The Effect of Rational Judgment Strategy in Depth of knowledge levels (Recall and Skill /concept) for EFL preparatory school Students' text Comprehension

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ABSTRACT

The present study aims at Investigating the Effectiveness of using Rational Judgment strategy in depth of knowledge levels(Recall and Skil/concept) for EFL Preparatory School Students' text comprehension . It is hypothesized that there are no statistically significant differences between the main score of the experiment group which is taught by using the Rational Judgment Strategy and that of the control group which is taught using the conventional method in Depth of knowledge post test.

From the main hypothesis the researcher drives sub–hypotheses First,there are no statistically significant differences between the mean scores of the experimental group which is taught using the Rational Judgment Strategy and that of the control group which is taught using the conventional method in Recall post test. second, there are no statistically significant differences between the mean scores of the experimental group which is taught using the Rational Judgment Strategy and that of the control group which is taught using the conventional method in Skill/Concept level post test. .To verify the hypotheses of the study and achieve its aims,A sample of (76) students have been selected randomly from the fifth preparatory grade in Al–Maysaloun Preparatory School for girls in Tikirt city.The sample is

divided into two groups, experimental which includes (38) students and control group which includes (38) students.Both groups have been equalized in age, parents' academic level and students' achievement in the previous year in the Reading Comprehension subject.Then the first experimental group is taught by Rational judgment strategy, whereas the control group which is taught by the method stated in the teacher's guide.The content of the teaching material is analysed then, depth of knowledge post–test have been constructed.The experimental and controlled groups were taught for ten weeks. The researcher constructed a test of 16 questions to assess the students' performance in the independent variable (Depth of knowledge). The test items were presented to specialists to verify its validity, and to obtain its reliability. Then Data have been analysed statistically by using t–test .The results have shown that there are statistically significant differences between the two experimental groups and the control group in depth of knowledge posttests, in favour of the experimental groups.The results have also shown that the Rational judgment strategy is more effective than the academic method   . In the light of obtained results, conclusions, recommendations and suggestions for further studies are put forward.

Keywords:Rational Judgment strategy ,Depth of knowledge.

أثر إستعمال المحاكمة العقلية في مستويات العمق المعرفي (التذكر وإعادة الإنتاج /مهارة مفهوم) لفهم النصوص القرائية لدى طلبة المدارس الإعدادية لتعلم اللغة الإنكليزية.

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الملخص

تهدف الدراسة الحالية إلى معرفة مدى فاعلية استخدام استراتيجية الحكم العقلاني في عمق مستويات المعرفة (الاستدعاء والمهارة/المفهوم) في فهم النص لدى طلاب المرحلة الإعدادية للغة الإنجليزية كلغة أجنبية. ويفترض عدم وجود فروق ذات دلالة إحصائية بين الدرجة الرئيسية

للمجموعة التجريبية التي تدرس باستخدام استراتيجية الحكم العقلاني والمجموعة الضابطة التي تدرس بالطريقة التقليدية في الاختبار البعدي لعمق المعرفة.

ومن الفرضية الرئيسية قامت الباحثة بطرح فرضيات فرعية: أولا: لا توجد فروق ذات دلالة إحصائية بين متوسط درجات المجموعة التجريبية التي تدرس باستخدام استراتيجية الحكم العقلاني والمجموعة الضابطة التي تدرس بالطريقة التقليدية في بعد الاستدعاء. امتحان. ثانياً: لا توجد فروق ذات دلالة إحصائية بين متوسطي درجات المجموعة التجريبية التي تدرس باستخدام استراتيجية الحكم العقلاني والمجموعة الضابطة التي تدرس بالطريقة التقليدية في الاختبار البعدي لمستوى المهارة/المفهوم. وللتحقق من فروض الدراسة وتحقيق أهدافها تم اختيار عينة عشوائية مكونة من (٧٦) طالبة من الصف الخامس الإعدادي في مدرسة ميسلون الإعدادية للبنات في مدينة تكريت. وقد قسمت العينة إلى مجموعتين: تجريبية. والتي تضم (٣٨) طالباً والمجموعة الضابطة التي تضم (٣٨) طالباً. وقد تم تعادل المجموعتين في العمر والمستوى الأكاديمي لأولياء الأمور وتحصيل الطلاب في العام السابق في مادة الفهم القرائي. ثم يتم تدريس المجموعة التجريبية الأولى بواسطة استراتيجية الحكم العقلاني، حيث تم تدريس المجموعة الضابطة بالطريقة الواردة في دليل المعلم. وتم تحليل محتوى المادة التعليمية، وتم بناء الاختبار البعدي لعمق المعرفة. وتم تدريس المجموعتين التجريبية والضابطة لمدة عشرة أسابيع . وقام الباحث ببناء اختبار مكون من ١٦ سؤالا لتقييم أداء الطلاب في المتغير المستقل (عمق المعرفة). وقد تم عرض فقرات الاختبار على المختصين للتحقق من صدقها، والحصول على ثباتها. ثم تم تحليل البيانات إحصائياً باستخدام اختبار (ت). وأظهرت النتائج وجود فروق ذات دلالة إحصائية بين المجموعتين التجريبية والمجموعة الضابطة في الاختبار البعدي لعمق المعرفة، لصالح المجموعتين التجريبيتين.كما أظهرت النتائج أن تعتبر استراتيجية الحكم العقلاني أكثر فعالية من الطريقة الأكاديمية. وفي ضوء النتائج التي تم التوصل إليها تم تقديم الاستنتاجات والتوصيات والمقترحات لإجراء المزيد من الدراسات.

الكلمات المفتاحية: استراتيجية الحكم العقلاني، عمق المعرفة

Problem of the Study and Its Significance.

Reading comprehension is not just about understanding words; it involves a complex set of cognitive processes. For EFL students, mastering reading comprehension is crucial, as it is a gateway to understanding and effectively communicating in English. This skill involves more than just recognizing words on a page; it requires the

ability to extract meaning from text, make connections between ideas, and draw inferences based on prior knowledge and textual information.

(Padesky و(1995) emphasizes that reading comprehension is an active process where readers engage with the text, using prior knowledge to derive meaning. Furthermore, Padesky suggests that students need to be taught strategies to read more efficiently, such as contextual guessing and making inferences.

(Hodges,1995) delves into the intentional thinking involved in reading comprehension, emphasizing the construction of meaning through interactions between the text and the reader. Similarly, (Rabel ,2005) emphasizes the role of reading in developing creativity, highlighting its significance beyond just language acquisition. However, challenges arise in the form of text difficulties, as identified by (Westwood,2008).These difficulties stem from limited vocabulary, unfamiliar subject matter, and ineffective reading strategies. As a result, students may struggle to comprehend the text fully. Moreover, the traditional approach to teaching English often focuses on surface-level learning, such as rote memorization, rather than fostering deeper cognitive processes (Al-Bali&Madhat's,2011). (Al Fiel,2018) suggests revisiting educational curricula to promote knowledge development among learners, aligning with modern educational trends.

Despite these challenges, teachers play a crucial role in supporting students' reading comprehension skills. However, inadequate interaction and monotonous tasks may hinder students' engagement with the text (Yassen, 2013). Therefore, it's essential for educators to implement effective teaching strategies that promote active reading and meaningful comprehension.The current study attempts to investigate the role of the Rational Judgment strategy in teaching reading comprehension to EFL preparatory school students.

Aim of the study

The present study aims at: Investigating The Effect of Rational Judgment Strategy in Depth of knowledge levels (Recall and Skill /concept) for EFL preparatory school Students' text Comprehension.

Hypotheses

The aims of the study are supposed to be achieved through verifying the following hypotheses.

a-There are no statistically significant differences between the mean scores of the experimental group which is taught using the Rational Judgment Strategy and that of the control group which is taught using the conventional method in Recall post test.

b-There are no statistically significant differences between the mean scores of the experimental group which is taught using the Rational Judgment Strategy and that of the control group which is taught using the conventional method in Skill/Concept level post test .

Limits of the Study

　The present study is limited to:

1. Student book and activity book " English for Iraq" for the fifth preparatory ,units one ,two ,three and four in first semester of the study.

2. Fifth grade school Al- Maysaloun Preparatory School for girls in Tikrit city during the first course of the academic year 2023-2024.

Value of the Study

The present study is supposed to be valuable for the following:

1.Curriculum designers should include some modern knowledge in developing textbook in order to implement by teachers .

2.Teachers of English foreign language who are required to change their direction from point of view of teaching foreign language as a second language) by providing necessary information and procedures to enhance their students' reading skills.

3. EFL students and researchers who are looking for different strategies for teaching English language skills.

Definition of Basic Terms

1. Rational Judgment

(Brown&Greene,2009): A multidimensional concept that includes social and emotional dimensions, including: self-knowledge, understanding others, making judgments, life experience, mastering its skills, and the desire to learn.

The operation definition "A set of teaching procedures through which the skills, mental processes, and scientific values are taught to the students of (the experimental group), enabling them to review and evaluate cognitive and academic subjects in order to understand them proficiently".

2. Depth of knowledge:

(Hess, 2014) states that Depth of knowledge is a critical examination of new ideas and facts, placing them in cognitive structures and making multiple connections between them. The learner searches for meaning and focuses on the basic arguments and evidence and the required concepts to solve a particular problem".

The operational definition of (Depth Of Knowledge) is "The level of mental operations practiced by fifth-grade students in the experimental group and the control group, which are given access to deeper understanding according to the grades they obtain through the test prepared for this purpose "

The Plan of the Study :

The steps below are going to be followed:

1. Providing a theoretical Background about the variable the .study

2. Selecting a Sample from the EFL fifth preparatory

School Students and divided into two groups, experimental and Control group.

3. Equalizing the two groups in different variable   parents academic attainment, students' age.

4. been taught The experimental group has Rational judgment Strategy whilethe control group using the conventional method

5. Constructing a Depth of knowledge   .test

6. .Subjecting the two groups to the instrument of the study

7. Collecting the required data, analyzing them by by using ppropriate statistical meansa.

8. ,putting forward the findings conclusionsSuggestion and   , recommendation.

The Concept of Rational Judgment Strategy

(Baltes &Smith,2008) describe Rational judgment Strategy as the culmination of experiential knowledge, reflecting an individual's deep understanding of human nature, societal norms, and their consequences, developed over a lifetime. (Brown& Greene ,2009) present it as a multidimensional concept, encompassing self-awareness, empathy, experienced-based decision-making, skill mastery, and a thirst for learning.

(Ail ,2012) states that strategy emphasizes developing students' ability to evaluate their values, relying on the skills and mental processes that enable students to review and judge their own values. Therefore, the role of the teacher is guidance and direction, without directing students to specific values but increasing their experience and knowledge of the rational and logical principles through which they can judge and evaluate their values.

Rational Judgment Strategy steps.

1.Identifying and clarifying information:

Students must define terms clearly to assess them accurately, particularly when terms combine multiple ideas in the text.

2.Collecting evidence:

Both teachers and students focus on accumulating evidence both supporting and refuting the scientific terms outlined in the text.

3.Assessing the accuracy and validity of the evidence:

on evaluating the evidence and revealing the extent of This step focuses the accuracy and validity of the information

4.Determining the criteria by which the relevance of the evidence to the scientific terms is judged:

The process of linking and matching between the evidence and the scientific term presented is carried out in a clear manner.

5. Testing the scientific criterion:

the focus is on the scientific criterion that has been reached, in order to test its validity and accuracy as a scientific criterion by which things are judged to be true or false.

6.Issuing a value judgment:

students progress to making value judgments regarding the viewpoints presented, such as during discussions about scientific concepts.

Advantages and disadvantages of Rational Judgment Strategy

1. Empowering the teacher to enhance the classroom learning environment.

2. Enables learners to evaluate and lead their own learning.

3. Helps students recall their previous information on the topic.

4. Helping students take charge of their own learning, and it requires the teacher to attribute their success in self-learning to the effort they have made.

5. Turns the student into the center of the educational process, emphasizing the principles of self-learning and cooperative learning.

The concept of depth of knowledge.

Depth of knowledge (DOK) forms another important perspective of cognitive complexity. The best- known work in this area, that of Norman Webb (1997, 1999), (Crosson, McKeown, & Ward, 2019) State Depth

of knowledge as a levels of thinking that students must master during their interaction with scientific knowledge. It refers to the levels of complexity of thinking through which students interact with scientific knowledge). It is also defined as a certain degree of proficiency in one or more aspects of knowledge .

Depth of knowledge is known as the level of information processing and mental operations that students engage in during learning to achieve a deeper understanding of what they are learning. It includes recalling and remembering information, applying concepts and skills, and strategic thinking (Tamasah, 2020).

Webb's depth-of-knowledge (DOK) levels

1- DOK   Recall & Reproduction   _____ Recall a fact, term, principle, or concept; perform a routine procedure.

2- DOK   Basic Application of Skills/Concepts___ Use information, conceptual knowledge; select appropriate procedures for a task; perform two or more steps with decision points along the way; solve routine problems; organize or display data; interpret or use simple graphs.

 Previous Studies

Salem (2016),

The study aimed to:

 explored the relationship between Rational Judgment and satisfaction among children. The study sample consisted of 30 boys and girls in kindergarten, divided equally into three experimental groups: immediate reward group, immediate and delayed reward group, and delayed reward group. After conducting the experiment and applying the Rational Judgment scale to the three groups, The researcher used open ended questionnaire as a tool for the study. the results indicated a positive statistically significant relationship between Rational Judgment and satisfaction among children in all three groups.

Mohamed (2016),

The study aimed to: investigated the effectiveness of the Rational Judgment strategy in developing tolerance and coexistence values among secondary school students studying psychology. The study sample comprised one experimental group of 50 male and female students. Pre- and post-tests were administered on tolerance and coexistence values. The results showed statistically significant differences in favor of the post-test, attributed to the use of the Rational Judgment strategy.

Abu Na'eem (2019),

The study aimed to:uncover the impact of the Rational Judgment strategy on acquiring social values among ninth-grade female students in the Arabic language course. The study sample consisted of 79 students divided into two experimental groups: one with 40 students and the other with 39 students. After administering the social values test to both groups, the results revealed the superiority of the experimental group in the post-test, attributed to the use of the strategy.

The Experimental Design

Experimental design is 'the process of carrying out research in an objective and controlled fashion so that precision is maximized and specific conclusions can be drawn regarding a hypothesis statement' (Bell, 2009). In general, the aim of the experimental design is to set the effect of an independent variable on a dependent variable (ibid)In order to achieve the aim of the study, the researcher has used "the pre -post test control group design" in which the groups are chosen by employing randomization. This design takes this from:

Group	independent variable	dependent variable	Post test
experimental	Rational Judgment Strategy	Depth of Knowledge	Depth of Knowledge test
control	Traditional method		

The experimental group receives the independent variable and then both groups of subjects are measured on the dependent variable. The scores on the dependent variable are then compared and if the Depth of Knowledge scores are found to be significantly different from those of the control group the difference is attributed to the independent variable.

The E.G. is the group which is taught Reading texts. While The C.G. is taught the same Reading texts as presented in the pupils text book and recommended in the Teachers' Guide.

Population

The term population is simply referred by(Israel ,2008) as 'a set of all items being considered for measuring some characteristics'. It refers to a total group of individuals that a particular study is interested in and it involves all the subjects the researcher plans to study (Ary et al.,2018). The aim is to understand and to which or to whom the results of the study can be generalized or transferred (Casteel et al.,2021). Sample is a subset of population. Sampling refers to selecting representative elements from the population (Israel, 2008).the population of the study is the pupils of the fifth year preparatory schools (the scientific branch) for girls in Salah Al-deen Governorate.

The researcher has chosen this stage because it is considered a middle stage between the first and the last year of the preparatory stage and the pupils of this stage are mature enough to carry out the needs of the present study.

The choice of girls' schools may be justified by the fact that the male / female distinction in the opinion of the researcher is not an important variable for the present study.

The Sample

The refers to any group of individuals which is selected to represent a population. (Richards et al, 1992)

The fifth year scientific branch in Maysaloon preparatory school for girls, which is selected as a sample, consists of three classes, A,B and C each of which comprises around 38 pupils. Two of these classes are randomly selected for the purpose of the experiment class A, consisting of 38 pupils makes up the EG where class B, 38 pupils, makes up the CG .the total number of the study sample is 76 pupils, 38 in each group.

Table (1)Sample Selection

Group	Section	No. of Pupils	Repeaters	Final No.
Experimental	A	38	0	38
Control	B	38	0	38
Total		38	0	76

In order to inrease the sensitivity of the experiment and there by increase the probability of detecting the effect that actually occurs, the researcher has equated the subjects on the basis of three variables.

1- The subjects' level of achievement in English in the last year .

2- IQ test .

3- The level of fathers' education.

4- The level of mother' education.

Age

The researcher has obtained the data related to students' age from students themselves as well as the staff of the school administration. Students' age in months has been counted till 1th of October , 2022 to find out if there is any statistically significant difference among student's age in two groups.

The mean ages and standard deviation of the E.G. and the C.G. in the last year exam are (195.29) (4.18) and (195.08) (3.29) respectively.

The t-test revealed that there is no statistically significant difference between the two groups at 0.05 level of significance the computed t-

value is (0.24), whereas the tabulated t-value is which indicates no significant differences as shown in Table(2).

Table (2)The Mean and Standard Deviation and t-value for the ages

Group	Number of Subjects	Mean	Standard Deviation	t-value		D.F.	Level of significance
				Computed	Tabulated		
Experimental	38	195.29	4.18	0.24	2.00	74	0.05
Control	38	195.08	3.29				

The subjects' level of achievement in English in the last year .

The mean scores and standard deviation of the E.G. and the C.G. in the last year exam are (65.74) (6.21) and (65.18) (6.90) respectively.

The t-test revealed that there is no statistically significant difference between the two groups at 0.05 level of significance the computed t-value is (0.37), where as the tabulated t-value is which indicates no significant differences as shown in Table(3).

Table (3)The Mean and Standard Deviation and t-value for the Subjects' level of Achievement in English in the last Year Exam

Group	Number of Subjects	Mean	Standard Deviation	t-value		D.F.	Level of significance
				Computed	Tabulated		
Experimental	38	65.74	6.21	0.37	2.00	74	0.05
Control	38	65.18	6.90				

Parents' Educational Attainment

Fathers' Educational Attainment

Chi−square formula has been used to find out whether there is any significant difference among groups regarding fathers' educational attainment. It is found that the computed Chi−square value is (1.28) which is lower than the critical Chi−square value (9.49) at (4) degree of freedom and (0.05) level of significance. Thus, there is no statistically significant difference among groups concerning fathers' educational attainment.

Table (4)The Equalization of the Two Groups of Fathers'Educational Attainment Variable

Stages of Education	Group		Total	Degree Of Freedom	Chi−Square Value	
	E	C			Calculated Value	Chi−Square Distribution
Intermediate and low	10	11	21	4	1.28	9.49
Secondary	9	8	17			
Diploma	6	8	14			
University	6	6	12			
M.A	7	5	12			
Total	38	38	76			

Mothers' Educational Attainment

Chi−square formula has been used to find out whether there is any significant difference among groups regarding mothers' educational attainment. It is found that the computed Chi−square value is (0.92) which is lower than the critical Chi−square value (9.49) at (8) degree of

freedom and (0.05) level of significance. Thus, there is no statistically significant difference among groups concerning mothers' educational attainment.

Table (5)The Equalization of the Two Groups of Mothers' Educational Attainment Variable

Stages of Education	Group		Total	Degree Of Freedom	Chi–Square Value	
					Calculated Value	Chi–Square Distribution
	E	C				
Intermediate and low	8	8	16	4	0.92	9.49
Secondary	9	8	17			
Diploma	9	10	19			
University	7	6	13			
M.A	5	6	11			
Total	38	38	76			

3.5 The Instructional Material

The material taught during the experiment has been selected from the fifth-year preparatory school. The objectives of the course have been derived from the objectives of the syllabus of the fifth-year preparatory school:

The objectives are:

1- To give the pupils a better understanding of the grammatical point.

2- To help the Pupils recognize the different uses of the grammatical point.

3- To help the pupils to use the grammatical points in correct sentences.

4- Then to help the pupils to be able to use these grammatical points in occurat meaningful context.(Teachers' Guide, 1981:18)

The researcher has prepared two types of lesson plan for each group. The E.G. is taught the Reading texts mentioned above through the use of Rational Judgment Strategy, the C.G. is taught according to the use of the recommended techniques in teachers' Guide.

3.5.1 The Control Group

The researcher has taught the control group. The process of teaching lasted ten weeks for about three times a week. The researcher times a week for ten weeks followed the steps and procedures steps in teaching structural presented in the pupils text book and recommended in their Teachers' Guide.

The Experimental Group

The E.G. has been taught the Reading texts through the use of Rational Judgment Strategy .

The process lasted for ten weeks, three times a week, in the first lesson the researcher taught the subject how to use the net (the steps were written on the blackboard) then, in each lesson the pupils were asked to read from the net the notes that are put for the specific grammatical aspect and then they are required to try to do some exercises and quizzes.

Depth of Knowledge Test

The researcher prepared a cognitive depth test distributed into Two levels: (Recall , Skill/Concept) and the test included (30) paragraphs distributed among the domains as in the following table:

Table(6)Levels and Items of Depth of Knowledge test

No	Levels	No. of items
1	Recall	15
2	Skill/Concept	15
Total		30

The Test Validity

The most important quality to be considered when selecting or constructing an evaluation instrument is validity.

According to (Heaton,1975) Validity of the test "is the extent to which it measures what it is supposed to measure and nothing else".

"There are four types of validity: Construct validity, empirical validation which constitutes predictive and concurrent validity, content validity and face validity". (Harris, 1969).

Face Validity

Face validity could be described as the layman's impression of what a test measure. "A test must have a certain degree of face validity for the users". (Davies, 1990: 40)

Content Validity

Content validity should demonstrate that the test measures a representative sample of the behaviour or content domain which one wishes to measures. Thus content validity in contrast with other types of validation, is usually based on human judgment. One can also consuit experts and use the homogeneity of these judgments as a criterion. (Davies, 1990).

Statistical Means

The following statistical means are used in the analysis of the result of the present study:

1. Pearson correlation coefficient, to estimate the test reliability.

$$ r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{\left[N\sum X^2 - (\sum X)^2\right]\left[N\sum Y^2 - (\sum Y)^2\right]}} $$

(McNemar, 1962:112)

N = stands for the number of students tested .

$\sum$ = stands for summation sign.

X = stands for the students' scores for the first test.

Y = stands for the students' scores of the second test.

2. T-test, for two independent samples, to find out the significant differences between the groups in non-experimental variables and in the experimental alternatives.

$$t = \frac{x_1 - x_2}{\sqrt{\frac{s_1^2(n-1) + s_2^2(n-1)}{n_1 + n_2 - 2}\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

X_1 = The mean of the Experimental Group.

X_2 = The mean of the Control Group.

N_1 = The number of the Experimental Group.

N_2 = The number of the Control Group.

S_1^2 = Variance of the Experimental Group.

S_1^2 = Variance of the Control Group.

The variance has been estimated by applying the formula:

$$S^2 = \frac{n\sum x^2 - (\sum x)^2}{n(n-1)}$$

(Marascailo, ,1971)

3. T-test, of significant differences among percentages is used to test significant differences among test items.

The following formula is used:

$$t = \frac{p_1^\wedge - p_2^\wedge}{\sqrt{[\frac{1}{n_1} + \frac{1}{n_2}]p^\wedge g^\wedge}}$$

$$g = 1 - p^\wedge$$

$$p^\wedge = \frac{n_1 p_1^\wedge + n_2 p_2^\wedge}{n_1 + n_2}$$

$$p_1^\wedge - p_2^\wedge =$$

The difference between two rates

(AL-Tikriti & AL-Obaidi, 1999)

ANALYSIS OF DATA AND DISCUSSION OF THE RESULTS

The finding results of the statistical analysis by using t-test for two independent groups have shown that the mean scores for Depth of Knowledge level of the EG is (61.00) with a standard deviation of (3.19) with the mean scores of the CG is (50.21) with a standard deviation of (4.66).

To find out differences between the mean scores of the two groups, the t-test formula for two independent groups has been used. The computed t-value is (8.11) which is higher than the tabulated t-test value which is 2.00 at a level of significance of 0.05 and a degree of freedom of (74). This means that there are statistically significant differences between the EG and the control one in favour of the EG. Test

Croups	NO.	Mean	Standard deviation	T-value		D.F	L.S
				Computed t-value	Tabulated t-value		
Experimental	38	61.00	3.19	8.11	2.00	74	**0.05**
Control	38	50.21	4.66				

The Experimental and Control Groups in the Depth of Knowledge Test

Results related to the First Hypothesis

In order to achieve the aim of the current study, the following hypothesis is verified In order to achieve the aim of the current study, the following hypothesis is verified "**There are no statistically significant differences between the mean scores of the experimental group which is taught using the Rational Judgment Strategy and that of the control group which is taught using the conventional method in Recall posttest**".

The finding results of the statistical analysis by using t−test for two independent groups have shown that the mean scores for Recall level of the EG is (9.89) with a standard deviation of (1.29) with the mean scores of the CG is (6.87) with a standard deviation of (1.91).

To find out differences between the mean scores of the two groups, the t−test formula for two independent groups has been used. The computed t−value is (6.80) which is higher than the tabulated t−test value which is 2.00 at a level of significance of 0.05 and a degree of freedom of (74). This means that there are statistically significant differences between the EG and the control one in favour of the EG. Therefore, the null hypothesis is rejected and an alternative hypothesis is stated that **There are statistically significant differences between the mean scores of the experimental group which is taught using the Rational Judgment Strategy and that of the control group which is taught using the conventional method in Recall level posttest**". As shown in table (10) below.

Table (10)

The Experimental and Control Groups in the Recall level

Croups	NO.	Mean	Standard deviation	T−value		D.F	L.S
				Computed t−value	Tabulated t−value		
Experimental	38	9.89	1.29	6.80	2.00		
Control	38	6.87	1.91			74	**0.05**

Results related to the Second Hypothesis

In order to achieve the aim of the current study, the following hypothesis is verified "**There are no statistically significant differences between the mean scores of the experimental group which is taught using the Rational Judgment Strategy and that of the control group which is taught using the conventional method in Skill/Concept posttest**".

The finding results of the statistical analysis by using t−test for two independent groups have shown that the mean scores for Skill/Concept level of the EG is (6.84) with a standard deviation of (1.05) with the mean scores of the CG is (4.45) with a standard deviation of (1.90).

To find out differences between the mean scores of the two groups, the t−test formula for two independent groups has been used. The computed t−value is (5.50) which is higher than the tabulated t−test value which is 2.00 at a level of significance of 0.05 and a degree of freedom of (74). This means that there are statistically significant differences between the EG and the control one in favour of the EG. Therefore, the null hypothesis is rejected and an alternative hypothesis is stated that **There are statistically significant differences between the mean scores of the experimental group which is taught using the Rational Judgment Strategy and that of the control group which is taught using the conventional method in Skill/Concept level posttest**". As shown in table (11) below.

Table (11)The Experimental and Control Groups in the Skill/Concept level

Croups	NO.	Mean	Standard deviation	T−value		D.F	L.S
				Computed t−value	Tabulated t−value		
Experimental	38	6.84	1.05	5.50	2.00	74	**0.05**
Control	38	4.45	1.90				

Conclusions

The present study has come up with some conclusions, as follows:

$\mathbf{1}$. Rational Judgment Strategy has an effective on the development of Depth of Knowledge , as the level of use of Depth of Knowledge markers by the experimental group has become more accurate in linking sentences within the text.

2. The Rational Judgment Strategy has a greater Effect on the domain of performance among students than the cognitive and affective and social domains, which indicates that the technique is effective in increasing the ability to apply practical work Depth of Knowledge .

 Recommendations

 Based on the above conclusions, it is recommended:

1. Teachers' reliance on modern strategies and techniques in teaching English, especially the Rational Judgment Strategy.

2. Providing technical requirements that help implement techniques and strategies.

Suggestions for Further Research

Based on the current study, a number of suggestions for further research are proposed below:

1.Conducting a comparative study between the Rational Judgment Strategy and the numbered heads technique in developing meta-discourse among preparatory school students.

 2.Conducting a study of the effectiveness of the Rational Judgment Strategy and the scaffolding technique in developing CLA and cognitive flexibility among preparatory school students.

roposed below:

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