

## **Cognitive Linguistics Study of the Conceptual Derivation of Word Meaning**

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**Abstract :** Languages are our way of communication. Each language has its features and its ways of creating new vocabulary. Morphology is the branch in English that studies word and word formation. Derivation is a morphological process which is the process of creating new words by adding affixes. This research is designed to examine the level of Saudi English students in understanding derivation and examine the practical application of the derivational rules. Then, it asks Saudi English teachers about the level of their students. Finally, it gathers recommendations from the teachers to improve the levels of the students. The sample of the research is Saudi students in the English department. The online test involved 105 students; the questionnaire involved 6 teachers. The results of the students indicate that they generally understand the concept of derivation. However, their usage of the rules and their understanding of the affixes meaning vary from one student to another. Teachers assert on the students understanding; nevertheless, they do not participate in the lectures.

**Keywords:** Morphology, word formation, derivation, affixation, Saudi students, Saudi English teachers.

### I. Introduction

Linguistics is the scientific study of a language. Studying linguistics helps us to understand the structure of the language. In linguistics, there are many branches, such as phonology, syntax, semantics, and morphology. Each talks about a different aspect of the language. Morphology is the study of word formation, such as how to create new words in the language. Each native speaker of a language has an intuitive knowledge of coining new words in their language, and also understands the new words when encountering them.

In morphology, a morpheme is the smallest unit in the language that has a meaning. There are two types of morphemes which are free and bound morphemes. Free morphemes are words that can be separately considered as a word, such as walk and anger. The second type is bound morphemes which are morphemes that cannot be considered alone as a word such as all affixes. Shqerra (2014) mentioned that understanding derivation and its rules lead to enrich the individual's vocabularies through creating new words from words that are already known. This research talks about the concept of derivation and how it is different from Arabic derivation. It aims to show the comprehension of Saudi students to see if it is effective to understand the concept of derivation or not. This is done through a practical study that depends on an online test for Saudi students in the English department to see whether it is easy for them to understand the meaning of derived words and whether they have the ability to apply the rules of derivational words or not. In addition, there is a questionnaire for Saudi English teachers to see how their students understand the concept and what recommendations they may offer.

## II. The Concept of Derivation

There are many different ways to create new words in morphology, the most common of which are: derivation, compounding, and conversion. In derivation, we create new words from old ones, and this is called lexeme formation. Lieber (2009) explained the ways in which lexeme formation can create new words. First, it can add new meaning to the word. For example, it can create a negative meaning from the word wise by adding un-. Both wise and unwise are adjectives. The word write is changed to indicate the repetition of the action by adding re-. Both write and rewrite are verbs. Second, it can change the category; for instance, the verb entertain can be changed to a noun which is entertainment by adding -ment. The third way includes both category changing and adding meaning. The verb understand can be changed into an adjective which is understandable. It is not a verb now, but rather it expresses the ability to be understood. New words that are created by adding affixes are called derived words and the process itself is called derivation. In English, affixes have two types. The first type is called prefixes which come at the beginning of the word such as, re-, pre-, ex-, mis-, co-, and un-. The second type is called suffixes which come at the end of the word such as -ness, -ful, -less, -ish, -ly, -ment. Natalia & Wulandari (2017) mentioned that there is a third type which is used in colloquial spoken English as a marginal process to emphasize a word. For instance, in American English, frigging, fucking, or goddam are used in the middle of the base, such as abso-funckin-lutely while in British English bloody is used, such as fan-bloody-tastic. However, English does not have any productive processes of infixation.

Affixation is an important part in derivation. Affixes have different meanings. Some affixes do not add an extra meaning to the word; for instance, -ation, -ment, -ness, -ity, and -al. They only change the category. According to Lieber (2009), these types of affixes are called transpositional affixes while there are some affixes that have semantic meaning. There are various types of them. For instance, negative, privative, personal, prepositional, relational, evaluative, and quantitative affixes. Lieber (2009) showed some affixes and their meanings in the following table.

<b>affix</b>	<b>Meaning</b>	<b>example</b>
-less	Without	careless
-er	doer of action	teacher
de-	removing or causing to be without	debug
out-	Space	outhouse
-let	smaller version	piglet
mega-	bigger version	megalith
multi-	Amount	multipack
-ful	Amount	handful

According to Natalia & Wulandari (2017), the following table shows the most common affixes in English that add extra meanings.

<b>affix</b>	<b>Meaning</b>	<b>example</b>
re-	again, back	rewrite, return
un-	not, opposite	unwise, unlike
in-, im-, ir-, i-	not, into	incorrect, immoral, irregular, illegal

non-	not	non-fiction
de-, dis-	not, opposite of	dislike, depose
dis-	not, away, apart, negative	discomfort, distrust
en-, em-	cause to	enjoy, embrace
over-	too much	overflow
Under-	too little, not enough	underage, underrate
mis-	wrongly	misunderstand
semi-	Half	semicircular
pre-	before	preplan
fore-	before	foreshadow
inter-	between, among	internet
mid-	middle	midnight
sub-	Under	subtitle
super-	above	supernatural
trans-	across, move between	transport
anti-	Against	antibiotics

On the other hand, Igaab & Kareem (2018) asserted that the phonological, semantic, and syntactic features of the word must be considered before adding the affixes. Lieber (2009) showed the rules of word formation in affixation. For instance, the prefix *un-* is added to adjectives and verbs not to nouns. If it is added to an adjective, it creates a negative meaning of that adjective; it means 'not'. The negative form of the adjective *active* is *inactive*. If it is added to a verb, it means the opposite of that verb; it means the reverse of the action. The opposite form of the verb *close* is *unclose*. It is unacceptable to add it to nouns. Another example is the suffix *-ness* which is added only to adjectives to create noun meaning from the adjective. The noun *darkness* is derived from the adjective *dark*. It is ill-formed when adding *-ness* to verbs or nouns. The final example are the suffixes *-ify* and *-ize*. Both are added to nouns or adjectives to create verb meaning; it means doing or making that action. For instance, the verbs *hospitalize* and *romanticize* are derived from a noun and an adjective; and the verbs *objectify* and *purify* are derived from a noun and an adjective. In the progress of the research, the Saudi students' comprehension of these rules will be analyzed.

### III. Research Questions

This research is designed to analyze these questions:

1. Do Saudi students comprehend the concept of derivation?
2. Can Saudi students use affixes correctly according to the rules?
3. Is it easy to understand the meaning of affixes among Saudi Students?
4. Does derivation help the students to enrich their vocabularies?
5. What is the English Saudi teachers' evaluation of their students' comprehension?
6. What is the English Saudi teachers' advice to the students in this field?

#### IV. Literature review

The research not only focuses on students, but also their teachers. In a recent research, Ali (2020) asserted on the importance for teachers to consider that learning new words is not an easy process; therefore, foreign language students must be aware of using various strategies to know the meaning of new words. Nevertheless, the focus of the teachers must be on training students to be familiar with the vocabulary learning strategies and training them to be able to use these strategies. When they learn how to use these strategies subtly, they will be confident to use more strategies in learning new words, and that will give them the chance to choose which strategy is must be used. On the other hand, giving the students lists of words to memorize them is not a successful way of learning.

Each language has some rules in derived new words. There are some similarities and differences between Arabic and English language. Igaab & Kareem (2018) assumed at the beginning that English and Arabic have words created by adding more than one affix. In affixation, there are many differences between the two languages which are more than the similarities. In Arabic, affixation is also a way of forming new words with or without changing the grammatical categories. For instance, the prefix 'm' is used in referring to the noun of place, such as the word "maktab" which means office; it is formed from the verb "kataba" that means he wrote. Arabic has three types of affixes which are prefixes, suffixes, and infixes. Infixes are affixes that are added in the middle of the base. Arabic does not have a clear limitation on adding the derivational affixes as in English. As a result of this study, Igaab & Kareem (2018) concluded that, in both languages, Prefixes and suffixes are common. In contrast to English, infixes are common in Arabic. In English, affixation is only applied by adding affixes to the base of the word; however, in Arabic, it is not applied only by adding affixes, but also by replacing, deleting, and internal change in the base. English affixes are divided into types; however, Arabic depends on what is called al-wazn in the affixes.

Another related study about the morphological awareness for Saudi English students Published in 2017. Shoeibi (2017) revealed that the morphological awareness gives the learners the ability to use their explicit knowledge of both target and source language to recognize and manage derivational forms. As a result of this study, Shoeibi (2017) concluded that students get better results in both analyzing and synthesizing the inflectional affixes than they did with the derivational affixes. In addition, students are unable to recognize the morphological structure of complicated words.

Another study which was made on Saudi students was done by Masrai in 2016. The participants were high school students unlike this research which is for English department students. Masrai (2016) concluded that native Arabic students experience more difficulties in finding base words from irregularly derived forms. It shows that whether the base words are regular or irregular, students are better in presenting base words from inflected forms than derived. They also have difficulties in organizing both regular and irregular derivational morphology.

#### V. Research Objective

The principal objectives of this research are to

- 1- Examine the level of Saudi English students in understanding derivation.
- 2- Examine the practical application of the derivational rules.
- 3- Ask Saudi English teachers about the level of their students.
- 4- Collect the advice of the teachers to improve the levels of the students.

#### VI. Methodology

This research provides two studies. The first one is an online test for 105 Saudi students who study in English department in Saudi universities. It is online because the research is done in quarantine during the time of Covid-19, so it cannot be in the university. The choice of English students is based on the language they are studying which is the core of this study. There are many

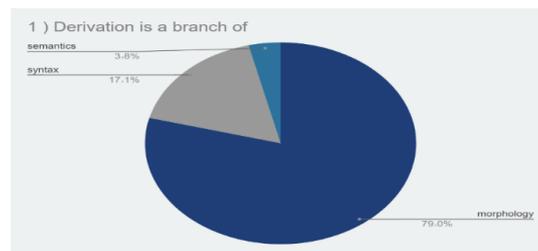
questions that will reveal their comprehension of derivation. As an English student, there are some complicated words to see if they understand the rules or if they are only familiar with the common derived words. The other study is a questionnaire for 6 Saudi teachers in the same universities. Involving the teachers in the study can help to know more about the level of the students, and to indicate their advice for the English students.

## VII. Research instruments

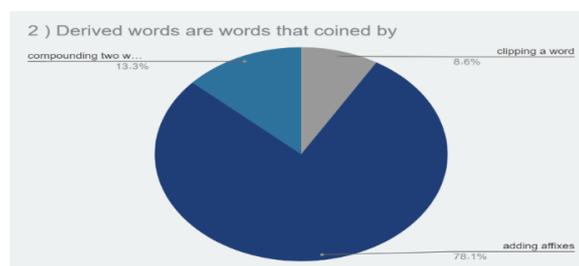
The research depends on two instruments. The first one is multiple questions that are related to derivation; they reveal the understanding of the concept and its rules. The second one is a questionnaire for their teachers to make sure about their level and to collect their advice for the students.

## VIII. Results

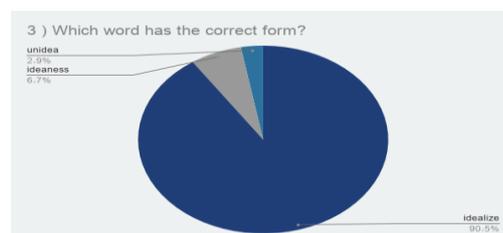
Analysis of students' test : The test has 10 questions that have been chosen to answer the questions of this research. The first two questions are chosen to reveal whether the concept of derivation is known among Saudi students or not. Then, the following four questions reveal the ability of Saudi students in using affixes correctly according to the rules. Next, the following three questions show whether Saudi students understand the meaning of affixes or not. At the end of the test, there is a different question for the students. It is designed as a direct question to give them the chance to evaluate themselves whether derivation help them to improve their English language or not.



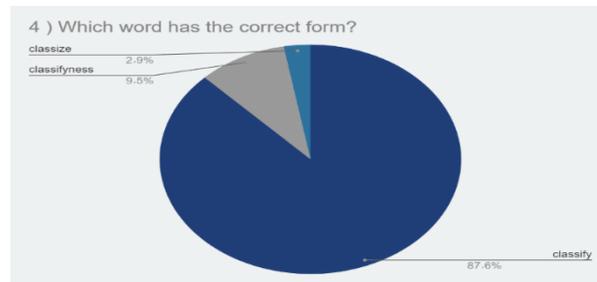
The first question directly shows the general understanding of the concept of derivation. 79% of Saudi students chose morphology; therefore, this question is correctly answer among students. Generally, they understand the meaning of derivation. Only 3.8% of them choose semantics and 17.1% choose syntax.



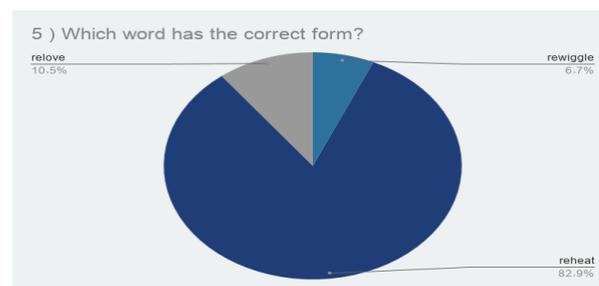
The second question immediately asserts on the comprehension of the concept of derivation. 78.1% of Saudi students choose adding affixes, so choosing affixes asserts on their understanding of the main part. Only 13.3% of them choose compounding and 8.6% choose clipping the word. Both are processes of creating new words.



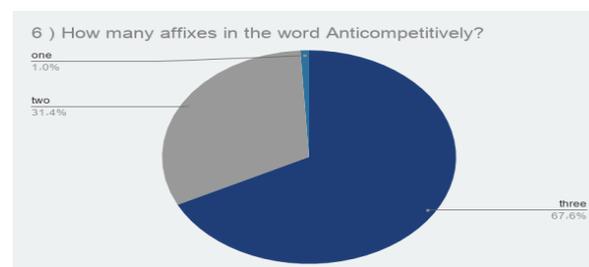
The third question is started to reveal the ability of Saudi students in using affixes correctly according to the rules. The question is about the correct form. There are three words; the first one is unidea which is ungrammatical because of un-. The prefix un- is attached to adjectives and verbs, but it is not acceptable to add it to nouns. The second word is ideanness which is also ungrammatical because the suffix -ness is added only to adjectives to create noun meaning from the adjective. The third word which is correct is idealize. The suffixes -ize is attached to nouns or adjectives to create verb meaning. 90.5% of the students choose the correct answer, so they understand the simple and common words.



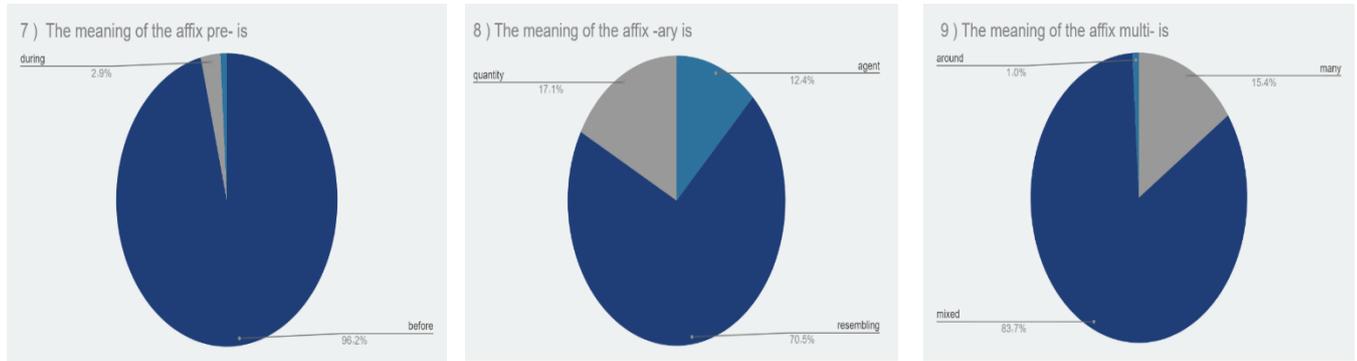
The fourth question is continued to show the ability of Saudi students in using affixes correctly according to the rules. The question is also about the correct form. There are three words; the first one is classize which is a wrong word. The second word is classifyness which is also wrong because the suffix -ness is added only to adjectives to create noun meaning from that adjective. The third word which is correct is classify. The suffixes -ify is attached to nouns or adjectives to create verb meaning. Students understand the simple and common words as the word idealize and classify. 87.6% of the students choose the correct answer of this question.



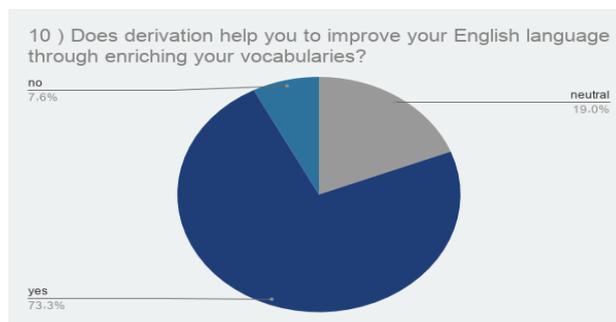
The question number five is the last question that is about the rules of adding affixes. It is more depending on understanding the language rather than common words because all of them are verbs and all are attached to the prefix re. the first and the second words are weird as Lieber (2009) mentioned. It is not acceptable to say relove or rewiggle. The word reheat is the only correct one. In this question the rate of the correct answer is lowered. In the first two common words, the rate is 90.5% and 87.6% while here it is 82.9%. It is still more than 50%, but they are better in the simple words that do not depend on the meaning itself.



Question six is different because it is more advanced than the previous questions. It depends on knowing more affixes and getting the base out from a complex word. The word anticompetitively has three affixes which are anti-, -tive, and -ly. The base is compete. The rate of the correct answer is decreased to 67.6% while there are 31.4% choose two affixes which is wrong.

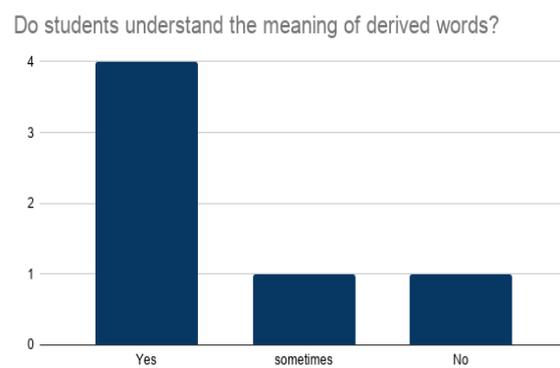
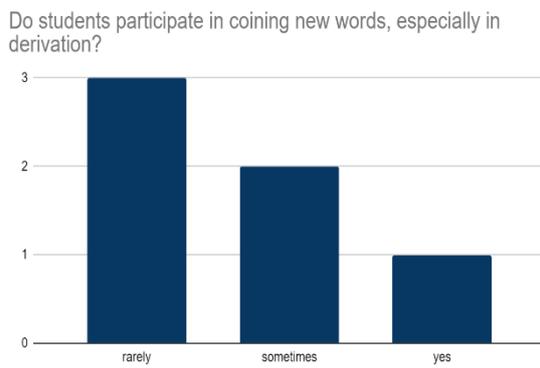


Then, the next three questions show whether it is easy to understand the meaning of affixes among Saudi Students or not. The first one which is the most common is the affix pre-. Almost all the Saudi students answer this question correctly. The meaning of the prefix pre- is before and 96.2% of them know that. The second one is more advanced than the first one which is -ary. Only 70.5% of them choose the correct answer which is resembling while the others choose quality and agent, and they present 29.5%. The last one is multi- which means many. The rate of the correct answers in this question is too low. Only 15.4% of the Saudi students choose the correct answer while more than the 80% choose wrong answers. This means that their understanding of the meaning of affixes is so varied.



The last question is a direct question that is determined whether derivation helps the students to enrich their vocabularies or not. 73.3% of the students choose yes. 7.6% choose no and 19% choose neutral. Therefore, learning derivation helps the majority of the students to improve their vocabularies.

Analysis of teachers' questionnaire : The questionnaire has five direct questions for Saudi English teachers in universities. The sample is 6 teachers who teach linguistics. The choice of the teachers is to assert on the comprehension of the students and to ask them about their advice because they have a huge experience in teaching linguistics.



rarely participate in coining derivational words; yet they understand the meaning of the derived words. Therefore, teachers assert on the understanding of the meaning of derived words among Saudi students.

The next two questions are about using the rules of affixation correctly and about whether derivation helps students to enrich their vocabularies or not. All the teachers choose yes, so it indicates that all teachers assert on that students use the rules correctly and that helps them to improve their language.

The last question is an open question; it is about the advice of the teachers that will be shown in the conclusion of the research.

#### IX. Conclusion and Discussion

The research is about a branch of linguistics which is morphology. It discusses one way of creating new words that is derivation. There are many ways of creating new words and derivation is one of the common ways. The process of adding affixes on a base is called derivation. The paper also shows a brief information about the difference between Arabic and English derivation because the research's sample is Arabic Saudi students who study in the English department. The research is designed to answer five questions. Each will discuss separately depending on the test of the students and the questionnaire of the teachers. First, do Saudi students understand the concept of derivation? The majority of the students understand the main idea about derivation as its field and the process of creating derived words. Specifically, can Saudi students use affixes correctly according to the rules? In the common words, almost all Saudi students use the rules correctly, such as the affix -ize in idealize; and the affix -ify in classify. The percentage of the correct answers are decreased when the test is provided more complex words; for instance, the words that depend on the understanding of the meaning rather than the rules itself. The prefix re- is added to reheat while it is not acceptable to add it to relove or rewiggle. Around 80% of the students get the answer. Then, the more advanced question about the rules in the test is the affixes in the word anticompetitively. Around 65% of the students answer correctly. Therefore, Saudi student's comprehension of derivation is great in general, but they are better in the common words that depends more on the rules not the meaning. Next, is it easy to understand the meaning of affixes among Saudi Students? Similarly, almost all the students answer correct in the common affix which is pre-. Then, the second more advanced affix which is -ary, around 70% of the students choose the correct answer. The last affix is multi- and the percentage of the correct answer in this question is too decreased. Only 15% of the Saudi student choose the correct answer while more than the 80% choose wrong answers. This means that their understanding of the meaning of affixes is so varied and it depends on the common words and affixes that is used frequently. Therefore, the result is not fixed. In general, they understand the meaning of derivation and how to use them, however, their understanding is varied from one word to the other. For that reason, it is better for students to read and discover more new words and understand their meanings since around 70% of them assert that derivation helps them to enrich their vocabularies.

Finally, the last objects of the research are to show the teachers evaluation of their students and collect their advice to help the students. Teachers assert on the understanding of the meaning of derived words among Saudi students and their results are indicate that students use the rules correctly and that helps them to improve their language, but they are rarely participate in the lectures. In addition, these are the advices that are submitted.

1. Search more about derivation and the meaning of the words.
2. Practicing as much as possible to learn how to write the affixes of the words.
3. All of them must know the correct ways of derivation and attempt to create new words that can help to improve their vocabulary and learn something new.
4. They should learn the rules of derivational word and use it correctly, and if they learn new word, they should write it in note and try using the word every day.
5. use memory techniques, create a learning environment, put the words in context, learn from real-life situations, and take it to the next level.

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