

The Effect of a Four-Component Strategy on Developing the EFL Vocabulary Acquisition and Reading Comprehension of the Preparatory Students

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# Abstract

This study aimed at investigating the effect of a four-component strategy on developing EFL vocabulary acquisition and reading comprehension of preparatory students. Sixty students from second year preparatory school students at Dondate preparatory School for Girls, Dakahlia Governorate, were drawn randomly to represent the study participants: a control group (N=30) and an experimental group (N=30) during the first term of the academic year 2017/2018. To achieve the purpose of the study, the researcher developed vocabulary acquisition and reading comprehension skills questionnaires and tests. The experimental group was taught through the suggested four-component strategy which was designed by the researcher while the control group received regular instruction. The results revealed that the four-component strategy is significantly effective in developing vocabulary acquisition and reading comprehension skills for the experimental group. Besides, the students in the experimental group outperformed their peers in the control group, who received regular instruction, on the vocabulary acquisition and reading comprehension post tests.

**Key words**: *a four-component strategy, EFL vocabulary acquisition, EFL reading comprehension*

# Introduction

One of the components to master EFL is vocabulary and one of the primary tasks of education, as far as language learning is concerned, is to teach vocabulary. Any FL learner knows very well that words are essential, lack of which leads to difficulties in communication situations. Moreover, the basic role of vocabulary knowledge in foreign language learning has been recently recognized by theorists and researchers in the field and vocabulary acquisition is currently receiving much more attention in FL pedagogy and research.

Decarrico (2001, p. 285) pointed out that vocabulary learning is central to language acquisition whether it is a second, or a foreign language. Even in a learner’s mother tongue, there is an incessant learning of new words and new meanings for old words (Thornbury, 2002, p.1). Harmer (1993, p.153) also stated that, “If language structures make up the skeleton of language, then it is vocabulary that provides the vital organs and the flesh”. And these words sum up the great importance of vocabulary very well.

It is generally accepted that vocabulary is ‘the heart in learning a second (and a foreign) language’, but the acquisition of a large number of vocabulary items may be one of the most difficult aspects of learning a foreign language for most FL learners (Meara, 1980, p.221; Read, 2000, p.1; Sto"ffer, 1995, p.2). In addition, reading is an important language skill for learning and acquiring any language. It is also the heart of learning in general, as most experiences and information are obtained throughout reading. But reading without comprehension is useless, since it is not just pronouncing phonemes, words or sentences. It is a strategic process that requires constructing meaning and understanding the written information.

Comprehension is the aim of reading. If readers can read the words but do not understand what they are reading, they are not really reading. Previous research indicated that many students cannot read well, but this does not mean that they do not know how to utter words. Rather, they cannot understand or explain what they are reading. Thus, there is a difference between being able to decode words in a text and being able to derive meaning from the words and the concepts (Langenberg, 2000; Wren, 2005).

When students are able to understand the vocabulary for the content they are reading and hearing, they will have a better understanding of the material. Thus, when EFL learners struggle with reading comprehension, it can often be attributed to their difficulty with understanding the vocabulary. Students with smaller vocabularies are at a greater disadvantage in learning, and this lack of knowledge too often is the main barrier to their comprehension of texts and lectures (Newton, Padak, and Rasinski, 2008). Variations in vocabulary knowledge may be a potential contributor to later differences in reading comprehension abilities.

For nearly a century, research has pointed the importance of vocabulary acquisition in reading achievement (Beck, McKeown and Kucan, 2013; Crow, 1986; Hiebert and Kamil, 2005; McKeown and Curtis, 2014; McKeown, Deane, Scott, Krovetz and Lawless, 2017; Milton, 2009; Nagy, 1988; National Reading Panel, 2002; Stahl and Fairbanks, 1986). Beck, et al. (2013, p.1) proclaimed that a large vocabulary repertoire facilitates becoming an educated person to the extent that vocabulary knowledge is strongly related to reading proficiency in particular and school achievement in general.

However, vocabulary instruction receives inadequate attention in elementary, (intermediate) and secondary classrooms (Biemiller and Boote, 2006). Although most teachers and learners of English still feel that many of the difficulties in both receptive and productive language use result from an inadequate amount of vocabulary, it is surprising that relatively little attention is paid to vocabulary instruction.

In class, most teachers and students focus on teaching and learning other aspects of the language, such as grammar or phonology. During introducing new vocabulary, teachers concentrate only on giving the Arabic meanings of the new words. This makes learning new vocabulary boring and results in weak gains in vocabulary acquisition. In teaching reading comprehension, students study grammatical structures more than what the text means. Thus, most of the EFL/ESL students have difficulties in communicating with the English language. (Ahmed, 2012; Awad, 2009; El Samouly, 2014; Ezz El-Arab, 2012; Hassan, 2005; [Mohamed,](http://www.eulc.edu.eg/eulc_v5/Libraries/start.aspx?fn=ApplySearch&ScopeID=&criteria1=2.&SearchText1=Mohamed%2c+Eman+Farahat+Mustafa.+) 2009; Qoura, 2014)

In order to overcome these challenges, teachers are expected to give more attention to vocabulary instruction since it is clear that vocabulary learning and acquisition is done to help students listen, speak, read and write more effectively. Students need to learn how to expand their vocabulary so that they can improve their language skills.

Some researchers found students best develop vocabulary incidentally through wide reading, while others evidence gains in both vocabulary development and reading comprehension through strategies requiring direct instruction. However, many researchers asserted that direct instruction is more effective and efficient in vocabulary development than the indirect instruction of a particular vocabulary (D'Alesio, Scalia and Zabel, 2007; Mckeown and Beck 2004; Min 2008). Mckeown and Beck (2004) argued that directly teaching vocabulary played an important role in students' development and increased their vocabulary learning and comprehension.

Directly teaching vocabulary is a direct approach to vocabulary development that includes two distinct types of instruction: contextually driven and socially mediated strategies. Contextually driven strategies represent explicit instruction and refer to strategies focused on contextual and morphemic analysis. Socially mediated strategies represent multi-media instruction and employ semantic mapping and other related strategies.

A rich approach to vocabulary involves directly explaining the meanings of words along with thought-provoking, playful, and interactive follow up. The findings of the studies that examined robust instruction have shown it to be effective not only in learning the meanings of words but also in affecting reading comprehension. (Beck, et al., 2013). Figure (1) shows vocabulary strategies connection:



**Figure (1) Vocabulary Instruction**

**Source: Curtis (2008, p.9)**

Curtis (2008) stated that contextually driven strategies concentrate on the meaning of a word within the context of other words in a specific passage. These strategies comprise using contextual analysis and morphemic analysis for deciding on the meaning of a word within a passage. Contextual analysis requires readers to use the other words in the same passage to provide clues to the meaning of the unknown word in the particular context. Morphemic analysis requires readers to break words into word parts (base words, prefixes and suffixes), and to know the meanings of the smaller parts. Researchers showed that these strategies seemed to improve student learning of a given set of specific words (Brett, Rothlein and Hurley, 1996).

Socially mediated strategies, including semantic mapping and the Frayer model, help students derive word meanings within a social context far beyond the specific passage containing the new word. When students socially construct the meaning of a word they participate in cooperative activities that require them to explore and discuss the relationships between the target word and other words (Curtis, 2008). She stated that:

First, they made connections to words they already knew. Then, they identified synonyms or antonyms, words that described the new word or argued for why a word was related in some way. Students drew a map showing these relationships, acted out the meaning or wrote passages revealing the multiple uses of a word. (p. 16)

Studies indicated growth in students' vocabulary of both the specific words and related words, as well as, improvement in reading comprehension when students participated in a vocabulary development program that focused on strategies that required students to construct the meaning of a word through making connections to background knowledge, engaging in discussions or role play, and developing semantic maps of the word, related words and feelings attached to the word (Beck and McKeown, 1991; Blachowicz and Fisher, 2000; Blachowicz, Fisher and Ogle, 2006; Stahl and Fairbanks, 1986).

Because the field of vocabulary research evidenced the strong relationship between vocabulary knowledge and reading comprehension, the National Reading Panel, (2002) recommended the inclusion of direct vocabulary instruction as a necessary component in a comprehensive reading program. The field of vocabulary research, however, lacks consensus on which strategies result in the most gains in vocabulary acquisition and reading comprehension.

It is important to connect the new words to students’ prior knowledge. To do this, teachers can actively involve students in learning new words, create a vocabulary rich environment, and teach through a variety of strategies. Schmitt (as cited in Siriwan, 2007, p.25), confirmed that, "there is no ‘right’ or ‘best’ approach for vocabulary learning...the best practice in any situation will depend on the type of student, the words that are targeted, the school system and curriculum, and many other factors".

McKeown and Curtis, (2014, p.11) explained that no one method for direct teaching of vocabulary was consistently superior to another and that more than one method works. They asserted that, "Indeed, the more ways something can be taught effectively, the better the chance of success, for it permits greater teacher flexibility and choice".

Blachowicz, Fisher and Watts-Taffe (2005, p.20) proclaimed that providing students with rich instruction of vocabulary items including strategies and activities such as contextual analysis, morphemic analysis, graphic organizers, facial expressions, gestures, illustrations, and other visuals supports word learning and vocabulary development. Consequently, this enhances the improvement of comprehension.

It can be concluded that the inclusion of multiple strategies in vocabulary instruction may be necessary to result in both greater vocabulary development and improved reading comprehension.

# Context of the problem

To make sure that there is a problem, the researcher reviewed previous studies related to vocabulary acquisition and reading comprehension such as (Ahmed, 2012; Awad, 2009; Brooker, 2013; El Samouly, 2014; Ezz El-Arab, 2012; Hassan, 2005; Jie, 2008; [Mohamed,](http://www.eulc.edu.eg/eulc_v5/Libraries/start.aspx?fn=ApplySearch&ScopeID=&criteria1=2.&SearchText1=Mohamed%2c+Eman+Farahat+Mustafa.+) 2009; Qoura, 2014; Webster, 2012). Also, an unstructured interview was held with some EFL teachers and supervisors of the preparatory stage. The results of the previous studies and the unstructured interview confirmed that students have problems in vocabulary acquisition and reading comprehension. To make sure of this, the researcher conducted a pilot study in November 2014 to check the students' mastery level of vocabulary and reading comprehension. A vocabulary acquisition test and a reading comprehension test were administered to a sample of 89 students of the second grade of Dondate preparatory school for girls. The results of the pilot study revealed that the majority of students have problems in vocabulary acquisition and reading comprehension. So, it is essential to tackle this problem in order to enhance students' vocabulary acquisition and reading comprehension. Therefore, the researcher suggested using a four-component strategy based on contextual analysis, morphemic analysis, semantic mapping and the Frayer Model to enhance vocabulary acquisition and reading comprehension of EFL second grade preparatory students.

# Statement of the problem

Based on the literature review and the previous studies, the observations of some EFL teachers and supervisors of the preparatory stage, and the results of the pilot study; the problem of this study could be stated as follows:

"There are weaknesses in the second grade preparatory EFL students' vocabulary acquisition and reading comprehension".

# Questions of the Study

This study tried to answer the following main question:

**What is the effect of a four-component strategy on developing the EFL vocabulary** **acquisition and reading comprehension of the preparatory students?**

This main question could be subdivided into the following ones:

1. What are the vocabulary components of the 2nd grade preparatory English curriculum that need to be acquired by the students?
2. What are the reading comprehension skills required for the 2nd grade preparatory school students in learning English as a foreign language?
3. What is the framework of the suggested four-component strategy for developing vocabulary acquisition and reading comprehension?
4. How far is this strategy effective in enhancing vocabulary development of the 2nd grade preparatory school students?
5. How far is this strategy effective in enhancing reading comprehension skills of the 2nd grade preparatory school students?

# Purpose of the study

The main purpose of this study was to investigate the effect of using a suggested four-component strategy on developing vocabulary acquisition and reading comprehension of the 2nd grade preparatory school students.

# Delimitations of the study

This study was delimited to:

1. A random sample of the 2nd grade general preparatory school female students as it is an important intermediate grade in which many new vocabulary items are introduced and the vocabulary environment is rich.
2. The first semester of the academic year 2017/2018.
3. Some vocabulary acquisition skills suitable for the 2nd grade preparatory school students.
4. Some reading comprehension skills suitable for the 2nd grade preparatory school students.
5. Four instructional strategies:
* Two contextually driven strategies: contextual analysis and morphemic analysis
* Two socially mediated strategies: semantic mapping and the Frayer Model.

These four strategies were expected to suit the age of the students in the preparatory stage and the nature of the vocabulary items and the reading texts included in their English course.

# Instruments of the study

1. A pre-post vocabulary acquisition test prepared by the researcher.
2. A pre-post reading comprehension test prepared by the researcher.

# Hypotheses of the study

For substantiating the study, the following hypotheses were introduced:

1. There would be a statistically significant difference between the mean scores of the experimental group and that of the control group on the vocabulary acquisition post-test in favor of the experimental group.
2. The four-component strategy would be effective in developing vocabulary acquisition.
3. There would be a statistically significant difference between the mean scores of the experimental group and that of the control group on the reading comprehension post-test in favor of the experimental group.
4. The four-component strategy would be effective in enhancing reading comprehension.

# Procedures of the study:

To answer the previously mentioned questions, the following procedures were conducted:

##  1- For the first question:

1. Reviewing relevant literature and previous studies related to vocabulary acquisition to:
	1. crystallize the vocabulary acquisition skills that need to be acquired by the students.
	2. develop the vocabulary acquisition test.
2. Analyzing the content of the English language course taught to 2nd grade general preparatory school students to detect the target components and skills.
3. Preparing a list of the vocabulary acquisition skills suitable for 2nd grade preparatory school students through a questionnaire for teachers, supervisors, and EFL methodology specialists.

## 2- For the second question:

1. Reviewing relevant literature and previous studies related to reading comprehension to:
2. conclude the required reading comprehension skills for the 2nd grade preparatory school students.
3. develop the reading comprehension test.
4. Analyzing the content of the English language course taught to 2nd grade general preparatory school students to detect the target reading comprehension skills.
5. Preparing a list of reading comprehension skills suitable for 2nd grade preparatory school students through a questionnaire for teachers, supervisors, and EFL methodology specialists.

## 3- For the third question:

1. Reviewing relevant literature and previous studies related to the suggested four-component strategy to draw the experimental frame of the study.
2. Developing a pre-post vocabulary acquisition test and submitting it to a jury of specialists to determine its validity.
3. Developing a pre-post reading comprehension test and submitting it to a jury of specialists to determine its validity.
4. Choosing the study sample from the 2nd grade general preparatory school students and dividing them randomly into two groups: an experimental group and a control one.
5. Pre-administering the tests (vocabulary acquisition and reading comprehension pre-tests) to both groups.
6. Using the four-component strategy to teach vocabulary and reading comprehension to the experimental group while using regular instruction with the control group.

## 4- For the fourth and the fifth questions:

1. Post-administering the tests (vocabulary acquisition and reading comprehension post-tests) to both groups to investigate the effectiveness of the four-component strategy in developing vocabulary acquisition and reading comprehension.
2. Comparing the pre to the post results statistically.
3. Treating the data statistically.
4. Discussing the results of the study.

## Findings of the study

All the data collected were analyzed using the Statistical Package for the Social Science (SPSS Version 18) program. The results of administering vocabulary acquisition and reading comprehension tests, to both the experimental and the control groups were statistically discussed in the light of the study hypotheses.

## Hypothesis One

It was hypothesized that "there would be a statistically significant difference between the mean scores of the experimental group and that of the control group on the vocabulary acquisition post-test in favor of the experimental group".

The independent samples t-test was used to verify this hypothesis, as shown in table (1)

**Table (1)**

t-test results of the post administration of the vocabulary acquisition test comparing the experimental group to the control group

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Group** | **N** | **Mean** | **Std.****Deviation** | **Std. Error Mean** | **t** | **df** | **Sig. (2-tailed)** |
| Experimental | 30 | 33.13 | 2.097 | 0.38 | 17.23 | 58 | 0.01 |
| Control | 30 | 14.57 | 5.519 | 1.01 | 17.23 |

Table (1) indicates that there is a statistically significant difference at (0.01) level between the attained mean score of the experimental group and that of the control one in favor of the experimental group in the post administration of vocabulary acquisition test. The estimated t-value is (17.23). It is significant at (0.01) level in favor of the post results of the experimental group.

## Hypothesis Two

It was hypothesized that "the four-component strategy would be effective in developing vocabulary acquisition". Cohen's equation was used to verify this hypothesis. The effectiveness is measured through Cohen's equation as follows:



The results can be summarized as shown in table (2).

Table (2)

The effect size of the four-component strategy on the vocabulary acquisition of the experimental and control groups using Cohen's Equation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Independent variable** | **Dependent variable** | **T** | $η$**2** | **Es(Effect size)** |
| The four-component strategy | Vocabulary acquisition | 17.23 | 0.84 | 4.58 |

 As indicated in table (9), the effect size of the four-component strategy on developing the vocabulary acquisition of the experimental group is (4.58). Therefore, the four-component strategy proved to be effective in developing second year preparatory school students' vocabulary acquisition.

# Hypothesis Three

It was hypothesized that "there would be a statistically significant difference between the mean scores of the experimental group and that of the control group on the reading comprehension post-test in favor of the experimental group".

The independent samples t-test was used to verify this hypothesis, as shown in table (3)

**Table (3)**

t-test results of the post administration of the reading comprehension test comparing the experimental group to the control group

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Group** | **N** | **Mean** | **Std.****Deviation** | **Std. Error Mean** | **t** | **df** | **Sig. (2-tailed)** |
| Experimental | 30 | 30.17 | 1.68 | 0.31 | 26.36 | 58 | 0.01 |
| Control | 30 | 10.43 | 3.74 | 0.68 | 26.36 |

Table (3) indicates that there is a statistically significant difference at (0.01) level between the attained mean score of the experimental group and that of the control one in favor of the experimental group in the post administration of reading comprehension test. The estimated t-value is (26.36). It is significant at (0.01) level in favor of the post results of the experimental group.

# Hypothesis Four

It was hypothesized that "the four-component strategy would be effective in enhancing reading comprehension". Cohen's equation was used to verify this hypothesis. The effectiveness is measured through Cohen's equation as follows:



The results can be summarized as shown in table (4).

**Table (4)**

The effect size of the four-component strategy on the reading comprehension skills of the experimental and control groups using Cohen's Equation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Independent variable** | **Dependent variable** | **T** | $η$**2** | **Es (Effect size)** |
| The four-component strategy | Reading comprehension | 26.36 | 0.92 | 6.79 |

As indicated in Table (4), it is obvious that the final value of Cohen's equation for the experimental group is (6.79). Therefore, the four-component strategy proved to be effective in enhancing second year preparatory school students' reading comprehension.

# Discussion of the results

## Discussion of the first and second hypotheses

The results of the first hypothesis reveal that there is a statistically significant difference at (0.01) level between the mean scores of the experimental group participants (taught through the suggested four-component strategy) and those of the control group on the vocabulary acquisition post-test in favor of the experimental group. This means that students of the experimental group outperformed the control group students in the post test of vocabulary acquisition in terms of form, meaning and usage. This outperformance of the experimental group is due to using the four-component strategy in teaching vocabulary, while students in the control group received instruction of the same vocabulary through the regular methods.

Moreover, the results of the second hypothesis reveal that the effect size of the four-component strategy on developing the vocabulary acquisition of the experimental group is (4.58). Therefore, the four-component strategy proved to be effective in developing second year preparatory school students' vocabulary acquisition.

Through administering the four-component strategy to the experimental group, the experimental group students had an active role in the learning process. Students were given the opportunities to practice varied activities including: brainstorming for ideas and vocabulary that are related to the topic, guessing the meaning of new vocabulary by using context clues in contextual analysis, guessing the meaning of new vocabulary by breaking the words into small parts in morphemic analysis, brainstorming and building semantic relationships among words through using graphic organizers in semantic mapping, completing graphic organizers which help in building thorough understanding of the words by providing definitions, characteristics, examples and non-examples of the new vocabulary through using the Frayer Model, and working in small groups sharing their work with each other and with the whole class. Through the administration of the four-component strategy to the experimental group, it was noted that the students were interested in practicing those activities as they gave them the opportunity to interact with the teacher and the reading text and to play more positive roles in the process of acquiring new vocabulary. This is because teaching vocabulary through using the four-component strategy depends mainly on the integration of four strategies; i.e., contextual analysis, morphemic analysis, semantic mapping, and the Frayer Model. All of these strategies proved to be effective in developing vocabulary acquisition. This can be shown as follows:

* + This study supported the results of those studies which proved the effectiveness of using contextual analysis in developing vocabulary acquisition such as the following studies (Curtis, 2008; Kuo, 2008; Mahmoud, 2016).
	+ This study also confirmed the results of those studies which proved the effectiveness of using morphemic analysis in developing vocabulary acquisition such as the following studies (Bowers, 2012; Good, 2011; Harris, Schumaker and Deshler, 2011).
	+ This study also lends support to those studies which proved the effectiveness of using semantic mapping in developing vocabulary acquisition such as the following studies (Abdelrahman, 2013; King, 2011; Zahedi and Abdi, 2012).
	+ This study also agreed with those studies which proved the effectiveness of using the Frayer Model in developing vocabulary acquisition such as the following studies (Curtis, 2008; Marty, 2015; Nahampun, 2014).
	+ This study also supported the results of those studies which proved the effectiveness of using more than one strategy in developing vocabulary acquisition such as the following studies (Davoudi, Moghadam and Nafchi, 2016; Harris-hugan, 2018; [Ramadan](http://srv5.eulc.edu.eg/eulc_v5/Libraries/start.aspx?fn=ApplySearch&ScopeID=&criteria1=2.&SearchText1=Ramadan%2c+Heba+Fathy+Mohammed.+), 2016).

## Discussion of the third and fourth hypotheses

The results of the third hypothesis reveal that there is a statistically significant difference at (0.01) level between the mean scores of the experimental group participants (taught through the suggested four-component strategy) and those of the control group on the reading comprehension post-test in favor of the experimental group. This means that students of the experimental group outperformed the control group students in the post test of reading comprehension in terms of literal, inferential and creative levels. This outperformance of the experimental group is due to using the four-component strategy in teaching vocabulary acquisition and reading comprehension skills, while students in the control group received instruction of the same vocabulary and reading passages through the regular methods.

Moreover, the results of the fourth hypothesis reveal that the effect size of the four-component strategy on developing the reading comprehension of the experimental group is (6.79). Therefore, the four-component strategy proved to be effective in enhancing second year preparatory school students' reading comprehension.

Through administering the four-component strategy to the experimental group, the experimental group students had an active role in the learning process. Students were given the opportunities to practice varied activities including: brainstorming for ideas and vocabulary that are related to the topics of the reading passages, guessing the meaning of new vocabulary in a reading text while reading by using context clues in contextual analysis, guessing the meaning of new vocabulary in a reading text while reading by breaking the words into small parts in morphemic analysis, brainstorming and building semantic relationships among words and ideas in a reading text through using graphic organizers in semantic mapping, and completing graphic organizers which help in building thorough understanding of the words and concepts in a reading text by providing definitions, characteristics, examples and non-examples of the new vocabulary while reading through using the Frayer Model. Moreover, students were given opportunities to practice working in small groups sharing their ideas and work with each other and with the whole class, and holding and participating in discussions about reading texts and the questions on them.

Through the administration of the four-component strategy to the experimental group, it was noted that the students were interested in practicing those activities as they gave them the opportunity to interact with the teacher and the reading text and to play more positive roles in the process of comprehending reading texts. This is because teaching vocabulary and reading comprehension through using the four-component strategy depends mainly on the integration of four strategies that are effective in comprehending reading texts; i.e., contextual analysis, morphemic analysis, semantic mapping, and the Frayer Model. All of these strategies proved to be effective in enhancing reading comprehension. This can be shown as follows:

* + This study supported the results of those studies which proved the effectiveness of using contextual analysis in enhancing reading comprehension such as the following studies ([El-Shafie](http://srv5.eulc.edu.eg/eulc_v5/libraries/start.aspx?fn=ApplySearch&ScopeID=&SearchText1=el-shafie%2c+salwa+ibrahim+ibrahim&criteria1=2.), 2015; Mahmoud, 2016; Rokni and Niknaqsh, 2013).
	+ This study also confirmed the results of those studies which proved the effectiveness of using morphemic analysis in enhancing reading comprehension such as the following studies (Bowers, 2012; Deacon and Francis, 2017; Ferguson, 2006; Good, 2011).
	+ This study also lends support to those studies which proved the effectiveness of using semantic mapping in enhancing reading comprehension such as the following studies (Ahmed, 2016; El-Hargan, 2017; Khalil, 2016).
	+ This study also agreed with those studies which proved the effectiveness of using the Frayer Model in enhancing reading comprehension such as the following studies (Buchanan, 2015; Popielarcheck, 2008; Reilly, 2017).
	+ This study also supported the results of those studies which proved the effectiveness of using more than one strategy in enhancing reading comprehension such as the following studies (Davoudi, et al, 2016; Harris-hugan, 2018; Katz and Carlisle, 2009; Popielarcheck, 2008).

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