

THE EFFECT OF THE RECIPROCAL TEACHING STRATEGY IN DEVELOPING HIGHER ORDER THINKING OF FOURTH PREPARATORY GRADE STUDENTS IN THE SUBJECT OF ISLAMIC ARABIC CIVILIZATION

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ABSTRACT

The research's goal is to know the impact of the reciprocal teaching strategy in developing the higher order thinking of 4th preparatory grade students in the subject of Islamic Arabic Civilization. The researcher chose an arbitrary sample of 71 students of Zainabhigh school for girls, which is part of Bagdad Al-Resafa Directorate of Education-Second. The experimental group consist of 36 students they were taught the Islamic and Arabic Civilization subject using the reciprocal teaching strategies. The standard group consisted of 35 student who were taught the same subject but with using the traditional teaching strategy. The researcher taught both group in the first semester of 2018-2019 school year. She used Marzano's higher order thinking test to categorize the higher thinking. This test consist of 62 section that is divided into four skills, which are (analyzing ,generating, emerging, abstracting, and evaluating). The test data analysis showed that the experimental group had higher scores than the standard group in the higher thinking test, so the researcher recommends setting up training courses to train the teachers on how to use the four skills of the reciprocal teaching strategy effectively, and to divide students in a classroom correctly. The researcher also suggested performing a study using the reciprocal teaching strategy with different variables such as direction, and motivation toward the subject being taught.

CHAPTER ONE: INTRODUCING THE RESEARCH:

RESEARCH PROBLEM :

change in the field of communications and information technology represents one of the most

prominent manifestations of social development in this era and the need to develop thinking is an imperative for any educational reform process at the level of all levels of education from providing sufficient opportunities for learners to practice and perfect thinking skills and possess tools at all levels in all subjects. In order that they do not face after their graduation challenges and difficulties that graduates from our schools manifest their experience by remembering and recalling information while they lack the ability to use it to reach choices and alternatives or informed decisions that are in fact the products of an educational system that does not provide Sufficient experiences to develop thinking, so the learner must prepare for the future as a clear goal (Jarwan, 2013: 13) The traditional methods of teaching that focus on the role of the teacher in the educational situation and make the role of the learner negative are no longer limited to merely receiving, preserving and retrieving information, and in light of the current time which is characterized by tremendous scientific development, so modern education has turned to learning strategies that Emphasizes the learner's role and positivity in the educational situation and activating his role in the teaching and learning process, which makes him participate actively and thinks and proposes solutions to the problems he faces in his daily life and makes appropriate decisions regarding it and bears its responsibility (El Sherbiny and El Tanaoui, 2011: 47) that the problem of teaching a subject For a history that contains a huge amount of facts and events, which forces the teacher to use the method of narration and indoctrination, this is confirmed by a study (Al-Amiri 1990) And (Al-Azzawi, 2013), and in pursuit of everything new that would contribute to improving the learning of our students, therefore, the researcher wanted to use the strategy of reciprocal teaching with high-order thinking to give more space to develop thinking in the learner's mind by enhancing his ability to analyze and make judgments and evaluation in light of the above The researcher identified the problem by answering the following question: Does the strategy of reciprocal teaching affect the development of high-ranking thinking towards the subject of the history of Arab-Islamic

civilization among students of the fourth literary grade?

research: that competition between countries today and in the future is governed by the knowledge and techniques they produce in the various fields of human life and that the irrational world in which we live is determined by the features of societies and intellectual minds because it places at the top of its priorities the development of the intellectual and creative elements of its children by teaching thinking of all kinds with the necessary strategies (Razzuqi and Abdul Karim, 2013: 4-5) The teacher in our schools should teach students to think by encouraging them to be free to discuss and accept their important ideas and contrary to the ideas of others or even to the ideas of the teacher in terms of diversity and quality, which makes each of them make their way to think about alternatives, the result they can analyze their ideas and organize them to be integrated and useful (Abdul Aziz, 2013: 42). The school should do everything in order to provide opportunities for thinking for its students and the development of the learner's mental powers as it raises youth and creates the appropriate environment to motivate the student to use his mind and sharpen his thinking in every area of school life (Adas, 2000: 16). There is a relationship between thinking and history Because historical texts give learners the ability to unleash their historical imagination and does not adhere to the time frame and the learner studies the goals of the past in order to use it to produce ideas about the present and deal with future data and that having thinking skills when we study history provides us with a number of criteria that we judge over the things Events and that we are not repeating the facts negatively and get out of the scope of the partial selection to the historical absorption (Fawzi, 1988: 5-8). One of the metacognitive strategies is the strategy of mutual teaching proposed by each Palncsar & Brown in 1984 at the University of Illinois (Illinois) is an educational activity based on dialogue and exchange of roles in the educational process between students themselves or between students and teachers, according to which students are distributed Between small groups, naming a mentor or leader for each group, dividing the topic

into paragraphs, discussing each paragraph separately, and replacing a new group leader with the previous leader when completing the paragraph discussion and moving to a new paragraph so that the new leader takes over the discussion and encourages group members to ask Questions about the content of the text and questioning each other to delve deeper into understanding the text (Attia, 2014: 180-181) that the strategy of reciprocal teaching has four phases, namely.

1- Summarization: It is a general plan that the learner uses consciously and flexibly to shorten the readable text and reformulate the important and necessary points in a short and clear manner so that he tests his ability to focus on the basic ideas of the subject (Al-Zayat, 1998: 44).

2- Asking questions: After the learner understands the paragraph, he asks questions about it, thereby acquiring the skill of formulating questions, whose answers represent briefing on the important content of the subject, and the teacher has a role here. Students develop the ability to formulate questions and know the interrogative tools (when, why, and how etc) and the meanings that are suitable for using each tool and thereby gain the skill of formulating questions with a high level of thinking whose answers represent a briefing on what is important from the content of the topic, they are testing themselves to make sure of their ability to answer those questions that they set (Attia, 2015: 481).

3- Clarification: its purpose is to discuss and clarify difficult or new examples, terms, and concepts that are difficult with a line underneath so that the learner does not have to re-read for the purpose of finding them (Al-Obaidi, et al., 2006: 29).

4- Prediction: It is the ability of the learner to use his previous information and experience to predict or explain the occurrence of a phenomenon or an event from a particular situation as he tries to determine what will happen in the following paragraph on the basis of the combined data (Hamida, 1986: 70) Students are able to read with meaning This includes the teaching of the teacher and his cooperative student groups as they exchange roles in leading discussion and dialogue among them on a particular topic, the importance of a mutual teaching strategy

that contributes to improving the understanding processes of ordinary students who have learning difficulties and develop the ability to control their thinking processes It increases their self-confidence and feels the ability to accomplish and provides feedback and enhancement of student responses and a richer learning environment and does not depend on one method and attracts students' attention and focus on the subject of the lesson and helps them to desire to read and encourage the situation P for them to participate and provide opportunities to practice reading activities (Attia: 2014: 183) Interest in thinking has increased because it is one of the main goals that education seeks to develop among learners in order to face the many problems and challenges facing societies as a result of the rapid changes and developments that affected all aspects of contemporary life. Meaningful as well as how to properly handle and use it (Ali, Al-Mashhadani, 2014: 167-168) Higher-order thinking is important for learners because it is one of the forms of evolving thinking such as critical, creative and metacognitive thinking, and it is a mixture of several forms of thinking because it appears in the form of a set of preferred mental activities that require mental simulation and analysis of complex situations according to multiple criteria and includes various solutions and avoids solutions Or simple formulas, and the task of the learner is to create a meaning, that is, to reach a meaning despite the lack of clarity of experience or attitude, and the teacher has a responsibility to encourage I asked him to work within high and varied levels of thinking. Instead of focusing efforts on merely telling facts and remembering them, high-level thinking helps students gain comprehension, analysis, synthesis, and evaluation facts and concepts that enable them to interact effectively with the real world environment to solve everyday problems (Sugar, 2015: 231 - 232) The North Carolina Classification of High-Rank Thinking Skills prepared by the Department of General Education of North Carolina in 1994 is a revised version of the American Association for Curriculum Development and Education (Marzano and his colleagues) compilation that teaching high-level skills requires accts B learners the following skills:

1- Analysis: clarifies existing information by examining and distinguishing components and attributes, and includes the skill of identifying properties and components, i.e. identifying parts of something through its stored knowledge bases, and skill of identifying relationships and patterns.

2- Generation: the production of new meanings and ideas, that is, the use of previous knowledge to add new information, and includes skill of reasoning and prediction.

3-Integration: is the combination of previous knowledge and new information to build a new understanding and includes the skill of summarizing and rebuilding.

4- The evaluation: It is an estimation of the reasonableness of the results and ideas that have been reached and includes the skill of setting standards and verification (Razuki, Muhammad, 2017: 74-75) The subject of the history of Arab-Islamic civilization for the fourth literary grade represents all the achievements of Muslim Arabs in building their state and establishing its institutions and studying the legacy of the human heritage of ancient nations in the fields of politics, science, arts and architecture. Muslim Arabs left a large number of works in different areas of knowledge, whether religious or secular. In their cultural and mental sciences and their love for research, study and innovation, they produced an intellectual and scientific renaissance in various aspects of knowledge and cast a shadow over all humanity (Naji, Abdul-Jabbar, et al., 2017: 3) . The preparatory stage, which includes the fourth preparatory grade, is important because of its role in nurturing students as they undergo physical, mental, psychological, and emotional changes, so they have inclinations, trends, innovative character, thinking, and the ability to criticize what they read and their thinking increases in their achievement future (Kazem and Shehada, 2015: 3 - 4) We can summarize the importance of the research in the following:

1- The importance of the strategy of reciprocal teaching because it requires the participation of all students in the four stages through summarizing the main ideas in the subject of the lesson and formulating a set of questions revolving around the

main ideas and clarifying the unclear ideas to clarify the idea and inform them about what will happen, which makes it central For the educational process.

2- The importance of the course of the history of Arab-Islamic civilization, as it helps students learn about the efforts of Arab Muslim thinkers and scholars who left us the continuous civilization legacy of their true religion, which urged science and learning.

3-The importance of the preparatory stage, including the fourth literary grade, because learners at this stage become the mental ability they have more accurate in expression such as verbal and numerical ability, abstract thinking and judgment on things grow, and the stage of educational and vocational guidance is considered and that the learner's mental level is an important factor in guiding him pedagogically (bronchoscopes, 2013: 98-99).

The research goal: To know the effect of cross-teaching strategy on developing high-ranking thinking among students of the fourth literary grade in the subject of the history of Arab-Islamic civilization in light of verification of the following hypothesis (there is no statistically significant difference at the level (05, 0) between the average scores of students of the experimental group In the high-ranking thinking test and the average score for the students of the control group in the same test).

Research limits: fourth-grade literary students in secondary and preparatory schools for girls in Baghdad. The first chapters of the book of the history of Arab-Islamic civilization for the fourth literary grade to be taught for the academic year (2018-2019).

Defining terms:

Impact: Arafa (Shehata and Al-Najjar): the outcome of expected or unexpected changes that occur to a student as a result of an educational process (Shehata and Al-Najjar, 2003: 22).

Procedural definition of impact: The amount of change that the teaching of the subject of the history of Arab-Islamic civilization leaves with the strategy of reciprocal teaching in developing high-order thinking among students of the fourth literary grade of the experimental group.

The strategy:

Hamida knew it: it is the comprehensive planning of how to implement the educational process within the

limits of a clear philosophical framework in accordance with specific theoretical and practical principles according to the nature of the goal and the subject of study and learning and what requires them to implement tools, devices and capabilities and use them in an organized and coherent system to achieve integration between the elements of the strategy (Hamida, 2003: 253- 254).

Procedural definition of the strategy: It is a set of steps that the researcher follows in teaching students of the fourth literary class of the experimental group, the sample of the research to achieve the objectives of the lesson.

Reciprocal teaching: Abd al-Bari knew: cooperative procedural steps that students take under the supervision of their teacher for a specific topic in order to understand it according to four stages (forecasting, question generation, clarification, and summarization) (Abd al-Bari, 2010: 158).

Procedural definition of reciprocal teaching: A set of activities carried out by students under the supervision and follow-up of the teacher, where they predict the content of the text and ask about its content, and clarify and summarize some of its aspects.

Development: ArafMadbouly: It is the change towards the best in the educational level and keeping pace with the innovations taking place in educational situations (Madbouly, 2002: 83).

Procedural definition of development: the change in the scores of the high-order thinking test for the experimental group compared to the scores of the high-order thinking test of the control group.

High-level thinking, which Saeed knew: that thinking rich in concepts includes a self-organizing of the thinking process and seeks to explore and ask during research, study and dealing with different life situations (Saeed, 2008: 32).

Procedural definition of high-order thinking: mental activities motivate among students of the research sample as a result of using the strategy of reciprocal teaching and measured by the degrees that you obtain for their answers to the test of high-ranking thinking in its four areas (analysis, generation, integration, evaluation) and the skills involved in those areas.

The fourth literary grade: It is the first year of the three years of preparatory study that students enroll in after they pass middle school.

History: Dabour knew him: he cares about human relations and behavior, tracing their origins, development and results, and sheds light on the past on what is in the present and highlights the roles of heroism, leadership and jihad of peoples (Dabur, 1978: 8).

Procedural definition of history: It is the science that studies the things that happened in the past, such as issues, events, personalities, battles and accidents, with the intention of extracting historical evidence and facts for the purpose of knowing their truth (Al-Zubaidi, 2015: 65).

CHAPTER TWO: PREVIOUS STUDIES.

First: Studies dealing with the strategy of mutual teaching:

1- (Al-Kalabi Study 2014): The study aimed to know the effect of the strategy of reciprocal teaching and self-questioning in the achievement of the subject of Arab-Islamic history among students of the second intermediate grade and the development of their creative thinking conducted in the College of Education Ibn Rushd for Humanities, University of Baghdad, the sample consisted of (96) students In Jaber Al-Ansari intermediate school for boys, affiliated to the Directorate of Education, Babil Governorate, by (32) students for the first experimental group that studied the subject of Arab Islamic history with a strategy of reciprocal teaching and (32) students for the second experimental group that studied the same subject by a strategy of self-inquiry and (32) students The control group that studies the same subject in the traditional way, the researcher rewarded between the groups for the variables (time age calculated in months, half-year degrees for the academic year (2011-2012), academic achievement of parents, a Raven test for intelligence, a test of creative tribal thinking) and no significant differences emerged. For these variables, the researcher studied the groups himself, and determined the scientific subject that included the last three chapters of the book on Arab-Islamic history for the second intermediate grade. As for the research

tools, the first was an achievement test of (50). A test paragraph distributed on two questions. The first question consists of (40) paragraphs of objective questions of a multiple choice type. The second question consists of (10) paragraphs of the type of essay questions. The second tool is a test of creative thinking for Torrence and the rate adjusted by (Syed Khairallah 1981) , The experiment was applied in the second semester and lasted for three months. After the end of the experiment, the researcher applied the two tools to the three groups and to statistically treat the data. He relied on Toki method for equal comparisons in statistically processing the data The second experimental study that was studied by the strategy of self-questioning on the control group that studied the same subject in the traditional way in the achievement test and the creative thinking test. As for the second result, there are no statistically significant differences between the average scores of the students of the first experimental group and the second experimental group in the achievement test and the creative thinking test, and recommended The researcher is of the necessity to avoid history teachers from presenting historical subjects in their final form as if they were information and facts recognized by them that do not accept doubt and discussion from verifying them by providing evidence, arguments, proofs, and The way for students to show their creative abilities. (Hamate 2014: i - l).

2- (Tiger study 2014): The study aimed to know the effect of the mutual teaching strategy on acquiring the skill of drawing and reading geographical maps for students of the fifth literary class, conducted at the College of Education for Girls at Baghdad University, the sample consisted of (63) students from the morning cooperation secondary school for girls Affiliated to the Directorate of Education, Baghdad Governorate, at (33) students, from the experimental group that studied geography The natural nature of the cross-teaching strategy and (30) female students of the control group studied the same subject in the traditional way, the two groups were rewarded in variables (time age calculated in months, previous information, academic achievement of parents, intelligence test) there were no statistically significant differences for these variables, the researcher studied the two groups themselves , And

identified the scientific article that included the first three chapters of The natural geography book for the fifth literary grade, and the research tool was a test to acquire the skills of drawing and reading geographical maps consisting of (20) questions, specifically on the map and a list of skills for using drawing and reading geographical maps that included (62) skills distributed in (7) areas, the experiment was applied in the chapter The first study continued for one semester, and after the experiment was completed, I applied the test to the two groups. To statistically treat the data, I adopted the T-test for two independent samples and the Powderer-Richardson equation. The results showed the superiority of the experimental group that studied the strategy of mutual teaching over the control group that was studied in the traditional way in acquiring the skill of drawing and reading geographical maps.

The researcher recommended the adoption of the strategy of mutual teaching in teaching geography by the Ministry of Education (Al-Nimr, 2014: J - L).

Second: Studies dealing with high-ranking thinking:

1- (Abdul-Sahib Study 2016): The study aimed to identify the effectiveness of an educational learning design using the use of cognition strategies in obtaining the material of the foundations of education and high-level thinking, conducted in the College of Education Ibn Rushd for Humanities, University of Baghdad, the sample consisted of (68) male and female students of the first stage In the Department of Educational and Psychological Sciences, among the departments of the College of Education, Ibn Rushd, the morning study is (34) male and female students of the experimental group, represented in Hall (M), which studied the foundations of education in educational design and (34) Male and female students of the control group, Hall B, which studied the same subject in the traditional way, and the two groups were rewarded in variables (chronological age, intelligence, high-order thinking, satisfaction with specialization and academic motivation). There were no statistically significant differences in these variables, The researcher studied the two groups himself, and determined the scientific subject in all

the chapters of the foundations of education for the first stage. As for the research tools, the first was an achievement test consisting of (40) paragraphs, of which (30) are an objective paragraph of some kind. Multiple choice of quadruple alternatives and (10) article paragraphs. As for the second tool, it consisted of a high-ranking thinking test consisting of (9) groups, including (8) groups of paragraphs of the type of test from multiple quadruple alternatives and one group of type vacuums, as each group consisted of (7) Paragraphs, the experiment continued for an entire academic year, and after the end of the experiment, the two tools were applied to the two groups. To statistically treat the data, the T-test was adopted for two independent samples. The results showed the superiority of the experimental group that studied By designing an educational learning on the control group that was studied in the traditional way in the test of high-ranking thinking, the researcher recommended emphasizing teaching in the Faculties of Education for Humanities to the importance of including monthly and final exams with questions that measure high-level thinking skills to evaluate these skills they have, which reflects positively on the level of their general academic achievement (Abdel-Sahib, 2016: i-j).

2- (Kazem Study, 2016): The study aimed to know the effect of a dual analysis and synthesis strategy on the achievement of fourth-grade students in scientific and high-level thinking in biology, conducted at the College of Education Ibn Al-Haytham Pure Sciences at the University of Baghdad, the sample consisted of (69) students From junior high school for girls of the General Directorate of Education in Baghdad, the first Karkh, (34) students, the experimental group that studied Biology subject with a dual analysis and synthesis strategy and (35) students for the control group that studied the same material in the traditional way. Statistically significant differences in these variables, groups studied by themselves and Figure (1) experimental design of the research

The group	Independent variable	Dependent variable
Experimental	Cross teaching strategy	Thinking test
Control	Traditional way	High ranking

The research community and its sample: The current research community consisted of students of the fourth literary class in secondary and day school preparatory schools affiliated to the general directorates of education for the city of Baghdad (Rusafa and Al-Karkh) for the academic year (2018-2019). A sample of society for the large number of

identified the scientific material that included the last five chapters of the book of biology as for my tool The first study was an achievement test of (47) items, and a high-ranking reasoning test of (30) items, (15) objective paragraphs and (15) article articles, were applied in the second semester and lasted (10) weeks. After the end of the experiment, the two tools were applied to The two groups, to statistically process data, adopted the Pearson correlation coefficient, the Spearman-Brown prediction equation, the Kudos Richardson equation (20) and the effect size equation The results showed the superiority of the experimental group that studied biology with a dual analysis and synthesis strategy over the control group that studied the same material in the traditional way in the achievement test and high-level thinking test, and the researcher recommended the necessity of involving teachers and teachers of scientific subjects, especially biology, with developmental courses in how to prepare a bi-analysis strategy and use it in Class (Kazem, 2016: K - L).

CHAPTER THREE: RESEARCH METHODOLOGY AND PROCEDURES:

Research methodology: The researcher chose the experimental approach to achieve the aim of the research because it helps the researcher to identify the effect of the reason (experimental independent variable) on the result (dependent modulator) using the experiment to prove the hypotheses.

Experimental design: The experimental design is defined as an industrial position to test the validity of the results derived from the assumptions and its choice depends on the circumstances and nature of the study (Al-Assaf, 2010: 277), (Al-Afoufa and Al-Fatlawi, 2011: 25). Experimental study with the strategy of mutual teaching and a control group taught in the traditional way (Figure 1)

people, to save money and gain time, and to take into account the correct representation of the researched community (Abrash, 2009: 246), the researcher chose Zainab Prep for Girls Randomly to apply the experiment in it, and after visiting the school, I found that it includes two divisions for the fourth literary grade and by the method of random drawing, Division (A) was chosen to be the experimental group and the number of its students was (36) and Division (B) to be the control group the number of its students (35) and there were no female students who failed From the previous year.

Equivalence of the two research groups: The researcher was keen, before embarking on the experiment, for the students of the two research groups to be statistically equal in some variables that may affect the integrity of the experiment (the time age is calculated in months, the social scores for the third intermediate grade for the previous school year, and the test scores for the high-ranking tribal thinking) and after the statistical analysis The researcher did not find any statistically significant differences, which indicates the equivalence of the two groups in all the variables. Table (1, 3,2) shows that.

Table (1) results of the T-test for the time life calculated in months for the two research groups

the group	The number of individuals in the sample	Arithmetic mean	standard deviation	Degree of freedom	T value		Significance level
					Calculated	Tabular	
Experimental	36			69	0,172	1,98	Not significant At the level (0.05)
Control	35	195,561	9,651				

Table (2) Results of the T-test for social scores in the third intermediate grade for the previous academic year of the two research groups

the group	The number of individuals in the sample	Arithmetic mean	standard deviation	Degree of freedom	T value		Significance level
					Calculated	Tabular	
Experimental	36	68,421	13,903	69	0,036	1,98	Not significant At the level (0.05)
Control	35	67,460	13,459				

Table (3) results of the T-test for high-order thinking for the two research groups

the group	The number of individuals in the sample	Arithmetic mean	standard deviation	Degree of freedom	T value		Significance level
					Calculated	Tabular	
Experimental	36	19,12	12,14	69	0,070	1,98	Not significant At the level (0.05)
Control	35	17,45	12,28				

Control of exotic variables: The researcher tried to avoid the effect of some exotic variables on the course of the experiment and its results according to the following:

1- Differences in the sample test: This variable was avoided by random selection of each group and conducting statistical equivalence between students of the two groups in a number of variables.

2- The research tool: The researcher used a unified tool to measure the effect of the independent variable on the dependent variable, which is a high-level thinking test that was applied to the two research groups simultaneously.

The effect of experimental procedures:

Duration of the experiment: The trial period was equal for the two groups, which lasted one semester from 4/10/2018 and ended 3/1/2019.

- The distribution of lessons: The lessons were distributed equally between the two research groups.

Instructor: The researcher studied the two research groups on their own for accuracy and objectivity.

- Determining the scientific subject: The researcher determined the scientific subject that will be studied during the experiment in the first three chapters of the book of the history of Arab Islamic civilization for the academic year (2018-2019).

Formulating behavioral goals: The behavioral goal is the change that the teacher wants to bring about in the learner's behavior and needs activities and procedures to reach this goal and whenever it is clear and specific increases the ease of achieving it (Obeidat, Abu Al-Samid, 2007: 39) The researcher formulated (65) behavioral goals Depending on the general objectives of the course of the history of Arab-Islamic civilization and the content of the subjects to be studied during the experiment according to the six levels of Bloom's classification of the cognitive domain (remembering, understanding, application, analysis, synthesis, evaluation) presented to a group of arbitrators in the curricula and teaching methods and in the light of their observations took their final form Accessory (1) .

Preparing daily plans: The daily plan helps the teacher organize his ideas regarding the subject of the lesson to be a record of the learning and teaching activity and a means to be used when the supervisor follows his specialization (Jaber, et al., 1985: 110) .The researcher prepared teaching plans for the two groups. As for the control group according to the traditional method, it was presented to a number of experts, and as directed, the necessary adjustments were made, which took the final form, Appendix (2) .

Research tool: The researcher reviewed previous studies that dealt with the high-level thinking test such as (Jani 2012), (Raji 2016) and (Abdul-Saheb 2016). After interviewing a group of arbitrators in measurement and evaluation, high-ranking thinking was chosen for (Jani, 2012: 153 -158) Which was built according to the North Carolina model because it meets the requirements of the current research and was applied to the Iraqi environment, which is an appropriate period and is characterized by honesty and consistency and consists of four main skills which are (analysis, generation, integration, The evaluation (nine sub-skills are derived from it) (defining features and components, identifying relationships and patterns, deduction, expectation or prediction, expansion or details,

summarization, rebuilding, setting standards, verification or consistency) It contained (30) paragraphs of which (15) paragraphs Multiple choice and (15) article articles give grades (2,1, zero) for essay questions. As for objective questions, a score of (1, zero) is given the highest test score (45) and the lowest score (zero).

Honesty: The researcher offered a high-ranking thinking test to a group of arbitrators to know their opinions and observations about the validity of the test and its suitability for students of the fourth literary grade.

Stability of the test: The researcher calculated the stability of the test using the method (Fakronbach) because it depends on the consistency of the test items together, and the consistency of each of the test items as a whole, and the stability factor (0,81) is appropriate stability.

Statistical means:

- 1- T-test for two independent samples.
- 2- The Fakronbach equation.
- 3- Pearson correlation coefficient.

CHAPTER FOUR:

After the experiment ended, the researcher applied a high-ranking thinking test on the two research groups and with statistical treatments, the mean of the experimental group (27,22) and the standard deviation (6,99), and the mean of the control group (21,50) with a standard deviation (5,45) Using the t-test, the result was that the calculated T value (3,88) was greater than the tabular T value (1,980) at the level of significance (0.05) and with a degree of freedom (69), and with this result the null hypothesis which states that it is (There is no statistically significant difference at the level (0.05) between the average degrees of experimental female students in the high-ranking thinking test. Average grades students control group in the same test table (4) shows that.

Table (4) Results of the T-Test for female students in the two groups in the high-ranking thinking test.

the group	The number of individuals in the sample	Arithmetic mean	standard deviation	Degree of freedom	T value		Significance level
					Calculated	Tabular	
Experimental	36	27,22	6,99	69	3,88	1,980	Not significant At the level (0.05)
Control	35	21,50	5,45				

Interpretation of the result: The result of Table (4) showed the superiority of the experimental group that studied the strategy of reciprocal teaching in a high-ranking thinking test over students of the control group who studied in the traditional way to the following reasons:

- 1- That the mutual teaching strategy had a role in the different organization of the classroom and the way to divide female students into small, heterogeneous groups. When a student with a low level in the group gets support and deals with her most knowledgeable, skillful, and thoughtful peers, which leads to the development of high-level thinking toward the subject.
- 2- That the student's success in the task assigned to her in one group depends on the success of all the students in the group, which increased the enthusiasm of each student in the group with her individual responsibility towards her group to accomplish their tasks, which led to the superior students to help their readers seriously to understand the task.

Conclusions:

1- That the mutual teaching strategy leads to the organization of the lesson time and the teacher's transition from centralization of teaching to a specified number of scientific activities in the classroom.

2-The effectiveness of the strategy of mutual teaching in developing high-ranking thinking among students of the experimental group by giving them an opportunity to be cooperative and generate an element of enthusiasm for them.

Recommendations:

1- Opening courses and educational workshops by the Ministry of Education to train teachers to use strategies in teaching.

2- Providing teachers during service with a set of strategies, including the strategy of mutual teaching, to provide a good division of students in the classroom for the success of this strategy.

SUGGESTIONS:

1- Conducting similar research to know the effect of the mutual teaching strategy on other dependent variables including (acquisition of concepts, transmission of learning effect, subtle thinking).

2- Conducting a comparative study between the mutual teaching strategy and other strategies.

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ACCESSORY (1)

The behavioral goals for the first three chapters of the final course of the history of Arab Islamic civilization for the fourth literary grade.

The sequence	Chapter One, Part One: The Concept of Civilization, Civilization and Culture (pp. 4-17) Behavioral goals: Make the student able to:	Levels
1	Remember the foundation of civilization	remember
2	Differentiate between culture and civilization	Understanding
3	The period of time for the end of the Sumerian civilization is determined	remember
4	It is called the Sumerian type of government	remember
5	She explains aspects of the Sumerian civilization	Understanding
6	The year in which the Babylonian state appeared	remember
7	Explained the ancient Egyptians used to early marriage	Understanding
8	Written on the blackboard is equivalent to the letter (T) in hieroglyphs	Installation
9	Know the city of Memphis	remember
10	Syria map indicates the location of the Amorites' residence	Application
11	It clarifies dual religion	Understanding
12	The analysis of the Roman civilization as one of the greatest civilizations for Europe after the Greek civilization	analyzing
13	The reason for the historical era that precedes Islam is ignorance	Understanding
14	Interpretation of the rise of civilizations in the Arabian Peninsula, despite religious backwardness	Understanding
15	Multiple characteristics of Arab Islamic civilization	remember
16	Analyze the saying (Arab Islamic civilization is authentic)	analyzing
Chapter Two: Civilization of the Arabs before Islam from (pp. 19 to p. 37)		
17	She writes a two-page article on settlement in the Arabian Peninsula	Application
18	Multiple kingdoms of the state of Yemen	remember
19	Difference between the datum line and the Nabataean line	Understanding
20	Petra drawers were unearthed within the World Heritage areas in 1987	analyzing
21	The other name of Zenobia is called the Queen of Palmyra	remember
22	It indicates the map of Iraq, spanning a country that was ancient in the past	Application
23	Explain the purity of the air baffled	Understanding
24	A balance between the buttock system and its equivalent at the present time	analyzing
25	You know the Great Monastery of Hind	remember
26	It is called the other name of the Nabati line	remember
27	Indicates the map of the Ghassanid state	Application
28	Indicates the map of the Kingdom of Saudi Arabia	Application
29	She writes a two-page article on the city of Taif	Installation
30	She writes at least two pages on the religion and doctrines of the Arabs before Islam	Installation
31	It shows the interest of the people of Yemen in building dams	Understanding
32	She expresses her opinion on the permanent and seasonal markets before Islam and the corresponding ones at the present time	Evaluation

33	Why Nestorian doctrine	Understanding
34	Declare the saying (At home from the names of ancient Mecca among the Arabs)	analyzing
35	Remember what DiyarBaniSelim became famous to the north of Yathrib	remember
36	Express her opinion on the practice of some of the kings of Yemen fortune-telling and royalty in one	Evaluation
37	In a two-page article she describes the religion and belief of Arabs before Islam	Installation
38	She explains that trade is a manifestation of Arab civilization before Islam	Understanding
39	The multiplicity of Arab markets before Islam	remember
40	Compare the language of the North with the language of the South before the Arabs before Islam	Understanding
41	It analyzes the saying that pre-Islam Arabs call those who learn to shoot, swim, and write in full	analyzing
42	Evaluating Arab knowledge before Islam	Evaluation
43	Compare the impact and the people	Understanding
44	The map of the Arabian Peninsula indicates the location of Selhin Palace	Application
45	There are many types of images circulating on coins among Arabs before Islam	remember
Chapter Three: Administrative Institutions from pp. 39 to p. 60		
46	She explains the ministry as the most important executive political system ever	Understanding
47	Compare between the Ministry of Implementation and the Ministry of Authorization	Understanding
48	Named the author of the book The King's Conduct in Kingdom Management	remember
49	Clarify the bureau system	Understanding
50	Examples are given that the Diwan was found since the time of the Prophet (PBUH) without calling this name	Application
51	It is called the Messenger of Allah	remember
52	Compare between the message office and the post office	Understanding
53	Explanation of the founding of the Bureau of the Soldiers in the era of Caliph Umar ibn Al-Khattab (RADA)	Understanding
54	Connecting Diwan Al-Kharj to what is nowadays equivalent	Application
55	Mission clarifies the mission of letters	Understanding
56	Compare the ring office and archive today	Understanding
57	Explain that the word "mail" is taken from the Persian word "Predn".	Understanding
58	The reason the Prophet (PBUH) rejected the assumption by Al-Aqra bin Bin Hayes of the mandate of a city to be a ruler over it	Understanding
59	She writes a two-page article on the five states of the Islamic Arab State	Installation
60	It links the function of the eyebrow and its equivalent in the present time	Application
61	Compare the upper and lower police	Understanding
62	Explanation Volunteering was the most precious quality of the Muslim army during the time of the Prophet (PBUH)	Understanding
63	The designation of the army is explained Thursday	Understanding

64	Remember the first naval battle in the history of Muslim Arabs	remember
65	Nails were not used on ships operating in the Red Sea and Indian Ocean	Understanding

ACCESSORY (2)

Form a daily teaching plan according to the strategy of reciprocal teaching.

Today and History: Article: History of the Arab Islamic Civilization
 The fourth literary grade (A) . subject: the cultural centers in
 Arabia from pp. 19-22

First Behavioral goals: After completing this subject, the student was able to:

- 1 - Explanation of the Muslim Arabs contributions to civilization.
- 2- Multiple Kingdoms of the State of Yemen.
- 3- You know the datum.
- 4- The multiplicity of the Yemeni society.
- 5- It is called the most prominent luxury palace in Yemen.
- 6- Explain that incense is one of the most famous products in ancient Yemen.
- 7- The year in which the city of Patra was founded is determined.
- 8- Compare the datum line and the Nabataean line.

First Behavioral goals: After completing this subject, the student was able to:

Second, teaching aids: To bring the subject of the lesson closer to the minds of female students, I will adopt the map of the Arabian Peninsula, the colored pens, and the blackboard.

Three steps in the course of the lesson:

Introduction: (The researcher) In the previous lesson, we took the Arab-Islamic civilization and got to know its origins as it stems from the Holy Qur'an and the Prophet's Sunnah and exposes us to its most prominent characteristics as a tolerant and positive civilization and a balance between religion, the world, **the individual, society, and civilization open to wisdom, truth, and beauty in this world. The Arabian Peninsula.**

(Researcher) I give the groups time to read the paragraph silently, then each student in the group undertakes her mission by writing it in the taskbook.

First: Summarization: The researcher asks the leader of the group from the summary to read what she summarized about poverty as follows: Before Islam, the Arabs had contributions to civilizational construction, and in the middle of the desert, eyes and oases paved the way for stability, and the seas that surrounded the Arabian Peninsula formed a site Commercially and culturally connected with the civilizations of the world extended the way for the establishment of countries in the southern, central and northern Arabian Peninsula.

Second: The question: The researcher asks the group leader to put questions about the paragraph, which may be as follows

- How do you explain that the majority of the peninsula was a desert country, but its inhabitants took agriculture as a profession?
- Which countries were established in the southern, central and northern Arabian Peninsula?
- How did the people of the Arabian Peninsula communicate with the civilizations of knowledge at that time in Asia and Africa?

After these questions are answered, the task of clarification begins.

Third clarification: the researcher ask the leader of the group to define the concepts and terms that are not clear that may be (oases, settlements, coast) and write them in the assignment book and then transfer them to student questions The desert depends on groundwater.

The student, What is settlement: is the state of settling people in a new home with the ages of abandoned places.

The student means the word coast: the coast, is the region where the land meets a sea or ocean or the line that forms the boundary between land and ocean or lake.

Prediction stage: the group leader asks the forecaster

Thus, the paragraphs of the lesson remain according to the previous steps of the mutual teaching strategy.

- **Calendar:** The researcher faces some questions to know the extent to which the behavioral goals were achieved according to the following:

- 1- The number of layers of Yemeni society?
- 2- What is meant by the calligraphic font?
- 3- In which year was the city of Petra founded? .

homework :

Prepare the next lesson from Palmyra, p. 22 to Bosra, p. 25, according to the strategy of mutual teaching.