly with vocabulary size and types: passive and active.

However, even in an enthusiastic and supportive classroom context, the results showed that EFL students are still anxious about being called by name to contribute or participate and afraid of failing in the English classroom. These findings might be linked to their worry about forgetting or misplacing a significant word in a statement. Furthermore, it might be related to their discomfort, concern, anxiousness, and apprehension when learning or utilizing a new language.

Similarly, the findings indicated that the participants were satisfied with the overall atmosphere inside the classroom. As a result, they shared their enthusiasm and optimism. They also emphasized their newly acquired vocabulary knowledge. These findings were reinforced by the participants' responses on their reflection cards, in which they expressed productive educational environments in which students may accept flaws to foster constructive perspectives and reduce shame. The students' positive perspectives align with the results of Elashhab (2019) and Alshammari (2020), which showed that proficient language learners prefer VLSs equally.

On the other hand, the results of Ta'amneh (2021) reported variance in students' preferences for VLSs. They preferred using Memory, Social, Determination, Cognitive, and Metacognitive strategies, respectively. On the contrary, the results of Alsharif (2022) found that participants primarily use metacognitive learning strategies for acquiring English vocabulary.

Nonetheless, the only negative result regarding participant challenges is their ability to

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keep eye contact with the teacher during classroom engagement. The result might be attributed to the students' inability to reflect on their beliefs and become aware of the variables that might undermine their self-esteem and confidence. Another reason for the results might be a poor self-perception of L2 learning while being exposed to a positive, dynamic, supportive classroom environment that encourages participation.

According to the results of the reflection card, the EFL female students appeared satisfied and eager to execute the researcher's in-class activities. They were characterized as practical, enjoyable, and alleviated boredom. They found them to successfully improve students' grasp of the unit vocabulary, explain the meanings of new terms, boost participation in exercises, and learn more during group activities. These reflections are consistent with what Laufer and Nation (1995), Schmitt (2000), and Webb and Nation (2017) have mentioned that learning vocabulary increases comprehension, promotes precise speaking and writing, and increases understanding of ideas. It also shapes thinking.

Furthermore, EFL female students discovered that in-class activities promote a sense of responsibility, self-confidence, and motivation. They encouraged them to converse and improve their language skills and capabilities. They expressed their desire for cooperation and improvement in the learning environment. These reflections align with Karimi and Saadatmand (2014), who found significant relationships between motivation and self-confidence with academic achievement. In contrast, Cortés (2015) found that despite using different VLSs, lack of motivation is still problematic for students.

## **CONCLUSION AND RECOMMENDATIONS**

This study investigated the effect of in-class activities based on VLSs on Saudi EFL female students' vocabulary achievement and their perspectives on using them. Forty-three EFL female students studying in the Community College at Taibah University were assigned to two language classes and randomly selected as a control and experimental group. Data was collected through five research instruments.

The results revealed that the EFL students who were taught using activities based on VLSs enhanced vocabulary learning in VAT, course final exam, and the scores from vocabulary sub-skills quizzes. The results also revealed positive perspectives toward implementing vocabulary activities. Regarding the responses to the reflection cards, the EFL female students seemed satisfied and enthusiastic about the utilized in-class

Publication of the European Centre for Research Training and Development -UK activities. These results suggest that using in-class activities based on different VLSs significantly affected the vocabulary achievement of Saudi EFL students.

The significance of the findings shows that vocabulary is, no doubt, an essential part of any teaching syllabus and should be taught regularly because a limited vocabulary impedes successful communication in a second or foreign language. In EFL context, learning vocabulary items play a vital role in all language skills, such as listening, speaking, reading, and writing.

Based on the research results, the study concluded with some recommendations. First, EFL college teachers should include other rich, practical, and interactive VLSs that Saudi EFL students can utilize in learning new words. Second, EFL college teachers should incorporate reading-based collaborative activities into their teaching pedagogies to increase students' vocabulary growth and generate opportunities for learning delight. For example, teachers might start dialogues by posing comprehension questions or imitating how students interact with the text. Besides, teachers might move among groups to intervene or interact with each group individually.

Third, college EFL teachers should be aware that too rigorous methods and a lack of flexibility may reduce students' enthusiasm for an activity. Instead, learning activities that foster original thinking and allow students to use their imagination and creativity to drive peer interactions and improve cognitive engagement with new vocabulary should be employed.

Fourth, Saudi EFL teachers should emphasize the necessity of employing vocabulary in language skills and provide activities to assist students in practicing vocabulary outside the classroom. According to Webb and Nation (2017), writing blogs, texts, e-mails, and discussion groups on social media or journals are examples of such activities.

Fifth, Saudi EFL teachers should encourage students to seek opportunities to interact with English outside the classroom, as they have limited hours to learn English with their teachers. This is essential for vocabulary learning.

### **Limitations of the Study**

The current study's findings apply to Saudi EFL female students in the Community College at Taibah University but may not apply to more advanced students. This study's participants were female students and were only 41 (experimental=23 and control=20), and any impacts of the students' gender were not examined.



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Because the current research has some limitations; therefore, to add more validity and reliability to the findings of the current study, further research is needed to address the effectiveness of the other activities based on VLSs on psychological variables such as students' self-esteem, self-confidence, anxiety, and attitudes towards learning vocabulary. Additional studies might focus on the impact of social context (i.e., cooperative learning, learning communities, and focus groups) on learning vocabulary. Another research could be conducted to explore the impact of using VLSs on developing students' pronunciation and spelling subskills.

### **Acknowledgments**

I am grateful to the Community College at Taibah University for enabling me to undertake this action study. My thanks go to all of the EFL students in their first-semester language program, whose assistance in this endeavor has been priceless.

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