The Effect of an EFL Reading Strategies-Based Instructional Programme on Reading Achievement and Awareness of Reading Strategies among Jordanian High School Students

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Abstract: This study probed the effect of reading strategies-based EFL program on High school students' reading comprehension achievement and their awareness of such strategies. A three-month long instruction on a set of reading comprehension strategies derived from local and international research, was administered to an experimental group compared with a control group. The study results revealed a positive effect of strategy-based instruction on secondary students' achievement in reading comprehension and their reading strategy awareness as derived from the results of pre- and post tests and the self-observation scales. The study revealed strategies subscribed to by the experimental group students such as summarizing the reading text, identifying and understanding meanings of exotic words in the text, extracting the main ideas from the passage, restoring prior information to understand the reading text, understanding the main aim of the reading passage, transforming the reading text to a story and attempting to understand meanings of unknown words. The participated teachers of English in this study registered their observations and reported on their students' reading comprehension strategies which, according to them, varied in terms of strategy use and frequency between experimental and control group. Upon the findings of this study, the researcher recommended the training of students' on reading comprehension strategies and assessing their effect on other students' populations in different directorates of education in Jordan and in similar educational systems.

Key words: Reading comprehension · EFL reading strategy-based instruction · Reading achievement · strategic reading

INTRODUCTION

Reading skill has received a profound attention from top educational policy makers in Jordan, as the context of the present study, the Middle East and the world. Learning to read is one of the most significant life skills which teachers can aid a child to develop (Perkins, [1]). This skill proficiency is significant in mastering English language as a whole and, therefore, achieving well in academic study and life-long learning. The Jordanian Ministry of Education has recently given special attention to this skill in school learning. The attention to this skill is increased by the high number of students who lack sufficient relevant foundation. According to the Minister of Education, 100,000 basic grade students exhibit a weakness in English and mother tongue literacy.

As for the value of the reading skill for the learner, Dreyer and Nel [2] confirmed that reading comprehension is necessary for academic learning in the different subject fields and it is also essential for the individual's professional success and continuing learning. A relationship between the students' reading proficiency and the use of reading strategy was also explored by several researchers (Barnett, 1988 and Monteiro (1992). A positive bond between effective reading strategies and academic achievement was also revealed by Jones, Slate & Marini (1995) [3].

It is internationally acknowledged that strategy instruction is effective in developing learner's reading comprehension and also in aiding students' comprehension by teaching them reading strategies. Independent reading via the use of reading strategies was promoted by learners. Among the strategies that may benefit readers is a set that was suggested by Pressly [4]which included activation of prior knowledge, generation of questions during reading, construction of

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mental images about meanings available in the text, summarization and finally the identification of important information the text contains. A study undertaken by Brown, Pressley, Van Meter and Schuder [5] found out that second graders who were taught transactional strategies achieved better in reading comprehension than those who did not receive instruction via such strategies. Some research has emphasized among other approaches explicit reading strategies instruction (Pearson, 1984). Accordingly, direct instruction is appropriate in certain situations where other types of instruction are used in some other situations. Some other research focused on the skills of good readers who distinguish between important information and details as they read and are able to rely on clues in the text to predict information stated. They are also able to spot inconsistencies in a text and can employ strategies to make these inconsistencies understandable (Barker and Brown, 5).

A comprehensive overview of the literature indicates that many factors could affect improving reading proficiency. All the above scholars (among many others) agree that repeated reading is a highly effective strategy for improving reading fluency. Training on reading comprehension strategies and measuring its effect on their achievement is a primary purpose which the present study seeks to investigate. This is motivated by the multi-faced issue of reading comprehension which reveals the insufficiency of training on reading strategies and its related likely contribution to reading improvement among learners and the lack of adequate knowledge of learners of reading strategies. This study is expected to fill a gap in research by investigating effect of training on reading strategies and the associated influence on reading gain and awareness of learners of reading strategies. To cite a relevant study from the reading strategies literature, Jafari (2012)'s[6] study demonstrated that the participants were moderately aware of reading strategies and the most frequently used strategies were support strategies, followed by global strategies and then problem solving strategies.

As recent as (2013), Afflerback *et al*. [7] confirmed that strategies and skills are at the core of reading achievement, but they are one single aspect of the elementary students' reading development. The present study will capitalize on the attention given to reading strategies for the positive contribution that these strategies may have to the development of the foreign and second language high school students' reading comprehension. It also will benefit from the various literatures that has besides interest in reading strategies has focused on the approaches to teach reading comprehension and other related areas.

Statement of the Problem: The reading performance of the high school students is generally described as low as appearing from the analysis of the high school students' reading comprehension tests as reported by several English language teachers. This is also confirmed by EFL teachers who observe students while performing related reading comprehension tasks. The author himself through a previous experience noticed the low scores of high school students in reading comprehension. One possible reason behind learner's weakness in reading comprehension can be the lack of strategies or techniques by which the learner can feel resourceful and able to approach the reading comprehension passage instead of memorizing some parts of which or feeling unable to approach it totally as what happens with many high school students. Another facet of the problem is the lack of sufficient knowledge and training on the part of some EFL teachers. Therefore, among other possible solutions can be the training of their teachers on the confirmed reading strategies in the local and international literature and to teach the subjects of this study these strategies to improve their reading achievement. Therefore, this study examines the effect of training on reading comprehension strategies among a group of high school students with data being derived from results of an achievement test and observation of the target high school students and self evaluation by participating teachers.

Importance of the Study: The Ministry of Education in Jordan has felt how much is needed to improve the reading performance of school students. The recent 2015 explicit calls by the Ministry of Education revealing the widespread phenomenon of weakness in reading and writing has sparked a wide range and hot debate among educationists and policy makers to look for a solution. Investigation of reading strategies and training teachers and school students on them is both relevant and timely issue in Jordan and the world at the current time as many educational systems have engaged in educational policies to search for a possible mechanism to aid suffering students. This study gains significance as it probes the effect of training teachers and raising their awareness concerning a set of reading comprehension strategies and measuring its effect on the achievement of one experimental group consisting of second secondary

school students and a control group from the same population. Among those who are likely to benefit from the training on reading comprehension strategies could be the students at the Tawjihi level in Jordan and elsewhere in the region through introducing them to strategy based instruction. Many students desperately struggle to understand the reading comprehension passages to achieve better in English. On the other hand, teachers can benefit from the results of this study in restructuring their teaching approach to match the strategies of their students. School supervisors can also benefit from this study by improving their supervisory practices. Curriculum specialists may also benefit from its results in shaping the curriculum in a manner to encompass reading strategies of the students and finally enabling students in integrating these strategies into their background knowledge of learning to read.

Limitations of the Study: The limitation of this study to high school students in Amman second directorate of education restricted the generalization of the results to the population of this directorate and other similar directorates of education. The teachers who participated in this study belong to the above directorate of education. This study was also limited to its implementation during the first term of the academic year 2012-2013. Two groups of second secondary students participated as experimental and control groups. The study research tools were also restricted to reading comprehension test, student and teacher observations scales.

MATERIALS AND METHODS

This study was quasi-experimental and observational study as students were observed doing their reading comprehension tasks by their English language teachers and also the students self-observed their reading performance. Teachers filled out an observation rating scale regarding the strategies which high school students used in reading comprehension in this study. Likewise, the participating high school students of both groups of the study filled a similar self-observation scale with responses on a three-point Likert scale ranging from low degree, mid-level degree and high degree of using the reading strategy.

Population and Sample of the Study: The population of this study embodied (122) high school secondary students (Tawjihi as referred to by the Jordanian Ministry

of Education) at Ibn Abbas school in Amman Second Directorate of Education. The sample of this study consisted of a total of (82) high school students. Three (3) teachers were trained on reading comprehension strategies. One of them taught the experimental group while an untrained teacher taught the control group. From the 82 students, (42) high school students from the above school participated in the experimental group and (40) high school students from the same school represented the control group. These students participated in the experiment phase, the self observation rating scale and responded to an open question related to their reading strategies questionnaire. A total of three teachers were subjected to a month-long training on reading comprehension strategies where one of them, as mentioned above, taught the experimental group. The other two teachers participated in the observation of the students of the control group.

Instructional Program: A validated instructional program was forwarded to six university lecturers specializing in TEFL to ensure its validity and its fitness to high school students. This instructional program was based on the strategies derived from local literature in Jordan, especially from a related reading comprehension project funded by the Jordanian Ministry of Higher Education which aimed to improve reading comprehension among high school students. It was also based on widely confirmed reading strategies collected locally and internationally. The strategies listed below in Table 1 illustrate those which the instructional program was based on.

The experimental group teacher was trained on how to teach reading comprehension to high school students in the target school along with a set of reading comprehension strategies which are listed below. The teaching of reading comprehension strategies was widely highlighted for the benefits obtained by learners. Carrell, (1985) stressed that reading strategies can be taught and that when taught, they helped to improve student' performance on recall and comprehension tests.

Developing and Experimenting with a suggested EFL reading strategies based instructional program to improve reading ability among secondary school students in Jordan.

A proposed multiple strategy instructional program for improving reading comprehension among 2nd secondary students was built on research conducted on reading comprehension strategies during the present project through surveying such secondary students'

Table 1: Proposed strategies for secondary EFL students to improve their reading achievement

1	Activating the students' prior knowledge of the reading text
2	Answering pre-reading questions
3	Setting a purpose for reading the text in the students own words
4	Locating difficult words and acquainting students' with their meanings through making mental pictures of them, acting them out and guessing their meaning depending on the context
5	The learner highlights the main and supporting ideas in the reading text
6	Formulating pre-reading hypotheses and encouraging learner's through predicting next ideas and information while reading the text
7	Rechecking student understands of the main ideas and vocabularies in the reading text (asking them one or more of the pre-reading questions to consolidate their prior understanding with their understanding of the text ideas to ensure interaction between the two components.
8	Monitoring comprehension: what the students achieve and do not achieve, why they do not achieve and what (fix-up strategies) they apply comprehend better
9	Linking the context of the reading passage with the learner's general life knowledge.
10	Graphic organizers: Concretisizing the reading passage by for example changing it into a graphical form, dramatic form, a story and the like.
11	Co-operative learning represented in what they students share with each other regarding the comprehension of the reading text and the gains they obtain from working together
12	Answering through-reading questions when the student can answer according to the reading text and questions that are indirectly related to the reading text the answer of which can depend on the learner's knowledge and experience
13	Question generation: that students create questions on the reading comprehension text which reveal their ability to think about the text from various perspectives and demonstrate their ownership over their learning of the reading text.
14	Reconstructing the reading text in the learner's own words
15	Encouraging the learner's self assessment as the learner asks questions on the text and gives a grade of his or her understanding of the text.
16	Asking a final question which relates to the learner's prior knowledge to check the learner's total understanding

reading strategies and experimenting with them. The related studies locally conducted by Alkhawaldeh [8,9] and Alkhawaldeh[10]together with related international studies on reading strategies among other were (Dymock and Nicholson [11], Richards [12] and Jafari, informed the proposed reading strategy instructional program suggested to potentially improve secondary students' reading achievement in the above country.

Self Observation Rating Scale: This validated rating scale consisted of 55 items as displayed in table 6 below where these items represented reading comprehension strategies derived from the related literature and the findings of previous research conducted in the present project. The responses of this self observation rating scale ranged from low degree of reading comprehension strategies up to high degree of using this strategy. The above two groups of experimental and control group responded to this rating scale as it was given to them by the end of the experiment. The same observation rating scale, with minor modifications, was also responded to by three teachers among them was the teacher who taught the experimental group and two other teachers who observed the students in the control group [13-20].

Validity of the Instruments: The author forwarded the instruments of the study to six university professors among them TEFL professors and measurement and evaluation professors. A number of suggestions and comments were written on the instruments which were taken into consideration in the production and construction of the final version of the achievement test and the observation checklist which encompassed 55-items covering the broad array of reading comprehension strategies derived from the researcher's previous research and the related world literature [21].

Reliability of the Results: The reliability of the test-retest was applied with the reading comprehension test and computed as high as (86%). As for the observation of the students and their self observations, the transcripts of three observations in each of these two types were sent back to the respondent to recheck their responses. A high match was noticed between the original observation and the related transcripts [22].

Implementation of the Study: The training of the English language teachers was undertaken before the commencement of the academic year and lasted one month for these teachers according to the proposed program. The study was implemented in the first semester 2013 with a pre-test was administered to the two groups of the students in this study to ensure equivalence between their reading achievement. Three (No= 3) teachers were trained on reading comprehension strategies of them one taught the experimental group in this study where the control group teacher (No= 1) did

not receive any training on these strategies. The teacher of the experimental group taught students along side with the above scheme of reading comprehension strategies over three (3) consecutive months. The control group teacher taught the students by the conventional method of teaching subscribed to in the school by applying the reading comprehension activities assigned for students according to their EFL curriculum. The post test was administered to the students by the end of the third month of teaching them in this study. The student and teacher observations were conducted toward the end of the third month.

Data Analysis: The data collected via the different research methods used in this study which embodied the experiment with the associated pre and post texts and the self observation schedule were analyzed using the SPSS data analysis programs. Therefore, the means, numbers, standard deviations and one-Way ANOVA were used to achieve the purpose of this study.

RESULTS

The first research question addressed whether there were any statistically significant differences between experimental group students and control group students' achievement in reading comprehension due to the training on reading comprehension strategies? The table 2,3 demonstrates relevant results.

The second research question addressed whether there were any statistically significant differences between experimental group students and control group students pertaining the reading comprehension strategies they believed they subscribe to in learning to read comprehensively?

Towards the end of the first semester, students were given a self observation rating scale to which they responded. Relevant results are presented in the table 4.

The table 5 demonstrates statistically significant differences between the experimental and control groups in their strategy use.

Table 2: Mean and standard deviations of the responses of the two groups of students in the experimental group and the control group before and after the training on the reading comprehension strategies

Category	Pre-test			Post- test	
	No.	Mean	SD	Mean	SD
Experimental group	42	13.19	3.41	15.05	3.52
Control group	40	11.90	2.63	11.43	2.49
Total	82	12.56	3.10	13.28	3.55

Table 3: Results of the analysis of variance between the experimental and the control group

Source of variation	Sum of squares	DF	Mean of squares	F-value	Significance
Pre-test	565.11	1	565.11	241.88	0.000
Category	122.40	1	122.40	52.39	0.000
Error	184.57	79	2.34		
Total	1018.55	81			

Table 4: Means and standard deviations of control and experimental group students' use of reading comprehension strategies

Category	Pre-strategy use			Post-strategy use	
	No	Mean	SD	Mean	SD
Exp.	42	2.15	0.32	2.58	0.35
Cont	40	1.85	0.23	1.86	0.24
Total	82	2.00	0.32	2.23	0.47

Table 5: Analysis of variance of the means of the control and experimental group students' use of reading comprehension strategies

Source of variance	Sum of squares	Degrees of freedom	Mean of squares	F-value	Significance level
Pre	2.28	1	2.28	35.33	0.000
Category	4.80	1	4.80	74.26	0.000
Error	5.11	79	0.06		
Total	18.10	81			

Table 6: Means and standard deviations regarding the degree of reading strategy use by experimental group students and that of the control group as they self observed themselves in reading comprehension.

No		EXP Mean	EXP Std. Deviation	CONT Mean	CONT Std. Deviation
x1	Identifying the main aim of the reading process before embarking on it	2.10	0.88	1.98	0.86
x2	Identifying the form and type of the reading text before starting reading it	2.19	0.86	2.00	0.82
x3	Identifying the form and type of the reading text before embarking on reading it	2.31	0.78	1.85	0.80
x4	Reaching out to the purpose of the writer in writing the reading text	2.05	0.76	1.70	0.69
x5	Surveying the reading text to regularize reading it	2.26	0.77	1.95	0.81
x6	Predicting what will happen in the reading comprehension stages depending on prior knowledge about the reading text	2.10	0.79	1.90	0.81
x7	In the reading process the learner follows steps to understand the reading text	2.29	0.77	1.95	0.81
x8	Stating aims for the reading comprehension text	2.21	0.72	2.00	0.75
x9	Assessing understanding of the reading text constantly and at the end of the reading process	2.24	0.76	2.00	0.82
x10	Reading the whole text to get a general idea about it	2.24	0.76	1.98	0.77
x11	Dividing the reading comprehension text to identify its main ideas	2.19	0.86	1.95	0.88
x12	Predicting the content of the reading text to understand it	2.10	0.76	1.85	0.77
x13	Depending on the content of the reading text to identify the meanings of the difficult words in it	2.14	0.75	1.85	0.74
x14	Relating the content of the reading text to the learner's prior knowledge to understand it	2.12	0.83	1.83	0.81
x15	Building up one's knowledge about the reading text on the content of the text not on my prior knowledge	2.17	0.82	1.83	0.78
x16	Depending on one's self in building up understanding of the reading text without relying on others	2.02	0.81	1.73	0.75
x17	Benefiting from the clues in the reading text to figure it out.	2.05	0.79	1.70	0.72
x18	Changing the form of the information in the reading text from a linear into non-linear form	2.10	0.82	1.80	0.76
x19	Personalizing my understanding of the reading text by making it my own personal enterprise	2.29	0.81	1.95	0.81
x20	Connecting the content of the reading text with my general life knowledge to figure it out	2.29	0.77	1.85	0.80
x21	Formulating hypotheses during reading about its content to achieve effective reading	2.19	0.83	1.98	0.77
x22	Revising one's hypotheses during reading to achieve effective reading comprehension	2.31	0.84	2.10	0.84
x23	Handling the implied information in the reading text which require the prediction skill	2.21	0.75	1.93	0.73
x24	Exploiting linguistic and grammatical evidence in the reading text to assist me in achieving effective reading comprehension	2.29	0.67	2.13	0.69
x25	Putting questions during and after the reading comprehension	2.29	0.74	2.25	0.74
x26	Summering the reading text in a different way from the original reading text	2.10	0.76	1.88	0.76
x27	Performing speed reading of the text because of my knowledge of its vocabulary and its ideas	2.26	0.73	1.80	0.72
x28	Expressing one's personal standpoint regarding the content of the reading text	2.24	0.73	1.98	0.77
x29	Connecting the ideas in the reading text to understand it	2.07	0.71	1.68	0.73
x30	Formulating a cognitive image of the reading text	1.86	0.78	1.68	0.76
x31	Handling direct information in the reading text to understand it	2.14	0.81	1.83	0.84
x32	Handling the implied information in the reading text which require the prediction skill	2.14	0.95	1.73	0.99
x33	Handling direct and implied information in the reading text	2.00	0.77	1.65	0.77
x34	Benefiting from main and subheadings to identify key points in the reading text	2.00	0.77	1.85	0.95
x35	Underlining important information in the reading comprehension text	1.98	0.81	1.80	0.82
x36	Re-reading the reading text to understand it	1.90	0.76	1.70	0.76
x37	Putting the main ideas in the reading text in a graphical form	2.07	0.87	1.90	0.84
x38	Rewriting the reading text on my own words to benefit from when the need arises	1.93	0.92	1.70	0.79
x39	Exploiting available time to assist reading comprehension	2.14	0.78	2.08	0.73
x40	Reading the whole text to understand it	2.07	0.87	1.73	0.85
x41	Relying on the teacher in translating the reading comprehension text	2.24	0.79	1.85	0.74
x42	Connecting ideas in the reading text to achieve effective reading	2.14	0.78	1.73	0.72
x43	Bringing extra information related to the reading text to understand it	2.33	0.85	1.90	0.84
x44	Memorizing the available information in the reading text	2.07	0.81	1.68	0.80
x45	Connecting the content of the reading text with the learner's personal life to understand it	2.24	0.79	1.85	0.80
x46	Guessing the meanings of the difficult words in the reading text to understand it	2.21	0.81	1.83	0.78
x47	Identifying the syntactical structure of the reading comprehension text	2.21	0.84	1.83	0.84
x48	Extracting the main and supporting ideas in the reading text	2.12	0.74	1.80	0.72
x49	Referring to the dictionary to identify the meanings of the new words in the reading text	2.17	0.82	1.90	0.81
x50	Identifying the writing style of the writer of the reading comprehension text to understand the text	2.05	0.82	1.90	0.84
x51	Identifying the different meanings of the words in the reading text	2.17	0.79	1.80	0.82
x52	Storing automatically the meanings of the new words during reading to understand the text	2.10	0.88	1.70	0.85
x53	Connecting the skill of reading with the skill of writing to understand the text	2.10	0.85	1.63	0.77
x54	Relying on past experiences with similar reading texts to handle new reading texts	2.14	0.81	1.75	0.74
x55	Adjusting speed in reading to fit the reading of the text	2.17	0.85	1.85	0.83

Table 7: Strategies subscribed to by participants in this study as expressed by them in response to an open question attached to their self-observation schedule

No	strategy	Frequency
1	Writing meanings of words near to the reading text	1
2	Analyzing the reading text to understand it	2
3	Referring to the sources related to the reading passage	1
4	Writing questions on the reading passage	3
5	Identifying and understanding meanings of strange words in the reading text	7
6	Discussing with one's self the content of the reading text	1
7	Relating reading content with the stated questions	2
8	Attempting to understand meanings of words	2
9	Using other meanings of words to understand the text	1
10	Reflective reading	1
11	Understanding meanings to understand questions and then to understand the reading text	1
12	Writing questions during and after the reading process	1
13	Developing speed reading	1
14	Translating the text from English to Arabic to understand it	1
15	Reading the text more than once	4
16	Writing meanings of difficult words in a list	2
17	Reading the text then giving it a title	1
18	Summarizing the reading text	9
19	Using modern methods to understand the reading text	1
20	Using the internet to understand the reading text	1
21	Concentration during reading	1
22	Finding the meanings of difficult words before the reading process	1
23	Transferring the reading text to a story	3
24	Understanding the questions through identifying the meanings of words	1
25	Relying on pictures	1
26	Depending on exposition by the teacher	1
27	That the teacher uses modern methods in teaching reading comprehension	1
28	Relating reading content with reality	5
39	Acting out the reading content	2
40	Summarizing the reading text depending on my own understanding	1
41	Storing all ideas in the reading text and collecting them	1
42	Relating main vocabularies in the text with each other	1
43	Giving examples on the reading passage	1
44	Relating the reading text with the learner's personal issues	1
45	Finding out simpler meanings to the reading text	1
46	Understanding the title of the reading text	1
47	Dividing the reading text	2
48	Using previous information to understand the reading text	1
49	Building up a picture in my mind to understand the reading text	1
50	Reading questions before reading the text to understand the reading text	1
51	Understanding meanings of new words depending on the reading text	1
52	Connecting the title with the reading text	1
53	Benefitting from pictures, role plays and presentations to understand the reading text	1
54	Bringing outside information to understand the reading text	2
56	Preparation of the reading text	1
57	Understanding the aim of the reading passage	2
58	Understanding the syntax of the reading passage	1
59	Extracting the main ideas in the passage	3

Table 8: Teacher's observation rating scale results of the high school students use of reading comprehension strategies as carried out by the experimental group teacher compared with the teacher observations of the control group students

No		ExG. T	Co.GT 1	CoGT2
x1	Identifying the main aim of the reading process before embarking on it	3	2	2
x2	Identifying the form and type of the reading text before starting reading it	3	3	2
x3	Identifying the form and type of the reading text before embarking on reading it	2	2	1
x4	Reaching out to the purpose of the writer in writing the reading text	3	2	3
x5	Surveying the reading text to regularize reading it	2	1	2
x6	Predicting what will happen in the reading comprehension stages depending on prior knowledge about the reading text	3	1	2
x7	In the reading process the learner follows steps to understand the reading text	3	2	2
x8	Stating aims for the reading comprehension text	3	2	2
x9	Assessing understanding of the reading text constantly and at the end of the reading process	2	2	2
x10	Reading the whole text to get a general idea about it	3	1	2
x11	Dividing the reading comprehension text to identify its main ideas	2	1	2
x12	Predicting the content of the reading text to understand it	3	2	2
x13	Depending on the content of the reading text to identify the meanings of the difficult words in it	3	2	2
x14	Relating the content of the reading text with the learner's prior knowledge to understand it	2	2	2
x15	Building up one's knowledge about the reading text on the content of the text not on my prior knowledge	3	2	2
x16	Depending on one's self in building up understanding of the reading text without relying on others	3	2	1
x17	Benefiting from the clues in the reading text to figure it out.	3	2	2
x18	Changing the form of the information in the reading text from a linear into non-linear form	3	2	1
x19	Personalizing the learner's understanding of the reading text by making it my own personal enterprise	2	2	2
x20	Connecting the content of the reading text with my general life knowledge to figure it out	3	2	2
x21	Formulating hypotheses during reading about its content to achieve effective reading	2	2	2
x22	Revising one's hypotheses during reading to achieve effective reading comprehension	3	1	2
x23	Handling the implied information in the reading text which require the prediction skill	3	2	2
x24	Exploiting linguistic and grammatical evidence in the reading text to assist me in achieving effective reading comprehension	3	2	2
x25	Putting questions during and after the reading comprehension	2	2	2
x26	Summering the reading text in a different way from the original reading text	3	1	2
x27	Performing speed reading of the text because of my knowledge of its vocabulary and its ideas	2	2	2
x28	Expressing one's personal standpoint regarding the content of the reading text	3	1	2
x29	Connecting the ideas in the reading text to understand it	3	2	2
x30	Formulating a cognitive image of the reading text	2	2	2
x31	Handling direct information in the reading text to understand it	3	1	2
x32	Handling the implied information in the reading text which require the prediction skill	3	3	1
x33	Handling direct and implied information in the reading text	3	1	2
x34	Benefiting from main and subheadings to identify key points in the reading text	2	2	1
x35	Underlining important information in the reading comprehension text	3	1	2
x36	Re-reading the reading text to understand it	2	1	2
x37	Putting the main ideas in the reading text in a graphical form	3	2	2
x38	Rewriting the reading text on my own words to benefit from when the need arises	2	1	2
x39	Exploiting available time to assist reading comprehension	3	2	3
x40	Reading the whole text to understand it	3	2	2
x41	Relying on the teacher in translating the reading comprehension text	2	2	2
x42	Connecting ideas in the reading text to achieve effective reading	3	2	2
x43	Bringing extra information related to the reading text to understand it	3	2	2
x44	Memorizing the available information in the reading text	2	2	2
x45	Connecting the content of the reading text with the learner's personal life to understand it	3	2	2
x46	Guessing the meanings of the difficult words in the reading text to understand it	3	2	2
x47	Identifying the syntactical structure of the reading comprehension text	3	2	3
x48	Extracting the main and supporting ideas in the reading text	3	2	2
x49	Referring to the dictionary to identify the meanings of the new words in the reading text	2	2	1
x50	Identifying the writing style of the writer of the reading comprehension text to understand the text	3	2	1
x51	Identifying the different meanings of the words in the reading text	3	1	2
x52	Storing automatically the meanings of the new words during reading to understand the text	3	2	2
x53	Connecting the skill of reading with the skill of writing to understand the text	2	2	2
x54	Relying on past experiences with similar reading texts to handle new reading texts	3	2	2
x55	Adjusting speed in reading to fit the reading of the text	3	2	2

1 indicates a low degree 2 indicates an intermediate degree 3 indicates a high degree

To confirm the above quantitative results, further qualitative results were obtained from the observations of the students as they engaged themselves in reading comprehension. These are shown in the tables 6. The following table presents the degree of strategy use by the experimental group and the control group.

The table 6 clearly confirms results obtained regarding the effect of strategy-based instructional program on reading comprehension achievement as demonstrated by the reading performance of the experimental and control group students. It elucidates the positive effect of reading strategy-based instruction on the experimental group students compared with the control group students.

Several strategies are mentioned by the participating high school students in this stud as displayed in the table 7 eminent among them is summarizing the reading text, identifying and understanding meanings of strange words in the reading text, extracting the main ideas in the passage, bringing outside information to understand the reading text, understanding the aim of the reading passage, dividing the reading text, acting out the reading content, transferring the reading text to a story, reading the text more than once, attempting to understand meanings of words, identifying and understanding meanings of strange words in the reading text, analyzing the reading text to understand it and depending on the context to guess the meaning of the new words.

In table 8 demonstrates that teachers of English who were trained on reading comprehension strategies registered their observations to the students whilst undergoing instruction based on the above mentioned reading comprehension strategies. A clear difference is demonstrated between the responses of the experimental group teacher and the control group teachers in their observations of the students as they were doing their reading comprehension using the observation schedule used in this study. The strategies that the experimental group teacher noticed included identifying the main aim of the reading process before embarking on it, learners follow steps to understand the reading text, stating aims for the reading comprehension text, predicting the content of the reading text to understand it, depending on the content of the reading text to identify the meanings of the difficult words in it, building up one's knowledge about the reading text on the content of the text not on my prior knowledge, connecting the content of the reading text with my general life knowledge to figure it out, exploiting linguistic and grammatical evidence in the reading text to assist me in achieving effective reading

comprehension, putting the main ideas in the reading text in a graphical form, bringing extra information related to the reading text to understand it, connecting the content of the reading text with the learner's personal life to understand it, guessing the meanings of the difficult words in the reading text to understand it, identifying the syntactical structure of the reading comprehension text, extracting the main and supporting ideas in the reading text, storing automatically the meanings of the new words during reading to understand the text, relying on past experiences with similar reading texts to handle new reading texts, adjusting speed in reading to fit the reading of the text and reading of the whole text to figure it out.

DISCUSSION

This study probed the effect of a reading strategies based instructional program on reading comprehension strategy achievement among high school students and their awareness of reading strategies. This study concludes that there were statistically significant differences between experimental group students and control group students in their achievement in English due to strategy based instructional program. It also showed statistically significant differences between the above two groups awareness of reading comprehension strategies along an observation rating scale used for this purpose.

The results of this study also revealed a set of strategies highlighted by the subjects who participated in this study which encompassed the summarization of the reading text, identifying and understanding of meanings of strange words in the reading text, extracting the main ideas in the reading passage, bringing outside information to understand the reading text, figuring out the aim of the reading passage, dividing the reading text, dramatizing the reading content, transferring the reading text to a story, reading the text more than once, attempting to understand meanings of words, identifying and understanding meanings of strange words in the reading text, analyzing the reading text to understand it and depending on the context to guess the meanings of new words.

The strategies which high school students provided included the reading of the whole text to figure it out, exploiting their prediction skill whilst immersed in reading comprehension, formulating a cognitive image of the reading text, summing up the reading text in a different way from the original reading text, relating the content of the reading text with the learner's prior knowledge to understand it and identifying the form and type of the

reading text before starting reading it. Other strategies received lesser frequencies which are worthwhile to deal with.

Responses provided by the experimental group teacher embodied strategies such as the identification of the main aim of the reading process before starting to read it, following a group of steps in the reading process to understand the reading passage, the statement of the aims for the reading comprehension text, the prediction of the content of the reading text to understand it, depending on the content of the reading text to understand the meanings of the difficult words in it, constructing one's knowledge about the reading text on the content of the text not on the learner's prior knowledge, connecting the content of the reading text with the learner's general life knowledge to digest it, using linguistic and grammatical evidence in the reading text to assist the learner in achieving effective reading comprehension, stating the main ideas in the reading text in a graphical form, bringing additional material related to the reading text to understand it, connecting the content of the reading text with the learner's personal life to understand it, guessing the meanings of strange words in the reading text to understand it, identifying the syntactical structure of the reading comprehension text and extracting the main and supporting ideas in the reading text. Other strategies included storing automatically the meanings of the new words during reading process to understand the text, activation of prior knowledge with similar reading texts to handle new reading ones and adjusting speed in reading to match with the reading text and finally reading the whole text to absorb its content. Worth mentioning is that several studies highlighted relevant reading strategy instruction trends. For instance, Pressly (17) promoted strategy based reading and among the strategies suggested was the activation of prior knowledge, generation of questions during reading, construction of mental images about meanings available in the text, summarization and finally the identification of important information the text contains. Brown, Pressley, Van Meter and Schuder (1996) noticed that second graders who were taught transactional strategies achieved better in reading comprehension than those who did not receive instruction via such strategies. Some research has emphasized among other approaches explicit reading strategies instruction (Pearson, 1984). Consequently, direct instruction is appropriate in certain situations where other types of instruction are used in some other situations. According to Richards (18), many factors positively affect the development of reading skills and help to increase reading fluency such as modeling of text, repetition, immediate feedback and appropriate leveled text in addition to strategies that motivate students. Likewise, Dymock and Nicholson (11) suggested a five –strategy model which consisted of activation of background knowledge, statement of questions, analysis of text structure, creation of mental images and last is summarization.

One final point is that the results of the experiment and the rating scale responded to by the students on both groups together with teachers' observations confirmed the positive effect of the training on reading comprehension strategies and its final outcomes on the learner's achievement in this skill. It also can be concluded that some of the various types of strategies the study unfolded are consistent with those brought in the literature and that they can form a platform for curriculum design, teacher preparation and training both at pre-service level and in-service (on-site) level.

On the basis of the results of the experiment and the observation scales applied in this study, the researcher, recommends the following:

- That EFL teachers need to explore the learner's prior knowledge and match it with the content of the reading comprehension text to build understanding of the text on prior ideas and concepts.
- That the EFL teacher can segment the reading text by dividing it to manageable parts to initiate discussion on the related parts to construct meaning and to allow learners to interact with the text.
- Through reading comprehension instruction, teachers need to ensure that students at all levels are familiar with the reading comprehension vocabulary and that their reading is not blocked by unknown vocabulary. Vocabulary strategies should be used if necessary. Recycling of instructed vocabulary content should be made.
- Before reading, students should be asked about what they know about the reading comprehension text to guarantee the interaction between their prior knowledge and the knowledge in the reading passage under reading by them.
- Whilst engaged in reading comprehension, students should be encouraged to form questions on the reading comprehension text.
- Students' hypotheses during reading comprehension should be explored by their teachers to strengthen their comprehension. They should be encouraged to use prediction strategy and look for connections among ideas in the text.

- Students should be encouraged to work collaboratively through summarizing the reading text together and engaging in ask- and- answer technique about the text.
- Students should be trained on how to graphically represent information in the reading passage.
- Students should be made clear about the purpose for reading.
- Monitoring students approaching the reading comprehension text
- Establishing a link between what the students read and what they write in their compositions especially when their writing is based on the reading passage.
- Relating the reading passage with the students' life experiences
- After reading comprehension, students should be encouraged to assess their global understanding and whether their knowledge of the reading content contributes to the improvement of their reading comprehension skill.

CONCLUSION

The results of this study also revealed a set of strategies highlighted by the subjects who participated in this study which encompassed the summarization of the reading text, identifying and understanding of meanings of strange words in the reading text, extracting the main ideas in the reading passage, bringing outside information to understand the reading text, figuring out the aim of the reading passage, dividing the reading text, dramatizing the reading content, transferring the reading text to a story, reading the text more than once, attempting to understand meanings of words, identifying and understanding meanings of strange words in the reading text, analyzing the reading text to understand it and depending on the context to guess the meanings of new words.

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