

# Investigating EFL Readers' Lexical Problems and Word-Solving Strategies in Foreign Language Reading: An Exploratory Study

Shahad N. Al-Shulayil

Ministry of Education, Riyadh, Saudi Arabia

Tarek A. Alkhaleefah

Department of English Language and Literature, College of Languages and Translation, Al Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia

**Abstract**—Despite the fact that past research on word-solving strategies in various language learning contexts has been extensive over the years, there is still need for more recent empirical research inspecting the types of lexical problems students perceive and report in foreign language reading, and word-attack strategies often deployed to overcome emerging word-level problems in reading tasks. Hence, the aim of this study was to investigate the word-solving strategies Saudi EFL students reported using to overcome lexical problems in English reading texts. To meet this objective, a random sample of 90 Saudi EFL female students in a secondary school participated in this exploratory study. A self-devised word-solving strategy questionnaire and retrospective interviews were administered to collect the study data. The 23-questionnaire items were constructed to measure five main categories of word strategies students perceived using to overcome lexical problems in reading tasks. The study findings revealed that Saudi secondary students used different types of word-solving strategies but at varying levels. Specifically, the study found that social strategies were most frequently used, followed by skipping strategies, support reading strategies, dictionary-use strategies, and word-guessing strategies respectively. Pedagogical implications of the study findings and its recommendations were presented and discussed.

**Index Terms**—lexical problems, word-solving strategies, social strategies, support strategies, word guessing strategies

## I. INTRODUCTION

Indisputably, the abilities to read and comprehend texts effectively can be seen as paramount skills for all language learners. When confronted with textual difficulties, foreign language readers often resort to some reading strategies, or what Hosenfeld (1977) called 'main meaning line' (p. 23) strategies. But when interrupted by lexical problems, these readers repeatedly turn to what Hosenfeld called 'word solving strategies' (p. 27). Previous researchers in foreign language reading (e.g., Alkhaleefah & Demirkan-Jones, 2014; Lau & Chan, 2003; Shokouhi & Askari, 2010) have suggested that low-proficient students tend to use fewer word-solving strategies, which might affect their reading comprehension. Encountering some unknown words might not impede the overall understanding of the text content, but if too many unknown words are encountered, readers' comprehension fluctuates accordingly. What happens then when foreign language readers encounter new words in the text? And how do they react to such lexical difficulties in reading tasks?

Learning new words in the target foreign language is a predominant skill that is continually taught in English language classrooms in public schools. This often involves some effective word-level strategies, involving word-solving tactics to understand the meaning of new words being introduced or taught in language classrooms. In the Saudi educational system, English is taught as a foreign language in public and private schools and colleges. However, lexical problems are amongst the difficulties Saudi EFL students often encounter when reading English texts. Hence, there is still need for research looking into the types of lexical problems students report in foreign language reading tasks and those word-attack strategies they often resort to overcome such problems. Therefore, the aim of the present study was to investigate the lexical problems and word-solving strategies reported by Saudi female secondary school students when reading English texts.

## II. LITERATURE REVIEW

In foreign language reading, previous studies have long proposed varying definitions and taxonomies concerning readers' word-level and text-levels processes, ranging from cognitive strategies, and metacognitive strategies to planning strategies, and socio-affective strategies. In defining word-solving strategies, Hosenfeld (1977), perceived them as operations carried out by foreign language learners when encountering unknown words or phrases in reading texts. These

operations are very important to the extent that they represent an integral part of the reading process. These tactics are part of the reading skills which an efficient foreign language reader should possess to confront barriers of unknown words in a given text. Hence, EFL learners are often instructed to employ effective word-solving strategies to overcome reading problems when encountering new words in reading tasks. These word-solving strategies include, for instance, word pronouncing, word skipping, contextual guessing of a new word, or dictionary-use (Nation & Coady, 1988).

Evidently, many of word-level strategies are often listed in most common taxonomies of reading strategies reported in reading strategy literature, namely global strategies, problem-solving strategies, and support strategies (Karbalaee, 2010; Mokhtari & Reichard, 2002). Whereas *global reading strategies* refer to intentional techniques by which learners set the stage for and monitor the reading act (e.g., having a reading purpose, previewing the text content, etc.), *problem-solving strategies* refer to localized techniques that readers use when problems occur for a deeper understanding of the textual information (e.g., checking for better understanding, guessing the meaning of unknown words, or re-reading). As for *support reading strategies*, learners often use supportive tools to maintain responsiveness to reading (e.g., taking notes, reading aloud, or using a dictionary, etc.) (Young & Oxford, 1997).

Past research on inspecting word-solving strategies during reading tasks in various language learning contexts has been extensive. This line of research has varied in designs and findings being reported in various language learning settings over the years, despite some of the apparent inconsistencies detected in researchers' definitions and classifications of learner strategies when processing texts in reading tasks (e.g., Raihan & Nezami, 2012; AlSeyabi & Tuzlukova, 2015; Alkhaleefah & Demirkan-Jones, 2014). Mokhtar and Rawian (2012), for instance, examined the impact of contextual guessing on Malaysian university students' acquisition of vocabulary knowledge. This study focused on using backward knowledge and linguistic cues as two major guessing strategies. The researchers administered Gu and Johnson's (1996) Vocabulary Learning Questionnaire to 360 university students (aged between 18 to 21 years old) to measure their preference level of guessing strategy as one of the vocabulary learning strategies. Although preferred as their vocabulary learning tactic, students' word guessing strategy did not help them in improving their passive and controlled active vocabulary knowledge.

Using a similar design, Ababneh (2015) investigated word-level strategies used by Jordanian EFL college students to deal with unknown words to find out how the learners recognized new words they faced in reading texts. With 128 male and female students responding to questionnaire items administered, the study results showed that dictionary use and social strategies were used the most. Here, students were found looking up every new word encountered in the text or asking someone else about new words rather than trying to guess their meanings from the context. In contrast, skipping was found to be the least frequently used word solving strategy in students' reading tasks.

In the Saudi context, many studies on inspecting various factors impacting learners' reading strategies have been carried out, wherein strategy-use taxonomies reported involved word-level strategies Saudi EFL readers resorted to when dealing with new words in their reading tasks (Alhaqbani & Riazi, 2012; Alhaysony, 2012; Alkhaleefah, 2017; Baniabdelrahman & Al-Shumaimeri, 2013; Malcolm, 2009; Mart, 2012). For instance, Alesweed (2000) conducted a study on 39 Saudi EFL male freshman undergraduates to examine whether Saudi learners of English might have used different word-solving strategies, such as contextual guessing of words, appealing for assistance, or skipping. The study results showed students using a variety of word-solving strategies: contextual and morphological guessing, appealing for assistance (i.e. asking someone, using the dictionary, and asking each other), and skipping, both before and after word solving strategies instruction. Dictionary-use strategies were the most frequent word solving strategies reported by Saudi EFL learners while contextual guessing of words came second. Alesweed's (2000) study also concluded that learners' frequent use of dictionary was due to their low-proficiency levels, as they were unable to decide whether a target word was important or not. The results demonstrated that both high and low proficiency-level students used only immediate contextual clues to guess unknown words in the text.

In another study, Alhaysony (2012) revealed the types of vocabulary-discovery strategies Saudi EFL students used in an intensive English-language learning context. The data analysis reported that social and skipping strategies were the most used strategy categories, while word guessing and dictionary-use strategies were less frequently used. The results also revealed how the female participants used all the strategies more frequently than males, and that a statistically significant difference in word guessing and skipping strategies used by females was detected. Females also used social and dictionary-use strategies more frequently than males; however, no statistically significant differences were found between skipping strategies and dictionary-use strategies. Similarly, Baniabdelrahman and Al-Shumaimeri (2013) considered the strategies reported by first-year Saudi university students to infer unfamiliar words when engaged in reading English texts. With 240 students (120 males and 120 females) taking a vocabulary test, the study results revealed that the students were incompetent in using the most appropriate strategies in contextual guessing of unknown words and that only few students used a combination of two more strategies to guess new words.

#### A. Statement of the Problem

Since lack of vocabulary knowledge and reading skills often results in reading difficulties, Saudi EFL students in secondary school levels often experience some serious problems in reading comprehension of English texts. Despite the several studies investigating lexical problems in foreign language reading contexts in the Arab world (e.g., Ababneh, 2015; Alkhaleefah, 2017; AlSeyabi & Tuzlukova, 2015; Jafari & Shokrpour, 2012; Mushait, 2004; Raihan & Nezami, 2012), there is still need for research looking into the types of lexical problems students often report in foreign language

reading tasks, as well as those word-attack strategies they perceive deploying to overcome such problems. Therefore, the aim of this study is to investigate the lexical problems and word-solving strategies perceived and reported by Saudi EFL secondary school students. More specifically, given its scope, the study was mainly focused on eliciting the most common lexical strategies in reading tasks: contextual word guessing strategies, dictionary-use strategies, social strategies, skipping strategies, and support reading strategies.

### *B. Purpose and Significance of the Study*

Given our research problem, this study aimed to explore both the lexical problems and word-solving strategies perceived and reported by Saudi secondary school students when engaged in reading English texts. It is our hope that examining the two variables might be beneficial to EFL reading instructors to recognize and assess their learners' lexical strategies used in reading tasks to help them make sense of what they read. This should hopefully lead to some improvement in their students' abilities in not just how to deal with newly confronted words in texts but also in acquiring efficient foreign language (FL) reading skills. Hence, our study sought to answer the following two research questions:

1. What are the most frequent and least frequent word-solving strategies Saudi EFL students report using to overcome lexical problems in FL reading?
2. What perceptions do Saudi EFL students hold on their use of word-solving strategies to deal with lexical difficulties in English texts?

## III. METHOD

### *A. Design*

This study is exploratory in its design aimed at assessing Saudi EFL secondary school students' lexical problems and word-solving strategies in FL reading, an area that has not been fully studied within the Saudi context recently. To answer the study research questions, a mixed method design involving a combination of quantitative and qualitative methods was employed to answer the study research questions.

### *B. Participants*

The sample of our study consisted of 90 Saudi female EFL participants randomly selected from students enrolled in a Saudi secondary school in the second semester of their academic year in Riyadh. The rationale behind our target for secondary school students was due to students' exposure to a variety of English materials they were required to read in their classrooms. These students, whose ages ranged between 16 and 18, had learned English for seven years as a mandatory subject course. All the students shared similar language learning backgrounds, although each class reflected a mixture of high and low English language proficiency (according to their instructors' assessment and tests) but were all senior high school students. The academic records of the participating students for the previous sessions and mid-term exams were considered in our sample screening to ensure sample homogeneity. That is, the participants shared similar language proficiency levels, as revealed in their instructors' grade assessment. At secondary school levels, students study the six-unit *Traveller 1* textbook (Mitchell & Malkogianni, 2019), which covers a mixture of integrated language skills over topics designed to target language learners' interests. Given the minimum necessary sample size in relation to the study variables should be equal to  $50+(8*4)=82$ , our sample out-passed this range. Hence the sample size was determined to be large enough to conduct both simple and multiple correlation and regression analysis using the study data (Green, 1991).

### *C. Instruments*

#### *(a). Questionnaire*

Drawing on several reading strategy-use taxonomies and word-level inventories produced in past research in ESL/EFL contexts (e.g., Al-Nujaidi, 2003; Alkhaleefah & Demirkan-Jones, 2014; Mart, 2012; Mokhtari & Sheorey, 2002; Tavakoli, 2014; Zhang & Wu, 2009), the researchers devised a questionnaire to assess Saudi EFL learners' perceived use of word-solving strategies to deal with emerging lexical difficulties in reading tasks. Constructed around 23 items, the 5-Likert scale questionnaire covered five main word-level categories: 1) nine support strategies, 2) three dictionary-use strategies, 3) six word contextual-guessing strategies, 4) three social strategies, and 5) two skipping strategies (see Appendix A). The questionnaire items covered most of the expected and frequent word-solving strategies used by secondary school students to attack possible reading problems when encountering new words. The participants were requested to tick either "I never or most never do this, I do this only occasionally, I sometimes do this, I usually do this, or I always or almost always do this".

#### *(b). Retrospective Interviews*

Retrospective semi-structured interviews were the second instrument employed in our study. The interview questions were designed to elicit randomly-selected participants' perceptions and attitudes towards reading problems encountered when reading English texts and the perceived frequent word-solving strategies resorted to overcome lexical breakdowns in reading tasks. The retrospective interviews served to accumulate essential qualitative data with the aim of answering the second research question (RQ2) of our study. The interviews questions were constructed around seven main questions:

1) questions about the students' reading experiences in general, 2) problems they often encountered when reading English texts; 3) word-level strategies our students would often resort to when confronted with lexical problems, 4) their dictionary use; 5) how often they used skipping and word guessing strategies; 6) how often they would ask their teachers and classmates about the meaning of unknown words, and 7) what other word-solving strategies they would resort to when encountering unknown words (see Appendix B).

### (c). *Validity and Reliability of Study Instruments*

In research, validity is seen as “[the] extent [in which] the research instrument measures the specific concept accurately” (Kimberlin & Winterstein, 2008, p. 2278). To achieve this, the researchers verified the validity of the two study instruments by providing them to two university professors and two school teachers to assess and comment on the questionnaire items and the retrospective interview questions. Drawing on the feedback and revisions, the researchers revised and refined the questionnaire items and interview questions accordingly. This also involves fine-tuning the translated versions of the study instruments. Specifically, two items were added to the questionnaire and two more items were restated. Furthermore, the semi-structured interviews were verified to ensure that the question items are valid enough to capture students' perceived word-solve strategies deployed in FL reading tasks. Since defined as “[the] extent [in which] the research instrument achieves the same results on repeated trials and how much the questionnaire is reliable” (Kimberlin & Winterstein, 2008, p. 2278), our study aimed to verify its reliability, as well. To fulfill this purpose, we used the Cronbach Alpha factor to assess the questionnaire items and found the reliability scale to be 70.2% as shown in Table 1. Also, a pilot study was conducted on 12 English majors not involved in the main study sample.

TABLE 1  
RELIABILITY STATISTICS OF THE STUDY QUESTIONNAIRE

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | Number of Items |
|------------------|--|-----------------|
| 70.2             | 73.9   | 23              |

As shown in Table 1, the study questionnaire was verifiably reliable and its internal consistency items was computed.

### D. *Data Collection Procedures*

Having obtained permission to conduct our study from the designated secondary school's administration in Riyadh, the researchers began to carry out their main study. First, the female researcher introduced the study, explained the participants' roles in the data collection procedures (after assuring them that their participation was voluntary and their anonymity and confidential information were protected) and provided instructions concerning the questionnaires completion. 90 students took part in the survey and completed the study questionnaire (in Arabic). The participants were allowed enough time to carefully read the items and rate their responses according (as instructed by the female researcher). They were informed to respond to the questionnaire items honestly and accurately. After the data collection stages were completed, the responses were cross-checked and calculated according to the assigned scales. As for the retrospective semi-structured interviews, 20 randomly selected participants were requested to meet individually a week after administering the study questionnaire. Here, the female researcher went on to conduct a 30-minute individual interviews with each of the participants in Arabic.

### E. *Data Analysis*

For the purpose of data analysis and in order to achieve the research objectives, the researchers analyzed the collected data, drawn from the questionnaire, using SPSS (Statistical Package for Social Sciences). For this analysis, several statistical calculations, including means, standard deviations, and Alpha Cronbach tests were employed to explore the Saudi participants' most and least frequent word-solving strategies reported. As for the qualitative analysis of the retrospective interviews, the researchers first transcribed verbatim and coded the interviews according to the aims of the study, guided by responses that signified students' perceived lexical problems and word-solving in reading English texts. This required repeated crossmatching of the subjects' responses to the interview questions.

## IV. RESULTS AND DISCUSSION

### A. *Results of Word Solving Strategies Reported in the Questionnaire*

To answer the first research question (*What are the most frequent and least frequent word-solving strategies Saudi EFL students report using to overcome lexical problems in FL reading?*), our data analysis revealed five main categories of lexical strategies the participants reported using when reading English texts to overcome the lexical problems they faced. These strategies included word guessing strategies; dictionary-use strategies; social strategies; skipping strategies; and support strategies. Here, the researchers used descriptive statistics which included means and standard deviations of each strategy use, and the use of the three strategy categories. The average score of the overall use of the reading strategies (see Table 2) was 2.89. According to Oxford and Burry-Stock (1995), learning strategy usage scores averaging 3.5 - 5.0 are regarded high; 2.5 - 3.4 are designated moderate strategy use; while scores ranging from 1.0 - 2.4 are often assigned as low strategy use (cited in Alhaisoni, 2012).

As shown in Table 2 below, the data demonstrate how Saudi secondary school female students employed different types of word-solving strategies when dealing with unknown words in English texts. These results showed how the participants used word guessing strategies; dictionary-use strategies; social strategies; skipping strategies; and support reading strategies in a sequential order.

TABLE 2  
MEANS AND STANDARD DEVIATIONS OF PARTICIPANTS' WORD-SOLVING STRATEGY-USE CATEGORIES

| Word-solving strategies | N  | Min. | Max. | Mean  | SD   | Rank |
|-------------------------|----|------|------|-------|------|------|
| Social                  | 90 | 1.0  | 5.0  | 3.52  | 0.63 | 1    |
| Skipping                | 90 | 1.7  | 4.3  | 3.28  | 0.75 | 2    |
| Support                 | 90 | 1.7  | 4.5  | 2.78  | 0.56 | 3    |
| Dictionary use          | 90 | 1.7  | 4.7  | 2.61  | 0.70 | 4    |
| Word guessing           | 90 | 1.3  | 5.0  | 2.25  | 0.97 | 5    |
| <b>Total</b>            |    | 7.4  | 23.5 | 14.44 | 3.61 | --   |

Table 2 also shows how Saudi secondary school students employed the five word-solving strategies at different levels. For instance, the data indicate how social strategies came first in use among the investigated word solving strategies adopted by the participants with  $M= 3.52$  and  $SD= 0.63$  followed by skipping strategies with  $M= 3.28$  and  $SD= 0.75$ ; support reading strategies with  $M= 2.78$  and  $SD= 0.56$ ; dictionary use strategies with  $M= 2.61$  and  $SD= 0.70$ ; and finally, word guessing strategies with  $M= 2.25$  and  $SD= 0.97$ .

TABLE 3  
MEANS AND STANDARD DEVIATIONS OF THE QUESTIONNAIRE ITEMS (N=23) ACROSS WORD-SOLVING CATEGORIES

| Category       | Item | Strategy   | N  | Min. | Max. | Mean | SD   |
|----------------|------|--|----|------|------|------|------|
| Support        | 1.   | I pronounce unknown words slowly and carefully to see whether the words can be located in or retrieved from the mental lexicon.        | 90 | 1    | 5    | 2.02 | 0.64 |
|                | 2.   | I repeat unknown words to locate, retrieve or confirm their meaning in my mental lexicon   | 90 | 1    | 5    | 2.36 | 0.87 |
|                | 3.   | I repeat unknown words orally and in writing in order to memorize them.  | 90 | 1    | 5    | 1.81 | 0.53 |
|                | 4.   | I underline or circle information in the text to help me remember important words in the text.   | 90 | 1    | 5    | 3.56 | 0.96 |
|                | 5.   | I focus on the typographic feature of the unknown word (e.g., word written in bold, italicized or underlined) I encounter in the text. | 90 | 1    | 5    | 2.90 | 0.57 |
|                | 6.   | I mark (e.g., circle, highlight or underline) unknown words I encounter in the text.   | 90 | 1    | 5    | 3.56 | 0.96 |
|                | 7.   | I write down unknown words I encounter in the text.  | 90 | 1    | 5    | 3.17 | 0.47 |
|                | 8.   | In my notebook, I record mother tongue equivalent of each important word in the text.  | 90 | 1    | 5    | 3.13 | 0.68 |
|                | 9.   | I use tables and pictures in text to increase my understanding of important words in the text.   | 90 | 1    | 5    | 3.03 | 0.91 |
| Dictionary use | 10.  | I use the dictionary immediately when I encounter unknown words in the text  | 90 | 1    | 5    | 2.97 | 0.69 |
|                | 11.  | I only use the dictionary when I fail to guess the meaning of unknown words from the context   | 90 | 1    | 5    | 2.55 | 0.71 |
|                | 12.  | I only use the dictionary to confirm my previous guess/prediction of unknown words in the text   | 90 | 1    | 5    | 2.31 | 0.38 |
| Word Guessing  | 13.  | I try to guess the meaning of unknown words immediately without looking at the contextual clues  | 90 | 1    | 5    | 2.56 | 0.57 |
|                | 14.  | When I try to remember a word, I remember the sentence in which the word is used   | 90 | 1    | 5    | 2.31 | 0.94 |
|                | 15.  | I try to guess the meaning of unknown words or phrases using clues from the context  | 90 | 1    | 5    | 2.19 | 0.71 |
|                | 16.  | I look for the unknown word's prefix and/or suffix to help me guess the meaning of the word  | 90 | 1    | 5    | 2.05 | 0.56 |
|                | 17.  | I guess the morphological/ grammatical function of the unknown word I encounter in the text  | 90 | 1    | 5    | 1.73 | 0.86 |
|                | 18.  | When I face an unknown word, I check for its L1 cognate  | 90 | 1    | 5    | 1.53 | 0.92 |
| Social         | 19.  | When I ask my teacher about an unknown word, I ask her for an Arabic synonym or antonym  | 90 | 1    | 5    | 3.62 | 0.62 |
|                | 20.  | When I encounter an unknown word in the class, I ask my teacher about its meaning.   | 90 | 1    | 5    | 3.51 | 0.83 |
|                | 21.  | When I ask the teacher about an unknown word, I ask her for an example of its usage.   | 90 | 1    | 5    | 3.43 | 0.59 |
| Skipping       | 22.  | I skip unknown words immediately and continue reading when I encounter them in the text  | 90 | 1    | 5    | 3.56 | 0.96 |
|                | 23.  | I skip unknown words and continue reading when I fail to guess their meanings in the text  | 90 | 1    | 5    | 3.00 | 0.78 |

As shown in Table 3, our results reveal that social strategies are more frequently reported than other categories of word solving strategies ( $M= 3.52$ ,  $SD= 0.63$ ). Of the three social strategies, item 19 (*'When I ask my teacher about an unknown word, I ask her for an Arabic synonym or antonym'*) was more frequently reported with  $M= 3.62$  and  $SD= 0.62$  followed by item 20 with  $M= 3.51$  and  $SD= 0.83$  and item 21 with  $M= 3.43$  and  $SD= 0.59$ . These results show that the study participants relied heavily in getting the translation, meaning or usage of unknown words by asking others, especially their instructors. Here, the participants preferred asking their instructors about the meaning, spelling, or any lexical problems encountered. However, they varied in how they asked their instructors. For instance, they tended to ask their teachers more about the Arabic equivalents of the words they did not know than asking them for the meaning in English and sentences that included the unknown word.

Skipping strategies were found the second most frequent word-solving category being reported in the study questionnaire ( $M= 3.28$ ,  $SD= 0.75$ ). Interestingly, respondents reported skipping unknown words and continue reading on more frequently ( $M= 3.56$ ,  $SD= 0.96$ ) than skipping unknown words when failing to guess their meanings ( $M= 3.00$ ,  $SD= 0.78$ ). This meant that the participants tended to skip unknown words directly more frequently than to word skip after engaging in some contextual word guessing.

As for the support category, Table 3 reveals how this category was, on average, the third most frequently used category by the study participants, with  $M= 2.78$  in total. Statistically, the overall score of the 9-item support reading strategies was moderate with  $M= 2.78$ . Among these strategies, item 5 and item 6 were the most frequent strategies reported ( $M= 3.56$  and  $SD= 0.96$ ), followed by item 7 ( $M= 3.17$  and  $SD= 0.47$ ) and item 8 ( $M= 3.13$  and  $SD= 0.68$ ). This meant that the participants often tended to highlight unknown words and important information, and recorded them in their notebooks with their Arabic meanings understand them.

Interestingly, our results indicated that dictionary-use strategies came fourth among the five word-solving strategy categories. As shown in Table 3, the overall score of the dictionary use strategies was moderate ( $M= 2.61$ ). Of the three items (see Table 3), item 10 was the most frequent word-solving strategy being reported ( $M= 2.97$  and  $SD= 0.69$ ), followed by item 11 ( $M= 2.55$  and  $SD= 0.71$ ) and item 12 ( $M= 2.31$ ,  $SD= 0.38$ ). These results meant that the Saudi female students' use of dictionaries was moderate on average.

Despite being the most important word-solving strategies when dealing with unfamiliar words in a text, word guessing strategies came last as a word-solving category. Here, word-guessing strategies category included six items (see Table 3), of which item 13 (*'I try to guess the meaning of unknown words immediately without looking at the contextual clues'*) came at the top ( $M= 2.56$ ,  $SD= 0.57$ ) while item 18 (*'When I face an unknown word, I check for its L1 cognate'*) was at the bottom of word-guessing strategy ( $M= 1.53$ ,  $SD= 0.92$ ). Overall, this category was shown as the least frequent word-solving strategies being reported by the study respondents ( $M= 2.25$ ,  $SD= 0.97$ ), as shown in Table 3.

Overall, the study results were consistent with findings reported in some past studies (e.g., Ababneh, 2015; Alkhaleefah, 2017; AlSeyabi & Tuzlukova, 2015; Baniabdelrahman & Al-Shumaimeri, 2013; Chen, 2015; Jafari & Shokrpour, 2012; Mushait, 2004; Raihan & Nezami, 2012) which revealed how EFL readers employed some effective word solving strategies to infer the meaning of new words when reading English texts. For instance, Baniabdelrahman and Al-Shumaimeri (2013) found that students preferred asking teachers and classmates about new words in the text due to their incompetence in using the most appropriate strategies in contextual guessing of unknown words. In addition, our study results were in line with findings reported in Alhaysony's (2012) study which revealed a high percentage of social strategies being used over other strategies. O'Malley et al. (1985) also reported that social strategies represented in questioning for clarification, which involved contact with another person for additional information, was the second most frequent strategy after note-taking and word repetition. Consistent findings were also detected in previous study results which found social and support strategies being the most frequently used word solving strategies amongst EFL readers (e.g., Ababneh, 2015; Tavakoli, 2014; Jafari & Shokrpour, 2012).

Interestingly, our study findings revealed how word guessing and dictionary-use strategies came last in the list of most frequent word-solving strategies being reported by the study participants, of whom only few reported using contextual guessing of unknown words. These results confirmed that Saudi secondary school students were less competent in making use of word guessing in reading tasks. Here, our study findings were consistent with those reported in Baniabdelrahman and Al-Shumaimeri's (2013) study which found that the participants were incompetent in using appropriate strategies to effectively guess the meaning of unknown words. Similar results were confirmed by Alhaysony's (2012) study which revealed how the word-guessing strategy was the least frequently used word-solving strategy perceived by Saudi EFL students. However, the results are inconsistent with those reported by Alesweed (2000) who found that dictionary-use was the most frequent used strategy in his study.

### B. Results of the Semi-Structured Interviews

In answering the second research question (*What perceptions do Saudi EFL students hold regarding their use of word-solving strategies to deal with lexical difficulties in English texts?*), the results of the semi-structured interviews (see Appendix B) revealed how 7 participants (35%) being interviewed considered reading English texts a challenging task that required more efforts to infer unfamiliar words and understand what was read. However, when asked about their use of dictionary when encountering new unknown words in the text, most of the participants asserted that they rarely used dictionaries. Evidently, some of the interviewees stated how they experience boredom due to the frequent lookups of unknown words encountered in English texts (*'If I tried to use my dictionary to get the meaning of an unknown word, it*

took me long time in addition I might meet many definitions of one word and I did not know what to choose, which one was meant in the context I read'). While 8 students (40%) affirmed that they would never use dictionaries when reading texts, only 3 students (15%) said that they would sometimes use dictionaries, but only 2 students (10%) responded using their dictionaries all the time to lookup unknown words. However, those students who used dictionaries (particularly electronic and bilingual dictionaries) confirmed that their use of dictionary was not their first option and that they would prefer asking others (e.g., the teacher, a classmate, or a family member) for help. Interestingly, these results are consistent with those drawn from the study questionnaire which demonstrated how dictionary-use strategies came fourth among the five word solving strategies investigated in our study.

When asked about their word skipping (*'Do you often skip words you do not know when reading texts?'*) many participants confirmed that they would often skip new words, particularly when no help was given to them and that they would rather continue reading depending on what they understood from the text. Here, word skipping can be seen strategic to help them find more clues or shift more focus on comprehending the main ideas of the text. However, the amount of word skipping FL readers often resort to varies according to their reading tasks and reading materials. For example, some of the participants stated that they would not skip many words in reading exams and important assignments than in-class reading activities.

Consistent with the quantitative results, some participants stated that they were not interested in word guessing when asked (*'Do you try to guess the meaning of new words from the context? How often? Why?'*). However, seven students (35%) reported that they would engage in some word guessing of new words encountered in reading texts, and only three students (15%) used clues to guess the meaning of unknown words while one student stated breaking newly encountered words into meaningful syllables so as to infer the word's meaning if possible.

Another interview question targeted the participants' use of social word-solving strategies (*'Do you often ask your teacher or classmates about the meaning of new words?'*). Here, all the interviewees agreed that asking others (e.g., a language instructor, a classmate or even a family member) was their first option in comprehending the meaning of unknown words. More specifically, some students preferred asking for the L1 translation of unknown words encountered than for asking their meanings in L2.

Hence, seeking help from others ranked as the most perceived word-solving strategy reported by our Saudi interviewees, a finding that is consistent with the questionnaire results which revealed how social strategies came on top of the five word-solving categories reported in our study. Finally, when asked if they would use any other word strategies to deal with unknown words, the interviewees reported that note-taking while reading, underlining, and highlighting new words and important information are common word strategies they would deploy to help them comprehend and recall text content.

To conclude, our findings revealed how Saudi students processed difficult English words and possibly projected their teachers' methods in teaching them reading skills. In other words, it is plausible to suggest that these students were not trained enough to employ effective strategies, such as using contextual clues to guess the meaning of new words in the text. Our study results indicated how Saudi secondary school preferred to resort to their language instructors, classmates, or someone else to help them overcome lexical and reading problems encountered when reading English texts more than being self-reliant in resorting to other types of word-solving strategies. Furthermore, word skipping and dictionary-use strategies were perceived to be used more frequently than word guessing strategies and were the second most frequently used strategies in our study. These findings revealed how our Saudi students at the tertiary levels tended to skip unknown words because they probably failed to engage in some contextual word guessing. The third most frequently used word solving strategies were support reading strategies. Students reported that they would use some supporting techniques (e.g., marking new words, marking new words in a notebook or with their Arabic translations, using tables and pictures, focusing on the typographic features of the target words, or pronouncing and repeating new words) to help them infer the meanings of unknown words. Also, most of the interview responses indicated, surprisingly, that the students would not often turn to dictionaries to infer meaning of unknown words when they could turn to their instructors for help.

## V. CONCLUSION

### A. Pedagogical Implications of the Study

Based on the findings of our study the researchers drew some important pedagogical implications. First, language instructors need to help their Saudi students develop their foreign language vocabulary knowledge by providing learners with opportunities to infer meaning of unknown words using contextual clues available in texts. Second, since most Saudi EFL learners are often not aware of the wide range of word-level and text-level reading strategies, it is necessary for teachers to raise students' awareness of global strategies available to them, particularly word-solving strategies in reading tasks. Explicit instruction on strategic reading, both in word and text levels, can be efficient and helpful to Saudi students in developing, monitoring, and controlling their reading comprehension skills. This instruction should raise students' awareness of the repertoire of learner strategies available and allow them to use more effective reading strategies when engaged in reading tasks (Nation & Coady, 1988; Gu & Johnson, 1996; Alseweed, 2000, 2005; Zhang & Wu, 2009; Tavakoli, 2014).

But more specifically, the strategic instruction should involve training Saudi EFL learners to use more effective word-solving strategies to infer unknown words since a foreign language reader should possess a sufficient number of English

words to make sense of the text he/she gets to read (Eskey, 2002; Grabe & Stoller, 2001; Walters, 2004). In other words, Saudi EFL learners should be encouraged to employ word-guessing strategies to infer the meanings of new words than to spend a great deal of time memorizing words since they do not need to remember and recall all the words in a passage, as they can infer meaning of unknown words using morphological, syntactic, and discourse clues given in the text. Also, based on the researchers' own experiences as EFL instructors, many Saudi students in schools do not only lack word-guessing strategies when faced with lexical problems in a text but also dictionary-use skills. How frequent Saudi learners should consult their dictionaries should be regulated by some conditions (e.g., how important the meaning of unknown words in the text, how many unknown words not inferred, not being able to use contextual word guessing, etc.) and should be decided and monitored by language learning instructors.

Our study findings also suggest that Saudi EFL learners need be trained to make use of other support strategies available (e.g., highlighting, circling, and/or underlining unknown words encountered in English texts, using tables and pictures to infer word meaning) which should help them increase their reading comprehension. In this respect, English language curricula should be enriched with different types of authentic and interesting reading materials that help match Saudi students' preferences and stimulate their motivation to read some interesting topics in English reading classes.

### B. Limitations and Suggestions for Future Research

Although we consider our study to be one of the most recent studies inspecting EFL students' lexical problems and word-solving strategies within the Saudi tertiary context, it is not without its limitations. First, our participants did not necessarily demonstrate equal levels of language proficiency and probably varied in their language learning and reading abilities (e.g., reading self-efficacy, self-motivation, etc.), which makes it difficult to generalize the study findings. Second, this study was conducted with a small number of Saudi respondents that we were able to participate in the study data collection procedures. Hence, the researchers are cautious not to overgeneralize the study findings to include students from other private and public secondary schools. In addition, the study is limited to females as no male participants were involved in the data collection procedures due to issues of accessibility.

Furthermore, the use of a self-devised questionnaire to measure subjects' perceived use of lexical strategies rather than their actual strategy use (e.g., using concurrent think-aloud reports, for instance) when encountering lexical problems in designed reading tasks is another limitation that should be considered when generalizing the study findings.

Given the limitations of our study, the researchers encourage future research studies in the Saudi context to include a larger sample of Saudi EFL learners with different language and reading ability levels and to consider some other factors (e.g., gender differences, text difficulty, topic familiarity variations, etc.) using different designs (e.g., experimental or quasi-experimental) to investigate the impact of central variables on Saudi EFL learners' use of word-solving strategies and their strategic processing of texts. Also, further studies should also consider conducting research focused on examining the reading and lexical problems Saudi students might probably encounter when reading different text types in English under mixed-method design to deepen our understanding of the various reading problems Saudi learners might face and how they react to these reading difficulties (Alkhaleefah, 2017).

## APPENDIX A. THE STUDY QUESTIONNAIRE (ENGLISH VERSION)

Dear student,

This questionnaire has been designed to gather data for a research project that aims at investigating Saudi secondary school students' lexical problems word-solving strategies when reading English texts. The information you provide will only be used for academic research purposes. After reading each statement, please, put a tick mark (✓) in the blank that is consistent with your personal experience. Please note that there is no right or wrong answer to the statements in this inventory

Name: \_\_\_\_\_

Date: \_\_\_\_\_

| Category | Item | Strategy   |
|----------|------|--|
| Support  | 1.   | I pronounce unknown words slowly and carefully to see whether the words can be located in or retrieved from the mental lexicon.        |
|          | 2.   | I repeat unknown words to locate, retrieve or confirm their meaning in my mental lexicon.  |
|          | 3.   | I repeat unknown words orally and in writing in order to memorize them.  |
|          | 4.   | I underline or circle information in the text to help me remember important words in the text.   |
|          | 5.   | I focus on the typographic feature of the unknown word (e.g., word written in bold, italicized or underlined) I encounter in the text. |
|          | 6.   | I mark (e.g., circle, highlight or underline) unknown words I encounter in the text.   |
|          | 7.   | I write down unknown words I encounter in the text.  |
|          | 8.   | In my notebook, I record mother tongue equivalent of each important word in the text.  |

|                |     |  |
|----------------|-----|--|
|                | 9.  | I use tables and pictures in text to increase my understanding of important words in the text.   |
| Dictionary-use | 10. | I use the dictionary immediately when I encounter unknown words in the text.                     |
|                | 11. | I only use the dictionary when I fail to guess the meaning of unknown words from the context.    |
|                | 12. | I only use the dictionary to confirm my previous guess/prediction of unknown words in the text.  |
| Word Guessing  | 13. | I try to guess the meaning of unknown words immediately without looking at the contextual clues. |
|                | 14. | When I try to remember a word, I remember the sentence in which the word is used.                |
|                | 15. | I try to guess the meaning of unknown words or phrases using clues from the context.             |
|                | 16. | I look for the unknown word's prefix and/or suffix to help me guess the meaning of the word.     |
|                | 17. | I guess the morphological/grammatical function of the unknown word I encounter in the text.      |
|                | 18. | When I face an unknown word, I check for its L1 cognate.   |
| Social         | 19. | When I ask my teacher about an unknown word, I ask her for an Arabic synonym or antonym.         |
|                | 20. | When I encounter an unknown word in the class, I ask my teacher about its meaning.               |
|                | 21. | When I ask the teacher about an unknown word, I ask her for an example of its usage.             |
| Skipping       | 22. | I skip unknown words immediately and continue reading when I encounter them in the text.         |
|                | 23. | I skip unknown words and continue reading when I fail to guess their meanings in the text.       |

#### APPENDIX B. INTERVIEW QUESTIONS (ENGLISH VERSION)

1. Do you like reading English texts? Why?
2. Do you often encounter any problems when you read English texts? If yes, what kind of problems are they?
3. Do you immediately use the dictionary when you don't know the meaning of a new word? What kind of dictionary do you often use? How often? Why?
4. Do you often skip words you do not know when reading texts?
5. Do you try to guess the meaning of new words from the context? How often? Why?
6. Do you ask your instructor/teacher or classmates about the meaning of new words?
7. Do you use any other strategies when you encounter unknown words?

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**Shahad Al-Shulayil** holds a bachelor's degree in English language & literature and a Master's degree in Applied Linguistics from the College of Languages and Translation at Al-Imam Muhammad Ibn Saud Islamic University, Saudi Arabia. Her working experience involves teaching English language skills to young and adults EFL learners in various private and public schools in Riyadh. Over the years, she has completed various training programs and workshops related to active learning, teaching strategies, classroom management, curriculum design, critical thinking, evaluation for teaching improvement, most of which organized by the Saudi Ministry of Education.



**Tarek A. Alkhaleefah** is currently an Assistant Professor of Applied Linguistics in the College of Languages and Translation (CLT) at Al-Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia. With a PhD in Applied Linguistics from University of Essex, UK in 2011, Tarek's doctorate thesis was about investigating Saudi EFL learners' reading problems and strategies in relation to L2 reading proficiency, text types, and reading purposes.

His research interests include reading in a second/foreign language, language learning/learner strategies, individual differences in language learning, and research methods in second language learning. He has published some articles in international journals, such as *Reading Psychology*, *The Reading Matrix*, *International Journal of Applied Linguistics and English Literature*, and *Theory and Practice in Language Studies*. He also co-authored a book chapter in Emery & Moore's (eds.) *Teaching, Learning and Researching Reading in EFL* published by TESOL Arabia

in 2014. He has also been a reviewer for various articles submitted to international journals and publishers, such as *Sage Open Journal*, *English Language Teaching Journal*, *Journal of Research in Reading*, *Advances in Cognitive Psychology*, *Foreign Language Annals*, *Reading in a Foreign Language*, *Cogent Education*, and *Language Teaching Research*. He has also supervised and examined many MA theses over the years.