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## Exploring Vocabulary Learning Strategies among Saudi EFL Learners through SMPs: A Mixed-Methods Study

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### ABSTRACT

This study investigates Saudi English as a foreign Language (EFL) adult learners' perceptions of vocabulary learning through social media platforms (SMPs) and explores which platforms and strategies they use. A sequential explanatory design was adopted, with data collected via questionnaires and interviews. Quantitative data were analyzed using SPSS, while interview data were examined through thematic analysis. The findings revealed a positive perception of the use of SMPs for vocabulary learning, with an average mean score of ( $M = 3.95$ ,  $SD = 0.86$ ). Popular SMPs included Instagram (76%) and WhatsApp (75%), followed by Snapchat (70%), YouTube (68%), Twitter (62%), Facebook (21%), and Google Plus (12%). Learners acquired vocabulary incidentally through SMPs, using them as research tools and employing strategies such as translation, interaction, and repetition, all of which feature in Schmitt's taxonomy of vocabulary learning strategies. Additionally, students practiced new vocabulary through interaction with their environment, applying cognitive and metacognitive strategies, allowing them to learn at their own pace. Based on the results of this study, utilizing SMPs to enhance lifelong vocabulary learning and language acquisition among EFL learners is recommended. However, the generalizability of the results may be limited to the Saudi EFL adult learners living and studying in Saudi Arabia. Therefore, further research should be conducted to explore other contexts both inside and outside Saudi Arabia.

**Keywords:** Saudi Learners; Vocabulary Learning Strategies; TESOL; Social Media; ESL; EFL; English Language Learning

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# 1. Introduction

Learners of any second language face a variety of challenges, one of which is mastering the vocabulary of that language<sup>[1]</sup>. A wide range of vocabulary learning strategies (VLSs) can be employed by learners to overcome those challenges, and these play a pivotal role in the learning of English as a Foreign Language (EFL). Using such strategies enables EFL learners to become more autonomous in their bid to develop an extensive L2 lexicon<sup>[2]</sup>. Social media platforms (SMPs) provide an environment where students can focus on the learning of vocabulary as autonomous learners<sup>[3]</sup>.

The use of VLSs by foreign language learners has been explored by many researchers. In Indonesia, it was found that guessing the meaning based on context and using dictionaries were the strategies most widely used by Indonesian students<sup>[4]</sup>. Another study reported that of the various strategies employed by EFL students, reading short stories, repeating after the lecturer, and using social media were the most popular<sup>[5]</sup>. Studies that focused on the most widely used strategies employed by learners reported that social strategies were most commonly used, while memory strategies were the least used<sup>[6]</sup>.

Moreover, in recent research, Wati et al.<sup>[7]</sup> found that English education students used social media platforms to enrich vocabulary knowledge, build confidence, and engage in meaningful linguistic communication. Supporting these findings, after conducting a comprehensive literature review, Alkamel<sup>[8]</sup> concluded that social media facilitates collaborative and self-directed vocabulary learning, emphasizing, though, that teacher guidance is still necessary. In addition, the same year, a Chinese quasi-experimental study conducted by Zhao et al.<sup>[9]</sup> showed that badge-sharing mechanisms on vocabulary apps improved learner autonomy and retention. Furthermore, a recent TikTok-focused study found that Gen Z learners experienced substantial vocabulary gains through daily engagement with English content<sup>[10]</sup>.

VLSs have been widely studied in the Saudi context, with a variety of outcomes. Alqarni<sup>[11]</sup> and Alsharif<sup>[12]</sup> found that metacognitive strategies were the most widely used by Saudi learners. Contrary to this, Javid<sup>[13]</sup> and Al-Bidawi<sup>[14]</sup> reported that social strategies were the most widely used. Other studies in the Saudi context focused on the preferences of male and female learners of VLSs<sup>[15]</sup> as well as the relationship between learners' vocabulary size and the strategies

used<sup>[12,16]</sup>. Hamad<sup>[17]</sup> explored the perspectives of 39 Saudi EFL university instructors and confirmed that social media supports vocabulary growth and listening skills, though over-reliance on translation and distraction were noted as potential drawbacks. These studies provided comprehensive findings on the use of VLSs in the Saudi context, yet none focused on the use of VLSs implemented whilst using SMPs. This research gap provided the researcher with the motivation to investigate the implementation of VLSs by learners whilst using SMPs.

Previous studies have emphasized the paucity of research on the usage of SMPs despite their effect on Saudi learners' vocabulary development<sup>[18,19]</sup> and these platforms are very popular in Saudi Arabia. Al Mubarak<sup>[20]</sup> reported that studies that investigate the use of SMPs for vocabulary learning are relatively few in Arab nations. This study is therefore of some significance due to its novelty and will hopefully contribute specifically to the field of English-language learning in the Saudi context and more generally to the field of teaching and learning English as a foreign language (EFL) and English as a second language (ESL). Hence, the focus of this study is to answer the following questions:

1. How do Saudi EFL adult learners perceive the use of social media platforms to improve their vocabulary when learning a new language?
2. Which social media platforms are being used by Saudi EFL adult learners in Saudi Arabia?
3. What VLSs do Saudi EFL adult learners employ when using social media platforms to learn vocabulary?

## 2. Literature Review

### 2.1. Vocabulary Learning Strategies (VLSs) and Social Media Platforms (SMPs)

In order to become proficient in a foreign language, learners must use appropriate learning strategies<sup>[21–23]</sup>, and research suggests that the greater the use of such strategies, the higher the proficiency level will be achieved<sup>[24]</sup>. Moreover, according to Nunan<sup>[25]</sup>, learners must use specific techniques and strategies in order to achieve certain levels of proficiency in terms of vocabulary knowledge.

A learner's second language (L2) lexicon is likely to be limited if they do not use an extensive range of VLSs; thus, they might not benefit from certain language learning opportunities<sup>[26]</sup>. More precisely, the application of appropriate VLSs can expand the learners' L2 lexicon and enable the development of other language learning skills, thereby improving overall English-language proficiency<sup>[27]</sup>. Nevertheless, individual differences<sup>[28]</sup> and learner motivation<sup>[29]</sup> also play a critical role in vocabulary acquisition.

EFL education has been transformed by the technological revolution<sup>[30]</sup>, with SMPs revolutionising the field of late<sup>[31]</sup>. Coupled with technology for language learning, SMPs are now used in both formal and informal settings to assist learners of EFL and ESL at different levels<sup>[18,32]</sup>. Integrating SMPs in EFL contexts has been shown to develop students' academic performance and improve their abilities in reading and writing<sup>[33]</sup>.

SMPs are proving to be a valuable tool that can be used by learners to develop their L2 lexicon. Studies indicate that SMPs can boost learner motivation, engagement, and vocabulary mastery<sup>[33,34]</sup>, with platforms like Facebook, WhatsApp, and YouTube frequently being used for language learning activities<sup>[35]</sup>. Furthermore, studies have confirmed that SMPs have an impact on students' language skills and vocabulary acquisition<sup>[36,37]</sup>. Rezaei et al.<sup>[38]</sup> claimed that interaction with others on one of the SMPs adopted facilitates vocabulary learning.

Furthermore, it has been reported that a variety of English-language materials and media for foreign language learning that meet the individual needs and differences of learners can be accessed via SMPs<sup>[39,40]</sup>. Thus, SMPs offer flexible and learner-centred approaches that enable learners to adopt strategies that match their personal learning style and goals, reinforcing the value of independent and customized vocabulary learning<sup>[41]</sup>. This negates the need for teachers to perform what can be a challenging and time-consuming assessment of learners' individual needs and differences in order to help them learn new vocabulary<sup>[42]</sup>.

## 2.2. Taxonomies of VLSs

Researchers have identified various VLSs that language learners adopt and categorized them into taxonomies<sup>[43–45]</sup>. Gu and Johnson<sup>[43]</sup> proposed a taxonomy including metacognitive, cognitive, memory, and activation strategies. Na-

tion<sup>[44]</sup> proposed a taxonomy with three main categories: planning, sources, and processes, each of which has different subsets. Schmitt<sup>[45]</sup> presented a taxonomy with discovery and consolidation as the overarching strategies. Discovery strategies refer to the ways in which learners understand and discover the meaning of unknown words, whereas consolidation strategies are the techniques applied to retain and consolidate the new vocabulary. These two strategies, as proposed by Schmitt<sup>[45]</sup>, involve subsets of strategies: determination and social strategies under the discovery category, and social, cognitive, memory, and metacognitive strategies under the consolidation category<sup>[45]</sup>. Jaikrishnan and Ismail<sup>[46]</sup> stated that the taxonomy of VLSs proposed by Schmitt is the most commonly used and adopted by researchers and educators. For this study, Schmitt's taxonomy is adopted as it is straightforward and has been used in several studies that have investigated the VLSs used by Saudi learners.

For instance, Alqarni<sup>[11]</sup> examined 81 Saudi EFL learners and found that although metacognitive strategies were the most popular, Saudi EFL learners in general do not tend to use VLSs. Al-Harbi and Ibrahim<sup>[15]</sup> investigated 65 Saudi EFL learners aged between 18 and 22 years and found that memory strategies were used the least, while social strategies were the most popular. Similarly, Al-Bidawi<sup>[14]</sup> found that social strategies were the most used and memory strategies were the least used when he studied 94 Saudi EFL learners. Furthermore, Elashhab<sup>[47]</sup> investigated Saudi female EFL learners and concluded that they used a wide range of VLSs. Al-Khresheh and Al-Ruwaili<sup>[48]</sup> surveyed 219 Saudi EFL learners aged between 19 and 26 years who had been studying English for more than 10 years. They found that memory strategies were the most preferred, contesting the findings of Al-Harbi and Ibrahim<sup>[15]</sup> and Al-Bidawi<sup>[14]</sup>, followed by determination, social, and metacognitive strategies, then cognitive strategies, which were the least used. Alshammari<sup>[49]</sup> examined 85 EFL learners aged between 19 and 24 years who were studying at a Saudi university and concluded that learners who performed better used a wide range of VLSs, while poor performers tended to apply only metacognitive and memory strategies. Ali<sup>[50]</sup> focused on investigating the use of discovery strategies by 50 Saudi EFL learners and found that learners used more determination strategies than social strategies as they only had the opportunity to interact with their neighbouring classmates. Overall, in the Saudi

context, it seems that VLSs are not much used by Saudi EFL learners<sup>[11,15]</sup>. Therefore, this study examines VLSs and SMPs in vocabulary learning.

### 3. Methods

#### 3.1. Research Design

This study employed a mixed methods research design, combining both qualitative and quantitative approaches<sup>[51]</sup>. The sequential explanatory design was adopted, where quantitative data collection precedes qualitative data collection to provide a context for deeper exploration<sup>[52]</sup>. This approach enhances the robustness of findings by triangulating data from different sources and methods<sup>[53]</sup>. The quantitative phase involved a broad survey of SMPs' use, while the qualitative phase focused on in-depth interviews to explore learners' perceptions and practices.

#### 3.2. Participants

The study was conducted in Saudi Arabia, targeting EFL learners from five major regions. A sample of 384 learners was selected for the quantitative phase, with 20 participants chosen randomly for the qualitative interviews. This sampling strategy ensured a diverse and representative sample, enhancing the generalizability of the findings<sup>[54]</sup>. All Saudi EFL adult learners who already used SMPs for vocabulary learning in the sampled schools were targeted as the research participants. They were all contacted by the English-language schools' administrations and invited to complete the online questionnaire. Participation was voluntary.

The interviews were all held with Saudi EFL adult learners studying in language schools in five Saudi Arabian provinces: Madinah (n = 7), Makkah (n = 5), Riyadh (n = 4), Asser (n = 2), and the Eastern Province (n = 2). The interviewees' ages ranged from 19 through to 42 years, with the average age being 26 years. Interviewees' levels of English-language proficiency ranged from elementary to advanced according to the Common European Framework of Reference for Languages (CEFR)<sup>[55]</sup>. The CEFR is the accepted language equivalency tool used here to explain the language levels of courses offered in Saudi Arabian English-language schools.

#### 3.3. Instruments

The quantitative phase comprised an online questionnaire survey. The constructs and items in the questionnaire were based on the research questions, and the questionnaire was constructed to yield responses that could be represented statistically<sup>[53]</sup>. In this study, the questionnaire contained 28 close-ended items that required the participants to respond by selecting one of the options created by the researcher. The researcher chose this approach based on the suggestion made by Mackey and Gass<sup>[56]</sup> that close-ended items can be quantified more easily than open ones.

The reliability of the quantitative data was ensured through careful design, including the use of close-ended questions and the Cronbach alpha test for internal consistency<sup>[57]</sup>. The study employed data triangulation, methodological triangulation, and peer review to enhance credibility and ensure robust findings<sup>[58]</sup>. Prior to the pilot study, the questionnaire was sent for review to several colleagues and researchers in the field. Their feedback, including suggestions and recommendations, was taken into consideration, which helped to improve the content validity. They offered a number of comments regarding the clarity and arrangement of several items, and these proved useful in refining the draft, ensuring that the questionnaire was comprehensive and that all the items were valid prior to producing the final version. A pilot study was conducted to refine the questionnaire, ensuring its validity and reliability. Feedback from peers and the initial participants led to adjustments that improved the clarity and effectiveness of the survey tool<sup>[59]</sup>. The Cronbach alpha analysis confirmed the reliability of the questionnaire. Reliability was also checked by testing the internal consistency of the questionnaire using the Cronbach alpha coefficient on SPSS, which was found to be reliable at 0.70.

#### 3.4. Procedures

##### 3.4.1. Quantitative Phase

The first phase involved administering an online questionnaire to gather data on SMP usage among Saudi EFL learners. The questionnaire was carefully designed to be user-friendly and accessible, with both Arabic and English versions available to accommodate participants' language preferences. Data were analyzed using descriptive and in-

ferential statistics, with the results informing the qualitative phase.

### 3.4.2. Qualitative Phase

In-depth, semi-structured interviews were conducted to gain deeper insights into learners' perceptions of SMPs for vocabulary learning. The interviews were conducted in Arabic to ensure participants could express their views clearly. Thematic analysis was used to identify patterns and themes in the qualitative data, providing a nuanced understanding of the research questions<sup>[60]</sup>. The thematic analysis followed a coding process that involves six steps to identify, examine, and establish meaningful patterns, according to the sequential process suggested by Braun and Clarke<sup>[60]</sup>. These six steps are: familiarisation with data, generating initial codes, searching for themes, reviewing identified themes, defining and naming themes, and writing the final report. Eight themes were found, including the interviewees' profiles, the

general use of SMPs, SMPs used for vocabulary learning, and the use of SMPs for vocabulary learning. The trustworthiness of the qualitative phase was ensured by addressing the four measures: credibility, transferability, dependability, and confirmability.

## 4. Results

The overall perceptions and attitudes of Saudi EFL learners with regard to using SMPs in vocabulary learning were found to be highly positive, with an average mean of  $M = 3.95$ ,  $Std = 0.86$ . Students' responses ranged from very high, as displayed in item one, where the mean score reached 4.24 and a standard deviation of 0.73 (**Table 1**). Items 8 had the lowest mean score of 3.67,  $Std = 1.01$ , which is still high. This result revealed that Saudi EFL learners are aware of the importance of using SMPs for learning vocabulary.

**Table 1.** Saudi EFL learners' perceptions of using SMPs for vocabulary learning.

| Items                                                                                                          | Mean | SD   |
|----------------------------------------------------------------------------------------------------------------|------|------|
| 4. Social media helped me to discover and learn new words.                                                     | 4.24 | 0.73 |
| 5. Using social media has a positive impact on learning English vocabulary.                                    | 4.13 | 0.82 |
| 6. Social media plays a significant role in vocabulary learning.                                               | 4.04 | 0.81 |
| 7. Social media enhanced my motivation for vocabulary learning.                                                | 3.98 | 0.89 |
| 8. Social media is an easy way to learn English vocabulary.                                                    | 3.94 | 0.82 |
| 9. Social media has helped me to communicate in English.                                                       | 3.91 | 0.88 |
| 10. There are more opportunities for learning English vocabulary via social media compared to formal learning. | 3.74 | 0.96 |
| 11. Social media is more interesting than formal learning.                                                     | 3.67 | 1.01 |
| Total                                                                                                          | 3.95 | 0.86 |

According to the results, the responses to Question 2: "What social media are you using?" revealed that Instagram (76%) and WhatsApp (75%) were almost identical in terms of popularity, followed by Snapchat (70%), YouTube (68%), and Twitter (62%). Facebook (21%) and Google Plus (12%) were used by very few of the participants. Only 5% chose

"other", and these participants indicated that they used Telegram, TikTok, KaKao Talk, Pinterest, Azar, and Hello Talk App, which is an app designed specifically to connect with a native speaker and practise the English language. The percentages for the types of SMPs used by the survey participants are presented in **Table 2** below.

**Table 2.** Social media platforms that Saudi EFL learners use.

| Social Media Platforms | Frequency | Percentage |
|------------------------|-----------|------------|
| Facebook               | 74        | 21%        |
| Twitter                | 222       | 62%        |
| Instagram              | 272       | 76%        |
| Snapchat               | 250       | 70%        |
| YouTube                | 241       | 68%        |
| Google Plus            | 43        | 12%        |
| WhatsApp               | 268       | 75%        |
| Other                  | 18        | 5%         |

Regarding the third research question: "What VLSs do Saudi EFL adult learners employ whilst using social media platforms to learn vocabulary?", the participants in this study reported the use of several strategies to improve their vocabulary learning via SMPs. While the researcher was open to any emerging and unexpected themes, the analysis was informed by the vocabulary learning strategies discussed in the literature review, especially Schmitt's taxonomy of vocabulary learning strategies. The results present the different strategies that participants used for their vocabulary learning while using SMPs, and these are categorized into eight parts, as explained in detail below:

1. **Unconscious and incidental learning:** This sub-theme is related to vocabulary learning occurring unconsciously and incidentally. Interviewee Saad stated, "What I like most about SMPs is that you learn unconsciously as it is not direct learning", and Fatimah said, "My learning on SMPs happens spontaneously without any intention, as it happens when reading native speakers' tweets and posts, where you make sure that they are appropriate, and the learning occurs incidentally". From these two examples, we can see that learners thought that SMPs could benefit them in that they helped them develop their vocabulary unconsciously.
2. **Recording new vocabulary:** This sub-theme illustrates another vocabulary learning strategy used by participants: writing new vocabulary down in a notebook, diary, or journal. For example, Khulood said, "I have a notebook that I keep as a reference to write down the new vocabulary that I learn from SMPs", while Ali said, "I write down the new vocabulary and how to use it in sentences". The participants here referred to the learning strategy they used as they saved and wrote down any new words that they encountered on SMPs so that they were able to memorize them.
3. **Practice:** In this part, the interviewees reported that they used SMPs to practise their vocabulary, whether inside or outside their SMP environment. Interviewees mentioned that they practised the new vocabulary by using and posting the vocabulary on their SMP accounts. For example, Rahaf said, "If I have learned new vocabulary from class, I try practising the words on SMPs by posting the words and commenting on others' posts". Khalid and Fatimah reported the same

idea, saying, respectively, "I practise the new vocabulary by posting the words on SMPs and commenting on other posts and tweets" and "practising the new vocabulary by putting the words in sentences and posting the words in my account helps a lot". On the other hand, other interviewees reported practising new vocabulary outside the environment of SMPs. Khulood said, "I try to practise the new vocabulary that I learned from SMPs with my friends and teachers in the language school; this helps me to ensure that I am progressing". Sarah explained, "I practise what I learn from SMPs with my family, kids, husband, and teachers". Further to this, Faris said, "I try to use new words outside in the real world with genuine people as I find this is the most beneficial way for me to learn vocabulary because whenever I memorize the words by heart, I tend to forget them straight away". All the interviewees agreed that practice is key in terms of learning and extending vocabulary.

4. **Interaction:** Many of the interviewees indicated that one of their vocabulary learning strategies was interaction. Tara and Farah, respectively, reported, "I practise by interacting with others, including native speakers and non-native speakers, and this helps me a lot in memorizing the new vocabulary" and "the interactions on the posts by others help me the most to better understand the new vocabulary". They also reported learning by interacting with other users and commenting on their posts. Tasneem said, "The best part of using SMPs is having videos with translation subtitles posted with new vocabulary and interacting with others by commenting on the same post," and "I learn by interacting with posts by commenting". Others reported learning by answering questions and asking teachers. Ali said, "The best way of learning on SMPs is asking and interacting with the teachers". Aseel took a similar approach, saying, "I interact with accounts that post questions and exams for the new vocabulary".
5. **Pronunciation:** Another strategy mentioned by interviewees was pronunciation. They believed that hearing the pronunciation of new words in context via SMPs helped them to learn vocabulary. Saad expressed this view, saying, "The pronunciation and the meaning posted with vocabulary help me learn better". Farah

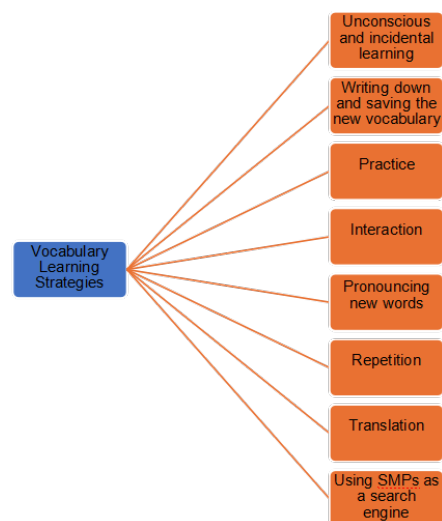
confirmed this when she said, “My vocabulary knowledge has increased after using SMPs, especially from the posted videos that have the vocabulary pronunciations”. Faisal and Tara tended to use the same strategy. Faisal said, “The best thing about learning vocabulary on SMPs is having the pronunciation”. Tara said, “My listening and pronunciation of the vocabulary have developed after using SMPs more than anything else. Before using SMPs, I was not able to differentiate between vocabulary pronunciation, but now I can even do so if I do not know their meaning”.

6. **Repetition:** Many interviewees said the feature enabling repetition on SMPs helps them to learn vocabulary. Sarah expressed the value of this strategy, saying, “I can repeat the new vocabulary as much as I want and wherever I am, whereas I might feel shy to ask my teacher to repeat the pronunciation”. Salma stated that she also supported this approach, “SMPs help a lot in learning vocabulary, where words can be seen and read repeatedly many times and can be easily memorized”, and Farah said, “When learning vocabulary through SMPs, it is very easy for me to repeat the videos as many times as I want, which helps in memorizing the new vocabulary; repetitions and watching the video posts on SMPs every day assist my vocabulary learning”. Manar added that, “Multimedia on SMPs is fun, and I can repeat the videos”.
7. **Translation:** The interviewees also emphasized that translation is a useful strategy for learning vocabulary through SMPs. They claimed that they learned vocabulary better when it was accompanied by an Arabic translation and explanation. This also applies to the various formats through which vocabulary is presented, such as pictures, videos, and texts. For instance, Sarah said, “... accounts that post pictures that contain new vocabulary every day for daily use and how to use them with Arabic explanations and examples, and every post has three to four pictures”. Tasneem stated, “The best aspect of using SMPs is having videos with translations posted with new vocabulary”. Others agreed that this strategy improved their vocabulary knowledge. For example, Aseel said, “My vocabulary knowledge has increased after using SMPs, especially from the account that posts the daily-use words with the Arabic

translation”.

8. **Using SMPs as a search engine:** Many interviewees indicated that they used their SMPs as a search engine to look up an unfamiliar word they had encountered outside the SMP environment. For instance, Saad said, “I usually use SMPs as a search engine for the vocabulary I do not know. They are excellent as a search engine”, and Tasneem described his use of this strategy, “I look up the new vocabulary that I heard in the university on SMPs to know its meaning and to memorize it”.

**Figure 1** below shows the various vocabulary learning strategies mentioned by the interviewees. The interviewees said that these methods were an excellent aid for learning vocabulary. Several other vocabulary learning strategies were identified by interviewees, but the ones outlined above are the most commonly used. As shown in **Figure 1** below, it can be concluded that the study participants used SMPs for vocabulary learning and applied vocabulary-learning strategies such as practice, interaction, pronunciation, and repetition.



**Figure 1.** Vocabulary learning strategies used by participants (1).

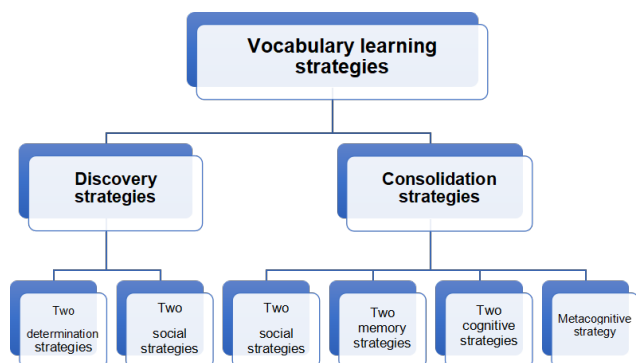
## 5. Discussion

### 5.1. Strategies for Vocabulary Learning

The participants in this study reported several strategies that they used to improve their vocabulary learning via SMPs. These strategies can be explained and described through the taxonomy that was suggested by Schmitt<sup>[45]</sup>. As previously discussed, two main types of strategies are used for the learn-

ing of vocabulary: discovery strategies (determination and social strategies) and consolidation strategies (social, memory, cognitive, and metacognitive strategies)<sup>[45]</sup>. The results obtained in this study suggest that four discovery strategies and six consolidation strategies are applied by Saudi Arabian EFL learners. These strategies are depicted below in

**Figure 2.**



**Figure 2.** Vocabulary learning strategies used by participants (2).

### 5.1.1. Discovery Strategies

The discovery strategies are discussed in the subsections “Determination strategies” and “Social strategies” below, according to the categorisation proposed by Schmitt<sup>[45]</sup>.

#### Determination Strategies

Participants reported that they learn vocabulary by accident or unintentionally when they come to understand the meaning of a word from the context and by guessing its meaning. A clear example of this came from Sarah, who said, “I think learning new vocabulary through SMPs occurs when reading native speakers’ tweets and posts where you make sure that they are appropriate, and the learning occurs incidentally”. This suggests that learners encounter new vocabulary when reading English tweets, especially those posted by a native speaker. On the same theme, Salma stated, “Following native speakers’ accounts and reading their posts makes the new vocabulary stick in my mind”. In these cases, learners are not intentionally setting out to learn new vocabulary; rather, this learning is perceived to occur naturally and enables the learner to discover the new words and their meanings.

The results of the incidental learning reported in this study concur with those reported by Alqunayeer<sup>[18]</sup>, who found that vocabulary learning occurs unintentionally when learners read posts and tweets. Incidental vocabulary learn-

ing cannot occur via SMPs unless it is repeated in various contexts, including texts, videos, and images, and in diverse situations. These are considered to be the significant advantages of SMPs, as explained in greater detail in this section. Therefore, incidental learning can occur via mobile devices, including SMPs<sup>[38]</sup>.

Another determination strategy is the use of SMPs as a search engine to further the understanding of vocabulary. This is the opposite of the above determination strategy, as learners intentionally search for examples of usage of new words on SMPs in order to clarify meaning. Concerning this, Khalid said, “I sometimes look for the new words that I have heard in the university on SMPs and see how others are using them”.

However, as explained by interviewee Faisal, it can be difficult to find a specific word and fully understand its meaning: “I sometimes look for the new words on SMPs, but it is quite hard to find the right meaning”. Moreover, the meaning of new vocabulary might be misunderstood, which could negatively impact the language learning process. Hence, guidance and feedback should be available whether on SMPs or elsewhere. Therefore, the use of consolidation strategies by learners in this study might be due to not properly understanding new vocabulary via discovery strategies.

Compared to a recent study by Ali<sup>[50]</sup>, which found that online dictionaries, translation applications, and Microsoft Word thesaurus services were used by Saudi EFL learners as determination strategies, learners in the current study used different determination strategies as they searched for vocabulary on SMPs. The technique of using SMPs as a search engine is a new finding that contributes to the existing knowledge, as it was not mentioned in the taxonomy proposed by Schmitt<sup>[45]</sup>, nor was it mentioned in the reviewed studies. In general, previous studies found that determination strategies were used by Saudi EFL learners in a specific age group<sup>[11,14,48]</sup>, while the current study, which included adults of all ages, found that Saudi EFL learners from different regions in Saudi Arabia employed determination strategies when using SMPs for vocabulary learning in a unique way.

#### Social Strategies

Learners in this study reported that they used social discovery strategies to determine vocabulary meaning. Amongst the social strategies, translation was mentioned

most as a helpful strategy for learning vocabulary. Participants claimed that they were able to learn new words when they were presented on SMPs together with their Arabic translations, generally by accounts that specialise in EFL learning. For instance, Khalid stated, “The best way of learning the new vocabulary on SMPs is having the Arabic translation”, while Tasneem claimed, “I learn from accounts that post translated videos or teachers explaining the vocabulary in videos”.

The second social strategy used for vocabulary learning on SMPs is interaction, which has been reported in this and other studies to be a successful means of learning vocabulary<sup>[32,40,61]</sup>. The perceived value of interaction on SMPs for vocabulary learning was strongly highlighted by many participants in various instances in this study, especially when they were asked about the types of content that encourage learners to learn vocabulary. However, Ali<sup>[50]</sup> found that social strategies were the least-used vocabulary discovery strategies by Saudi EFL learners, which the researcher explained was due to learners who could only interact with their classmates. Therefore, the results of the current study suggest that SMPs can be used as a means of interaction.

### 5.1.2. Consolidation Strategies

The participants of this study used several consolidation strategies, namely, social, memory, cognitive, and metacognitive strategies, when using SMPs, and these are discussed with reference to the categories in Schmitt’s taxonomy.

#### Social Strategies

Social strategies are considered to be consolidation strategies in addition to being discovery strategies. Practice and interaction are among the social strategies used by Saudi EFL learners to consolidate new vocabulary learned on SMPs.

Participants reported that when they learn new words, they practise using them by posting them on their SMP accounts, and they commented that this practice is a helpful strategy for their vocabulary development. This aligns with an earlier observation that Facebook helps learners to practise using newly acquired vocabulary<sup>[32]</sup>. The following quotations demonstrate how EFL learners practise what they have learned on SMPs: “I practice the new vocabulary by posting it on SMPs and commenting on other posts and tweets” (Khalid); “I post what I have learned on SMPs on my accounts and I notice my followers capturing and resharing

them” (Ali); and “I practise by interacting with others, including native speakers and non-native speakers, and this helps me a lot in memorizing the new vocabulary” (Tara).

Interestingly, some participants mentioned that they practised using the vocabulary they had learned from SMPs with people in their environment and in various locations. Rahaf stated, “I learn around five to six words every day from SMPs, and I write them down then practise them in cafes, restaurants, and my workplace”.

Interaction is the second social strategy used to reinforce the newly learned vocabulary. As explained previously, this is a social strategy that can be used to discover new vocabulary. When learners interact on SMPs, whether with native speakers, other learners, teachers, or content, the interaction is not limited to people but also includes interactions with all types of content on these platforms. Therefore, interaction strategies were reportedly used by Saudi EFL learners of this study on SMPs for both discovering and consolidating vocabulary. In comparison, a previous study by Al-Bidawi<sup>[14]</sup> ascertained that social strategies were the most used consolidation strategies by Saudi EFL learners.

#### Memory Strategies

Participants in this study gave more prominence to two memory strategies: multimedia and pronunciation. These two strategies are strongly linked with each other as the pronunciations of words is presented in videos. Participants emphasized that they learnt vocabulary better when new words were taught via multimedia, with the words and expressions explained and illustrated. Multimedia usually comprises images, video, and sounds in which new vocabulary and the pronunciation of words are embedded. These findings can be compared to those of a recent study in the Saudi context that was conducted by Al-Khresheh and Al-Ruwaili<sup>[48]</sup>, who found that memory strategies, including pictorial representations, were the most preferred by the participants. Conversely, Al-Harbi and Ibrahim<sup>[15]</sup>, Al-Bidawi<sup>[14]</sup> and Alqarni<sup>[11]</sup> found that memory strategies were the least used by Saudi EFL learners. However, the results of the current study are more inclusive as they covered all adult age ranges and focused on the vocabulary learning strategies used by Saudi EFL learners on SMPs.

The results of the current study are consistent with those of Tahir et al.<sup>[62]</sup>, who found that the use of visual multimedia when ESL students are learning vocabulary is

useful in assisting learners to learn new vocabulary. Moreover, the results of the current study regarding multimedia are also supported by the findings of Lin and Yu<sup>[63]</sup> that vocabulary is better retained when presented in audio mode on mobile technologies. Participants reported that they were more likely to remember new words when these were presented together with their pronunciation. For example, using Twitter encourages learners' participation and can improve their pronunciation<sup>[64]</sup>. Moreover, it was reported by many participants in the study conducted by Kabilan and Zahar<sup>[32]</sup> that hearing the pronunciation of new words on videos on Facebook helped them to learn new vocabulary. This study confirms what was revealed about the use of mobile technology for the learning of English pronunciation. Moreover, learners, in general, have positive attitudes towards using mobile technology for language learning<sup>[65]</sup>.

In this study, the multimedia feature offered by SMPs was usually linked with the concept of repetition, which reinforces the new vocabulary. These results are in accord with those of Carrell and Eisterhold, who mentioned that one of the benefits of SMPs is that learners can control their learning as they are able to decide when and how often to access the learning materials. The repetition strategy is further discussed in the section on cognitive strategy.

### **Cognitive Strategies**

The recording and repetition of new vocabulary were two strategies that participants used to assist them with the learning of vocabulary via SMPs. These strategies are associated with certain mental processes. The use of cognitive strategies by Saudi EFL learners has been reported in different studies<sup>[11,14]</sup>, although these were the least-used strategies according to a recent study conducted by Al-Khresheh and Al-Ruwaili<sup>[48]</sup>.

The recording of vocabulary was reported differently by the participants in this study. Many learners explained that they use SMPs to learn new words, then they record them on their devices by capturing the posts, saving the videos or using the SMP feature that allows them to save favourites and like posts on their SMP accounts and revisit these saved items at any time. Writing the words down and using flashcards were the most popular cognitive strategies used by Saudi EFL learners in traditional learning<sup>[48]</sup>. The traditional learning strategy of using pen and paper to record new vocabulary can complement the use of technology for

the learning of vocabulary, as it assists with the spelling and memorisation of new words. Both strategies are useful and can be used according to the learner's individual needs and preferences. Learners should have the freedom to choose the strategies that suit them best, even though these strategies may be considered old-fashioned.

The second cognitive strategy reported by participants was repetition. Learners can extend their existing vocabulary and retain their newly acquired vocabulary by being exposed to words and expressions multiple times. Learners in the classroom or engaged in real-life conversations do not always have the confidence to ask for a word to be repeated. However, SMPs enable learners to hear the same words repeatedly at their convenience and at their own pace, possibly saving them the embarrassment of having to ask to hear the word again. When learning a foreign language, students need frequent exposure to the target language and should grasp every opportunity to improve their skills, including vocabulary. SMPs provide these opportunities and enable students to apply the repetition strategy, which has proven to be effective for language learning.

### **Metacognitive Strategies**

The wide variety of vocabulary-learning strategies used by participants indicates that each learner uses strategies that align with his/her own needs and preferences. If learners are aware of the strategies that best suit them, they can choose the ones to apply in specific circumstances. When they do this, they are using metacognitive strategies, which involve decisions about the vocabulary that is to be learned and the best strategies to apply for this learning. Participants indicated that they consciously planned, controlled, and evaluated their vocabulary learning. Metacognitive strategies were confirmed and determined by the learners' awareness of a range of vocabulary learning strategies and how to use them. The use of SMPs for vocabulary learning and learning vocabulary over time are other signs that metacognitive strategies are being used according to Schmitt's classification. In comparison with the previous studies, metacognitive strategies were used by all Saudi EFL learners<sup>[14,48,49]</sup> but more so by low-level students<sup>[49]</sup>. This finding concurs with that of Alqarni<sup>[11]</sup>, who found that metacognitive strategies were frequently used by Saudi EFL learners.

## 5.2. Summary of Vocabulary Learning Strategies

All of the previous studies mentioned above focused on English-specialised EFL learners at a university level, and the age range was limited to specific learners between 18 and 26 years old<sup>[11,14,15,47–50]</sup>. Also, these studies were limited to a specific location, and in some studies, to a specific gender; for instance, Elashhab<sup>[47]</sup> focused on females, while Ali<sup>[50]</sup> and Alqarni<sup>[11]</sup> had all-male population samples. Therefore, the findings of the current study are unique in that they show that different vocabulary learning strategies are used by Saudi EFL learners of all ages and both genders from almost all major Saudi regions. It is evident from many other studies and from this study that there is no consensus on the vocabulary learning strategies that are being used the most or the least by Saudi EFL learners, indicating that no one learning strategy is better than another, but that learners apply the strategies best suited to their needs and preferences.

The participants in the current study explicitly and strongly highlighted that their personal preferences and needs were met by using SMPs. Although nearly all of them agreed that SMPs have positively influenced them and that they have positive perceptions of and attitudes towards using SMPs for vocabulary learning, they mentioned different practices, strategies, and techniques based on their individual differences, so they did not all use them in the same way. This is evident in their preference for a specific SMP over another, a certain strategy in favour of another, and a particular reason for their choices rather than another. This autonomous learning style that is not based on what is provided and conveyed by teachers<sup>[66]</sup> is what the learners of the online generation prefer today. These findings further support the idea that learners who use mobile technologies are motivated by personal needs and circumstances of use<sup>[67,68]</sup>.

It can be challenging and time-consuming to assess and predict learners' individual needs and differences, making it difficult for teachers to meet their students' needs and help them to learn new vocabulary<sup>[42]</sup>. In this regard, SMPs are able to take into account all learners' needs and differences. Due to the uniqueness of individuals, every learner prefers to use a different strategy that accords with his/her own needs, which leads to the establishment of an independent learning style based on personal needs and preferences<sup>[41]</sup>. This notion is consistent with the view of Alshalan<sup>[69]</sup>, who argued that learners today prefer an independent learning style as

they are not satisfied with the conventional ways of learning. Moreover, Pérez-Sabater and Fleta<sup>[70]</sup> reported similarly that most participants found that the learning of vocabulary by means of Twitter was enjoyable and motivating and that there was a greater level of participation and engagement as the learners' needs were met. Al Mubarak<sup>[20]</sup> reported the same findings regarding the use of Facebook for the same purpose. Moreover, EFL teachers believe that SMPs increase EFL learners' interest in learning as these are exciting and easy to use<sup>[71]</sup>.

Only a few studies have discussed the challenges and difficulties faced by EFL learners when using SMPs for vocabulary learning<sup>[72–75]</sup> or for new language learning in general<sup>[76,77]</sup>. The participants in this study reported various difficulties and inadequacies associated with the use of SMPs for the purpose of learning vocabulary, all of which might make the learning process less effective. These findings are similar to those of Tran<sup>[74]</sup> and Alrasheed<sup>[76]</sup>, who argued that learners may find it difficult to use these technologies effectively without guidance and support and thus should be offered training on how to use technologies for language learning. Similarly, Blattner and Lomicka<sup>[77]</sup> expressed the same view that learners should be equipped with the proper strategies if they are to use SMPs for language learning.

These recommendations are valuable when introducing new technologies such as SMPs to EFL learners who are using them for the first time. However, users such as those who participated in this study might not need much training, as they had been using SMP technologies for a considerable amount of time in their daily lives for many purposes, including learning. However, they might need to be guided when they encounter some challenges, particularly if they do not know how to deal with them without assistance; this was clearly stated by many participants in this study who said that they needed guidance and support when using SMPs for vocabulary learning. Additionally, by reflecting on these issues and challenges with MKOs, including their peers and teachers, learners can overcome any drawbacks and benefit from MKOs' experiences. Moreover, the learners' awareness of the issues, challenges, and difficulties that they face while using SMPs for learning is an indication of their metacognitive strategies, which can be overcome by offering some guidance. As these challenges were not adequately discussed in the literature, this study suggests that

more research is needed in order to examine these issues.

## 6. Conclusions

### 6.1. Conclusion

The participants of this study showed that they had a high perception when it comes to using SMPs for learning vocabulary. They made use of various SMPs, such as WhatsApp, Instagram, and Facebook. The study revealed that they employed a variety of vocabulary learning strategies when using SMPs, with more consolidation strategies being used. It was also found that Saudi EFL adult learners use a variety of vocabulary learning strategies and practices based on their individual needs and preferences, and that they believe they learned vocabulary better through multimedia and interaction.

Therefore, teachers should consider asking their students to suggest and share the potential techniques and strategies for vocabulary learning using SMPs and allow sufficient time in class to discuss and practice these techniques and strategies, which might present new possibilities and opportunities for both teachers and learners. This recommendation may be helpful when introducing new technologies, such as SMPs, to EFL learners who are using them for the first time. However, users such as those who participated in this study might not need much training, as they had been using SMPs for a considerable amount of time in their daily lives for many purposes, including learning. However, they might need support when they encounter some challenges, particularly if they do not know how to deal with them without assistance. This was made clear by many participants in this study who said that they needed guidance and support when using SMPs for vocabulary learning. Additionally, by reflecting on these issues and challenges with more knowledgeable others (MKOs), including their peers and teachers, learners can overcome any drawbacks and benefit from MKOs' experiences. Moreover, learners' awareness of the issues, challenges, and difficulties that they face while using SMPs for learning is an indication of their metacognitive strategies. As these challenges are not adequately discussed in the literature, this study suggests that more research is needed in order to examine these issues.

Moreover, the findings of this study can provide educators with information that can improve their understanding

of how SMPs are used now by EFL learners for vocabulary learning. By understanding the learners' uses of SMPs for vocabulary learning, instructors, teachers, educators, and policy makers can develop strategies and implement strategies in the field of foreign or second language learning and teaching, and, more specifically, in vocabulary learning and teaching. Hence, this study informs how SMPs can be formulated, implemented, and used to enhance English-language vocabulary learning.

### 6.2. Limitations and Further Research

Although the use of mixed methods enhanced the strength and the quality of the current research and its outcomes, there are some limitations that are acknowledged in this section. The generalizability of the results of this study may be limited to Saudi EFL adult learners who lived and studied in Saudi Arabia during the time this research was conducted. The Saudi context is unique due to cultural and religious factors that have been mentioned in this thesis. These factors and the exclusive characteristics of the Saudi context may make the results less applicable to other contexts. However, the rich description in the qualitative part of this study, might enable teachers and researchers outside the Saudi context to think about the extent to which the findings might apply or be relevant to their contexts.

This study leads to the need for further research to examine how the features of SMPs can be exploited for vocabulary learning and for all language learning skills, including reading, writing, listening, speaking, and the application of grammatical knowledge. In addition, different contexts should be examined, as factors such as time, place, and other circumstances can significantly affect the results. Finally, as the favoured SMPs for vocabulary learning found in the context of the study might not be the same in other contexts, further research is needed to conduct similar studies in other contexts.

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## Institutional Review Board Statement

The study was approved by the Tasmania Social Sciences Human Research Ethics Committee in the University

of Tasmania (protocol code H0018449 and 7/11/2019).

## Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

## Data Availability Statement

Data can not be provided according to the ethical approval protocol code H0018449.

## Conflicts of Interest

The author declares no conflict of interest.

## References

- [1] Goundar, P.R., 2019. Vocabulary Learning Strategies (VLSs) Employed by Learners of English as a Foreign Language (EFL). *English Language Teaching*. 12(5), 177–189. DOI: <https://doi.org/10.5539/elt.v12n5p177>
- [2] Redman, S., Gairns, R., 2008. *Test Your English Vocabulary in Use*. Cambridge University Press: Cambridge, UK.
- [3] Alharthi, M., 2016. Adult Saudi Students' Practices and Perceptions of Utilizing Twitter for English Language Learning in the UK. *Arab World English Journal*. 2021, 1–96. DOI: <https://dx.doi.org/10.24093/awej/th.279>
- [4] Besthia, W., 2018. A Survey on Vocabulary Learning Strategies: A Case of Indonesian EFL University Students. *Journal of Research & Method in Education*. 8(5), 636–641.
- [5] Simanjuntak, H.L., 2021. Vocabulary Learning Strategies Used by Undergraduate Students. *Scope: Journal of English Language Teaching*. 6(1), 16–22.
- [6] Pratami, B., Margana, M., 2020. Vocabulary Learning Strategies Preference Used by the Seventh-Grade Students of SMP Negeri 1 Mlati. In *Proceedings of the 1st International Conference on Language and Language Teaching, Magelang, Indonesia, 12 October 2019*.
- [7] Wati, R., Mulyani, S., Pratiwi, K.D., 2024. The Students' Perception of Using Social Media as a Medium to Learn Vocabulary in the English Education Department. *Journal of English Language Education (JELE)*. 10(1), 28–35.
- [8] Alkamel, M.A.A., 2024. Social Media in Teaching English for EFL Students: A Review of Challenges and Suggestions. *International Journal of English Teaching and Learning*. 2(1), 8–17. DOI: <https://doi.org/10.11648/j.ijetl.20240201.12>
- [9] Zhao, Y., Liu, Y., Chen, X., 2024. The Effectiveness of Badge-Sharing on Vocabulary Learning Strategies and Learner Autonomy: A Quasi-Experimental Study. *English Language Teaching*. 17(2), 14–25.
- [10] Ardini, R.D., Fadilah, N., 2025. TikTok as a Medium for English Vocabulary Learning Among Generation Z Learners. *Ethical Lingua: Journal of Language Teaching and Literature*. 12(1), 39–51.
- [11] Alqarni, I.R., 2017. Saudi English Major Freshmen Students' Vocabulary Learning Strategies: An Exploratory Study. *International Journal of Applied Linguistics and English Literature*. 7(1), 141–145.
- [12] Alsharif, R., 2022. Relationship Between Vocabulary Learning Strategies and Vocabulary Size: Evidence from Saudi Female EFL Learners. *International Journal of Education and Literacy Studies*. 10(1), 188–197.
- [13] Javid, C.Z., 2014. A Comparative Determination of Vocabulary Learning Strategies of Saudi EFL Learners. *Research Journal of Recent Sciences*. 3(12), 32–41.
- [14] Al-Bidawi, S.A., 2018. Vocabulary Learning Strategies (VLSs) Preferred by Saudi EFL Students. *English Language Teaching*. 11(12), 211–220. DOI: <https://doi.org/10.5539/elt.v11n12p211>
- [15] Al-Harbi, J., Ibrahim, E., 2018. Vocabulary Learning Strategies of Saudi English Major Students: Strategy Use and Gender. *International Journal of Engineering & Technology*. 7(3.25), 21–26. DOI: <https://www.sciepubco.com/index.php/ijet/article/view/17464>
- [16] Alahmad, G., 2020. Vocabulary Learning Strategies and Their Relation to Vocabulary Size in Saudi Female Undergraduate EFL Learners. *International Journal of Linguistics, Literature and Translation*. 3(6), 218–223.
- [17] Hamad, S.M.S., 2024. The Influence of Social Media on Student English Proficiency: A Study of University EFL Teachers' Perspectives. *Arts for Linguistic & Literary Studies*. 6(3), 508–532. DOI: <https://doi.org/10.53286/arts.v6i3.2082>
- [18] Alqunayeer, H.S., 2016. The Impact of Teaching Through Twitter on Students' Vocabulary Learning: A Case Study of Qassim University. *World Journal of English Language*. 6(2), 35–44.
- [19] Alzahrani, H., 2016. Examining the Effectiveness of Utilizing Mobile Technology in Vocabulary Development for Language Learners. *Arab World English Journal*. 6(3), 108–119.
- [20] Al Mubarak, A.A., 2017. Sudanese Students' Perceptions of Using Facebook for Vocabulary Learning at University Level. *Journal of Nusantara Studies*. 2(1), 170–176. DOI: <https://doi.org/10.24200/jonus.vol2iss1pp170-176>
- [21] Meschyan, G., Hernandez, A., 2002. Is Native-Language Decoding Skill Related to Second-Language Learning? *Journal of Educational Psychology*. 94(1), 14–22. DOI: <https://doi.org/10.1037//0022-0663.94.1.14>
- [22] Liu, D., 2004. EFL Proficiency, Gender, and Language

- Learning Strategy Use Among a Group of Chinese Technological Institute English Majors. Available from: <https://research.ncl.ac.uk/media/sites/researchwebsite/s/arecls/Dongyue.htm> (cited 7 March 2024).
- [23] Magno, C., 2010. Korean Students' Language Learning Strategies and Years of Studying English as Predictors of Proficiency in English. *Teaching English to Speakers of Languages Journal*. 2, 39–61.
- [24] Altan, M.Z., 2003. Language Learning Strategies and Foreign Language Achievement. *Education and Science*. 28(129), 25–31.
- [25] Nunan, D., 1997. Does Learner Strategy Training Make a Difference? *Lenguas Modernas*. 24, 123–142.
- [26] Chastain, K., 1988. *Developing Second Language Skills*, 3rd ed. Harcourt Brace Jovanovich: San Diego, CA, USA.
- [27] Ab Dollah, R., Shah, P.M., 2016. A Comparison Between Vocabulary Learning Strategies Employed by Urban and Rural Schools Students. Available from: <https://www.jesoc.com/wp-content/uploads/2016/08/Edu-94.pdf> (cited 7 March 2025).
- [28] Takac, V.P., 2008. *Vocabulary Learning Strategies and Foreign Language Acquisition*. Multilingual Matters: Clevedon, UK.
- [29] You, Y., 2011. Factors in Vocabulary Acquisition Through Reading. *INTESOL Journal*. 8(1), 43–57.
- [30] Hameed, B.S., Hashim, H., 2022. Challenges Faced by Teachers in Integrating 4th Industrial Revolution (4IR) Technology in Teaching English as a Second Language (ESL). *Creative Education*. 13(5), 1792–1809. DOI: <https://doi.org/10.4236/ce.2022.135113>
- [31] Chen, B., Bryer, T., 2012. Investigating Instructional Strategies for Using Social Media in Formal and Informal Learning. *International Review of Research in Open and Distributed Learning*. 13(1), 87–104.
- [32] Kabilan, M.K., Zahar, T.Z.M.E., 2016. Enhancing Students' Vocabulary Knowledge Using the Facebook Environment. *Indonesian Journal of Applied Linguistics*. 5(2), 217–230.
- [33] Al-Ahdal, A.A.M.H., Aljafen, B.S., 2023. Social Media Platforms: Perceptions and Concerns of Saudi EFL Learners. *World Journal of English Language*. 13(3), 1–68. DOI: <https://doi.org/10.5430/wjel.v13n3p68>
- [34] Alharthi, M., 2020. Students' Attitudes Toward the Use of Technology in Online Courses. *International Journal of Technology in Education*. 3(1), 14–23.
- [35] Ariantini, K.P., Suwastini, N.K.A., Adnyani, N.L.P.S., et al., 2021. Integrating Social Media into English Language Learning: How and to What Benefits According to Recent Studies. *NOBEL: Journal of Literature and Language Teaching*. 12(1), 91–111.
- [36] Alshaye, R.A., Wannas, A.S., Bakr, M.S., 2024. Learning English for Specific Purposes (ESPs) Through Social Media Platforms (SMPs): A Systematic Review. *Journal of Innovative Digital Transformation*. 1(1), 2–13. DOI: <https://doi.org/10.1108/JIDT-10-2023-0036>
- [37] Bin-Hady, W.R.A., Al-Tamimi, N.O.M., 2021. The Use of Technology in Informal English Language Learning: Evidence from Yemeni Undergraduate Students. *Learning and Teaching in Higher Education: Gulf Perspectives*. 17(2), 107–120.
- [38] Rezaei, A., Nei, M., Pesaranghader, A., 2014. The Effect of Mobile Applications on English Vocabulary Acquisition. *Jurnal Teknologi*. 68(2), 73–83. DOI: <https://doi.org/10.11113/jt.v68.2912>
- [39] Ali, J.K.M., Bin-Hady, W.R.A., 2019. A Study of EFL Students' Attitudes, Motivation and Anxiety Towards WhatsApp as a Language Learning Tool. *Arab World English Journal (AWEJ) Special Issue on CALL*. 5, 289–298. DOI: <https://dx.doi.org/10.24093/awej/call5.19>
- [40] Malik, A.R., Asnur, M.N.A., 2019. Using Social Media as a Learning Media for Foreign Language Students in Higher Education. *Bahtera: Jurnal Pendidikan Bahasa Dan Sastra*. 18(2), 166–175.
- [41] Baskin, R., Hill, B., Jacka, F.N., et al., 2017. Antenatal Dietary Patterns and Depressive Symptoms During Pregnancy and Early Post-partum. *Maternal & Child Nutrition*. 13(1), e12218. DOI: <https://doi.org/10.1111/mcn.12218>
- [42] Afzal, N., 2019. A Study on Vocabulary-Learning Problems Encountered by BA English Majors at the University Level of Education. *Arab World English Journal (AWEJ)*. 10(3), 81–98. DOI: <https://dx.doi.org/10.24093/awej/vol10no3.6>
- [43] Gu, Y., Johnson, R.K., 1996. Vocabulary Learning Strategies and Language Learning Outcomes. *Language Learning*. 46(4), 643–679.
- [44] Nation, I.S.P., 2001. *Learning Vocabulary in Another Language*. Cambridge University Press: Cambridge, UK.
- [45] Schmitt, N., 1997. Vocabulary Learning Strategies. In: Schmitt, D.N., McCarthy, M. (Eds.). *Vocabulary: Description, Acquisition and Pedagogy*. Cambridge University Press: Cambridge, UK. pp. 199–227.
- [46] Jaikrishnan, S., Ismail, H.H., 2021. A Review on Vocabulary Learning Strategies Used in Learning English as a Second Language. *International Journal of Academic Research in Business and Social Sciences*. 11(9), 297–309.
- [47] Elashhab, S., 2019. Exploring Vocabulary Learning Strategies of Saudi Female University Students: Perspectives and Use. *International Journal of Language and Linguistics*. 6(3), 47–55.
- [48] Al-Khreshah, M.H., Al-Ruwaili, S.F., 2020. An Exploratory Study into Vocabulary Learning Strategies Used by Saudi EFL Learners. *Journal of History Culture and Art Research*. 9(2), 288–302.
- [49] Alshammari, S.R., 2020. EFL Vocabulary Learning

- Strategies Used by Saudi Arabia University Students. *Advanced Education*. 7(16), 28–38.
- [50] Ali, M.A., 2020. Investigation of Vocabulary Learning Strategies to Identify Word Meanings for Saudi EFL Students in Reading Context. *Arab World English Journal*. 11(3), 149–169. DOI: <https://dx.doi.org/10.24093/awej/vol11no3.9>
- [51] Denzin, N.K., Lincoln, Y.S., 2011. *The Sage Handbook of Qualitative Research*. Sage: Thousand Oaks, CA, USA.
- [52] Creswell, J.W., 2009. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 4th ed. Sage: Thousand Oaks, CA, USA.
- [53] Dörnyei, Z., 2007. *Research Methods in Applied Linguistics: Quantitative, Qualitative, and Mixed Methodologies*. Oxford University Press: Oxford, UK.
- [54] Fraenkel, J.R., Wallen, N.E., Hyun, H.H., 2011. *How to Design and Evaluate Research in Education*, 8th ed. McGraw-Hill: New York, NY, USA.
- [55] Council of Europe, 2021. *Common European Framework of Reference for Languages (CEFR)*. Available from: <https://www.coe.int/en/web/common-european-framework-reference-languages/level-descriptions> (cited 7 February 2025).
- [56] Mackey, A., Gass, S.M., 2015. *Second Language Research: Methodology and Design*. Routledge: New York, NY, USA.
- [57] Dörnyei, Z., Taguchi, T., 2009. *Questionnaires in Second Language Research: Construction, Administration, and Processing*. Routledge: New York, NY, USA.
- [58] Shenton, A.K., 2004. Strategies for Ensuring Trustworthiness in Qualitative Research Projects. *Education for Information*. 22, 63–75.
- [59] Cohen, L., Manion, L., Morrison, K., 2011. *Research Methods in Education*, 7th ed. Routledge: New York, NY, USA.
- [60] Braun, V., Clarke, V., 2006. Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*. 3(2), 77–101. DOI: <https://doi.org/10.1191/1478088706qp063oa>
- [61] Nesrallah, O., Zangana, I.M., 2020. Impact of Social Media in Learning EFL Iraqi Students New Words. *Utopía y Praxis Latinoamericana: Revista Internacional de Filosofía Iberoamericana y Teoría Social*. 25(1), 436–449.
- [62] Tahir, M.H.M., Albakri, I.S.M.A., Adnan, A.H.M., et al., 2020. The Application of Visual Vocabulary for ESL Students' Vocabulary Learning. *Arab World Journal*. 11(2), 323–338.
- [63] Lin, C.C., Yu, Y.C., 2016. Effects of Presentation Modes on Mobile-Assisted Vocabulary Learning and Cognitive Load. *Interactive Learning Environments*. 25(4), 528–542.
- [64] Mompean, J.A., Fouz-González, J., 2016. Twitter-Based EFL Pronunciation Instruction. *Language Learning & Technology*. 20(1), 166–190.
- [65] GhouNane, N., 2019. The Attitudes of Second Year EFL Students at Dr. Moulay Tahar University Towards Learning English Pronunciation Through Mobile Assisted Language. *Arab World English Journal (Special Issue on CALL)*. 5, 110–123.
- [66] Carlson, S., 2005. *The Net Generation Goes to College*. Available from: <https://www.chronicle.com/article/the-net-generation-goes-to-college/> (cited 7 February 2025).
- [67] Kukulska-Hulme, A., 2009. Will Mobile Learning Change Language Learning? *ReCALL*. 21(2), 157–165.
- [68] Pettit, J., Kukulska-Hulme, A., 2007. Going with the Grain: Mobile Devices in Practice. *Australasian Journal of Educational Technology*. 23(1), 17–33. DOI: <https://doi.org/10.14742/ajet.1271>
- [69] Alshalan, K., 2019. Investigating EFL Saudi Students' Vocabulary Improvement in Micro-Blogging on Twitter at Imam University. *Journal of Linguistics and Translation*. 2(2), 18.
- [70] Pérez-Sabater, C., Fleta, M.B.M., 2015. ESP Vocabulary and Social Networking: The Case of Twitter. *Iberica: Revista de la Asociacion Europea de Lenguas para Fines Especificos (AELFE)*. 29, 129–154.
- [71] Khan, I., Ayaz, M., Faheem, M., 2016. The Role of Social Media in Development of English Language Vocabulary at University Level. *Research in Business and Social Sciences*. 6(11), 590–604.
- [72] Nikbakht, E., Boshraadi, A.M., 2015. Analysing the Potential of Social Networking Sites on EFL Learners' Vocabulary Mastery: A Situated-Learning Approach. *Theory and Practice in Language Studies*. 5(8), 1635–1641.
- [73] Sivagnanam, S., Yunus, M.M., 2020. Utilizing Social Media in Vocabulary Enhancement Among Primary ESL Learners. *Universal Journal of Educational Research*. 8(2), 490–498.
- [74] Tran, P., 2016. Training Learners to Use Quizlet Vocabulary Activities on Mobile Phones in Vietnam with Facebook. *JALT CALL Journal*. 12(1), 43–56.
- [75] Zainal, Z., Rahmat, N.H., 2020. Social Media and Its Influence on Vocabulary and Language Learning: A Case Study. *European Journal of Education Studies*. 7(11), 1–18.
- [76] Alrasheedi, S., 2020. The Effect of Social Media Networking Use in EFL Classrooms in Saudi Arabia: An Argumentative Review. *International Journal of English Linguistics*. 10(1), 241–254.
- [77] Blattner, G., Lomicka, L., 2012. Facebook-ing and the Social Generation: A New Era of Language Learning. *Apprentissage des Langues et Systèmes d'Information et de Communication*. 15(1). DOI: <https://doi.org/10.4000/alsic.2413>