

# **The Effect of Using Scaffolding Strategies on EFL Students' Reading Comprehension Achievement**

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## **ABSTRACT**

Scaffolding is a process that supports and improves the performance of students before, during, and after reading. Graphic organizers, pictures, and charts can all serve as scaffolding tools. All of them can help, guide and shape students' thinking when they apply them, i.e., students can discuss, write an essay, or use them with the difficult reading texts and new challenging information. This study is an attempt to investigate the effect of using scaffolding strategies on EFL students' achievement in reading comprehension. To fulfil the aims of the study, the researchers have adopted two null hypotheses: first, there is no statistically significant difference between the achievement mean scores of students who practice scaffolding strategies and that of students who do not practice them. Second, there is no statistically significant difference between the experimental group students' achievement mean scores in the pre and posttests of reading comprehension. To achieve the aims of the study, a six-week experiment was conducted using pretest-posttest non-equivalent groups design. Two groups of 22 students each were selected from the population of second year students (N=123)/College of Education for Women/Department of English during the academic year (2013-2014). One group was selected as the experimental group that was taught reading comprehension using scaffolding strategies and other group was selected as the control group that was taught according to the lecture method. The students of both groups were exposed to pre and posttests. Using the t-test for two independent samples, it is found that there is a statistically significant difference in favour of the experimental group. This indicates that teaching by scaffolding strategies is more effective than the presentation practice production teaching or the Lecture Method teaching. Conclusions, recommendations and suggestions for further studies are put forward.

## **1. Introduction**

### **1.1 Statement of the Problem and its Significance:**

Reading comprehension is one of the most important skills that need to be fostered by EFL teachers to enable learners cope with more sophisticated texts and tasks and deal with them efficiently, quickly, appropriately and skillfully (Ur, 1996:147).

Mastropieri and Scruggs (1997 cited in Hoffmann, 2010: 18) support the idea of the importance of reading comprehension as an academic skill which includes phonemic awareness, phonics, fluency, vocabulary, and finally, comprehension.

Comprehension is "reading with complete understanding of the text. It involves knowledge of vocabulary, understanding of sentence structure and syntax, and ability to interpret the intentions of the writer"(Flowers, 2013: online).

A reader's background knowledge can influence reading comprehension, i.e., life experiences, educational experiences; knowledge of how texts are organized rhetorically, etc. Incorrect background knowledge may hinder comprehension (Nunan, 2003:74).

So, reading and comprehension are closely interrelated in that students cannot recognize and interpret the written material without comprehending and understanding it. For this, the teachers' main concern is to help students comprehend the text without resorting to translation into their native language (Rivers, 1981: 259) .

Comprehension strategies are "routines and procedures that active readers use to better understand what they read" (Dole, 2012: online). Interpretation, integration, critique, inference, analyses, connecting and evaluating ideas in texts are all reading comprehension strategies learners may use to comprehend a text (Teaching Comprehension Strategies, 2010: 3).

A variety of comprehension strategies are used by good learners simultaneously and sometimes specific strategies are applied deliberately to help them in their comprehension specially with challenging texts (ibid.). However, the use of reading comprehension strategies can be considered effective if, as Bassiri (2012: 34) states, learners are provided with appropriate assistance accordingly they can attain a goal or engage in a practice or task that is beyond their reach. This assistance is known as scaffolding which is a "Vygotskian metaphor for teacher support of a learner through dialogue, questioning, conversation, and nonverbal modeling, in which the learner attempts literacy tasks that could not be done without that assistance" (ibid.: 31). Scaffolding for reading instruction

can be examined under three headings: pre-reading, during reading and post-reading activities.

Graphic organizers are "visual representations of information from a text that depict the relationships between concepts, the text structure, and key concepts of the text"(Miranda, 2013:100). They provide means of teaching students how to recognize text structures. That is to say, students better comprehend texts when they are shown visually how the text information is organized (ibid. : 101). As a tool of scaffolding, graphic organizers can be utilized throughout the reading process, including pre-reading, during-reading, and post-reading.

In Iraq, EFL learners are "word by word" readers and their level of achievement in reading comprehension is low (Al-Jubouri, 2003: 1). Also, many instructors who teach this skill stated that most of our EFL learners are passive readers who rarely follow effective reading comprehension strategies to be good readers. Moreover, some teachers of reading comprehension focus on translation in giving meanings of new words depending on a wrong idea that this the only strategy required in teaching reading comprehension. No further and advanced support is given to their students. Therefore, EFL teachers have to adopt various supports and give suggestions for appropriate reading comprehension strategies in order to help students overcome their problems in comprehending texts and using various useful reading comprehension strategies. According to Graham and Bellert (2004, cited in Teaching Comprehension Strategies, 2010:2), learners' comprehension may be hindered due to the inappropriate and inflexible use of reading comprehension strategies by them. Thus, they highlighted that the "explicit instruction in comprehension strategies can be an effective way to help them overcome difficulties in understanding texts"(ibid.).

Hence, the present study intends to tackle this important issue and examine the effectiveness of using scaffolding strategies for improving Iraqi EFL learners' reading comprehension.

### **1.2Aims of the Study:**

This study aims at empirically:

1. investigating the effect of using scaffolding strategies on female college students' achievement in reading comprehension.
2. improving their achievement in reading expository texts.

### **1.3 Hypotheses:**

The following null hypotheses will be investigated:

1. There is no statistically significant difference between the reading comprehension achievement mean scores of the students who are given support(scaffolding) using certain scaffolding strategies and that of the students who are taught reading comprehension through the conventional method i.e. without using scaffolding strategies.
2. There is no statistically significant difference between the achievement mean scores of the students of the experimental group in the pre and posttests.

### **1.4 Limits of the study**

The present study is limited to:

1. second-year female students/morning classes/ Department of English, College of Education for Women-University of Baghdad, during the academic year (2013-2014); and
2. some graphic organizers as scaffolding tools.

### **1.5 Definitions of Basic Terms:**

#### **1.5.1 Scaffolding**

Scaffolding is defined as the "strategy used by the teachers to facilitate learners' transition from assisted to independent performance"(Sukyadi and Hasanah, 2013:4).

Another definition is given by Bradley and Bradley (2004: online) as the "contextual supports for meaning through the use of simplified language, teacher modeling, visuals and graphics, cooperative learning and hands-on learning".

Scaffolding is a teaching learning strategy in which the teacher and learners engage in a collaborative problem-solving activity with the support and guidance of the teacher to enable learners become increasingly independent (Richards and Schmidt, 2002:466).

The operational definition is that scaffolding is a strategy used by teachers to help their students to become more independent learners during reading comprehension lesson, i.e., to perform the reading comprehension tasks independently.

#### **1.5.2 Reading Comprehension**

Harris and Hodges (1982:266) define reading comprehension as the "linguistic process of reconstructing the intended message of a text by translating its lexical and grammatical information into meaningful units that can be integrated with the reader's knowledge and cognitive structures".

Another definition is given by Richards and Schmidt (2002:443) as "perceiving a written text in order to understand its contents". This understanding is called reading comprehension.

Reading comprehension can also be defined as the "process of simultaneously extracting and constructing meaning through interaction and involvement with written language" (RAND Study Group 2002, cited in Moore, 2005: 3).

Operationally, reading comprehension is defined as the interactive process that occurs before, during and after a person reads a particular piece of writing.

### **1.5.3 Strategies**

According to Richard and Schemit (2002:515) strategies are "procedures used in learning, thinking, etc. which serve as a way of reaching a goal. In language learning, learning strategies... are those conscious or unconscious processes which language learners make use of in learning and using a language".

Strategies are also defined as "specific methods of approaching a problem or task, modes of operation for achieving a particular end, planned designs for controlling and manipulating certain information" (Brown,2007: 119).

The operational definition is that strategies are specific actions, steps or procedures used to accomplish either learning or teaching goal during a lesson.

### **1.5.4 Achievement:**

Dwyer (1982:12) defines achievement as learning that takes place during a definable course of instruction. Also, achievement can represent the individual progress towards the instructional objectives of a specific study (Darwesh and Al-Jarah,1997:124).

The operational definition is that achievement refers to the scores gained by applying a reading comprehension test on students who have been involved in the experimental study.

## **2-Theoretical Background**

### **2.1 Scaffolding**

#### **2.1.1 Background**

Vygotsky (1978) is a pioneering theorist in psychology who focused on the role of society in the development of the individual. His main concern is that social interaction, i.e., to interact with the child from "birth onwards" is essential in the cognitive development" (Attarzadeh, 2011:4). Learning or cognitive development is the result of scaffolding in social interaction of the individual community, i.e., scaffolding brings the opportunities for the individual to learn actively from others, receive help in mutual interactions and construct new knowledge; this represents the principle of Zone of Proximal Development (ZPD) (Hosseini, 2008: 187-188).

According to Piaget's theory of constructionism, the ZPD should be "maximized through the help of active learners with peers and teacher"; whereas, according to Vygotsky's theory of social constructionism, scaffolding is "temporarily provided and it is gradually removed bit by bit as the learners become more competent independently"(Sukyadi and Hasanah, 2013:5). Later, scaffolding has been developed by Bruner (1986) to support a child in carrying out an activity (Attarzadeh, 2011:4). That is to say, there will be a close attention to the conversational partner, asking open-ended questions or comments to encourage learners speak, interpret or expand comments (Horwitz, 2008:32). Also, it involves setting up "temporary supports, provided by capable people, that permit learners to participate in the complex process before they are able to do so unassisted" (Ediger, 2001: 166).

In the educational setting, scaffolding may include models, cues, prompts, hints, partial solutions, think-aloud modeling and direct instruction (Hartman, 2002 cited in Van Der Stuyf, 2002:3). Therefore, this strategy is expected to be helpful in overcoming the specific problems the learners have already displayed in reading comprehension.

#### **2.1.2 The Importance of Scaffolding**

McKenzie (1999 cited in Van Der Stuyf, 2002:5) summarizes that the importance of scaffolding by saying that scaffolding:

1. provides clear direction and reduces students' confusion concerning the anticipated problems that students may encounter. In addition, it develops step by step instructions, i.e., explain what a student must do to meet expectations.
2. clarifies purpose which means it assists the students to realize the reason and the importance of doing a certain task.

3. keeps students on task by providing pathways ( the designated tasks) for them. It enables the students to decide the path (task) and the things that must be explored along it without wandering off the designated task.
4. clarifies expectations and incorporates assessment and feedback: examples of exemplary work, rubrics, and standards of excellence are shown to the students because expectations are clear from the beginning of the activity.
5. directs the students to use worthy sources provided by teachers; thereby confusion, frustration, and time are reduced when students become able to choose suitable resources.
6. reduces uncertainty, surprise, and disappointment. This happens when teachers diagnose the possible problems which appear in their lessons. Then, they improve their lessons to eliminate difficulties which in turn maximize learning.

### 2.1.3 Types of scaffolding Strategies

The following are a number of scaffolding strategies:

1. Modeling
2. Bridging
3. Contextualizing
4. Schema building
5. Re-presenting text
6. Developing metacognition

In this study, the following strategies are only used:

1. **Modeling:** means “a learning process in which a person observes someone’s behavior and then consciously or unconsciously attempts to imitate that behavior” (Richards et al., 1992:233 ). It is according to Roehler & Cantlon (1997 cited in Bikmaz et. al, 2010:27) instructional activity which includes think aloud modeling, talk aloud modeling and performance modeling that shows how learners should think and act within a given situation.
2. **Bridging:** “This calls for activating and building on knowledge that students already have, i.e., going from the known to the unknown. Students can make connections of the new concepts or behavior to previous learning. Then, they can show how the new material is pertinent to their live” (from Scaffolding Strategies, 2014: online).
3. **Schema building:** refers to clusters of meaning that are interconnected, i.e., how knowledge and understanding are organized. It is essential for teachers to building students’ understanding through helping them to see the connection of the new information with their pre-existing structures of meaning through a variety of activities. For example, a teacher may

ask students to preview the text, noting heads and subheads, illustrations and their captions, titles of charts, etc. (Walqui, 2006: 173).

- 4. Developing metacognition:** Metacognition is defined as ‘the ability to monitor one’s current level of understanding and decide when it is not adequate. It refers to the ways in which students manage their thinking, and it includes at least the four aspects: consciously applying learned strategies while engaging in activity; knowledge and awareness of strategic options a learner has and the ability to choose the most effective one for the particular activity at hand monitoring, evaluating and adjusting performance during activity; and planning for future performance based on evaluation of past performance”(ibid.).

In the present study, only one aspect was used in this study: “consciously applying learned strategies while engaging in activity” (ibid.).

## **2.2 Reading Comprehension**

### **2.2.1 Introduction**

Reading is the "ability to comprehend the thoughts and feelings of others through the medium of written texts"(Mousavi, 2012:604).Every reader may read for pleasure and information. For this, in teaching the reading skill, EFL teachers try to help their students enjoy and obtain information for language study (Frisby,1970: 208).

Şahan (2012:3) highlights the significant role of reading comprehension strategies to comprehend a text. He (ibid.) states that “students who are equipped with sufficient and effective reading strategies employ them correctly and appropriately to comprehend the text. Thus, the good reader is a strategic reader and he knows how to approach the text”. Garner (1987, cited in ibid.) defines reading strategies as “generally deliberate, plan full activities which are undertaken by an active reader many times to remedy perceived cognitive failure, and facilitate reading comprehension”.

A reader probably is unaware of the strategies s/he is using while reading. Reading requires effort and paying attention to reread and reflect. Sometimes when a passage is not clear, a reader may stop, think about it and then read on to see how understanding grows. This process has been described as “extracting and constructing meaning” (Introducing Comprehension Strategies to Adult Readers, 2013: online).

In this study, the following reading comprehension strategies are emphasized:



1. **Previewing:** “Preview is a strategy to activate students’ prior knowledge, to facilitate their predictions about what they will read, and to generate interest. Preview consists of two activities: (a) brainstorming and (b) making predictions” (Bremer et al., 2002: online).
2. **Self-monitoring:** “is an important metacognitive tool for improving reading comprehension by developing the student's internal dialogue or self –talk”(from Comprehension – Fix-up Strategies).
3. **Summarizing:** “is how we take larger selections of text and reduce them to their bare essentials: the gist, the key ideas, the main points that are worth noting and remembering” (from Strategies for Reading Comprehension Summarizing, 2012: online).

### **2.2.2 The Selection of the Texts**

Texts can be selected according to the following bases:

#### **1. Authentic Texts**

EFL teachers should select tasks or texts that are close to situations do in real life. That is to say, reading practice should be based on a wide variety of authentic tasks and texts rather than conventional comprehension exercises. These tasks or texts represent the kinds of things a reader would do in their real life (Ur, 1996:150).

#### **2. Readers’ Interest**

EFL teachers motivate learners to read for interest and show enthusiasm for the content of the selected readings because "no reading will take place if readers are not interested enough to continue reading"(Chastain, 1988:231). Students will have the opportunity to find texts and read about some topics of their own choice (ibid.).

#### **3. Length**

More recent reading theorists recommend that short items are harder to read than longer ones because "reading involves building up expectations on the basis of redundancies. A sentence is proportionately harder to read than a paragraph, a paragraph than a page, and an isolated word the hardest of all" (ibid.: 234). Longer readings seem to be an appropriate medium for making reading easier and pleasant.

### **3. Procedures**

#### **3.1 The Experimental Design**

In order to achieve the aims of the present study, a pretest-posttest non-equivalent groups design was chosen. See Table 1.

Table 1 The Experimental Design

Groups	Pretest	Treatment	Posttest
Experimental	T1	Scaffolding reading comprehension strategies	T2
Control	T1	Traditional Way (PPP Approach)	T2

(Isaac and Michael, 1977:44)

The design of this experiment includes the selection of the two groups randomly. Both groups were submitted to a pre-posttest. The experimental group was given support to practice RC strategies, whereas the control group was taught through the conventional way (PPP approach, i.e, without scaffolding strategies). The mean scores of both groups were compared to see if there is any significant difference between them.

#### **3.2 Population and Sample Selection**

The population of the present study is second-year female students/morning class at the Department of English/ College of Education for Women during the academic year (2013-2014).

The sample has been chosen randomly from the population mentioned above. There were 123 students distributed alphabetically into four sections. Two groups were randomly selected. One group was selected as the experimental group (namely section D) and the other group as the control group (namely section B). The number of the experimental group is 24 and the control group is 26. After excluding the ex-primary school teachers from both groups, the total number of the sample was 44, i.e, 22 students in each group.

##### **3.2.1 Equivalence of the Sample**

The researchers tried to control some of the variables that may affect the experiment. These variables are: age, parents' education and students' scores in the pretest. The differences were tested at 0.05, level of significance, using the t-test formula for two independent samples and chi-square formula. It was found out that the subjects of the experimental and control groups were matched on the above mentioned variables since there are no statistically significant differences between the two groups. Tables 2, 3 and 4 summarize the results of the statistical treatment of the sample equivalence.

**Table 2 The t-Test Statistics for the Age and Pretest Scores Variables**

Variable	Group	N	$\bar{x}$	$S^2$	df	Computed t-value	Tabulated t-value
Age in Years	E	22	21.76	2.912	42	0.1928	2.021
	C	22	21.47	1.720			
Pretest Scores	E	22	17.31	54.51	42	1.921	2.021
	C	22	13.22	45.23			

**Table 3 Chi-Square Statistics for the Fathers' Education Variable**

Variable	Group	N	Primary	Intermediate	Secondary	Diploma	B.A	PHD	df	Computed Chi-Square	Tabulated Value
Fathers' Education	E	22	3	1	5	2	9	2	5	4.87	11.07
	C	22	2	4	2	5	7	2			
	Total	44	5	5	7	7	16	4			

**Table 4 Chi-Square Statistics for the Mothers' Education Variables**

Variable	Group	N	Primary	Intermediate	Secondary	Diploma	B.A	df	Computed Chi-Square	Tabulated Chi-square Value
Mothers' Education	E	22	7	6	2	2	5	4	2.86	9.49
	C	22	3	8	4	3	4			
	Total	44	10	14	6	5	9			

### **3.3 The Experiment Application**

#### **3.3.1 Instruction**

Instruction started on 6<sup>th</sup> November 2013 and ended on 15<sup>th</sup> January 2014, it lasted 6 weeks. One of the researchers taught both groups to control the teacher's variable. The lectures were arranged for both groups as two hours per week. The participants in both groups studied six different expository texts.

#### **3.3.2 Instructional Material, Strategies Instruction and Teaching Steps**

The instructional material for this study was six expository passages which were selected from different reading comprehension books focusing on expository passages only. As for the control group, the researcher

taught them the same material according to the presentation, practice and production approach (PPP) or the lecture method.

The experimental group was given a 2-hour modeling through thinking aloud session to guide the students in how to use reading comprehension strategies using graphic organizers.

1. Previewing by using KWL graphic organizer(see Appendix 1) followed by the teacher's explanation why they need to investigate and record what they already know and how the previewing strategy will help them understand what they are about to read.
2. Self- monitoring using clunk and clue graphic organizer, in which the teacher:
  - a. displays the clunk and clue graphic organizer on the board; then, she models by thinking aloud how to use the fixed up strategies. Clunk word may be preselected from the reading passage.
  - b. asks students to identify the main idea from the preselected passage of text. Then, she rephrases their responses on the worksheet using as few words as possible.

The behavioural objectives of the experimental group's lesson in this study are the following:

1. To enable students connect their background knowledge by making predictions about the text, i.e., to make connections through personal experiences to text content .
2. To enable equal participation of each and every class member.
3. To enable students work collaboratively in a group .
4. To enable students to monitor their own learning and thinking, i.e., to write notes about the text throughout the reading stage, then a summary at the post reading stage.

The following steps, which are suggested by Ruckdeschel (2013: online), were used to teach the experimental group:

First, students are assigned into groups with mixed abilities; a cooperative learning role is also assigned to each student within a group. Then, they are asked to verbalize their think aloud strategy to aid their metacognition.

1. **Before reading:** Students are asked to preview a selection of text before reading using the list on the KWL graphic organizer, and complete the "K" and "W" portions of the chart. By thinking aloud, students in groups should answer a number of questions that they generate about the reading text in the W column.
2. **During reading:** Students are asked to complete the top part of the clunks and clues graphic organizer while reading by applying the fix-up

strategies found on the page (Fix-up strategies are used when meaning breaks down), and coordinating their work using the assigned cooperative learning roles. In this time, the researcher monitors students' progress by walking around the room and offering assistance.

- 3. After reading:** Students are asked to complete the "Get the gist" portion of the Clunks and clues graphic organizer and then return to the KWL graphic organizer to complete the "L" portion. .

Graphic organizers Includes the KWL Graphic Organizer, and the Clunks and Clues Graphic Organizer (see Appendix 1). These graphic organizers should be filed in a folder during the lesson.

The control group was taught by the conventional way without any support or assistance from the teacher.

### **3.4 The Test**

#### **3.4.1 Test Construction and Scoring Scheme**

The researcher has constructed a reading comprehension test that consists of a passage chosen from the book Reading Through Interaction "Book Two" edited by Mirhassani and Farhady(2003). It includes four questions. Question one is about predicting, question two is literal, question three is inferential and question four is about summarizing. The test consists of 21 items. One item is devoted for question one, five items are devoted for question two, ten items are devoted for question three and finally five items are devoted for question four(See Table 5 and Appendix 2).

**Table 5 Description of the Test**

Questions	Items	Scores
Q1 Prediction	1	5
Q2 Literal	2,3,4,5,6	25
Q3 Inferential	7,8,9,10,11,12,13,14,15,16	10
Q4 Summarizing	17,18,19,20,21	10
	Total= 21	Total= 50

The whole twenty-one test items were scored out of 50. For each item of the test grammar, spelling, and idea were taken into consideration by the researcher. If any item was left by the testee, it was considered wrong and got zero score (See Appendix 2 ).

#### **3.4.2 Test Validity**

Validity means the extent to which a test measures what is intended to measure (Downie, 1967:92). In order to ensure the face validity of the test, it was exposed to a jury of experts in language and linguistics to judge whether the test is suitable for the proposed purpose or not. The jurors were

asked to read the test, add, delete or change the unnecessary items; after that the jurors\* have agreed upon its validity and suitability.

### **3.4.3 Pilot Administration of the Test and Item Analysis**

On the 22<sup>nd</sup> of October 2013, a pilot administration of the test was carried out. The test was experimentally tried out on a sample of 20 students who were selected randomly from sections (A and C), second year students at the same department - College of Education for Women. The purpose behind this pilot study was to estimate the time needed to answer the test, provide information about the ease of administering the test, check the clarity of instructions, analyze test items in the light of students' responses to determine their effectiveness in terms of their difficulty level and discrimination power, and calculate the reliability coefficient of the test.

The pilot study revealed that the time needed to complete the test was two hours. As for the clarity of the instructions, they were clear. After adapting the item discrimination formula and arranging students' scores from high to low for the purpose of item analysis, the researcher has divided them into two groups: upper and lower. By using the item discrimination formula, it was found out that the discrimination power of the test items ranged between 0.1 and 0.6, whereas by adopting the item difficulty level formula, it was found out that it ranged between 0.15 and 0.75. This shows that some of the test items need to be replaced or deleted, but because of their importance for the purposes of the study, they were left as they are. This is supported by Ebel (1965:359) who states that the researcher should include items of this kind in the test, regardless of their low discrimination and should review the reasons for including them when low discrimination is not due to technical weakness in the items or to inappropriate difficulty.

### **3.4.4 Test Reliability**

The concept of reliability refers to the degree of consistency of the test measurement (Oller, 1979:4). One of the methods that can be used to find out test reliability is Alpha Cronbach formula. As the result of applying this formula, a reliability coefficient of 0.783 is obtained. For rescoring the

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The jurors members arranged alphabetically and according to their academic titles are:

1. Prof. Shatha Al-Saadi ( College of Education for Women /Baghdad University)
2. Asst. Prof. Dr. Nawal Fadhil (College of Education for Women /Baghdad University)
3. Instr. Dr. Rana Hmeed (College of Education for Women /Baghdad University)
4. Instr. Huda Hadi (College of Education for Women /Baghdad University)

test, the researcher used the correlation between her scores and another teacher's rating. In order to estimate the interscorer reliability coefficient of the test, Pearson's formula is used. The correlation between the first scores (the researcher's) and the second scores (the second scorer's) is found to be 0.951. This shows that the test is quite reliable and acceptable (see Appendix 3).

### **3.4.5 Final Administration**

The posttest was administered on the 22<sup>nd</sup> of February 2014. The students were asked to answer all the reading comprehension questions.

## **4. Results, Conclusions, Recommendations and Suggestions**

### **4.1 Results**

#### **4.1.1 Comparison of the experimental and control groups in the posttest scores**

In order to find out whether there is any significant difference between the two mean scores of the experimental and control groups in the total score of the post test, the t-test formula for two independent samples is used. As shown in Table 6, the mean score of the experimental group is 34.8182 and that of the control group is 23.6364. By using the t-test, it is found that the calculated t-value is 4.807 which is higher than the tabulated value (2.021) at 0.05 level of significance, which means that there is a statistically significant difference in favour of the experimental group. This indicates that teaching by scaffolding strategies is more effective than the presentation practice production teaching or the lecture method teaching. So, the first null hypothesis that is presented earlier is rejected (see Table 6 and Appendix 4).

**Table 6 The t-Test Statistics for the Study Subjects' Scores in the Posttest**

Group	N	$\bar{x}$	SD	Computed t-value	Tabulated t-value	d.f	Level of Significance
E	22	34.8182	9.28202	4.807	2.021	42	0.05
C	22	23.6364	5.73664				

#### **4.1.2 Comparison of the pre-posttests scores of the experimental group**

The mean score of the experimental group in the pretest is found to be 17.3182, whereas in the post test is found to be 34.8182. The t-test for two dependent samples is used to show if there is any significant difference between the scores of the experimental group in the pre-posttests scores. The t-test value is found to be 13.404, which is higher than the tabulated

value (1.734) at 0.05 level of significance. This indicates that there is a statistically significant difference between the two scores in favour of the posttest because of the influence of scaffolding strategies. Thus, the second null hypothesis that is presented earlier is rejected (see Table 7 and Appendix 4).

**Table 7 The t-Test Statistics of Pre-Posttests Scores of the Experimental Group**

Group	N	$\bar{x}$	SD	Computed t-value	Tabulated t-value	d.f	Level of Significance
Posttest	22	34.8182	9.28202	13.404	1.734	21	0.05
Pretest		17.3182	7.38329				

### **4.1.3 Interpretation of the Results:**

The results show the following:

- A.** According to the post-test analysis, there is clear evidence that students' achievement of the experimental group is significantly higher than that of the control group and scaffolding strategies in teaching reading comprehension is more fruitful than teaching it through the conventional way. This is due to the following reasons:
1. Scaffolding strategies give EFL learners a chance to discover and understand by themselves, i.e., to be active and independent learners. In addition, it improved the reading comprehension of both weak and good students. Moreover, it provided supportive environment until students became confident, independent and proficient in using reading comprehension strategies which in turn positively optimized their learning and achievement.
  2. Graphic organizers as scaffolding tools are proved to be effective in EFL classes to enhance students' learning, understanding and comprehending of the texts as they played an important role in organizing knowledge.
- B.** By comparing the pre and posttests mean scores of the experimental group, it is found that there is a significant difference between the two mean scores. This may due to the ability of the scaffolding strategies to improve students' achievement as the following:
1. Modeling strategy enabled the students to better understand how to tackle a task by using correct, appropriate, suitable reading comprehension strategy to comprehend the text which in turn improved their learning. Especially, how the previewing strategy helps to link the new information with their background knowledge. Second, how to



self-monitor their learning and third how to summarize important information in the text.

2. The bridging process helped to activate the students' background knowledge and created personal link between the students and the reading comprehension topics. In other words, it helped the students feel that the material is relevant to their live. Also, it helped the students to share personal experiences related to the topic, thus it maximized learning and comprehension.
3. The use of schema building scaffolding which is in the form graphic organizers strengthened the students' cognitive organization as the material was presented through these graphic organizers.
4. Metacognitive strategy of scaffolding, i.e., the explicit teaching of strategies enabled the students to complete the tasks independently and confidently. Moreover, it lessened the frustration factor during the lesson which in turn led to better learning and achievement.

#### **4.2 Conclusions:**

The study conclusions can be summed up as the following:

1. Scaffolding strategies are proved to be more effective in developing and enhancing students' reading comprehension skill since students became more aware about how to use the most suitable reading comprehension strategies in all phases.
2. Scaffolding enhanced students' autonomy, i.e., they became less dependent on the teacher.
3. The use of graphic organizers as scaffolding tools led to better comprehension of the text.
4. It is noticed that throughout using scaffolding strategies, students can support one another through their interactions (i.e., peer interactions).
5. It is found out that applying scaffolding strategies facilitated students' comprehension and work cooperatively in peers or groups.

#### **4.3 Recommendations:**

The researchers have recommended the following:

1. Instructors are advised to use scaffolding strategies in order to foster learning in a variety of different areas particularly comprehension, reading and vocabulary skills.
2. College level students need to be guided and supported whenever it is necessary since they are required to achieve academically the best level during their whole period of their study at college.
3. Instructors are recommended to use graphic organizers as scaffolding tool in EFL classes because it provides a great support to students by

enabling them literally see connections and relationships between facts, information, and terms.

4. Teachers need to become involved in professional growth and form partnerships to discuss, peer-coach and advance theoretical understandings of their practice

#### **4.4 Suggestions:**

On the basis of the findings and conclusions of the study, the researchers suggest the following:

1. A similar study is needed to investigate the effect of using Scaffolding strategies on improving ESP college students' achievement in RC.
2. A study in other stages is needed, such as primary and preparatory stages.
3. A similar study maybe conducted in other colleges of both sexes (males and females).
4. Further investigations on the effect of scaffolding on other skills like speaking and listening are needed.

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**Appendix (1)**  
**The Graphic Organizers**

**Name:** \_\_\_\_\_

**Clunks and Clues Graphic Organizer**

Words or ideas I don't understand or need to know more about: Clunk 1: Fix-up strategy used:
Clunk 2: Fix-up strategy used:
Clunk 3: Fix-up strategy used:
Clunk 4: Fix-up strategy used:

Fix-up strategies: 1 -- Reread the sentence with the clunk and look for clues to help you figure out the unknown word. Think about what makes sense.	2 -- Reread the sentences before and after the clunk looking for clues about the unknown word.
3 -- Look for a prefix or suffix in the unknown word that might help you figure it out.	4 -- Break the word apart and look for smaller words that you already know.

**Get the Gist:**

Write down the most important information, or main idea, in the reading.  
Rephrase the main idea in your own words, using as few words as possible.

Main idea/important information:

**Name:** \_\_\_\_\_

**KWL Graphic Organizer**

Before reading	After previewing	After reading
<b>K</b> What do I already know about this topic?	<b>W</b> What do I want to know about this topic?	<b>L</b> What did I learn after reading about this topic?
1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.	1. 2. 3. 4. 5. 6.

### Appendix (2)

#### The Test

#### **Fashion: The Art of the Body**

The enormous and fascinating variety of clothing may express a person's status or social position. Several hundred years ago in Europe, Japan, and China, there are many highly detailed sumptuary laws, i.e., strict regulations concerning how each social class could dress. In Europe, for example, only royal families could wear fur, purple silk or gold cloth. In Japan, a farmer could breed silkworms, but he couldn't wear silk. In many societies, a lack of clothing indicated an absence of status. In ancient Egypt, for instance, children who had no social status wore no clothes until they were about twelve. These days, in most societies (especially in the West), rank or status are exhibited through regulations of dress only in the military, where the appearance or absence of certain metal bottoms or stars signifies the dividing line between ranks. With this exception of the military, the divisions between different classes of society are becoming less clear. The clientele of Paris café, for example, might include both working-class people and members of the highest society, but how can one tell the difference when everyone is wearing denim jeans?

Two common types of body decoration in tribal societies are tattooing and scarification. A tattoo is a design or mark made by putting a kind of dye (usually dark blue) into a cut in the skin. In scarification, dirt or ashes are put into the cuts instead of dye. In both of these cases, the result is a design that is unique to the person's tribe. Three lines on each side of a man's face identify him as a member of the Yoruba tribe of Nigeria. A

complex geometric design on woman's back identifies her as Nuba and also makes her more beautiful in the eyes of her people.

In some societies, women overeat to become a plump because large women are considered beautiful, while skinny ones are regarded as ugly. A woman's plumpness is also an indication of her family's wealth. In other societies, by contrast, a fat person is considered unattractive, so men and women eat little and try to remain slim. In many parts of the world, people lie in the sun of hours to darken their skin, while in other places light, soft skin is seen as attractive. People with gray hair often dye it back, whereas those with naturally dark hair often change its color to blond.

In the West, most people visit a dentist regularly for both hygiene and beauty. They use toothpaste and dental floss daily to keep their teeth clean. They have their teeth straightened, whitened, and crowned to make them more attractive to others in their culture. However, "attractive" has quite a different meaning in other cultures. In the past, in Japan, it was the custom for women to blacken, not whiten, the teeth. People in some areas of Africa and central Australia have the custom of filling the teeth to sharp points. And among the Makololo, people of Malawi, the women wear a very large ring- a peleles in their upper lip. As their chief once explained about peleles "They are the only beautiful things women have". Men have beards. Women have none. What kind of person would she be without the pelele? She would not be a woman at all".

Body paint or face paint is used mostly by men in pre-literate societies in order to attract good health or to ward off disease. It is a form of magic protection against the dangers of the world outside the village, where men have to go for the hunt or for war. When it is used as warpaint, it also serves to frighten the enemy, and give the men sense of identity, of belonging to the group. Women have less need of body or face paint because they usually stay in the safety of the village. In modern societies, though, cosmetics are used mostly by women, who often feel without makeup when out in public like a tribal hunter without his warpaonline One exception that serves to prove this rule is Victorian society in England, when women were excluded from public life. In this period, women wore little or no makeup.

Q1. Look at the main title, and then write down *your predictions about what the story will cover.*

(5M)



Q2. Complete the following sentences in your own words; your answer must be related to the ideas contained in the passage:

(25M)

In the past, a person's status or social position are shown through -----

-----  
 -----  
 -----

The two common methods of body decoration in our culture are -----

-----  
 -----

In other societies, people often feel unhappy with their bodies; therefore, men and women try to become slim or change their skins and hair colors because-----

-----  
 -----

In the west, most people visit the dentist regularly in order to-----

-----  
 -----

The reason why body beatification is used by both men and women is -----

-----  
 -----

Q3. Give the meaning of all underlined words or phrases: (10M)

- |                       |                         |
|-----------------------|-------------------------|
| 1. <u>variety of</u>  | 2. <u>Dye</u>           |
| 3. <u>status</u>      | 4. <u>An indication</u> |
| 5. <u>regulations</u> | 6. <u>Attractive</u>    |
| 7. <u>appearance</u>  | 8. <u>Custom</u>        |
| 9. <u>exhibited</u>   | 10. <u>Wore little</u>  |

Q4. Write down or summarize the most important information or main idea of each paragraph in one or two complete sentences, then form one “wh” question like “who”, “where”, “when”, “why”, “what” for each main idea.

(10M)

Main idea 1


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Main idea 2


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Main idea 3


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Main idea 4


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Main idea 5


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**Appendix (3)**

The Subjects' Scores in the Pilot Test Given by the Two Raters for Estimating Test Reliability

No of Students	First rater	Second rater	No of Students	First rater	Second rater
1.	29	25	11.	3	6
2.	22	19	12.	5	10
3.	37	31	13.	6	6
4.	34	38	14.	9	9
5.	35	33	15.	10	8
6.	36	32	16.	14	16
7.	22	19	17.	18	25
8.	20	18	18.	18	22
9.	20	16	19.	29	26
10.	2	3	20.	14	16

**Appendix (4)****The Pretest and Post test Scores of the Experimental and Control Groups**

No. of Students	Experimental Group		No. of Students	Control Group	
	Pre Test	Post Test		Pre Test	Post Test
1.	20	45	1.	25	30
2.	19	46	2.	10	20
3.	26	42	3.	11	20
4.	14	30	4.	5	14
5.	10	36	5.	8	22
6.	13	40	6.	7	17
7.	15	25	7.	14	20
8.	22	33	8.	16	26
9.	11	29	9.	13	28
10.	12	25	10.	12	21
11.	12	29	11.	13	18
12.	22	46	12.	15	29
13.	34	48	13.	8	15
14.	23	47	14.	31	33
15.	16	38	15.	12	22
16.	4	12	16.	13	25
17.	21	38	17.	15	24
18.	19	32	18.	8	20
19.	10	30	19.	10	28
20.	10	22	20.	8	32
21.	16	33	21.	28	34
22.	32	40	22.	9	22

## أثر استخدام استراتيجيات السقالة على تحصيل الطالبات الدارسات للغة الانكليزية بوصفها لغة اجنبية في الاستيعاب القرائي

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### المستخلص

السقالة (Scaffolding) هي عملية يتم فيها دعم الطالبات وتحسين ادائهن قبل واثناء وبعد القراءة. يمكن استخدام المخططات الرسومية والصور والرسوم البيانية كأدوات للسقالة. كل منها يمكن أن تساعد وتوجه وتشكل تفكير الطالب عند تطبيقها، اي ان الطالبات يمكنهن مناقشة ، وكتابة مقالة، أو استخدامهما مع نصوص صعبة القراءة ومع معلومات جديدة صعبة.

يهدف هذا البحث الى التحقق من اثر استراتيجيات السقالة ( Scaffolding ) على تحسين تحصيل طالبات الكلية الدارسات للغة الانكليزية بوصفها لغة اجنبية بالمقارنة مع الطريقة التقليدية او طريقة المحاضرة في الاستيعاب القرائي. من اجل ذلك صيغت فرضيتان صفريتان: اولا ليس هناك فرق ذو دلالة احصائية بين متوسط درجات تحصيل الطالبات اللاتي دُرِّسْنَ الاستيعاب القرائي باستخدام استراتيجيات السقالة واللاتي دُرِّسْنَ نفس المادة بطريقة المحاضرة. ثانيا: ليس هناك فرق ذو دلالة احصائية في متوسط درجات الاختبار القبلي والبعدي للمجموعه التجريبية في الاستيعاب القرائي. من اجل تحقيق هدف الدراسة اجريت تجربة لمدة 6 اسابيع باستخدام التصميم التجريبي ذي الاختبار القبلي- البعدي للمجاميع غير المتكافئة. تم اختيار مجموعتين تتألف كلا منهما من ٢٢ طالبه من المرحلة الثانية (١٢٣ طالبة)/ قسم اللغة الانكليزية/ كلية التربية للبنات للعام الدراسي (٢٠١٣-٢٠١٤). أُختيرت احدى المجموعتين كمجموعه تجريبية والتي دُرِّسَتْ الاستيعاب القرائي باستخدام استراتيجيات السقالة، واختيرت الاخرى كمجموعه ضابطة والتي دُرِّسَتْ باستخدام الطريقة التقليدية، واخترت طالبات كلتا المجموعتين قبليا وبعديا. باستخدام الاختبار التائي لعينتين مستقلتين ، وجد بان هنالك فرقا ذا دلالة احصائية لصالح المجموعه التجريبية، فهذا ينصح باستخدام استراتيجيات السقالة (scaffolding) بتدريس الاستيعاب القرائي. وفي الختام وُضِعَتْ بعض الاستنتاجات والتوصيات والمقترحات لدراسات مستقبلية.