

The Effect of Teaching Metacognitive Strategies on Iraqi EFL Preparatory Students School Retention

Samar Faez Yaseen¹ , Asst. Prof. Sundus AJ. Kamil, Ph. D²

University of Baghdad, College of Education/ Ibn Rushd for Human
Sciences ,Department of English Language

samaralnoemy@gmail.com

sundus.a@ircoedu.uobaghdad.edu.iq

Abstract:

The current study aims to find out the effect of teaching metacognitive strategies on the student's retention, find out the magnitudes effect of teaching metacognitive strategies on student retention.. two hypotheses are assumed to be established. First, there are no statistically significant differences between the mean post-test scores of retention among the experimental and control groups among Iraqi EFL preparatory school students. Second, there are no statistically significant differences in the effect size of the independent variable (Metacognitive Strategies) in developing the dependent variable (Retention) among Iraqi EFL Preparatory School Students. For carrying out the aims of this study, and validating its hypotheses, a sample of eighty students have been randomly chosen from the fifth preparatory school students in Shams Alhurra secondary school for girls for the academic year (2022–2023). The two groups are equally divided in to two groups, group (A) represents experimental group that consists of (40) students who have been taught according to metacognitive strategies. Group (B) control group which also consists of (40) students who have been taught according to the traditional method. Making a pre and post retention test. Both groups have been equalized in such variables such as educational level of parents, English scores in preceding schooling year, and the pre-test of both groups. Three questions are composed to combine a post-test. Alpha-

Cronbach method has been used to confirm the reliability coefficient. The discrimination power and difficulty level for each item have been determined via statistical analysis of the items. The entire sample has been exposed to the post-test as a result. The data gathered from the post-test findings have been statistically examined using the formula for the T-test of two independent and paired samples. According to the results, there is a statistically significance difference between the mean score of the two groups in the of the retention post-test, and the effectiveness of these strategies in developing the dependent variable (retention) among Iraqi EFL preparatory school students. Based on the findings and conclusions of this study, appropriate recommendations and suggestions for future studies are put forward.

Key words : (Metacognitive Strategies , Iraqi EFL Preparatory Students School).

فاعلية تدريس استراتيجيات ما وراء المعرفة في الاحتفاظ لدى طلبة المدارس الإعدادية العراقيين

دارسي اللغة الإنجليزية لغةً أجنبيةً

سمر فائز ياسين

أ.م. د. سندس عبد الجبار كامل

جامعة بغداد كلية التربية/ ابن رشد للعلوم الإنسانية

قسم اللغة الإنكليزي

samaralnoemy@gmail.com

sundus.a@ircoedu.uobaghdad.edu.iq

الملخص:

تهدف الدراسة الحالية إلى التحقق من كيفية تأثير تدريس استراتيجيات ما وراء المعرفة على أداء الطلاب في الحفظ لدى طلاب المدارس الإعدادية العراقيين. ولتحقيق أهداف الدراسة تمت صياغة الفرضيتين التاليتين: أولاً، لا توجد فروق ذات دلالة إحصائية بين متوسط درجات الاختبار البعدي للحفظ بين المجموعتين التجريبية والضابطة بين طلاب المرحلة الإعدادية دارسي لغة الإنجليزية كلغة أجنبية. ثانياً، لا توجد فروق ذات دلالة إحصائية في حجم تأثير المتغير المستقل (استراتيجيات ما وراء المعرفة) في تطوير المتغير التابع (الحفظ) بين طلاب المرحلة الإعدادية دارسي

للغة الإنجليزية كلغة أجنبية. لتنفيذ أهداف هذه الدراسة، والتحقق من صحة فرضياتها، تم اختيار عينة عشوائية من ثمانين طالبة من طالبات الصف الخامس الاعدادي من مدرسة شمس الحرة الثانوية للبنات للعام الدراسي (٢٠٢٢-٢٠٢٣). تم تقسيم المجموعتان بالتساوي إلى مجموعة (أ) تمثل مجموعة تجريبية تتكون من (٤٠) طالبة تم تدريسهم وفقاً لاستراتيجية ما وراء المعرفة. المجموعة (ب) تشير إلى المجموعة الضابطة التي تضم أيضاً (٤٠) تلميذاً تم تدريسهم وفقاً للطريقة التقليدية. تم إجراء اختبار الحفظ قبلي وبعدي. تمت معادلة كلا المجموعتين في متغيرات مثل المستوى التعليمي للأباء، ودرجات اللغة الإنجليزية في العام الدراسي السابق، والاختبار القبلي لكلا المجموعتين. يتكون الاختبار من ثلاثة أسئلة. تم استخدام طريقة Alpha-Cronbach لتأكيد معامل الموثوقية. تم تحديد قوة التمييز ومستوى الصعوبة لكل عنصر من خلال التحليل الإحصائي للعناصر. تم فحص البيانات التي تم جمعها من نتائج ما بعد الاختبار إحصائياً باستخدام معادلة اختبار T ل عينتين مستقلتين ومزدوجة. وفقاً للنتائج، يوجد فرق ذو دلالة إحصائية بين متوسط درجات المجموعتين في الحفظ والاختبار اللاحق للحفظ، وفعالية هذه الاستراتيجيات في تطوير المتغير التابع (الحفظ) بين طلبة المدارس الإعدادية داري اللغة الإنجليزية كلغة أجنبية. بناءً على نتائج واستنتاجات هذه الدراسة تم تقديم التوصيات والاقتراحات المناسبة للدراسات المستقبلية.

الكلمات المفتاحية : (استراتيجيات ما وراء المعرفة ، المدرسة العراقية الإعدادية للغة الإنجليزية كلغة أجنبية).

1. Introduction

1.1 The Problem and its Significance

Language learning demands the necessity of both accessible and creative abilities that show an impact on students' dominance of language. Reading is accepted to be the establishment in learning a language; it is an efficient way to cultivate students' information on language (Akbar & Farid, 2012).

Metacognitive strategies are those activities that make students aware of their thinking as they read tasks. Koda (2007) illustrates that metacognitive reading strategies as planned, intentional, goal-directed, and future-oriented

mental activities and processes that help a reader think about and check how he progresses in fulfilling a cognitive task.

1.2 Aims

The present study aims to:

1. Find out the effect of teaching metacognitive strategies on student's retention.
2. Find out the magnitudes effect of teaching metacognitive strategies on student retention.

1.3 Hypotheses

It is hypothesized that:

1. There are no statistical significant differences between the mean post-test scores of the retention between the experimental and control groups among Iraqi EFL preparatory school students.
2. There are no statistical significant differences in the magnitudes effect of the independent variable (Metacognitive Strategies) in developing the dependent variable (Retention) among Iraqi EFL Preparatory School Students.

1.4 Value

The current study is expected to be of value to;

1. EFL Preparatory teachers to highlight the use of metacognitive strategies as strategy to be applied in their classrooms to improve their students' retention.
2. researchers and experts in curriculum design to develop students' retention.

1.5 Limits

This study is limited to the following;

1. Iraqi EFL Fifth preparatory school students.
2. The academic year for (2022–2023).
3. The textbook “English for Iraq” for fifth preparatory school students (Olivia et al.,2013).

1.6 Definition of Basic Terms

1.6.1 Metacognitive Strategies

Metacognitive strategies are "knowledge concerning one's cognitive processes and products or anything related to them" (Flavell,1976, p. 232).

The operational definition of Metacognitive strategies is a strategy of three components for teaching fifth preparatory school students' retention.

1.6.2 Retention

According to Sousa (2001, p.86), retention is "the process whereby long-term memory preserves a learning in such a way that it can locate, identify, and retrieve it accurately in the future."

retention is a concept that directly refers to the amount of information we remember from reading material (Rumahlatu, 2019).

The operational definition of retention is the ability to recall or remember things after some time.

1.6.3 EFL Preparatory Students

They are Iraqi students studying English as a foreign language. The preparatory stage should be passed through after the intermediate stage. It consists of three levels of grades. Preparatory school students are aged between (15–17). Passing this level of schooling qualifies students to enter colleges and complete their higher education.

2. Theoretical Background

2.1 The Aspects of Metacognition

Metacognition has three main aspects: metacognitive knowledge, metacognitive monitoring, and self-regulation and control and is viewed in two dimensions: 1. the knowledge of cognition, which is made up of three factors such as declarative knowledge (abilities and characteristics that affect cognitive processing), procedural knowledge (using or implementing strategies), and conditional knowledge (assessment and reflection on the effectiveness of the strategies used) and 2. the regulation of cognition which includes planning, monitoring, testing, revising, and evaluating strategies used (Pintrich,2000).

Louca (2003) describes metacognition as cognition about cognition because it entails examining the brain's processing during the reading/thinking process.

According to Iwai (2011), metacognition is critical to reading comprehension since it is essential to developing linguistic, cognitive, and social skills.

In the field of reading, metacognitive strategies are those activities that make students aware of their thinking as they do read tasks. Koda (2007) defines metacognitive reading strategies as planned, intentional, goal-directed, and future-oriented mental activities and processes that help a reader think about and check how he progresses in fulfilling a cognitive task. In fulfilling a task using metacognition, a learner plans and activates, then monitors, controls, reacts, and reflects (Pintrich, 2000). Iwai (2011) summarizes the process of metacognition in three steps: 1. Planning; 2. Monitoring, and 3. Evaluation. Metacognitive reading strategy awareness is essential in reading comprehension and education (Ditzel, 2010).

Awareness and use of metacognitive reading strategies have a positive and direct relationship with reading comprehension performance; thus, students who use these strategies perform better in reading proficiency tests; therefore, learning metacognitive reading strategy skills can be one solution to the problem of poor reading comprehension, hence, the need for

it to be developed and emphasized in the EFL teaching and learning processes. (Yuksel, 2012).

2.1.1 Metacognitive Strategies

According to Dawood (2021), strategies are any set of plans, specific activities, techniques, habits, ideas, or behaviors the learners apply to facilitate the understanding, acquisition, receiving, and use of knowledge.

According to Flavell (1976, P.232), metacognitive knowledge is "... one's knowledge concerning one's cognitive processes and products or anything related to them". In the context of reading comprehension, metacognition ensures that the students can construct meaning from information. They should be able to reflect on their thinking process, identify reading strategies while reading and manage how they read; it is a segment of a learner's stored world knowledge that includes cognitive tasks, goals, actions, and experiences that have to do with people, it primarily consists of knowledge or beliefs about what factors or variables act and interact in ways that affect the course and outcome of cognitive enterprises (Marimuthu,2016).

2.1. 2 Types of Metacognitive Knowledge

Flavell (1979) further describes three types of metacognitive knowledge: person, task, and strategy. Person knowledge involves everything that a learner believes about the nature of himself or herself and other people as cognitive processors. According to Yuksel (2012), personal

knowledge consists of learners' general knowledge of how learning takes place and how different factors such as age, aptitude, and learning styles can influence language learning. Task knowledge is further referred to by Royanto (2012) as what learners know about the purpose, demands, and nature of learning tasks. It concerns the information available to them during cognitive activity. In the reading context, Sen (2009) says that giving tasks from familiar topic materials and ordered stories is easier for the readers to understand and recall.

Additionally, explicit topic sentences can assist the readers in their tasks that require the reduction of texts to their general ideas. Lastly, Pint Rich (2000) explains that strategy knowledge concerns practical strategies for achieving sub-goals and goals in different cognitive activities. Garner (1988) further describes examples of this strategy as verbal rehearsal and elaboration of material assistance in retrieval, re-inspection of text for material while reading the text, and aids in answering questions or prediction of article content, so metacognitive experiences are any conscious cognitive or affective experiences that accompany and pertain to any intellectual enterprises they occur before, during, and after the reading. Pierce (2003) describes before-reading knowledge related to personal strength, during-reading information as strategy, and after-reading knowledge as task

information. For these three experiences, metacognitive knowledge provides a base for metacognitive experiences expressed as awareness.

Metacognition in reading can distinguish skilled and unskilled readers. Skilled and unskilled readers are differentiated based on their comprehension ability, which employs their general world knowledge to understand and draw valid inferences from literary texts and uses their comprehension monitoring to repair strategies; therefore, skilled readers are aware of the text they read, know the reason for reading it, and set strategies to handle problems and monitor their Comprehension of information. Unskilled readers need to gain metacognitive reading knowledge (Kummin,2010). They focus on reading as a decoding process rather than as a construction of meaning. Most importantly, all of the components of metacognition play a role in activating each other to achieve Comprehension and influence the learner's performance in using reading skills (Reichard, 2002).

According to Flavell (1979), metacognition involves knowledge about thinking processes and products, active monitoring, and regulation of cognitive processing activities. It is categorized into four components: 1. the metacognitive knowledge, which refers to the person's awareness or perceptions about the factors (person, task, strategy) influencing cognitive activities; 2. the metacognitive experiences, which refer to the individual's

mental or emotional responses about any cognitive activity; 3. the goals/tasks which refer to the purpose or objective of any cognitive undertaking; and 4. the actions/strategies which refer to activities carried out by learners to fulfill their purpose or metacognitive objectives (Iwai, 2011).

2.2 Retention

Retention of reading material is necessary to complete coursework in preparation for a career. Learning and Retention of concepts are more likely to occur when a student actively interacts with the content in various formats, orally and visually. Retention, as defined by Sousa (2001, p.86), is "the process whereby long-term memory preserves a learning in such a way that it can locate, identify, and retrieve it accurately in the future" The longer something is in working (short term) memory, the more likely it will move to long-term memory. The method of keeping information in working memory is called rehearsal (Baddeley, 1999). Elaborate rehearsal (Sousa, 2001) involves the learner processing the information several times to connect the new information with previously learned materials.

Vocabulary retention has been defined as "the ability to recall or remember things after an interval of time. In language teaching, Retention of what has been taught (grammar rules and vocabulary) may depend on the quality of teaching, the interest of the learners, or the meaningfulness of the materials" (Richards, 2002, p. 457). As is evident in vocabulary learning, the

problem is not just learning second language words; instead, remembering them. Bahrick (1984) states that how well people remember something depends on how deeply they process it. Therefore, various procedures have been recommended to facilitate vocabulary retention. Concentration on features of the new word and its textual environment is supposed to facilitate Retention. Learning in a context depends on repeating, recycling, and representing vocabularies and re-noticing them by the learner. It has been suggested that Retention is related to the condition in which the meaning is inferred, and the more analysis involved, the better the Retention will be. There is yet, another aspect to inferring the meaning of the word, which enhances vocabulary retention. That is, Retention depends in some way on the amount of mental and emotional energy used in processing a word, and readers have developed specific strategies that could assist emotional and mental processing, such as meta-cognitive strategies (Hedge, 2000)

Even though learners are recommended to learn words through reading texts, Retention should be distinct from Comprehension. Learning the word's meaning implies more than comprehending it in a particular text during reading activity. The meaning of a word has to be retained in long-term memory. Haycraft (1978) states that words related to each other can be easily retained because using words together with the whole meaning of

the sentences in which they are embedded is the deepest level of processing and ensures the best Retention.

Retention is a crucial variable in the teaching and learning of languages. Reading, as a learning medium, requires Comprehension and Retention on the part of the learners for the success of the process. This is probably why reading comprehension is recognized as a sub-skill of the secondary school English Language curriculum. Okoye (1983) observed that reading has a significant impact and effect on the students' power of thinking and cognitive development. Bamigbose (1987) also sees it as one of the most essential skills in language learning.

2.2. 1 Retention Strategies

According to Bennett (2012), there are five strategies for Retention as follows;

a. Read Aloud

When read aloud, listen to what seeing in the book. Since the dual sense of organs is at work to receive the input, it strengthens absorbing ability and, ultimately, reflects in more robust and longer Retention.

b. Repeat Reading

We all are born with unique capabilities. Some of us may simply require more repetitions of any activity than others. Also, retaining does require practice, even if an elephant's memory. So, read twice or thrice, take a

break, return, and discuss how to retain. Accordingly, decide on increasing the repetitions.

c. Reading, Reciting, and Reviewing

While the above two steps are pre-reading preparations, these three steps define the reading and post-reading process. Attentively and actively read the material after forming a question. Then, recite it through writing or oral discussion and review it to ascertain the correctness of your Comprehension.

d. Asking Questions and Trying to Answer Them

Read the book, and write down relevant questions that cover written material while doing the process. Once finished reading, answer the questions by skimming through relevant portions. It gives the mental repetition required for Retention.

e. Write a Short Summary

Once you understand the topic and content well, summarize it in short notes. This process allows you to traverse back to all written material mentally. Thus, it is a second reading that your mind does, allowing you to jot down the summary of the material you read on a paper. The primary requirement for this, of course, is the ability to write. However, you may use alternative means of writing to express in a summary the written content.

3. Methodology and Procedures

3.1 Population and Sample

The population of the present study covers the 5th stage preparatory school students in Baghdad Governorate. Among the preparatory schools in Baghdad directorate, Iraqi EFL fifth preparatory Shams Alhurra secondary school for girls for the academic year (2022–2023) randomly selected. The number of the 5th stage student is (126) which are divided into three sections. Two of these three sections are randomly chosen; section A which includes 40 students to be the experimental group and section B which includes 40 to be the control one. As shown in table (3.2)

Table (3.2)

Sample of the Study

Group	Section	Number of students
Experimental	A	40
Control	B	40
Total	-----	80

3.2 Equalization

The aim of making equalization between the two groups is to neutralize any secondary or controlled variables and in order to ensure that the scores obtained may not be affected by such variables. Therefore, the following variables have been controlled for both groups:

٣.2.1 Students' Scores in the Pre-Test

The equalization pre-test has been completed see appendix (). Pre-testing is done on both the experimental and control groups. The experimental group's mean pre-test scores are (12.875), whereas the control group's mean pre-test scores are (11.550), with respect to standard deviations which is (3.306) and (3.672) for the two groups. The estimated t-value is found to be (1.696), which is less than the Critical value, the level of significance (0.05). (2.00). This result suggests that there is no statistically significant difference between the two groups in the pre-test, as shown in table (3.3).

Table (3.3)

The T-Test Value of the Two Groups in the Pre-test

Group	NO	Mean	SD	t-value		Level of significance	Results
				Comp	Critical		
Exp.	40	12.875	3.306	1.696	2.000	0.05	Insignificant
Con.	40	11.550	3.672				

3.2.2 Students' Scores in the Post-Test

The mean value of the of has been found out to be (12.875) for the experimental group, with a standard deviation (3.306) .While The mean

value has been found out to be (11.550) for the control group with a Standard deviation (3.672), considering that the computed t-value have been found to be (1.696) and tabulated t-value was (2.000) , at a level of significance(0.05) which indicates that difference between the two groups is insignificant in the Post Test Score .This is obviously shown in Table (3.4) below;

Table (3.4)

The T-Test Value of the Two Groups in the Pre-test

Groups	No	Mean	S.D	T-Value		Level of Significance	Results
				Computed	Tabulated		
Con.	40	12.875	3.306	1.696	2.000	0.05	Insignificant
Exp.	40	11.550	3.672				

3.2.3 Level of Fathers' Education

Concerning the academic level of the fathers, table (3.5) reveals that there are no statistically significant differences among the tests of both groups, the experimental and control, since the computed t- value have been found out to be 2.098 which is lower than the tabulated t -value which is 5.991 at a level of significance(0.05) and the degree of freedom

is(2), which indicates that the difference between the two groups is insignificant in the academic level of the fathers.

Table (3.5)

The Chi-Square Value of Fathers' Level of Education

Group	No.	Primary	Intermediate	Preparatory	B.A	Chi- Square Value		d.f	Level of Significance	Results
						Computed	Tabulated			
Exp.	40	10	17	8	5	5.699	7.81	3	0.05	Insignificant
Cont.	40	9	15	10	6					

3.2.4 Level of Mothers' Education

Regarding the academic level of the mother, table (3.6) shows that there are no statistically significant differences among the tests of both groups, the experimental and control, since the computed t- value was found out to be 2.001 which is lower than the tabulated t -value which is 5.99 , at a level of significance(0.05) and the degree of freedom is 2, which indicates that the difference between the two groups is insignificant in the academic level of the mother variable :

Table (3.6)

The Chi-Square Value of Mathers' Level of Education

Group	No.	Primary	Intermediate	Preparatory	B.A	Chai- Square		d.f	Significance Level of	Results
						Computed	Tabulated			
Exp.	40	10	18	11	1	2.001	5.99	2	0.05	Insignificant
Cont.	40	7	15	14	4					

3.2.5 Students Previous Year Degrees in English

The mean value of the of was found out to be (71.975) for the experimental group, with a standard deviation of (17.431).While The mean value was found out to be (78.625) for the control group with a Standard deviation was found out to be (15.512), considering that the computed t-value has been found to be (1.696) and tabulated t-value was (2.000) , at a level of significance(0.05) which indicates that the difference between the two groups is insignificant in the Post Test Score. This is clearly shown in Table (3.7) below :

Table (3.7)

**Mean scores, standard deviations, and t–value for the Students s
Previous Year
Scores in English**

<i>Group</i>	<i>No.</i>	<i>Mean</i>	<i>SD</i>	<i>T–value</i>		<i>Level of significance</i>	<i>Results</i>
				Computed	Tabulated		
EG	40	71.975	17.431	1.696	2.000	0.05	Insignificant
CG	40	78.625	15.512				

3.3 Application of the Experiment

Prior to the start of the experiment, the researcher has exposed the typical daily lesson plans to a number of jurors to find the appropriateness of these plans. The jurors agree on the suitability of the plans. The experiment started on the 19th of February ,2023 and ended on the 8th of May 2023. The experiment lasted for 12 weeks. Both groups have been taught by the researcher.

The experimental group has been taught according to the metacognitive Strategy With Five lectures each week, while the control group has been taught by the (conventional way) by the researcher herself with five lectures each week as illustrates in table ()

Table (3.13)

(The Distribution of Daily Lessons)

Days of the week	Lessons NO.	Time of lessons	Groups
Sunday	6 th	12:15 –1:00	EG
	4 th	10:30–11:15	CG
Monday	2 nd	8:45–9:30	EG
	3 rd	9:45–10:30	CG
Tuesday	2 nd	8:45–9:30	EG
	5 th	11:30–12:15	CG
Wednesday	2 nd	8:45–9:30	EG
	1 st	8:00–8:45	CG
Thursday	4 th	10:30–11:15	EG
	3 rd	9:45– 10:30	CG

3.4 The Experimental Group

On February 19th, 2023, the experiment's application got underway. The pretest is given after one week. Each week, three-hour sets of lessons are scheduled. The experimental group is taught three units by the researcher using metacognitive strategy, whereas the control group is taught the same material without using metacognitive strategy. Teaching the experimental group according to metacognitive Strategy, the researcher has followed the following procedures;

1. to help students understand the context of their work, metacognitive Strategy are introduced and defined, along with their concepts and practices.

2. to find out the effect of teaching metacognitive strategies by instructing activities related to reading comprehension according to metacognitive strategies.
3. to activate student s' schematic knowledge in reading comprehension.
4. to enhance students' ability to recall the embodied information.

The following procedures have been developed to evaluate students' progress through certain activities adopted in teaching the experimental group.

3.6 The Control Group

The control group has been taught according to the conventional way prescribed in the teachers' book as illustrated in Appendix().

3.7 Final Administration of the Instruments

After the ensuring of the validity and reliability of the test. the test is administrated to both groups of the study after the end of the experiment. This final administration is applied on 23 April ,2023.

4.Presentation of Results

4.1Results Related to the First Hypothesis

In order to examine the first hypothesis which is " There are no statistical significant differences between the mean post–test scores of the retention between the experimental and control groups among Iraqi EFL preparatory school students." After the administration of posttest on both groups, the

data obtained is statistically manipulated. t _ test formula for two independent samples is used to find the statistical differences between the two groups. See Table 4.1

Table (4.1)

Two Independent Samples T-Test To Find Out the Statistical Significance of Differences Between The Two Groups According to the post-Test Variable

Group	No.	Mean	S.d	T-Value		Level of Significance	Judgment
				Computed	Tabulated		
Ex.	٤٠	١٦,٠٥٠	١,٧٨٢	٨,٤٤٠	٢,٠٠٠	٠,٠٥	Significant in favour of the Experimental Group
Cont.	٤٠	١٢,٤٧٥	١,٩٩٩				

As shown in table (4.1) it is found that the mean score of the experimental group is (16,050) and that of the control group is (12,475) . The computed t for the experimental group is found (8,440) of which is higher than the critical t value which is (2.000) at level of significance (0.05) .This means that there is a statistically significance difference between the mean score of the two groups in the of the Retention post-test. So, the null hypothesis is rejected.

4.1.2 Results Related to the Second Hypothesis

In order to verify the second hypothesis which reads that “There are no statistical significant differences in the magnitudes effect of the independent variable (Metacognitive Strategies) in developing the dependent variable (Retention) among Iraqi EFL Preparatory School Students”.

Cohen’s Formula has been used which indicates that if the effect size is lower than (0. 50), this refers to the fact that the magnitudes effect is weak , but if it is between (0.50– 0.80) this indicates that the magnitudes effect is high .Using this formula, it is shown that the magnitudes effect of the independent variable is as explained in Table (4.2) below :

Table (4.2)

The Magnitudes Effect of the Independent Variable (Metacognitive Strategies) in Developing the Dependent Variable (Retention) Among Iraqi EFL Preparatory School Students

magnitudes effect	Standard Deviation of Control Group	Control Group Mean Scores	Experimental Group Mean Scores
1,788	1,999	12,475	16,050

As results shown in Table (4.2) above , the computed coefficient value of the magnitudes effect of the impact of the independent variable (Metacognitive Strategies) has been statistical significant with high effect

.This result refers to the effectiveness of these strategies in developing the dependent variable (retention) among Iraqi EFL preparatory school students

4.2 Discussion of the Results

1. The results achieved in this study indicate the following:

Students in the experimental group show a better total performance progress than those of the control group. This finding is attributed to the metacognitive strategy which assists the experimental group to improve their overall retention, and show a high level for corrective learning direction associated with real text passages ,have successfully worked out to process the texts and to get the contextual meaning of the passage without being restricted with the exact meaning of words. This is shown through the development in their performance during the semester.

2. Students are found to benefit greatly from the metacognitive strategy because they can build meaning from information, reflect on their own cognitive processes, recognize reading strategies as they go together, and regulate how they read. This helps students become more confident and improves their retention.

3. Metacognitive strategy proves effectively to have a positive effect on students' performance. Students in the experimental group are found to do well in retention . This is realized through the post–test.

4. Establishing an effective influence on the learning environment and

atmosphere enables students create connections and learn as a group.

5. According to the metacognitive strategy students are encouraged to express themselves and interact with others, including other students and the teacher.
6. Students in the experimental group perform better than those in the control group in retention. The result is attributed to the metacognitive strategy, which encourages students to apply appropriate techniques and strategies, a variety of questioning strategies, higher-order critical thinking skills, and problem-solving abilities.
7. The use of a metacognitive strategy has proved to actively engage students in mediating their learning through sharing personal experiences, acting as investigators and information advisors, and encouraging weak students.

4.3 Conclusions

According to the results and the findings of the experimental work, conclusion are drawn:

1. Through the use of metacognitive strategy, it is found that it has positive effect on improving Iraqi EFL preparatory school students' reading comprehension performance and retention.
2. Teaching reading according to the following the metacognitive strategy updates away from the traditional way , this strategy focuses on

student reduces teacher's intervention in a way to let students be more active specially in reading comprehension.

3. Metacognitive strategy makes joining between micro and macro skills that moving students to get the higher cognitive level to create and evaluate their own work and others work.
4. Applying metacognitive strategies such as self- and self-monitoring can develop independent learners who can control their own learning and learn how to learn for life.
5. Students who are able to apply metacognitive reading strategies like planning, monitoring, and assessing are confident in their ability to learn .

4.4 Recommendations

In the light of the conclusions drawn, a number of recommendations are forwarded:

1. Introduce metacognitive technique in the classroom helps students develop a deeper understanding of their own learning processes.
2. Use a variety of teaching technique, such as group discussions and individual reflective activities, to help students internalize metacognitive strategies.
3. Encourage students to monitor their own comprehension and retention of reading material by asking them to summarize what they have read or identify key concepts.
4. Provide regular feedback to students on their use of metacognitive

strategies and their reading comprehension performance.

5. Use technology tools, such as online quizzes and interactive reading exercises.
6. Make sure that metacognitive strategies are taught in a culturally responsive way that takes into account the students diverse backgrounds and experiences.
7. Provide opportunities for students to apply metacognitive strategies in real-world situations, such as analyzing news articles or scientific research papers.
8. Encourage students to reflect on their own learning progress and set goals for improvement based on their use of metacognitive strategies.
9. Use of metacognitive strategies to improve their reading comprehension skill.

References:

- Pintrich, P. R. (2002). The role of metacognitive knowledge in learning, teaching, and assessment. *Theory into Practice*, 41(4), 219–25.
- Pintrich, P. R. 2000. “Multiple Goals, Multiple Pathways: The Role of Goal Orientation in Learning and Achievement.” *Journal of Educational Psychology* 92 (3): 544–555.
- Dawood, Z. A. A. (2021). Direct Language Learning Strategies in EFL. *Alustath journal for human and social sciences*, 60(1), 115–132.
- Brown, A., Bransford, J. D., Ferraraand, R., and Campione, J.C. (1983).

Learning, remembering and understanding. In J. H. Flavell & E. M. Markman (Eds) Carmichael's Manual of Child Psychology, Volume 1. New York: Wiley.

Marimuthu, R., Muthusamy, C., & Veeravagu, J. (2016). Metacognitive strategy training through the cognitive academic language learning approach (CALLA) as a way to improve reading comprehension performance among students of an English language course at UiTM Penang. Malaysian Journal of ELT Research, 7(1),64–93.

Hussein,M.T (2022)The Effect of Reciprocal Teaching Strategy on the Fourth Preparatory School Students' Reading Comprehension Performance and Retention. Alustath Journal for Human and Social Science, 1.(٢٢٤)

Ardiana, A. (2015). Improving the students reading comprehension in narrative text through patterned partner reading. None, 4(2), 140–155.

Mawlood, A. A., & Abbas, N. J. (2022). Teachers' Attitudes Towards Reciprocal Teaching Strategies for Improving High School Students' Reading Skills. Journal of Language Studies. Vol, 5(4), 117–135.

Sadler, C., & Sugai, G. (2009). Effective behavior and instructional support: A district model for early identification and prevention of reading and behavior problems. Journal of Positive Behavior Interventions, 11(1), 35–46.

Burhan, B. A. (2018). The Effect of Developing Lexical Meaning on Iraqi EFL Students' Performance in Reading Comprehension. ALUSTATH

JOURNAL FOR HUMAN AND SOCIAL SCIENCES, 225(1), 45–68.

Pearson, P. D. (2014). The roots of reading comprehension instruction. In Handbook of research on reading comprehension (pp. 27–55). Routledge.

Obeed, R. S. (2018). The Effect of Collaborative Reading on Iraqi EFL Intermediate School Pupils' Reading Comprehension. Alustath Journal for Human and Social Science, 1.(٢٢٤)

Roch, M., Florit, E., & Levorato, C. (2015). Follow-up study on reading comprehension in Down's syndrome: the role of reading skills and listening comprehension. International journal of language & communication disorders, 1–12.

Torres, N. G., & Constain, J. J. Á. (2009). Improving reading comprehension skills through reading strategies used by a group of foreign language learners. How, 16(1), 55–70.

Richards, J. C., & Schmidt, R. (2002). Longman dictionary of language teaching and applied linguistics (3rd Ed.). London: Pearson Education.