

Morphological Knowledge and Learning a Foreign Language: A Case Study

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Abstract Linguistic knowledge about the structure of the words has all the necessary characteristics to be called meaningful learning by educational psychologists. The authors try to answer these research questions: Is there a meaningful correlation between teaching morphology, learning, memorizing and retrieval of English words on the part of Iranian students? Does teaching morphology help the students to understand how to use the words in proper syntactic situations? To answer the cited questions and to see how morphological knowledge helps students to learn a foreign language, the authors studied 180 students from Jahrom University, Iran who had to pass general English as their foreign language. The students were divided into experimental group and control group. After formal teaching English morphology to experimental group, by applying statistical methods such as Pearson Correlation and T-test on the students' scores, it reveals that meaningful teaching in morphology can help the students to learn new words easily and increase their vocabularies. Besides, it can help them to improve their syntactic knowledge.

Keywords: *meaningful teaching, morphology, inflection, derivation, syntactic knowledge*

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1. Introduction

Experiences in second or foreign language teaching show that one of the students' problems in language learning is to memorize and remember the new words. Knowing more about the words of a language accompany with their meanings and usages is a primary factor to increase language skills. One of the suggested strategies for learning the words better is morphological knowledge approach. The impact of teaching morphology on the learning English words and enhancing syntactic knowledge of the Iranian students, for whom English is considered as foreign language, is probed in this study. The authors try to answer these research questions: Is there a meaningful correlation between teaching morphology and learning, memorizing and retrieval of English words on the part of Iranian students? Does teaching morphology help the students to understand how to use the words in proper syntactic situations?

2. Literature Review

Words have an important role in language structure. In other words, lexis is the heart of language [1]. Vocabulary is one of the linguistic components influencing the development of communicative competence and learners'

language skills as well [2,3,4,5,6]. But there are some controversial views on the learning words. In recent years, some of the language researchers such as cognitivists and functionalists have presented some theories and methods for teaching the new words better. Some believe that more reading of different texts is an effective method in learning words and hence gaining skill in comprehension. But some others believe that students' encountering with words frequently until the words stick in their minds is the proper way of learning words. On the other hand, the cognitive psychologists believe that the amount of encountering with words is not important but the depth of this facing with words has an important role in words learning [7]. Ryder and Graves [8] consider morphological analysis as the way of learning words; they studied the ways of reading school books and revealed that by presenting keywords of the texts and listing common affixes, we can help the students to increase their vocabulary.

Hedge [9] points out that linguistic studies focus on lexical system and acquisition studies focus on how vocabulary is learned. So, we should take this point into consideration. Knowing the meaning of affixes and roots is useful in two ways. On one hand, when the students encounter with a new word in reading process, they try to guess the meaning of the words. Acquainting with affixes and roots helps the students to have a proper guess and the result is that they do not need to look the new words up. On the other hand, learning the words in this way help the

students to memorize the words and keep them in their minds for a long time [10]. Learning the meanings and usages of the words is easy and enjoyable when the students understand the structure of the words; in this case learning the affixes and roots is important [11]. According to Farid and Anglin, the students can infer the meaning of unfamiliar words by referring to familiar affixes and roots; this is a good help for increasing the vocabulary, reading skill and comprehension.

In 1970s and 1980s, a lot of linguists paid more attention to morphology. Some of them considered inflectional morphology and some others like the followers of Chomsky school of language considered derivational morphology much more. Inflection and derivation are two basic and extensive ways in word making process. Inflection is the morphological system for making word forms of words, whereas derivation is one of the morphological systems for making new words. Derivation is formally similar to inflection because both processes make use of affixation. Intuitively speaking, the products of inflection are all manifestations of the same word, whereas derivation creates new words. Inflection does not change the syntactic category of the word to which it applies, whereas derivation may do so. For instance, while both "book" and "book-s" are nouns, derivation may change word class: beautiful is an adjective, but the word beautifully is an adverb or it may change the meaning of the word: the prefix dis- gives the opposite meaning to the word [12].

The main motivation in studying the role of morphology in learning the new words is that about sixty percent of the new words are those which often have derivational processes in their internal structures. They have a stem and one or more affixes which adjunct to it. Knowing the derivational elements help students to understand the meaning of the unfamiliar words. Derivation is a common process in word making, deriving a word from another word is a linguistic process which has happened frequently through the times [13].

Understanding derivational morphology is an important factor in developing spoken and written language in school and even after school [14]. Understanding word formation structure is a success in improving reading, writing skills and increasing vocabulary. About eighty percent of the new words can be studied by word formation processes [15]. Meaningful approach to etymology and morphology can cause the intermediate or advanced students acquainted with linguistic knowledge and hence help them to keep the new words and related meanings in their minds better in second or foreign language learning. Morphology and etymology of English should be taught besides of syntax and phonetics to students who want to learn English as their second or foreign language. Rubenstein believes that study of the words' roots is one of the approaches which help the students to learn a language better. As teachers, when we are familiar with the roots of the words, we can use this knowledge to introduce the new words. Knowing of the root of a new word is a bridge to understand the meaning of that word [16].

Etymology and morphology consist of the facts about the emergence and the structure of a word, an expression or a concept. These facts consist of the following parts:

1. Etma and cognates in loan translation (calaque), for example the Latin word of Omnipotent which in English is almighty (all=omni, mighty=potents).

2. Analysis of word parts from the aspect of their structure. For example: spirit, spiration and conspire which are from the root of "spir" which means breath, prevent and invent from the root of come=vent with prefixes of -pre and -in distract and attract from the root of draw, prl=tract with prefixes of -dis and -at conscious and science from the root of know=sci with adjective and noun making suffixes

3. Analysis of word parts in the process of blending like brunch which is made of the two words of breakfast and lunch.

4. Analysis of word parts during cognitive process such as metaphor, allusion, and way of their construction and their development like the word of ignite from Latin ignire 'set on fire' derived from agni-/igni, the name of Lady of Fire Goddess which is made by addition of verb maker suffix of it [17].

3. Research Method

To answer the research questions, 180 sophomores were chosen randomly from Jahrom University, Iran. Their common characteristic is that they all had to pass general English as the obligatory course in that semester. First, they were divided into experimental and control groups. To ensure about the homogeneity of the groups, the raw scores of students from the entrance examination of the university were considered and calculated by Pearson correlation:

Table 1. Entrance exam scores correlation

		Exp	Control
Exp	Pearson Correlation	1.45	1.22*
	Sig. (2tailed)	0	.000
	N	90	90
Control	Pearson Correlation	1.22*	1.45
	Sig. (2-tailed)	.000	0
	N	90	90

* Correlation is significant at the 0.01 level (2-tailed).

As the above table shows the students in control and experimental groups have the same level of English knowledge.

The students in experimental group were taught the scientific way of analyzing the internal structures of the words to reach their meanings. It is necessary to mention that the words which have affixes in their structures were chosen from their course book and listed separately to attract the students' attention. On the other hand, the students in control group are not taught morphology and etymology. Finally, the obtained data were analyzed which is considered in the following section.

4. Data Analysis

There are two null hypotheses according to the cited research questions:

- 1) Having knowledge of morphology and etymology does not help the students to learn English words and does not increase their vocabulary.
- 2) There is no significant correlation between students' morphological knowledge and their competence in analyzing the syntactic structures.

To test the above hypotheses, the students were given a test after teaching morphology and etymology just to the experimental group. The test had two main parts: the lexicon part which had thirty multiple choice questions. The questions consisted of the words made of roots and affixes, and also the compound words. This part tested the impact of the students' morphological knowledge on the understanding the meanings of the words. The other main part was about syntax. It had ten multiple choice questions which tested the correlation between morphological knowledge and using the words in proper syntactic situations. There were two tests with different contents in different times. The first test was given after six weeks teaching. The results were analyzed by descriptive statistics as the following:

Table 2. Group statistics

Groups	N	Mean	Std. Deviation	Std. Error Mean
Control Total vocab	90	47.357	11.160	1.428
Experimental	90	55.113	6.664	0.843
Control Total grammar	90	13.471	4.438	0.568
Experimental	90	17.957	2.856	0.362
Control Total	90	60.829	14.169	1.813
Experimental	90	73.071	8.261	1.048

As it can be seen through the mean points, the experimental group acted better than control group in understanding the new words and using them in proper syntactic situations. To gain more insurance, T-test was also used:

Table 3. Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig	T	Df	Sig.(2-tailed)
Total vocab	16.040	.001	-7.673	178	.00
Total grammar	17.032	.001	-10.412	178	.00
Total	16.893	.001	-9.431	178	.00

According to the above table, there is a significant difference between the two groups.

The second test was given after fifteen weeks teaching. The results are summarized in the following table:

Table 4. Group Statistics

Groups	N	Mean	Std. Deviation	Std. Error Mean
Control Total vocab	90	54.502	14.608	2.280
Experimental	90	60.663	9.482	1.382
Control Total grammar	90	18.952	5.863	0.915
Experimental	90	19.638	4.747	0.691
Control Total	90	73.347	18.324	2.860
Experimental	90	79.692	12.270	1.788

Once again, as it can be seen through the mean points, the experimental group acted better in second test than control group. To gain more insurance, T-test was also used:

Table 5. Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig	T	Df	Sig.(2-tailed)
Total vocab	4.56	0.141	-11.42	178	.00
Total grammar	0.58	0.595	-3.78	178	.07
Total	5.11	0.120	-10.77	178	.00

According to the above table, there is a significant difference between the two groups.

The above statistical methods reveal that the mean of experimental group is higher than the control group in both parts of the tests. So, the aforementioned null hypotheses are rejected and the answers to the research questions are positive. The results show the impact of teaching morphology on students' better performance in learning new words in experimental group.

5. Conclusion

One of the main factors in learning a language is to have an extended vocabulary. Knowing different words accompany with their usages enables the students to have better language skills. Students often memorize the second or foreign language words without critical thinking just by habit. This method may help them in short term, but they will face with problems in long term; because by increasing the number of new words, it is difficult to put all of them in the memory and retrieve them at the same time. On the other hand, frequent referring to a dictionary leads to decrease in learning speed and pleasure.

The results of this article show that a meaningful teaching in morphology and etymology can help the students to learn new words easily and increase their vocabularies. Besides, it can help them to improve their syntactic knowledge. According to the obtained results, it is suggested that teaching morphology should be considered in syllabus design of teaching a language as a second or foreign language to increase students' enthusiasm in deep learning.

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