A Correlational Study of the Relationship between Morphological Awareness and Vocabulary Knowledge of Saudi EFL Learners

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Vocabulary size knowledge is considered as a crucial factor in academic success and it could be enlarged through several ways. The purpose of the present study was to examine the correlation between morphological awareness and vocabulary size knowledge of Saudi participants at King Khalid University. The present study used the correlational research design, which investigates the relationship or correlation between variables. The participants of this study included 67 male students from two sections of Phonology course taught by the researcher. Two research instruments were used to gather the data of this study, Nation's (1990) Vocabulary Level Test and the Morphological Awareness Test adopted from Alsalamah (2011) which was originally developed by Chang, Wagner, Muse, & Chow (2005). The SPSS software (version 18) was used to analyze the data of present study. The results of the study revealed that the students' vocabulary size was within 4.000 words level and 5.000 words level (4686 word families). The results have also showed relatively low performance in the Morphological Awareness Test (i.e. Morphological Structure Test and Morpheme Identification Test). Concerning the correlation between the two variables, the results showed no significant correlation between morphological awareness and vocabulary size.

Key Words: morphological awareness, morphemes, vocabulary, vocabulary knowledge, Saudi EFL learners

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INTRODUCTION

English is considered as the most important means of communication for non-native speakers of English. It is the language of education, technology, science, business, and political dialogues. Thus, English has been taught in Saudi Arabia with a great concern (Al-Nasser, 2015). English occupies a very good status in Saudi Arabia and it is viewed as highly practical, prestige, and opportunistic. Hence, a considerable number of Saudi people are enrolled in English language institutes (Alsaeedi, 2017). Although the education field has been improved in Saudi Arabia, the success of learning English as a foreign language is still unsatisfactory. Alshumaimeri (2003) states "Teachers have pointed out that students leave the secondary stage without the ability to carry out a short conversation"(p. 114). Meaning that, the English proficiency level among Saudi students is still low for many reasons. Al-Seghayer (2014) attributes the low proficiency level of English language among Saudi learners to the curriculum. He claims that EFL curriculum objectives are not derived from students' educational background, schools' constraints, needs analysis, and goals of teaching English.

The prior studies concerned with teaching and learning English indicated that vocabulary is the building block of learning the target language. Learning English is, therefore, dependent on learners' vocabulary size (Al-Masrai & Milton, 2012). Vocabulary is extremely important for teaching English as learners would not be able to express themselves or exchange thoughts without sufficient vocabulary knowledge. It is valuable to measure learners' vocabulary size as it helps teachers to set objectives, design plans, and utilize certain techniques and teaching methods to improve the learners' proficiency level of English language (Alsaeedi, 2017). According to Zimmermann (1997), native speakers of English acquire around 1,000 words every year and they know about 20,000 to 25,000 words before their enrollment to college. This amount of vocabulary size among native speakers is considered huge compared to the vocabulary acquired by non-native speakers of English (Nation, 1993).

Nation (1993) point out that vocabulary knowledge is an important indicator that determines language learning success. As a result, EFL learners need to know about 3,000-word families to understand the target language. The development of vocabulary knowledge can be fostered through various learning strategies such as context analysis strategy, pre-reading vocabulary instruction, and the word analysis strategy. The use of morphological evidence to guess word meaning is one of the effective techniques used to increase vocabulary size among learners (Alsaeedi, 2017). The findings obtained from previous studies have revealed that morphological awareness plays a vital role in L2 vocabulary knowledge. Morphological awareness includes knowing morphemes and its boundaries by dividing compound words into meaningful parts. It also includes the awareness of roots and affixes function and reconstructing new meanings from those meaningful parts. Pica (1988) argues that the analysis of morpheme could provide important ideas about the ranges, procedures, and input related to second language acquisition. Kuo & Anderson (2006) point out that learners with a good knowledge of how words are formed, by integrating suffixes, prefixes, and roots, tends to have larger vocabulary size and better language proficiency.

The present study aimed at examining the correlational relationship between morphological awareness and vocabulary knowledge among Saudi EFL learners.

LITERATURE REVIEW
Vocabulary Learning
Vocabulary is the major part of success in learning a second or a foreign language. Vermeer (2001) emphasizes the importance of vocabulary knowledge in determining learners' language proficiency. The prior studies conducted on this topic have revealed great importance of vocabulary knowledge in learners' language skills (Tschirner, 2004). Laufer & Nation (1995) argue that the learners' lack of adequate knowledge in vocabulary may hinder their improvement in learning a second language. The process of learning vocabulary is challenging as it involves the semantic features of words, their syntactic construction, words' connotations, and their antonyms and synonyms (Nagy & Scott, 1990). Learning vocabulary includes variety of ways in which a child learns L1 vocabulary. These ways include: experiential learning, memorizing, and using words repeatedly.

Experiential learning of vocabulary implies learning through listening or reading of words being used in context. In this case, children develop their vocabulary through their experiences with words (Armbruster, Lehr, and Osborn, 2001). Memorizing involves learning vocabulary by memorizing new words. Learners would easily learn vocabulary if they connect the newly learned words to a familiar image (Levin, Levin, Glasman and Nordwall, 1992). The way of using words repeatedly includes providing students with the necessary practices of the newly introduced words. The practices involve writing newly words with their meanings and repeat them regularly (Long and Rule, 2004). Schmitt (1997) offers learning strategies for improving the vocabulary size of learners. These strategies include: Determination Strategies (DET), Social Strategies (SOC), Memory Strategies (MEM), Cognitive Strategies (COG), and Metacognitive Strategies (MET).

Morphological Awareness
Morphological awareness is defined as the ability to access the meaning and structure of word morphemes. Morphological awareness involves knowledge of inflectional morphology which concerns with the grammatical changes of words (e.g. the –ed in *shared* to refer to the past tense of the action, or –s in *computers* to refer to the plural form of the word base. Derivational morphology includes knowledge of suffixes (e.g. the –ion in *situation* changes the part of speech of the word base- *situate* which is a verb to *situation* which is a noun), prefixes (e.g. the –ir in *irregular* to indicate the antonym of the base word- *regular*), and compounding (e.g. *toothbrush* to create a new word combining the two root morphemes: *tooth* and *brush*).

Kuo & Anderson (2006) point out that morphological awareness has become extremely important predictor of vocabulary size. This awareness contributes to decrypt the morphologically complex words, which is assumed to contribute to vocabulary learning development. Al Farsi (2008) states that "people usually become confused between morphological awareness and morphology acquisition" (p. 13). Morphological awareness refers to the use of metacognitive strategies for showing and manipulating the rules of word formation to get the meaning of newly encountered words without the existence of

communicative context. The acquisition of morphology refers to the cognitive skills to understand and use morphological structure in speech. Thus, morphological awareness is considered as a branch of morphological acquisition.

Anglin (1993) indicates two types of morphological awareness (i.e. Morpheme Identification Awareness and Morphological Structural Awareness). Change et.al. (2005) defined Morpheme Identification Awareness as the ability to distinguish meanings across homophones. For instance, distinguish the meaning of the pronoun "I" and the meaning of the word "eye". It is believed that this aspect of morphological awareness helps learners to distinguish meanings of words with identical sounds, and facilitates language analysis and vocabulary growth (Chang et.al., 2005). Morphological Structure Awareness involves the use of learners' linguistic knowledge to derive new meanings. It also involves language manipulating skills such as generativity and creativity of language (Chang et.al., 2005). The following Morphological Structure Test requires learners to make a novel compound word after they have been given a single sentence scenario:

There's a car that is red in color, we call that red car.
There's a car that is black in color, what do we call it? ——————— (black car)

The learners' knowledge of inflectional morphology could also be assessed in the test by providing a context and then giving an appropriate novel response as shown in the following example:

Khalid is writing an essay. Yesterday he did this. What did he do yesterday?
Yesterday, he _____

Chang et.al. (2005) point out the importance of assessing Morpheme Identification Awareness and Morphological Structure Awareness in demonstrating morphological awareness which in turn foster second language vocabulary acquisition.

Morphological Awareness and Vocabulary Knowledge
As mentioned earlier, morphological awareness is shown as the ability to access the meaning and structure of word morphemes. It also involves knowledge of inflectional and derivational morphemes. The relationship between morphological awareness and vocabulary knowledge is discussed thoroughly in the previous literature. The prior studies revealed the important role of morphological awareness in determining word meaning (Raymond, Matti, & Maria, 2000). Schreuder & Baayen (1995) indicate that morphological awareness fosters word recognition. Al Farsi (2008) argues that the intervention of morphological awareness provides L2 learners with beneficial strategies to tackle the newly encountered words.

Kuo & Anderson (2006) state that morphological awareness involves knowledge about the sound and meaning of words, and the formation rules that guide morphemes combination. For instance, the word wonderful, learners who are morphologically aware can understand that the word contains the root wonder and the suffix –ful. Learners are also able to know the meanings of morphemes, how they are combined to form a new word, and how they are similar to other words ending in –ful, for instance beautiful, helpful, and careful.

McCutchen & Logan (2011) demonstrate that morphologically aware learners are able to correct derivational forms. They also claim that morphological awareness is developed with language experience and age. According to them, "strategic use of morphological analysis may help children acquire new vocabulary and support comprehension" (p. 344).

A number of research (Al-Farsi, 2008; Alsalamah, 2011; Khodadoust, Aliasin, & Khosravi, 2013; Khoshkhoonejad, Khalifelu, & Abdipour, 2016; Alsaeedi, 2017) have been carried out to investigate the relationship between morphological awareness and vocabulary size of EFL learners. Al-Farsi (2008) studies the relationship between morphological awareness and vocabulary size of Omani EFL learners. The participants of this study included 54 Omani EFL learners who were studying in an English Intensive Program (EIP) at *Ibri College of Applied Sciences*. The researcher used Chang's et.al. (2005) test of morphological awareness which measures both synthetic and analytic aspects of morphological knowledge. The results revealed that vocabulary size and morphological knowledge of those students were limited and therefore, the relationship between the two variables could not be established. The researcher recommended replicated studies on this topic to get more insights and understanding concerning such relationship.

Alsalamah (2011) examined the relationship between morphological awareness and vocabulary size of Saudi female students at King Saud University. The respondents of this study involved 89 female students who were studying Translation at the university. The instruments of this study included two tests to measure the variables (i.e. Vocabulary Size Test and Morphological Awareness Test). The researcher adopted the vocabulary size test developed by (Nation & Beglar, 2007), while the morphological awareness test has been adopted from (Chang et.al, 2005). The results of this study showed that the level of morphological awareness among the students was relatively low. The results also revealed that there was no statistically significant correlation between vocabulary size and morphological awareness. Khodadoust, Aliasin, & Khosravi, (2012) investigated the relationship between morphological awareness and receptive vocabulary knowledge of Iranian university students. The participants of this study contained 86 undergraduate students majoring in English Translation at Zanjan University. To determine the knowledge of vocabulary, Nation's (1990) Vocabulary Level Test (VLT) was used; to assess the students' morphological awareness, two morphological tasks were administered (i.e. morphological structure test and morpheme identification task). The findings of this study indicated a statistically significant relationship between vocabulary knowledge and morphological awareness. The researchers argued that morphological awareness can be used as a vocabulary learning strategy in learning second or foreign language vocabulary.

Khoshkhoonejad, Khalifelu, & Abdipour, (2016) examined the effect of morphological instruction on vocabulary learning of Iranian secondary school students. The participants of this study included 60 students (30 in control group and 30 in experimental group). The researchers used two tests (pre-test and post-test) which measure the students' knowledge of morphological analysis. The results of this study revealed that the experimental group surpassed the control group in guessing meanings of complex words. The researchers recommended that the instruction of morphological analysis can be an effective way for enhancing the level of vocabulary size of EFL learners. Most recently,

Alsaeedi (2017) examined the effectiveness of morphology instruction on Saudi EFL students' vocabulary knowledge and morphological awareness. The participants of this study included 60 students (30 in control group and 30 in experimental group). Two tests were administered to students to examine the relationship between the two variables. The New Vocabulary Level Test adopted from McLean, Kramer & Beglar (2015) was used to measure the vocabulary knowledge among students. The Morphological Awareness Test (the morphological structure and morpheme identification test) adopted from Chang et.al (2005) was used measure the morphological awareness among the students. The findings indicated that morphology instruction had a positive effect on students' morphological vocabulary knowledge and morphological awareness. In addition, there were statistically significant differences between the control group and experimental group in the pre-and post-tests scores of vocabulary knowledge and morphological awareness.

It can be noticed through the extensive review of literature that many studies dealt with morphological awareness and its relationship with vocabulary knowledge size have been conducted variously in terms of objectives of the study, target sample, different factors or variables, and methods of gathering information. Concerning the objectives of the previous studies dealing with such relationship, it can be seen that the main purpose of most prior studies were to explore or investigate the relationship between morphological awareness and vocabulary knowledge size. In respect of the participants of previous studies, the subjects were chosen from secondary schools or universities, but most of the participants of past works were tertiary level students studying at colleges or universities. Some of the studies have examined the effect of explicit instruction of morphology on increasing the level of vocabulary knowledge of learners. This could be a very important variable but it will not be the focus of the present study; this study focuses on the correlation between morphological awareness and vocabulary knowledge size of Saudi EFL learners. With regard to the research instruments used to gather data, it can be noticed that all researchers have used two tests for that purpose. Vocabulary Level Test was used to measure the students' vocabulary size and The Morphological Awareness Test (the morphological structure and morpheme identification test) was used measure the morphological awareness among the students. The present study will also use two tests; one to measure the vocabulary knowledge size and the other to measure the morphological awareness among Saudi EFL learners. The details of both tests will be presented in the methodology section of this study.

RESEARCH QUESTIONS

The main objective of the present study is to examine the relationship between morphological awareness and vocabulary knowledge of Saudi students at King Khalid University. To give answers for this objective, the present study poses the following research questions:

1. What is the level of vocabulary knowledge do Saudi students at King Khalid University possess?
2. What is the level of morphological awareness that Saudi students at King Khalid University possess?

3. Is there statistically significant correlation between morphological awareness and vocabulary knowledge of Saudi students at King Khalid University?

METHODOLOGY
Research Design
The correlational design has been adopted in the present study as it examines the relationship between two variables (i.e. Morphological Awareness and Vocabulary Knowledge). Creswell (2014) points out that correlational design is used to measure the association degree between two variables or set of scores. Meaning that, researchers do not intend to manipulate the variables, but they correlate results of two or more scores.

Participants
The participants of the present study included 67 English-majored students enrolled in two sections of Phonology Course. The first section included 36 students and the second section was 31 students. All participants were native speakers of Arabic and they all belong to the Faculty of Languages and Translation at King Khalid University. The participants were all male students since the educational system in Saudi Arabia is divided by gender. Although students from both genders belong to the same university, female and male students are segregated and taught by instructors from the same gender. The participants have studied English as a foreign language for six years at before enrolling in university programs.

Instrumentation
The present study employed two research instruments to give answers to the research questions. The two research instruments were the Vocabulary Level Test developed by Nation (1990) and the Morphological Awareness Test adopted from Alsalamah (2011) which was originally developed by Chang et.al (2005).

The Vocabulary Level Test
The first instrument used in the present study was the Nation's (1990) Vocabulary Level Test (VLT). This test was administered to measure the students' vocabulary size; it was chosen as it was widely used in the prior studies and it is also easy to administer, score, and interpret. This test includes five frequency levels: the 2.000-word level, the 3.000-word level, the 5.000-word level, the 10.000-word level along with the academic word level. Nation (1990) states that 2.000 and the 3.000-word levels include the high frequency words needed to communicate effectively in English, while the 5.000-word level stands between the low and high frequency word levels. The 10.000-word level includes the low frequency words in English language; this level was not included in the present study because it is believed they are beyond the proficiency level of the students. The academic word level contains specialized vocabulary that students need for their academic disciplines. The present version of VLT contains 10 clusters at each level where each cluster contains six words and three definitions. The participants are requested to match the definitions on the right in each cluster with the corresponding words on the left. The participants took around 60 minutes to answer all questions of the VLT. Schmitt, Schmitt & Clapham (2001) measures the reliability of the VLT and reported reliability coefficients ranging from .92

to.96 for different sections. To ensure the VLT reliability, the researcher measures the reliability coefficient for the test after collecting the data of the study. The Cronbach Alpha value reveals reliability index of .94 which implies a good reliability index of the test.

Morphological Awareness Test
The second research instrument used in this study was Morphological adopted from Alsalamah (2011) which was originally developed by Chang et.al (2005).This test consists of two parts: Morphological Structure Test and Morphemes Identification Test.

Morphological Structure Test
This part of Morphological Awareness test measures the students' ability to create new words using different morphemes. For instance, several morphemes could be attached to the word *wonder*, such as *wonderful*, *wonders*, and *wondering*. This test was developed by Chang et. al (2005) to measure the awareness of morphemes of children in kindergarten and second grade. Alsalamah (2011) adapted this test and made certain modifications to measure the morphological awareness of adult learners. Therefore, the present study adopted the test used by Alsalamah (2011) since it suits the objective of the study. The adopted test contained ten items where each item included a frame sentence in which the inflected word was embedded. For example, the teacher states "*we can see the sun coming up in the early morning and this is called sunrise. What do we call the moon when it comes up at night?*" The correct answer for this scenario is *moonrise*. The students were requested to give answers to 10 scenarios similar to the one mentioned earlier.

Morphemes Identification Test
The second part of Morphological Awareness Test was Morpheme Identification Test. This test was developed to measure the students' " *ability to analyze and break down complex words into smaller meaningful parts*" (Chang et.al, 2005). The original test included 13 items where each item is orally labeled two pictures and then, the students are provided a word or phrase containing the target morpheme; the students are then asked to select the picture that corresponds to the morpheme meaning. To measure the students' ability in this part, the researcher used the modified test of Alsalamah (2011). This version would be more appropriate for tertiary students; it contains ten complex words and the students are asked to break down the words into small meaningful chunks and then give the meaning for each part.

Procedures
The researcher prepared the two parts of Morphological Awareness Test and made sure of any missing item or information. The researcher visited the classes himself and he informed the students about the objectives of the study and asked for their permission to conduct both test. The students have been informed that their participation in these tests would not affect their marks in the course. The researcher provided brief instructions about the way of taking the tests. Any inquiry regarding the test taking has been answered before administering the tests. After the instructions, both tests were administered and the students were encourages to ask questions regarding the process during the test. There was no time limit; the

researcher collected the papers from students after they all finished answering the questions of both tests.

Data Analysis

Different statistical functions have been employed to answer the questions of the present study. To answer the first question of this study, descriptive statistics were used to find out the vocabulary size knowledge of students in both sections. For the second research question, the researcher has also used descriptive statistics to investigate the students' level in Morphological Structure Test and Morpheme Identification Test. With regard to the third research question, Pearson Correlation Coefficient has been used to examine the relationship between vocabulary size knowledge and Morphological Structure Test, and between vocabulary size knowledge and Morpheme Identification Test.

RESULTS AND DISCUSSION

This section presents the results obtained from this study. The results will be presented based on the research questions of the present study.

Vocabulary Size Test

This section presents the results obtained to give answers for the first research question: *What is the level of vocabulary knowledge do Saudi students at King Khalid University possess?* To answer this question, descriptive statistics were calculated to find out the size of vocabulary knowledge. The test contains 10 clusters at each level where each cluster contains six words and three definitions. The participants are requested to match the definitions on the right in each cluster with the corresponding words on the left. The total number of possible score in each level is 30 points. Descriptive statistics of the four sections of the vocabulary size test are shown in Table 1.

Table 1: Descriptive Statistics of the Vocabulary Size Test

	N	Minimum	Maximum	Mean	Std. Deviation
Level2000	67	7.00	29.00	17.82	5.50
Level3000	67	6.00	27.00	14.97	5.27
Level5000	67	4.00	24.00	12.01	5.34
Academic	67	4.00	26.00	15.70	5.01

As shown in Table (1), each level of the VLT has been calculated out of 30. The mean score of students at the first level (2.000 words level) was moderate ($M= 17.82$, *SD*. 5.50). To estimate the vocabulary size of students at this level, the mean score was multiplied by 2.000 divided by 30. Meaning that the vocabulary size of students at this level was 1188 word families ($17.82 \times 2000 \div 30 = 1188$). The mean score of students at the 3.000 words level was ($M= 14.97$, *SD*. 5.27), and the vocabulary size estimate of students at this level is ($14.97 \times 3000 \div 30 = 1497$ word families). Regarding the 5.000 words level, the mean score of students at this level was ($M= 12.01$, *SD*. 5.34) which implies a vocabulary size of ($12.01 \times 5000 \div 30 = 2001$ word families). The mean score of the students at the academic word list was ($M= 15.70$, *SD*. 5.01) and this indicates moderate knowledge of academic

word that students need to success in their academic disciplines. The researcher calculated the overall vocabulary size knowledge of students, and it was found that the overall size was (1188+1497+2001= 4686 word families). Nation (2001) states that students need to know 90% of the vocabulary at the 2.000 word level to understand 90-95% of reading texts.

The students vocabulary size was far away from this level (1188 word families), which means that students could cover only 59.1% of reading texts. Luppescu & Day (1993) point out that students with high vocabulary size are said to be proficient readers. The results obtained from this study revealed that the students are considered as low academic achievers or inadequate readers. The students' level of academic words provides a clear indication of their academic achievement. In this study, the students reported knowledge of only 50% of words at this level. Laufer (1989) emphasizes the importance of academic words list in understanding reading texts at tertiary level. The participants of the present study may face difficulties in understanding college readings due to their limited vocabulary knowledge that was revealed in this study. Therefore, the students' exposure in academic readings is essential; the students should be involved in vocabulary learning strategies in order to enlarge their vocabulary size and deal with the newly introduced words (Graves, 2004).

Morphological Awareness
This section illustrates the results of the second research question: *What is the level of morphological awareness that Saudi students at King Khalid University possess?* The Morphological Awareness Test with its two parts (i.e. Morphological Structure Test and Morpheme Identification Test) was administered to measure the students' morphological awareness. Descriptive statistics including mean and Std. deviation of this question are illustrated in Table 2.

Table 2: Descriptive Statistics of the Morphological Awareness Test

	N	Minimum	Maximum	Mean	Percentage	Std. Deviation
MST	67	1.00	9.00	6.89	68.9	2.18
MIT	67	1.00	9.00	6.23	62.3	2.43
MA	67	2.00	16.00	13.12	65.6	4.64
Valid N (listwise)	67					

As revealed in Table (2), each part of the Morphological Awareness Test has been calculated out of 10 points and then, the overall awareness has also been calculated. The mean score of the overall Morphological Awareness Test as reported by the students was (*M*= 13.12, *SD*= 4.64, 65.6%). The mean score of the awareness in the Morphological Structure Test was (*M*= 6.89, *SD*= 2.18, 68.9%); while the mean score of the awareness in the Morpheme Identification Test was (*M*= 6.23, *SD*= 2.43, 62.3%). The students scored better in the Morphological Structure Test (68.9%) than they do in the Morpheme Identification Test (62.3%). The results revealed that the overall of students' Morphological

Awareness was relatively low (65.6%). Chang et.al (2005) indicate that 'morphological awareness was good predictor of vocabulary knowledge' (p. 428).

The participants of this study higher ability in reflecting and manipulating the structure of words than identifying word morphemes. For example, the students faced difficulties in identifying the morphemes of the word *oxen*; they did not know that this word is the plural form of *ox*. This implies the students' limited ability to identify the irregular plural form of words. One of the reasons of the students' higher performance in the Morphological Structure Test is that the test was given to adult learners than school children. Adult learners have more developed cognitive skills and they may perform better in problem-solving tasks, which are positively appeared in the students' mean scores. The students' low ability in identifying morphemes could be attributed to their language proficiency; students may have faced difficulties in recognizing derivational and inflectional morphemes of words due to their low English proficiency level (Alsalamah, 2011). Morphological awareness is said to be related to many language skills such as reading comprehension and vocabulary growth (Qian, 2002), and spelling (Bear, Invernizzi, Templeton, & Johnston, 2008). Carlisle & Stone (2003) have also emphasized the importance role of morphological awareness in getting the meanings of complex words. The students' low performance in this test suggests an urgent explicit instruction of morphological units to enable them enlarge their vocabulary size, which, in turn, leads to successful academic achievement.

The Relationship between Morphological Awareness and Vocabulary Size
This section presents the results obtained to answer the third research question: *Is there statistically significant correlation between morphological awareness and vocabulary knowledge of Saudi students at King Khalid University?* For this purpose, Pearson Correlation Coefficients were employed to examine the correlation between the vocabulary size of students and their Morphological Awareness in the two parts: Morphological Structure and Morpheme Identification as shown in Table 3.

Table 3: Correlation between Morphological Awareness and Vocabulary Size

	MST		MIT	
	r	**Sig**	*r*	**Sig**
Level2000	.241	.050	.063	.611
Level3000	.160	.195	.088	.479
Level5000	.020	.875	.031	.802
Academic Words	.071	.568	.187	.130

As revealed in Table 3, there was no significant correlation between morphological awareness and each level of the vocabulary size test at .05 levels. Concerning the relationship between Morphological Structure Test and Vocabulary Size Test, the results showed no significant correlation between the two variables (level2000, $r = .241$, $p = .05$; level3000, $r = .160$, $p = .195$; level5000, $r = .020$, $p = .875$; academic words, $r = .071$, $p = .568$). There was also no significant correlation between the Morpheme Identification Test and Vocabulary Size Test (level2000, $r = .063$, $p = .611$; level3000, $r = .088$, $p = .479$; level5000, $r = .031$, $p = .802$; academic words, $r = .187$, $p = .130$). To conclude, the results

of the present study revealed that the level of students' morphological knowledge and their vocabulary size were weak and limited. These results are inconsistent with the findings of (Khodadoust, Aliasin, & Khosravi, 2012; Chang et.al, 2005; Singson, Mahony, & Mann, 2000) who found significant correlation between morphological awareness and vocabulary size knowledge. The absence of the correlation between the two variables of this study could be attributed to several reasons. The difficulty of vocabulary size test would have been contributed to the failure of finding such a relationship. In other words, the difficulty of the words in that test increase as the levels increase, which may have, in turn, affect the students' scores and the relationship between the two variables as well. In addition, the modifications that have been made on the Morphological Awareness Test might have affected such a relationship. The original test developed by Chang et.al. (2005) was originally used to measure the morphological awareness for primary school students. The researcher adopted the modified version made by Alsalamah (2011) who modified this test to suit adult learners. The original test consisted of 13 items with two pictures presented to school students. An experimented should label the pictures to students orally; but in this study, students were requested to combine morphemes in a new way following the pattern presented in the sentence frame. These modifications and the new way of morpheme combination might have affected the students' achievement in this test (Alsalamah, 2011).

CONCLUSION
The present study examined the correlational relationship between morphological awareness and vocabulary size knowledge of Saudi EFL learners at King Khalid University. The results revealed that the students overall vocabulary size was (4686 word families) which falls within the 2.000 words level. The results have also revealed that the students' performance in the Morphological Awareness Test was relatively low (65.6%) with better performance in Morphological Structure Test than Morpheme Identification Test. There was no significant correlation between morphological awareness and vocabulary size of students due to some reasons explained in the discussion section. The results of this study imply an urgent need to include explicit teaching of morphological knowledge and vocabulary learning strategies which may help students to enlarge their vocabulary knowledge. In addition, there is a need to introduce students with Academic Word List (AWL) provided by Coxhead (2000) since students are liable to face academic words in their study and this would assist students to comprehend their course contents, which, in turn, leads to academic success. The participants of this study included only 67 students enrolled in two sections of Phonology taught by the researcher himself. Therefore, it is extremely important to conduct more studies investigating the relationship between morphological awareness and vocabulary size with a larger study sample. It would also be beneficial to conduct more studies examining such relationship among students from other colleges (i.e. non-English majored students), and include some variables which might affect the presence of this relationship such as gender, academic major, and study level.

REFERENCES

Al Farsi, B.(2008). *Morphological awareness and its relationship to vocabulary knowledge and morphological complexity among Omani EFL university students.* Unpublished Master's thesis, University of Queensland, St Lucia, Australia.

Al-Nasser, A. S. (2015). Problems of English language acquisition in Saudi Arabia: An exploratory-cum-remedial study. *Theory & Practice In Language Studies, 5*(8), 1612-1619.

Alsaeedi, W. A. (2017). *The Role of Morphological Awareness in Vocabulary Acquisition in English of Saudi EFL Learners* (Master's thesis). Seattle Pacific University. Retrieved from https://digitalcommons.spu.edu/tesol_etd/1/

Alsalamah, N. (2011). *The relationship between morphological awareness and English vocabulary acquisition of Saudi female students at King Saud University* (Master's thesis). The University of WISCONSIL, USA Retrieved from https://minds.wisconsin.edu/handle/1793/61500

Al-Seghayer, K. (2014). The four most common constraints affecting English teaching in Saudi Arabia. *International Journal of English Linguistics*, *4*(5), 17-23.

Al-Shumaimeri, Y. A. N. (2003). *A study of classroom exposure to oral pedagogic tasks in relation to the motivation and performance of Saudi secondary learners of English in a context of potential curriculum reform* (Unpublished doctoral dissertation), University of Leeds, UK.

Anglin, J. M. (1993). Vocabulary development: A morphological analysis. *Monographs of the Society for Research in Child Development, 58*(10), 1–166.

Armbruster, B. B., Lehr, F., Osborn, J. (2001). *Put reading first*. Washington, DC: National Institute for Literacy.

Bear, D.R., Invernizzi, M., Tempelton, S., and Johnston, F. (2008). *Words Their Way:Word Study for phonics, vocabulary, and spelling instruction (4th edition).* Upper Saddler River, NJ: Pearson Prentice Hall.

Carlisle, J. F & Stone, C. A. (2003). The effect of morphological structure on children's reading derived words in English. In E. M. Assink, & D. Sandra. (Eds). (2003). *Reading complex words: cross- language studies* (27- 52). New York: Kluwer Academic/ Plenum Publishers.

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches (4th ed.).* London: Sage Publications Ltd.

Coxhead, A. (2000). A new academic word list. *TESOL Quarterly, 34*, 213-238. Averil Coxhead's website: http://language.massey.ac.nz/staff/awl/index.shtml

Graves, M.F. (2004). Teaching prefixes: as good as it gets. In J.F. Baumann & E.J. Kame'enui (Eds.), *Vocabulary instruction: Research to practice* (81-99). New York: Guilford.

Khodadoust, E., Aliasin, S. H., & Khosravi, R. (2013). The relationship between morphological awareness and receptive vocabulary knowledge of Iranian EFL learners. *International Journal of Educational Research and Technology*, *4*(1), 60-67.

Khoshkhoonejad, A., Khalifelu, S. F., & Abdipour, S. (2016). Exploring the Effect of Morphological Instruction on Vocabulary Learning among Iranian EFL Learners. *Journal of Education and Learning*, *10*(2), 151-158.

Ku, Y-M., & Anderson, R. C. (2003). Development of morphological awareness in Chinese and English. *Reading and Writing: An Interdisciplinary Journal*, *16*, 399- 422.

Laufer, B. (1989). What percentage of text-lexis is essential for comprehension? In C. Lauren & M. Nordman (Eds.). *Special language: Form human thinking to thinking machines* (316-323) Clevedon: Multilingual Matters.

Laufer, B., & Nation, P. (1995). Vocabulary size and use: Lexical richness in L2 written production, *Applied Linguistics*, *16*(3), 307-322.

Levin, J. R., Levin, M. E., Glasman, L. D., & .Nordwall, M. B. (1992). Mnemonic vocabulary instruction: Additional effectiveness evidence. *Contemporary Educational Psychology, 17*, 156-174.

Long, D., & Rule, A. C. (2004). Learning vocabulary through morpheme word family object boxes. *Journal of Authentic Learning, 1*, 40-50.

Luppescu, S., & Day, R. R. (1993). Reading, dictionaries, and vocabulary learning. *Language Learning, 43*, 263-287.

Mc-Bride-Chang, C., Wagner, R. K., Muse, A., Chow, B. W, & Shu, H. (2005). The role of morphological awareness in children"s vocabulary acquisition in English. *Applied Psycholinguistics*, *26*(3), 415- 435.

Mccutchen, D. and B. Logan (2011). Inside incidental word learning: Children's strategic use of morphological information to infer word meanings. *Reading Research Quarterly*. *46*(4), 334-349.

McLean, S., Kramer, B., & Beglar, D. (2015). The creation and validation of a listening vocabulary levels test. *Language Teaching Research*, *19*(6), 741-760.

Milton, J. (2012). The vocabulary knowledge of university students in Saudi Arabia. *Perspectives TESOL Arabia*.

Nagy, W. E., & Scott, J. A. (1990). Word Schemas: expectation about the form and meaning of new words. *Cognition and Instruction, 7*(2), 105- 127.

Nation, P. (1990). *Teaching and learning vocabulary.* Boston: Heinle & Heinle.

Nation, P. (1993). Vocabulary size, growth and use. In R. Schreuder & B. Weltens (Eds.), The *bilingual lexicon* (pp. 115-134), Philadelphia: John Benjamins Publishing Company. Retrieved from http://www.ebrary.com

Nation, P. (2001). *Learning vocabulary in another language.* Cambridge: Cambridge University Press.

Pica, T. (1988). Interlanguage adjustments as outcome of NS-NNS negotiated interaction. *Language Learning, 38*(1), 45-73.

Qian, D. D. (2002). Investigating the relationship between vocabulary knowledge and academic reading performance: An assessment perspective. *Language Learning, 52*(3), 513–536.

Raymond, B., Matti, L., & Maria, V. K. (2000). The role of derivational morphology in vocabulary acquisition: get by with little help from my morpheme friends. *Scandinavian Journal of Psychology*, 41 (4), 287- 296.

Schmitt, N. (1997). Vocabulary Learning Strategies. In D. N. Schmitt, & M. McCarthy (Eds.), *Vocabulary: Description, Acquisition and Pedagogy* (pp. 199-227). Cambridge: Cambridge University Press.

Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behavior of two new versions of the Vocabulary Levels Test. *Language Testing, 18*(1), 55-88.

Schreuder, R., & Baayan, R. H. (1995). Modelling morphological processing. In L. B. Feldman (Ed.), *Morphological aspects of language processing* (131– 154). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Singson, M., Mahony, D., & Mann, V. (2000). The relation between reading ability and morphological skills: evidence from derivational suffixes. *Reading and Writing: An Interdisciplinary Journal*, *21*, 219- 252.

Tschirner, E. (2004). Breadth of vocabulary and advanced English study: An empirical investigation. *Electronic Journal of Foreign Language Teaching*, *1*(1), 27-39.

Vermeer, A. (2001). Breadth and depth of vocabulary in relation to L1/L2 acquisition and frequency of Input. *Applied Psycholinguistics*, *22*(2), 217-234.

Zimmerman, C. B. (1997). Do reading and interactive vocabulary instruction make a difference? An Empirical Study. *TESOL Quarterly, 31*(1), 121-140.