Impact of Morphological Awareness on Vocabulary Knowledge of Libyan EFL Students

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ABSTRACT

The purpose of this study is to see how morphological awareness affects vocabulary knowledge among EFL Libyan University students. The participants are ten BA students from Sebha University at Zaweelah College of Education who are specialized in English as a Foreign Language. The data for this study was gathered using two Morphological Awareness Tests. Pre-test was given to students at the beginning of the study before the treatment. After that, morphological lessons are given for two weeks as a treatment instead of normal vocabulary instruction. A post-test was administered to the same participants at a later time to assess the impact of morphological instruction on vocabulary expansion. After collecting and analyzing the data, it was found that students who receive morphological treatments as morphemes and other morphological parts are better than those who take normal vocabulary instruction. As a result, this study recommends that L2 vocabulary instruction classes incorporate teaching morphological awareness as a means of understanding and practicing vocabulary. The findings are expected to provide more useful pedagogical recommendations for improving vocabulary learning at the university level.

Keywords: Morphological Awareness, Vocabulary Instruction, EFL, Libyan Learners, L2

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1. Introduction

It cannot be denied that vocabulary knowledge is an essential component of any FL/SL language teaching and learning program, as well as first language acquisition. As Akbulut (2017) proposes, vocabulary knowledge plays a major role in terms of the educational development, literature, Second Language Learning and also in everyday life. Having poor vocabulary can hinder the students to be good speakers, readers, writers and listeners of the English language. This also can result in a poor academic achievement for students. As a result, learning and teaching vocabulary is considered as a key activity in a Second language classroom.

One strategy in which vocabulary learning can be fostered is through morphological instruction. In this regard, many researchers suggest using morphological cues to understand the meaning of words for learning English as a foreign language. Rabadi (2019), for example, agrees that morphological awareness can be an essential approach for vocabulary learning and it can help to increase the vocabulary size of English language learners. According to Venezky (1999), learning vocabulary can be easily achieved if it is linked directly to recognizing the pronunciation (phonology) and word complexity (morphology). He also describes English as a morphological language because of its direct relation to phonology and morphology.

Morphological awareness is expected to help learners to learn morphemes and morphemic boundaries by disassembling complex words into meaningful parts. Accordingly, this study aimed to determine the effectiveness of studying and understanding morphological terminology for the vocabulary size of students.

1.1. Problem of the study

Many students do not know that they can get the meaning of words when they use the knowledge of word formation rules. EFL students find it difficult to derive words from free morphemes "the root". Many students, for example, find it difficult to generalize the words ending in "er" suffix to
deduce the doer of an action like 'play' 'player'. The students' inability to acquire vocabulary could be attributed to a lack of understanding of morphological rules. The problem is that most teachers continue to rely on traditional vocabulary practice and do not employ morphological awareness to help students develop their ways of learning vocabulary. Traditional vocabulary instruction is ineffective in some cases because students are still unable to predict and analyze the meaning of new vocabulary items. The students' limited vocabulary is frustrating and can obstruct their overall learning of English.

1.2 Research Objectives

This study aims to:

a) Investigate to what extent the EFL Libyan students can enhance their vocabulary use and practice by knowing the rules of morphology as the meanings of roots, affixes (prefixes and suffixes).

b) Know whether the morphological awareness have a direct relationship on vocabulary size of EFL Libyan students or not.

c) Help EFL Libyan students to develop the ways of analyzing words morphologically in order to enhance the ability to know the meaning of words automatically.

d) Help to investigate particularly the students' ability to deal with morphologically complex words in L2 learning.

1.3 Research Question

This study seeks to answer the following question: "To what extent can morphological awareness help Libyan learners in developing and enhancing their growth of English language vocabulary?"

1.4 Research Hypothesis

It is hypothesized that the Libyan EFL learners can develop their knowledge of vocabulary from generalization process through the knowledge of morphemes. It is also argued that if students know more about rules like different morphemes or Affixation, they will be better in terms of decoding word meaning which forms a fundamental aspect in English learning.

2. Literature review

2.1 Morphology and Morphemes

Johann Wolfgang von Goethe, a German poet, novelist, dramatist, and philosopher, invented the term morphology in a biological context at the beginning of the nineteenth century (Aronoff and Fudeman, 2010). The term morphology comes from the Greek words 'morphē', which means 'form or shape,' and logos, which means 'science', resulting in the phrase 'the science that studies the form or forms'. This term is used by biologists to refer to the study of organism shape and structure, while geologists use it to refer to the study of land form configuration and evolution (Oz, 2013). Morphology in linguistics refers to the study of words, their internal structure, and the mental process involved in word generation (Aronoff and Fudeman, 2011).

Traditionally, a word can be divided into the smallest linguistic elements that have meanings or grammatical functions (i.e., morphemes). Morphemes, according to Yule (2010), are the minimal units of meaning or grammatical function that are used to generate new words. These units of meaning consist of forms like 'play', and the minimal units of grammatical function include markers used to denote plural or present tense. For instance, the word 'players' includes three morphemes; play-er-s. Morphemes can be free and bound. A free morpheme can stand on its own as an independent, single word, for example teach and collect. However, a bound morpheme cannot normally exist on its own and must be typically added to another word (Fromkin, Rodman and Hyams, 2011).

The root is the core of a word to which other morphological units are attached. Establish can also be a stem (i.e., a base morpheme to which other elements are attached). A stem can be simple (establish) or complex (establishments), -ment and -s are called affixes. Affixes can appear in the forms of prefixes and suffixes. According to Oz (2013), all English affixes are bound morphemes which consist of prefixes that are added to the beginning of words such as 'un-' in words like 'undo', 'unfair' and 'unable' and dis- in the word disagrees, and suffixes which are attached to the end of words such as -er in words like 'reader', 'collector' and 'writer'. A prefix thus is defined as the bound morpheme which is attached in front of a stem while the suffix is the bound morpheme which is attached at the end of a stem. There are another two terms which are not applicable to English language 'Circumfixes' and 'Infixes'. Circumfixes refers to the bound morphemes attached simultaneously before and after the stem while infixes are attached in the middle of a stem (Yasin and Jawad, 2015).
Bound morphemes are either derivational or inflectional. Derivational morphemes, according to Yule (2010), are employed to form new words or "create different grammatical classes from the stem." The derivational morpheme -er, for example, transforms the verb 'teach' into the noun 'teacher'. Inflectional morphemes, on the other hand, are employed to represent specific features of a word's grammatical function rather than changing its grammatical class. When the suffix -s is added to the noun book, it creates a new noun called 'book,' but it just indicates plural without changing its grammatical category. There are eight inflectional morphemes; -s plural, -’s possessive, -er comparative, -est superlative, -s 3rd person, -ed past tense, -ing progressive and -en past participle.

Aronoff and Fudeman, (2011) state that there are two main complementary approaches to study morphology; analytic and synthetic. The analytic approach focuses on the process of breaking down the words into smallest units of meaning. For example, 'disagreement' can be recognized as Dis-agree-ment. The synthetic approach, on the other hand, focuses on with the productivity of morphological structure, or putting together the smallest parts (morphemes) to produce words. For the purpose of the current study, the analytic approach of morphology is followed to train learners on how to analyze words into pieces in order to be able to construct new meanings into words.

2.2 Morphological Awareness

Individuals' explicit knowledge and awareness of the internal structure of words, as well as their ability to reflect on and change that structure, is referred to as morphological awareness (Carlisle, 1995). It combines learners’ understanding of linguistic derivations with inflections. Morphological awareness is described as the ability to use one's understanding of word formation rules and sound-to-meaning correspondences (Kuo and Anderson, 2006). English morphology, according to Oz (2013), includes knowledge of both derivational and inflectional morphemes. While understanding inflectional morphology helps students improve their grammatical accuracy, understanding derivational morphology helps students improve their vocabulary. Learners with morphological awareness can disassemble complex words into meaningful components and learn morphemes and morphemic limits (Hankamer, 1989). Thus it can be seen that MA is regarded as a crucial component of vocabulary knowledge since it might help students in learning English more efficiently.

2.3 Morphological Awareness and Vocabulary Knowledge

Since vocabulary knowledge is one of the most important skills for successful language use, Nation (1993) claims that knowing roughly 3,000 word families is the necessary amount for tapping talents related to other languages. Ellis (1997) agrees that vocabulary knowledge is a predictor of learners' discourse understanding because it allows them to pattern grammatical rules in their minds. According to Gellert, et al. (2020), students with a limited vocabulary may find it difficult to be improved academically.

According to, learning vocabulary is a fundamental skill that must be learned in order to effectively speak and write in a language. However, without specific morphological teaching strategies, students' vocabulary knowledge and reading comprehension would suffer (Bram et al, 2021).

Using morphological information to teach vocabulary has been shown to be beneficial in numerous studies. One potential vocabulary learning approach is the use of morphological awareness to learn new vocabularies (Yasin and Jawad, 2015). Morphological roots, according to Hiebert and Lubliner (2008), offer semantic linkages between words, resulting in morphological word families. Morphological signals for inferring words in a second or foreign language are obviously important for vocabulary development. This is supported by previous research, such as Freyd and Baron (1982), who find that students who are good at analyzing words are more successful learners in terms of learning words. As can be seen from the previous studies, morphology's influence in vocabulary knowledge is widely proven. It's crucial to pay attention to the morphological structure of words in a second language since it can lead to a greater awareness of morphological complexity, which can be a useful method for inferring and learning words.

3. Research Methodology

3.1 Participants of the Research

The participants of this study were BA university students studying English Language in Zaweelah College of Education at Sebha University / Libya. The
participants were 10 students chosen randomly from fourth and sixth year. The participants’ age ranged between 20 and 23, and all were native Arabic speakers. The participants were all females but this aspect was not considered in this study.

3.2 Instruments

Two Morphological Awareness tests were applied to answer the research questions of the study; pre and post-tests. The two types of tests were used to evaluate students’ knowledge of the vocabulary and awareness of morphology before and after the treatment. The tests were adopted from Bauer (1988). Both tests used in the present study were modified by having the items focus on the students’ analytic ability to break down complex words into smaller meanings. Some items were deleted because they focus on Syntactic or phonological aspects rather than the morphological one. The reason for this was to inspect the relationship between morphological awareness and the participants’ performance in simple words versus complex ones. More details are below:

3.2.1 Morphological Awareness test (Pre-Test)

The Morphemes awareness pre-test aims to measure the participants’ ability to analyze and break down complex words into smaller units, for example, research = re+search. This test was given at earlier stage before the treatment to see if students can segment the new or complicated words with no expose to morphological lessons. This test contains eight questions which focus on identifying the parts of words, the affixes, the root, and the free, bound and compound morphemes. The words which were used in the questions were out of context as to restrict the potential influence of context in guessing the structure and meaning of words.

The total score of Morphological awareness pre-test is 40 (5 marks for each question). The test was send to students in a Whatsapp group and each single student sent the answers separately and privately to the researchers by Whatsapp. The students were given one hour to answer the questions.

3.2.2 Treatment

The researchers used an experimental testing method to conduct the analysis. In the past, the participants' vocabulary learning was based on normal vocabulary instruction such as reading, dictionaries, guessing, etc. The participants were not used before to learn words based on morphological instruction and do not have any idea before about the morphological terms.

The treatment here in this study was started by giving morphology lessons after making the pre-test. These lessons focused on teaching the morphology terms with examples. This way aims to help the participants to know the segments of words and ease learning and understanding the meaning of new or complex words. Five lessons were given to students as follows:

a) Morphology and morphemes
b) Free and bound morphemes
c) Affixation
d) Inflectional and derivational morphemes
e) Compound morphemes.

The classes lasted for ten days, with one lesson per day. Each lecture lasted for an hour and included definitions and examples of various morphology concepts. The next day, there were further practice and discussion. Students were asked to morphologically measure their ability to know the meaning of complex words. Following that, students discussed the kind of morphological processes they employed with each example. The second test was done at the end of the treatment and the details are below.

3.2.3 Morphological Awareness post- Test

The Morphemes awareness post-test aims to examine the students' progress in terms of breaking down and analyzing the words after the morphological lessons. This test was given after two weeks of the treatment. This test contains eight questions and they also meant to focus on the same aspects with the same form of questions of the previous pre-test but with using different words. The total score of Morphological awareness pre-test is also 40 and 5 marks were given for each question. One hour was given to answer the post-test.

4. Analysis, Results and Discussion

The comparison between the results of the two tests has been analyzed to find the relationship between the students’ morphological awareness and their knowledge of vocabulary. The descriptive statistics and the results of the analyses are presented in the following chart.

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Figure 1: Students results by percentage

The above chart showed the results obtained after the two tests done by each student by percentage.

In each test, there is significant difference between the overall results obtained from the pretests with the average ‘20.3’ and the posttests which received ‘34.3’ as shown in the following table:

Table 1: Descriptive statistics of results

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Median</th>
<th>St. Deviation</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test</td>
<td>20.3</td>
<td>23</td>
<td>7.227263</td>
<td>24</td>
</tr>
<tr>
<td>Post test</td>
<td>34.3</td>
<td>35.5</td>
<td>4.053444</td>
<td>36</td>
</tr>
</tbody>
</table>

The overall results revealed an obvious and noticeable progress in the results obtained after the morphological lessons. The students scored higher results compared with the first test. This indicated that students could analyze and predict the meaning of words and resolved word complexity when they followed the systematic morphology instructions.

It was noticed from the first test that students did not know most of the words and they spend more than an hour to answer questions. Many students could not analyze the words to recognizable morphemes according to the roots and affixes. It was difficult for them to recognize the possible meanings based upon the parts of the words as in the words ‘antisovietism’ or ‘encouragement’. Some students do the analyses randomly with no specific role to follow while breaking the words down. These students tried to rely on their own previous knowledge with the roots of some words such as the root ‘truth’ to recognize the meaning of the word ‘truthfully’.

The second test on the other hand showed different attitude from the students. The students answered the questions in less than twenty minutes. Students showed their understanding of words as they followed systematic methodological ways to analyze them. The findings of this study were similar to those of Long and Rule (2004) and Alsaeedi (2017). Their findings showed that morphological analyses, rather than traditional vocabulary teaching methods, could help ESL/EFL students improve their lexical knowledge. A more recent study by Bram et al (2021) found a significant difference between the experimental population and the pre-test and post-test control scores of students. The post-test results show that morphological awareness is efficient in identifying the meaning and components of words. The current findings were also in line with a number of previous research (Singson, et al. 2000), which found a substantial positive association between vocabulary size and morphological awareness. Yasin and Jawad (2015) found that explicitly teaching morphological units encourages learners to decode complicated word meaning.

The morphological knowledge training was very beneficial for learners to improve their vocabulary skills, that morphological understanding can be used as a problem-solving tool that can be used to recognize a wide number of derived words.

5. Conclusion

It was concluded that the students who were taught the Morphological Knowledge Lessons made significant development in their vocabulary mastery. The use of Morphological Information Instruction was shown to be beneficial and can assist the students in learning words in a new way more effectively. The Students can use morphological awareness to assess words that are difficult to understand. To summarize, morphological awareness should be taught as part of L2 vocabulary instruction classes.

6. Recommendations

The findings of this study led to a number of recommendations for students and teachers to increase their morphological understanding, vocabulary learning and size, and English learning. EL teachers should dedicate more time to improving students' morphological awareness as a foundation for the development of university students' vocabulary skills. One method is to explicitly teach learners derivational morphology as a separate component of regular vocabulary education. Second, having students break down words into their morphemes is a "cognitive approach" for improving their morphological knowledge of English. Third, language teachers should show students how to combine prefixes, affixes, and roots to create new words from existing ones. In his study, Oz (2013) says that vocabulary should be taught with morphology instruction, and that learners should be taught to recognize the use of prefixes, suffixes, and roots, as well as how words are modified. To effectively teach academic vocabulary and enhance students' metalinguistic awareness, teachers must first comprehend the intricate linguistic elements and morphological structures that compose the academic register (Newton, 2018).

To sum up, teachers should consider the possible benefits of vocabulary
instruction that focuses on developing morphological knowledge. Language teachers can take up teaching morphological awareness in the classroom as part of explicit language instruction by adopting some instructional strategies that can be adjusted to suit each age group.

References
Appendices

Appendix 1: Morphology awareness test (Pre-test)

Please answer the following questions:

Exercise 1: Divide the following words into parts.
Examples: (i) truth
morphemes: [true] [th]
morphs: true + th
(1) a. research
b. butterfly
c. holiday
d. morpheme
e. barefoot
Exercise 2: Some of the words in (2) contain suffixes. Identify the suffixes by underlining them.
(2) a. happiness
b. unknow
c. freedom
d. flowers
e. brother
Exercise 3: Some of the words in (3) contain prefixes. Identify the prefixes by underlining them.
(3) a. unable
b. discourage
c. establish
d. receive
e. strawberry
Exercise 4: (i) Identify the root in the words in (4) by underlining it and (ii) state which grammatical category it belongs to.
Examples: friendliness; Noun
Example: hit
hit: free
-s: bound
(4) a. lamps
b. kindness
c. hinted
d. players
e. editors
Exercise 5: Indicate which of these parts are bound and which are free.
Example: hit
hit: free
-s: bound
(5) a. en-courage–ment
b. king–dom
s

c. stud–ent–hood
d. anti–soviet–ism
Exercise 6: Divide the following words into the smallest meaningful units Example: unhappiness
"un–happy–ness"
"un–happy–ness"
(6) a. kingdoms
b. truthfully
c. forgetful
d. submitted
Exercise 7: Which of these examples are possible word forms and which impossible ones are. Mark the impossible by (•).
b. Journal – Journalist – *journalist
a. tooth – toothache – toothaches
b. tooth – toothache – toothsache
a. sleepwalk – sleepwalked
b. sleepwalk –sleptwalk
Exercise 8: The words are all compounds. For each one, give the meaning of each member of the compound and that of the compounded form.
(8) a. battlefield
b. scarecrow
c. churchyard
d. buttercup

Appendix 2: Morphology awareness test (Post–test)

Please answer the following questions:

Exercise 1: Divide the following words into parts.
Examples: (i) barefoot
morphemes: [bare] [foot]
morphs: bare + foot
(1) a. phoneme
b. phonology
c. plants
d. trousers
e. truth
Exercise 2: Some of the words contain suffixes. Identify the suffixes by underlining them.
(2) a. blackboard
b. Eyebrow
c. Drivers
d. Beautiful
e. sister
Exercise 3: Some of the words in (3) contain prefixes. Identify the prefixes by underlining them.
(3) a. amoral
b. Discomfort
c. Education
d. Bilingual
e. Uncomfortable
Exercise 4: (i) Identify the root in the words in (4) by underlining it and (ii) state which grammatical category it belongs to.
Examples: friendly; Noun
Example: player
play: free
-s: bound
(4) a. grandparents
b. Sitting
c. creative
d. visited
e. friendly
Exercise 5: Indicate which of these parts are bound and which are free
Example: player
play: free
-s: bound
(5) a. read–ing–s
b. start – ed

c. en–danger–ed
d. bi–annu–al–ly
Exercise 6: Divide the following words into the smallest meaningful units Example: kingdoms "king– dom– s"
(6) a. enjoyment
b. discourages
c. beautiful
d. started
Exercise 7: Which of these examples are possible word forms and which impossible ones are. Mark the impossible by (•).
(7) a. right – rightist – rightists
b. right – rights – *rightist
a. foot – football – footballs
b. foot – feet –feetball
a. outline– outlined
b. outlined–outedlive
Exercise 8: The words are all compounds. For each one, give the meaning of each member of the compound and that of the compounded form.
(8) a. handkerchief
b. inmate
c. postman
d. bluebell