

THE IMPACT OF SCHEMA ACTIVATION STRATEGY THROUGH QURANIC STORIES ON IMPROVING EFL SECONDARY STAGE AL-AZHAR STUDENTS' READING COMPREHENSION SKILLS

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Abstract

The purpose of this study was to examine the impact of using content schema activation strategy; ' Know", "Want to know", and "Learned" (KWL) through using some Quranic stories on improving reading comprehension skills of EFL secondary stage Al-Azhar students. The study adopted the quasi-experimental design employing two groups; experimental and control. The KWL strategy was used in teaching the experimental group in the first term of the academic year (2017-2018). A reading comprehension test was designed and validated to be used as a pre-posttest. The data of the study were analyzed statistically. Also, t. test for paired and independent groups was used to measure the statistical differences between the mean scores of the experimental group and the control group. The study indicated that there was a statistically significant difference between the mean scores of students of experimental group and control group on the post administration of reading comprehension test in favor of the experimental group. The results showed that the use of KWL strategy had a significant impact on improving students' reading comprehension skills. In conclusion, the study recommended implementing other content schema activation strategies for improving Al-Azhar students' reading comprehension skills. It was also suggested that further research should be conducted related to using KWL strategy for developing other language skills such as listening and writing.

Key words: Content schema activation, Reading comprehension skills, Quranic Stories, Secondary stage Al-Azhar students.

مستخلص الدراسة:

يرى علماء اللغة أن تنشيط الخلفية المعرفية السابقة أحد أهم خطوات تدريس الفهم القرائي، وقد هدفت هذه الدراسة إلى التحقق من أثر استراتيجية تنشيط الخلفية المعرفية السابقة من خلال القصص القرآني على تحسين مهارات الفهم القرائي لدى طالبات الصف الثاني الثانوي الأزهرى، القسم الأدبي. وقد تبنت الدراسة التصميم شبه التجريبي باستخدام مجموعتين احدهما تجريبية و الأخرى ضابطة، حيث تم التدريس للمجموعة التجريبية باستخدام إستراتيجية تنشيط الخلفية المعرفية من خلال القصص القرآني، بينما يتم التدريس للمجموعة الضابطة باستخدام الطريقة التقليدية. وقد أجريت الدراسة في معهد فتيات فيشا بنا الإعدادي الثانوي في مركز أجا التابع لمحافظة الدقهلية. و استخدمت الباحثه استبيان لتحديد مهارات الفهم القرائي اللازمه لطالبات الصف الثاني الثانوي، بجانب اختبار المهارات الفرعية للفهم القرائي قبلي- بعدى. وقد اسفرت النتائج على وجود تحسن دال في مستوى طالبات الصف الثاني الثانوي بالمجموعه التجريبية في اختبار مهارات الفهم القرائي البعدى وذلك عند مقارنة درجات الطالبات قبليا وبعديا. و هذه النتائج اكدت فاعليه استخدام إستراتيجية تنشيط الخلفية المعرفية السابقة من خلال القصص القرآني في تدريس مهارات الفهم القرائي و استخدمها كإستراتيجيه في تدريس باقى مهارات اللغة الانجليزية. وفي ضوء هذه النتائج قدمت الدراسه عدد من التوصيات تتعلق بأهمية استخدام هذه الإستراتيجية في تدريس اللغة الانجليزية.

Introduction:

Reading comprehension is a complicated thinking process that requires the reader's ability to construct meaning from the text. The famous children's author, Katherine Paterson, describes the relationship between the reader and the writer saying that once any book is published, it does not belong to the writer anymore. But, this work belongs to the creative mind of the reader who adds a lot to the original piece of writing. She believes that it is a good feeling when the reader understands what the writer was trying to say. On the other hand, it is more exciting for the reader to find something new in the text that the writer had not mentioned explicitly (Gibson, 2004).

Activating students' background knowledge is an important step in teaching reading comprehension. There are many strategies that can be used to activate students' schemata or background knowledge. Oral discussion is a useful strategy which activates students' prior knowledge. Questioning is another important strategy, as the teacher asks the students different types of questions before and during the reading process to activate their schemata about the topic. Another strategy is accessing what I know, determining what I want to know, identifying what I learned (KWL) strategy (King, 1994).

Through using Quranic stories as texts for reading comprehension, the students can get some help while reading, and this help comes from inside, in other words it is their content schema. This content schema is their prior or background knowledge of the topic which the text is talking about. The students already know what the story, they are going to read, is about. They also know what the setting, the characters, and the incidents are.

Review of Literature

Reading is a necessary skill in teaching and learning English as second language and as a foreign language, as well. Comprehension is the main goal of reading, especially for school students. It requires the reader's interaction with the printed text in order to extract meaning efficiently.

Nature of Reading Comprehension

Woolley (2011) defined reading comprehension as "the process of making meaning from text" (p. 15). Therefore, the goal is to get a complete understanding of what is written in the text. The reader's prior knowledge or schema affects the meaning constructed from the text.

To illustrate the idea more, Sweeny (2004) clarified that text comprehension is the main reason for reading in the first place. Without comprehension, reading would be a mere exercise for pronouncing a set of words. He added that Questioning is a useful strategy that aids text comprehension.

Factors Affecting Reading Comprehension

Babashamsi, Bolandifar and Shakib (2013) identified two factors affecting the readers' comprehension; schema and vocabulary.

- 1- **Schema theory (Background knowledge):** The traditional view of reading regarded it as students' engagement in learning vocabulary and interpreting meaning. However, researchers such as Bartlett, Goodman, Anderson and Pearson began to concentrate on the readers' background information and the schema theory.
- 2- **Vocabulary knowledge:** No doubt that good readers are those who have a high level of vocabulary. Thus, the lexical access is an essential factor in the reading process.

Reading Comprehension Models: Reading as a Process

Liu (2010) discussed the models of reading as follows:

1-Bottom-up model:

In this model, the focus is on the written text. The process of reading results in meaning. Meaning-driven proceeds from part to whole.

2-Top-down model:

In this model, the emphasis is on what the reader brings to the text. Meaning construction proceeds from whole to part. This model is known as concept-driven model.

3-Interactive model:

Depending on the bottom-up alone or the top-down alone does not explain completely the process of comprehension. Thus, there should be a sort of interaction between the two models.

The origin and definitions of schema

Yang (2008) traced the origin of schema and stated that schema was first used in the 19th century by philosopher Kant. He regarded schema as an intrinsic structure that people use to organize and interpret what happens in the outside world. In 1932, psychologist Bartlett presented schema in his book "Remembering" as a construct. Bartlett believed that understanding and remembering happen due to people's previous experiences and knowledge. He used the term schema to refer to the active organization of any past reaction or experience. In 1980, Rumelhart defined schema as a hypothetical mental structure which represents the generic concepts that people store in their memories.

Types of Schema

Schema theory assumes that the written text does not carry the whole meaning. Rather, it provides the readers with clues and directions about how to construct the meaning. The readers combine the text clues with their prior knowledge, schema, in order to comprehend the text. While processing the

text, the readers use different types of schemata. These types are discussed below in detail.

- **Formal Schema:** It is related to the rhetorical structure of the text. It refers to the reader's background knowledge about text genres.

- **Content Schema:** It is related to the content of the written texts. Content schema means the reader's prior knowledge about the topic's main idea, the vocabulary used, and the organization of ideas.

- **Cultural Schema:** It is related to general aspects of cultural knowledge shared by a certain community. Cultural schema falls under content schema. It affects the reader's understanding and predictions about the text.

- **Linguistic Schema:** It refers to the knowledge of the vocabulary and grammar used in a text. Since comprehension includes the decoding of meaning, readers can decode the meaning efficiently if they have some knowledge about the words and the grammar used in the text (Shuying, 2013).

Content Schema Activation Strategy

Fisher, Frey and Williams, (2002) mentioned many content schema activation strategies such as reflection and recording, brain storming, computer assisted activation and topic related pictures. Among these strategies, this study used the following activation strategy:

The KWL Strategy:

It is a reading comprehension strategy, which was developed by Ogle (1986) to help student's access important background information before reading nonfiction texts. The K-W-L strategy (accessing what I know, determining what I want to find out; recalling what I learnt) combines several elements of approaches that help students gain information and comprehend a text. Ogle assured that after several K-W-L activities, students are encouraged to use them as independent

learning strategies. The first two steps of K-W-L, students and the teacher engage in oral discussion. During these steps, they begin to reflect on their knowledge about a topic, brainstorm basic ideas about the topic, and then identify categories of information. Next, the teacher helps bridging the gaps and the inconsistencies in students' knowledge. Now, students create individual lists of subjects that help them to learn about the topic or questions that need to be answered. In the final step of K-W-L strategy, students read new material, answer some questions and share what they have learned with the teacher and each other.

Studies related to schema and developing reading comprehension

In her study, Almenour (2014) mentioned that the teacher can teach vocabulary through activating prior knowledge and connecting it to the new vocabulary word. The teacher can do this through exposing the students to a variety of literary texts, such as Quranic verses. She concluded that using Quranic verses in the classroom is a useful strategy with students of different abilities depending on the students' background knowledge.

Khanam, Zahid and Mondol (2014) investigated the application of schema theory in the teaching of reading comprehension of tertiary level students learning EFL. Participants of this study were Thirty-six students studying at Prime University in Bangladesh and 12 teachers teaching at different private universities. The study results showed that the activation of schemata improved students' reading comprehension and helped them build new schemata, as well.

This study investigated the effectiveness of using graphic organizers and schema activation in increasing Iranian EFL learners' reading comprehension. For the purpose of this study, sixty-three female students learning English at intermediate level in Ganje Daneshpazhohan English

institutes in Tehran, Iran. The students were divided into three groups; the graphic organizer group, schema group, and control group. The results of the test indicated that using graphic organizer and background knowledge activation strategy was effective in developing the level of reading comprehension among Iranian EFL learners (Mahmood, Niko & Bonyadi, 2013).

Statement of the Problem

Based on the review of literature and the pilot study, the problem of the study can be stated as follows:

EFL second year secondary stage Al-Azhar students have a difficulty in their reading comprehension and poor reading comprehension skills.

Questions of the research

This present study attempted to answer the following questions:

- 1) What are the necessary reading comprehension skills for EFL second year secondary stage Al-Azhar students, the literary section?
- 2) What are the characteristics of content schema activation strategy to improve the reading comprehension skills of EFL second year secondary stage Al-Azhar students, the literary section?
- 3) What is the impact of content schema activation strategy through using Quranic short stories on improving the reading comprehension skills of EFL second year secondary stage Al-Azhar students, the literary section?

Hypotheses

This study attempted to test the following hypotheses:

- 1 - There is a statistically significant difference between the mean scores of the experimental group and the control group on the post administration of the reading comprehension test in favor of the experimental group.
- 2- There is a statistically significant difference between the mean scores of the experimental group on the pre and

post administrations of the reading comprehension test in favor of the post one.

Significance

The present study was significant in a number of ways:

1. Providing EFL teachers and researchers with a list of the reading comprehension skills appropriate for second year secondary grade students.
2. Drawing EFL teachers and researchers' attention to the effectiveness of using content schema activation strategy in improving the reading comprehension skills.
3. Paving the way for other studies to use schema activation strategy to improve other language skills for Al-Azhar secondary and university students
4. Drawing the EFL course designers' attention to the importance of teaching reading comprehension skills through using Quranic short stories.

Limitations of the study

The present study was limited to:

- 1- A sample of sixty students of second year of Al-Azhar secondary institutes, the literary section, as it is an important academic year before the third year secondary, at Fisha Bana Secondary Institute for Girls.
- 2- The reading comprehension skills identified through the checklist of the reading comprehension skills.
- 3- The content of six Quranic short stories.
- 4- The content schema activation strategy (KWL).

Method:

Participants and Settings

The participants of the study were sixty students of Al-Azhar second year secondary stage from Fisha Bana Secondary Institute for Girls. The students were divided into two groups: an experimental group and a control one. The experimental group consisted of thirty

students and the control one consisted of thirty students. Both groups had the same age, experience and language proficiency. The study was implemented during the first term of the academic year 2017/2018.

Design

The study adopted the quasi-experimental design using an experimental group and a control group. A pre-post reading comprehension test was administered to both the experimental and control groups to measure their reading comprehension skills. The experimental group was taught using schema activation strategy through Quranic stories, whereas the control group was taught using the traditional way.

Instruments

The following instruments were developed by the researcher and validated by the jurors:

- 1- A reading comprehension skills questionnaire (RCSQ) to identify the necessary reading comprehension skills for EFL second year secondary students of Al-Azhar, the literary section.
- 2- A pre-post reading comprehension test to measure the participants' level before and after the experiment.

Procedures:

To answer the questions of the study, the following procedures were attempted.

- 1- Reviewing literature and previous studies related to the reading comprehension skills, schema and Quranic stories to develop the reading comprehension skills list and the experimental frame.
- 2- Designing the reading comprehension skills questionnaire and presenting it to jurors to validate the skills.
- 3- Identifying the most appropriate reading comprehension skills according to the jurors' opinions.
- 4- Identifying the most relevant six Quranic short stories according to the jurors' opinions.

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- 5- Designing a reading comprehension test according to the pre-determined skills.
 - 6- Applying the reading comprehension test on a sample of twenty students to determine its reliability.
 - 7- Administering the reading comprehension pretest to the experimental and the control groups.
 - 8- Implementing the proposed training to the experimental group.
 - 9- Administering the reading comprehension posttest to the experimental and the control groups to detect the improvement, if any.
 - 10- Comparing the results of the pre and post administrations.
 - 11- Analyzing the results statistically.
 - 12- Interpreting the results in the light of the study hypotheses.
 - 13- Presenting a conclusion, recommendations and suggestions for further research.

Definition of Terms

Reading comprehension

Reading comprehension is the process of simultaneously extracting and constructing meaning through interaction

and involvement with written language (Schoenbach, Greenleaf & Murphy, 2012, p.11).

Schema

Schema is defined as the "prior knowledge that is already stored in memory, functions in the process of interpreting new information and allows it to enter and become a part of the knowledge store" (Maghsoudi, 2012).

Results and discussions:

Testing the first Hypothesis

The first hypothesis was "There is a statistically significant difference between the mean scores of the experimental group on the pre and post applications in favor of the post one".

T-test for independent samples was used to test the first hypothesis which addressed the differences between the experimental group and the control group on post application of the achievement test. Table (1) compares the mean scores of the experimental and control groups of each reading comprehension sub-skill in the post administration of the reading comprehension test.

Table (1): Results of T-test of the control and experimental groups on the post-administration of the achievement test

<i>skills</i>	<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>T</i>	<i>DF</i> (<i>n1+n2-2</i>)	<i>Sig. (2-tailed)</i>
Scan for specific information	Control	30	2.9667	.76489	6.5	58	Significant at 0.05
	Exp.	30	4.1333	.62881			
Read for gist	Control	30	1.6667	.66089	4.4		
	Exp.	30	2.6000	.96847			
Recognize the proper pronoun reference	Control	30	2.2333	.77385	6.3		
	Exp.	30	3.7000	1.02217			
Deduce meaning of unknown words	Control	30	2.4667	.50742	11.2		
	Exp.	30	4.4333	.81720			
Use background knowledge to understand new information in the passage	Control	30	2.7333	.69149	3.5		
	Exp.	30	3.3667	.71840			
Read critically to get the moral lesson of the passage	Control	30	2.8333	.64772	5.5		
	Exp.	30	3.9667	.92786			
Total	Control	30	14.9000	2.23375	12.4		
	Exp.	30	22.2000	2.34006			

Results in table (1) indicate that the students' mean scores of each reading comprehension sub-skill in the post administration of the test increased. These results implied that the higher means are for the experimental group. Results in table (1) indicate that the mean score of each sub-skill of the reading comprehension posttest increased as follows:

1- **Literal Skills:** This category included two sub-skills; scan for specific information, and read for gist. As for the sub-skill "Scan for specific information", the T- test value was 6.5 and it was significant at 0.05 level, as the mean of the experimental was 4.1333 and the mean of the control was 2.9667. Therefore, the high mean is for the experimental group. Concerning the

sub-skill "Read for gist", the T- test value was 4.4 and it was significant at 0.05 level, as the mean of the experimental was 2.6000 and the mean of the control was 1.6667. So, the high mean is for the experimental group.

2- **Interpretive Skills:** This category included two sub-skills; deduce the meaning of unknown words, and recognize the proper pronoun reference. For the sub-skill "Deduce meaning of unknown words", the T- test value was 6.3 and it was significant at 0.05 level, as the mean of the experimental was 3.7000 and the mean of the control was 2.2333. This means that the high mean is for the experimental group. Concerning the sub-skill "Recognize the proper pronoun reference", the T- test

value was 11.2 and it was significant at 0.05 level, as the mean of the experimental was 4.4333 and the mean of the control was 2.4667. This means that the high mean is for the experimental group.

- 3- **Evaluative skills:** This category included two sub-skills; use background knowledge to understand new information in the passage, and read critically to get the moral lesson of the passage. As for the sub-skill "Use background knowledge to understand new information in the passage", the T-test value was 3.5 and it was significant at 0.05 level, as the mean of the experimental was 3.3667 and the mean of the control was 2.7333. This means that the high mean is for the experimental group. For the sub-skill "Read critically to get the moral lesson of the passage", the T- test value was 5.5

and it was significant at 0.05 level, as the mean of the experimental was 3.9667 and the mean of the control was 2.8333. This means that the high mean is for the experimental group.

The T-test value of the overall reading comprehension posttest was 12.4 and it was significant at 0.05 level, as the mean of the experimental was 2.34006 and the mean of the control was 2.23375. This result indicates that the high mean is for the experimental group. In other words, the experimental group outperformed the control group in the reading comprehension skills posttest.

Estimating the effect size (η^2):

Eta Square (η^2) was used in order to estimate the effect size of the experimental treatment (the Training Program). Table (2) shows the results.

Table (2) Value of (η^2) and Levels of Effect Size

<i>Independent variable</i>	<i>the dependent variable</i>	<i>T</i>	<i>DF (n1+n2-2)</i>	<i>Value of Eta -square (η^2) *</i>	<i>Level of effect size</i>
Schema Activation Strategy	Scan for specific information	6.5	58	0.42	high
	Read for gist	4.4		0.25	
	Recognize the proper pronoun reference	6.3		0.41	
	Deduce meaning of unknown words	11.2		0.68	
	Use background knowledge to understand new information in the passage	3.5		0.17	
	Read critically to get the moral lesson of the passage	5.5		0.34	
	Total score	12.4		0.73	

To get the effect size of the proposed training, the square of eta (η^2) was estimated after estimating the t-value. η^2 provides two types of information or results:

1- The value of η^2 can be converted into its parallel value of (d) which reflects the different levels of effect size (small-middle- high), as illustrated in table (2).

2- η^2 **represents** the total variance in the dependent variable which can be attributed to the independent variable.

From the above table, the effect size of the independent variable (schema activation strategy) on the dependent variable (reading comprehension skills) can be discussed as follows:

1-The literal skills: The effect of the independent variable on the dependent **variable** was 0.42 in the sub-skill "scan for specific information", and it was 0.25 in the sub-skill "read for gist".

2-The interpretive skills: The effect size of the independent variable on the dependent variable was 0.41 in the sub-skill "deduce meaning of unknown words", and it was 0.68 in the sub-skill "recognize the proper pronoun reference".

3-The evaluative skills: The effect size of the independent variable on the dependent variable was 0.17 in the sub-skill "use background knowledge to understand new information in the passage", and it was 0.34 in the sub-skill "read

critically to get the moral lesson of the passage".

The results also show that the effect size in the overall reading comprehension skills was 0.73. According to Cohen's Standards, this is a high indicator of the effectiveness of the program in improving the students' reading comprehensions skills.

The significant differences between the experimental and control groups shown in table (1) in addition to effect size results shown in table (2) support the effectiveness of the proposed training on improving second year secondary stage Al-Azhar students' reading comprehension skills; and this effect is in favor of the experimental group. Consequently, the first hypothesis of the study is accepted.

Testing the second Hypothesis

The second hypothesis was "There is a statistically significant difference between the mean scores of the experimental group and the control group on the post application in favor of the post one".

A t-test for paired samples was used to test the second hypothesis, to investigate if there was any statistically significant difference between the mean scores of the students in the experimental group on the reading comprehension pre- and post-tests as a result of the administration of the program. The following are the results of the t-test comparing the mean scores of the students in the experimental group on the pre/post overall reading comprehension skills test.

Table (3) : Results of t-test of the experimental group on the pre-post- administration of the

achievement test							
<i>Skills</i>	<i>Measurement</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>T</i>	<i>DF (n-1)</i>	<i>Sig. (2-tailed)</i>
Scan for specific information	Pre	30	2.3000	.91539	10.2	29	Significant at 0.05
	Post	30	4.1333	.62881			
Read for gist	Pre	30	1.1333	.50742	8.3		
	Post	30	2.6000	.96847			
Recognize the proper pronoun reference	Pre	30	1.6000	1.00344	8.9		
	Post	30	3.7000	1.02217			
Deduce meaning of unknown words	Pre	30	1.8000	1.09545	10.3		
	Post	30	4.4333	.81720			
Use background knowledge to understand new information in the passage	Pre	30	1.7000	1.02217	7.9		
	Post	30	3.3667	.71840			
Read critically to get the moral lesson of the passage	Pre	30	1.7333	.82768	10.5		
	Post	30	3.9667	.92786			
Total	Pre	30	10.2667	3.71329	14.05		
	Post	30	22.2000	2.34006			

Results in table (3) indicate that the mean scores of the students in the overall reading comprehension skills in the pre reading comprehension test is (10.2667). While their mean score in the overall reading comprehension skills of the post reading comprehension test is (22.2000). These results indicate that the higher mean is for the post administration of the reading comprehension test in the overall reading comprehension skills. Thus, students' overall reading comprehension skills in the experimental group have been improved after the exposure to the proposed strategy. From the table, it can also be noticed that t-value for the overall reading comprehension test is 14.05. This value is significant at 0.05 level in favor of the post administration of the reading

comprehension test as a result of the administration of the program.

The results of the t-test proved to be consistent with the second hypothesis. It showed that there is a statistically significant difference between the mean scores of the students in the experimental group on the pre and post reading comprehension test in the overall reading comprehension skills in favor of the post administration. This result indicates that the used strategy was effective in improving the reading comprehension skills. These differences were significant at the level of 0.05.

The table, also, shows more details about each sub-skill of the reading comprehension skill. Statistics in table (3) indicate that the students' mean scores of each reading comprehension sub-skill in the

post administration of the test increased. These results implied that the higher means are for the post administration of the reading comprehension test. Results in table (3) indicate that the mean score of the skills increased as follows:

1-Literal Skills: This category included two sub-skills. As for "Read for specific information", the mean increased from M= 2.3000 to M= 4.1333. Concerning the sub-skill "Read for gist", the mean increased from M=1.1333 to M= 2.6000.

2-Interpretive Skills: This category included two sub-skills. For "Deduce meaning of unknown words", the mean increased from M=1.6000 to M= 3.7000. For the sub-skill "Recognize the proper pronoun reference", the mean increased from M= 1.8000 to M= 4.4333.

3-Evaluative Skills: This category included two sub-skills. As for the sub-skill "Use background

knowledge to understand new information in the passage", the mean increased from M= 1.7000 to M= 3.3667. Concerning the sub-skill "Read critically to get the moral lesson of the passage", the mean increased from M= 1.7333 to M= 3.9667.

The results of the t-test values of the students' pre-and post-test mean scores of each reading comprehension sub-skill of the experimental group were significant at 0.05 level in favor of the post administration of the reading comprehension test.

Estimating the effect size (η^2):

Eta Square (η^2) was used in order to estimate the effect size of the experimental treatment (the schema activation strategy training program). Table (4) shows the results.

Table (4) Value of (η^2) and Levels of Effect Size

Independent variable	Skills of the dependent variable		T	DF (n-1)	Value of Eta-square (η^2)	Level of Effect Size
The Schema Activation Strategy	Literal Skills	Scan for specific information	10.2	29	0.78	High
		Read for gist	8.2		0.70	
	Interpretive Skills	Recognize the proper pronoun reference	8.9		0.73	
		Deduce meaning of unknown words	10.3		0.79	
	Evaluative Skills	Use background knowledge to understand new information in the passage	7.9		0.68	
		Read critically to get the moral lesson of the passage	10.5		0.79	
		Total score	14.05		0.87	

According to the above table, the effect size of the independent variable (schema activation strategy) on the dependent variable (reading comprehension skills) can be discussed as follows:

1-The literal skills: The effect of the independent variable on the dependent variable was 0.78 in the sub-skill "scan for specific information", and it was 0.70 in the sub-skill "read for gist".

2-The interpretive skills: The effect size of the independent variable on the dependent variable was 0.73 in the sub-skill "deduce meaning of unknown words", and it was 0.79 in the sub-skill "recognize the proper pronoun reference".

3-The evaluative skills: The effect size of the independent variable on the dependent variable was 0.68 in the sub-skill "use background knowledge to understand new information in the passage", and it was 0.79 in the sub-skill "read critically to get the moral lesson of the passage".

The results also show that the effect size in the overall reading comprehension skills was 0.87. According to Cohen's Standards, this is a high indicator of the effectiveness of the program in improving the students' reading comprehensions skills.

The significant differences between the pre and post applications shown in table (3), in addition to effect size results shown in table (4) support the effectiveness of the proposed training on improving second year secondary stage Al-Azhar students' reading comprehension skills; and this effect is in favor of the post application. Consequently, the second hypothesis of the study is accepted.

The results of the study came in accordance with other studies in the field (Munsakorn, 2015; Almenour, 214; Khanam, Zahid and Mondol, 2014; Mahmood, Niko and Bonyadi, 2013; Khodadady and Elahi, 2012; Alghazo and Alghazo, 2005). All the pre-mentioned

studies assured the effectiveness of using schema activation strategy in promoting the students' reading comprehension.

Conclusion:

Through the statistical analysis, the following are the results of the present study:

- 1- There is a statistically significant difference between the mean scores of the experimental group (students who were taught using the suggested strategy training program) and the mean scores of the control group (students who were taught using the prescribed teacher's guide) on the overall reading comprehension skills posttest in favor of the experimental group.
- 2- There is a statistically significant difference between the mean scores of the students in the experimental group on the pre- post- reading comprehension test in the overall reading comprehension skills in favor of the post administration of the test.
- 3- There was an increase in the mean score of each sub-skill of the reading comprehension.
- 4- The highest means were for the sub-skills of "Scan for specific information" and "Recognize the proper pronoun reference".
- 5- The lowest mean scores were for the sub-skills of "Read for gist" and "Use background knowledge to understand new information in the passage".
- 6- The current research identified six very important reading comprehension sub-skills appropriate to the second year of Al-Azhar secondary institutes.
- 7- The current study ascertains the effectiveness of using schema activation strategy in improving reading comprehension.

Recommendations

Based on the previous findings, the present study recommended the following:

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- 1- Reading skill, in general, and reading comprehension should receive more attention from the course designers in order to be developed at pre college levels especially at secondary stage.
 - 2- Schema activation strategy, especially the used strategy, KWL, should be used in teaching the English language skills. This will help students be more successful and more autonomous learners.
 - 3- Quranic short stories can be useful material for reading comprehension skills.

Suggestions for further research

The current study suggested the following researches:

1. Investigating the effectiveness of applying the proposed schema activation strategy (KWL) and Quranic short stories in teaching other English language skills.
2. Investigating the effectiveness of using other different schema activation strategies in teaching reading comprehension skills.

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