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The Effectiveness of the Cluster Umbrella Strategy in the Development of Critical Thinking among Fifth Preparatory Students in the History Course

[1]Suaad Salman Hassan

Abstract

The education process in Iraq faces several difficulties in general and the teaching of history in particular, among which many teachers resort to colonizing teaching methods and methods that depend on students memorizing historical facts and information without understanding them or realizing the interconnectedness between them and this leads to making the student's role passively dependent on listening and listening without participation The actors in the lesson, which makes the process of communication between them and the teacher somewhat difficult, and here it is necessary to use different types of methods and methods during teaching to ensure the participation of all learners in the lesson, and this is an emphasis on the positive role for them and what they should be in the process Education and Learning (Al-Rabei, 2014, 437-466)

Keywords: *Cluster Umbrella Strategy, Fifth Preparatory Students, History Course*

I. INTRODUCTION

The research problem

The education process in Iraq faces several difficulties in general and the teaching of history in particular, among which many teachers resort to colonizing teaching methods and methods that depend on students memorizing historical facts and information without understanding them or realizing the interconnectedness between them and this leads to making the student's role passively dependent on listening and listening without participation The actors in the lesson, which makes the process of communication between them and the teacher somewhat difficult, and here it is necessary to use different types of methods and methods during teaching to ensure the participation of all learners in the lesson, and this is an emphasis on the positive role for them and what they should be in the process Education and Learning (Al-Rabei, 2014, 437-466)

[1] University of misan, college of education

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Recent studies have indicated that teachers 'reluctance to adopt modern educational strategies in the process of learning and teaching leads to a lack of ability to face the challenges of the age, as students' performance on measures of higher thinking skills is still below the required limit (Abu Jadu & Nofal, 2007: 98)

In addition to the above, the researcher noticed through his experience that there is a deficiency in the diversity of teaching strategies in the subject of history and the lack of interaction between teachers and students in the teaching process in a large way. The usual (traditional) method in which the student is passive and relies only on the teacher in order to obtain information is still It constitutes a great presence in the teaching of history, although it naturally requires a teacher who is proficient in modern teaching methods, able to formulate and present information in a way that is far removed from narration, tradition and the stuffing of minds.

Accordingly, today we need to reconsider the teaching methods applied in teaching history, work to develop it, and benefit from strategies that help provide information to students in an advanced manner that achieves goals with the least effort and the fastest time, so the need is urgent to search for modern strategies that help to clarify the material and establish it in the minds of the material, the general use of the material, and the diversification in the minds of the students.

After searching for the best solutions to address this problem, we find that using a cluster umbrella strategy may address part of this problem.

From the above, it is possible to determine the dimensions of the research problem in the answer to the following question: What is the effect of the cluster umbrella strategy on developing critical thinking among the fifth preparatory students in the history course?

The importance of research

Modern education works to develop the new thinking of man, who is the student. Since many years ago, scholars herald the birth of a new educational system that focuses on the student in light of his effective interaction and participation. On the other hand (Atta, 2004,: 3)

This process aims to bring about desirable behavioral changes among students, whether in the mental aspect, such as knowledge, conclusion, criticism, and methods of thinking, or from an emotional aspect such as appreciation, appreciation, and enjoyment of the arts, or in the dynamic aspect and the skills it includes, and it is an intended and planned process that the teacher undertakes within a specific educational institution Or abroad with the intention of helping students achieve certain goals (Hamida et al. 2003: 41-43)

In order to achieve the desired educational goals, this must be done by teaching, as it is the applied aspect of education and one of its forms and the most important of them, and it is a communicative activity that aims to stimulate learning and facilitate the task of achieving it. As a mediator in the performance of an educational position (Ibrahim, 2010: 28), the method of teaching is a fundamental pillar in delivering the curriculum to students, and it translates the theoretical goals and standards of the educational institution into concrete and realistic behaviors (Al Saifi, 2013: 63)

The strategy of the cluster umbrella is a major means of communication between the teacher and the student. It guides them in a better way while carrying out the scholastic tasks (Jaber, 2000: 62)

The cluster umbrella strategy is one of the strategies that present the material from multiple sides by asking a general question and emerging sub-questions from it. The answer to it leads to the understanding of the final answer to the general question, so it opens the door to dialogue and discussion and enables students to search for various answers and this creates an atmosphere for the use of types of Thinking among students (Al-Ajras, 2013: 112)

Critical thinking is one of the modes of thinking that education seeks to impart to students as it has become one of the most important educational goals that it seeks to achieve in its various stages, and it leads to a deep understanding of the knowledge that students study because learning is a process of thinking and employing thinking in learning transforms the process of acquiring information from a static process to A process of mental activity that leads to better mastery of the material or cognitive content and to link its elements together, which is still one of the most developed types in his skills and the most common in the developed world and this is due to the increasing belief that we must create generations capable of critical thinking, as well as It is one of the most effective types of thinking because its operations are not limited to recalling information or ideas from memory, but rather go beyond finding the relationship between various ideas and linking causes and causes, between results and events, and analyzing ideas (Hamza and Abbas, 2010: 182)

The history subject has a prominent place among the school curricula because of the values and goals it carries that contribute to educating young people and linking them to the heritage of their society and their nation and to the heritage of humanity in order to achieve the emotional aspect, as well as providing them with the knowledge field that is an important part of their general culture (Al-Ta'i, 2008: 4)

Accordingly, the importance of the current research lies in the following:

1. The importance of the history course as it teaches students wisdom, scrutiny and scrutiny, as well as its role in educating them.

2. The research will present a vision based on the application of a modern teaching strategy that concerns students and their critical thinking.

3. It comes in response to trends calling for the need to pay attention to teaching methods that keep pace with scientific developments and progress.

The aim of the research and its hypotheses:

The current research aims to know the impact of the cluster umbrella strategy on the critical thinking of the fifth middle school students in the history course.

In light of the aim of the research, the researcher formulated the following null hypotheses:

1- There is no statistically significant difference at the level of significance ($\alpha = 0.05$) between the average scores of the experimental group students who study according to the cluster umbrella strategy and the average

scores of the control group students who study according to the usual method of the dimensional critical thinking test.

2- There is no statistically significant difference at the level of significance ($\alpha = 0.05$) between the average scores of the experimental group students who are studying according to the cluster umbrella strategy in the pre and post critical thinking test.

Research Limits:

The limits of the current research are determined by the following:

Human limit: Fifth middle school students.

Time limit: the academic year 2017-2018.

Spatial boundary: the preparatory schools of the Rusafa Third Directorate of Education.

Scientific Limit: History.

Defining terms:

1- Impact: linguistic definition:

The rest of the thing, and the combination of traces, which is what remains from the demise of the thing and left a trace in it

(Ibn Manzoor, 1999: 69).

Idiomatic definition:

Known by:

A- (Shehata and Al-Najjar, 2003) "The outcome of a desirable change that occurs in the learner as a result of the learning process" (Shehata and Al-Najjar, 2003: 32).

B- (Ibrahim, 2009) “The ability of the worker under study to achieve a positive result” (Ibrahim, 2009: 30)

- Procedural definition: It is the change that occurs in the critical thinking of the experimental group students after they are exposed to the independent variable (the cluster umbrella strategy) in the course of history.

2- Strategy: idiomatic definition:

It was known by:

A- (Abu Riach and others, 2009) "A set of methods, rules and methods used in learning and teaching situations, and it includes a set of principles, rules, methods and overlapping methods that guide the teacher's actions in his endeavor to organize classroom learning experiences and achieve results. The Observed (Abu Rias and others, 2009: 19)

B- (Shaheen, 2011) “It is the art of using the available capabilities and means in an optimal way to achieve the desired goals in the best possible way, meaning that they are specific ways to address an important problem or direct or practical methods to achieve a specific goal” (Shaheen, 2011: 22).

3- Cluster umbrella: idiomatic definition:

It was defined by:

A- (Khatayba, 2005) "A method of focusing on discussion that provides a system for developing thinking about a specific topic or idea, and it was called cluster because it resembles a cluster in its branch, and it shows the teacher's skill and competence in managing the discussion so that each cluster question is given a suitable time, and it is called the umbrella. Because the main question in it covers the follow-up questions (Khataba, 2005: 286-269)

B - (Qatawi, 2007) “A strategy consisting of consistent and interrelated questions that cover the topic by asking a general question, which is the umbrella question and appending it to subordinate questions that arrive at an answer to it (Qatawi, 2007: 327)

Procedural definition: An educational strategy used with students of the experimental group to identify its impact on their critical thinking. It is in the form of a basic question representing the topic to be studied, followed by a number of sub-questions that lead to the answer to the answer to the main question.

4- Critical thinking: idiomatic definition:

Known by:

- (Al-Hallaq, 2007) “a mental process that includes a set of thinking skills that can be used individually or in combination without being committed to any specific arrangement, in order to verify something or a topic to be evaluated in order to make a judgment about the value of the thing or to reach conclusions. Or a generalization, decision, or solution to the problem of the subject of interest ”(Al-Hallaq, 2007: 43)

• (Al-Ghariri, 2007) “It narrates, examines, scrutinizes and carefully observes the facts, uses the rules of logical inference, avoids discrimination in thinking and common mistakes resulting from generalizations in judging things, which are done through evaluation according to agreed criteria, reaching the correct conclusion and solving the problem. (Al-Ghariri, 2007) : 20)

Procedural definition: The students' ability to respond correctly to the situations included in the critical thinking test, which includes five tests (knowledge of assumptions, interpretation, discussion evaluation, deduction, conclusion) and it is expressed in terms of the scores that students obtain in the relevant test.

II. THEORETICAL BACKGROUND AND PREVIOUS STUDIES

Theoretical background:

The cluster parachute strategy

The name of the strategy is derived from the nature of the work of the questions it poses, as it is of a holistic nature that covers the entire topic at hand, like the umbrella that people use and covers all their bodies from rain or sun (Al-Khalifah, 1996: 123)

The basis for building the strategy is the classroom questions, which are two types: the umbrella question and the follow-up questions that are attached to it (Al-Azzawi, 19: 2008). The strategy is characterized by coherence, as the teacher presents his material in a sequential and coordinated format as well as being comprehensive. Al-Haidari, 2018: 1170)

The importance of the cluster umbrella strategy

The cluster umbrella strategy helps the teacher to ask questions that are consistent with each other and cover the important aspects of any topic, and the main question is the (umbrella) question, and it has a wide range, and the follow-up questions are explanatory questions that lead to the answer to the answer to the basic question, which represents Cluster, and the cluster usually consists of a basic question and between eight to ten follow-up questions. The cluster, as part of the question planning process, is a way to focus on the discussion, and provides a system for developing the thought process in a given area, and presenting follow-up questions represents presenting the topic from several angles. Thus, it provides several answers to the topic under discussion, as it allows participants to bypass their initial reactions to their main question and look to a wider field of information before settling on a final answer (Al-Azzawi, 2008: 19-20).

Teaching steps according to the cluster umbrella strategy

The steps for a cluster parachute are determined by the following steps:

1- Determine the academic topic or issue under discussion.

2- Introducing the cluster umbrella strategy.

3- Determine the main question of the topic (the umbrella question)

4- Determine the follow-up questions (cluster questions)

5- Discussing the basic question, then follow-up questions.

6- Purifying the discussion from non-secondary questions or follow-up questions.

7- Asking one of the follow-up questions when the group of students moves away from the main topic, which helps focus learners in the discussion.

8- The follow-up questions begin about information and facts, then the first cluster presents a basic question to focus the discussion and elicit initial reactions.

9- When the discussion progresses, start by asking follow-up questions and receiving answers from several learners to each question.

(Al-Masoudi et al., 2013: 192-193)

Critical thinking

Critical thinking is one of the types of thinking. It involves subjecting an idea to investigation, collecting objective evidence and evidence, stripping away its validity and then issuing a judgment accepting or rejecting it based on certain criteria or values "(Al-Ghariri, 2001: 20)

John Dewey's attempt is one of the first attempts to clarify the concept of critical thinking, as he sees it as "contemplative thinking related to the individual's ability to be active and persistent. 2007: 226-228)

And he sees (Odell & Daniels, 1991) "as solving problems or verifying and evaluating something based on pre-agreed criteria" (Jerwan, 2002: 66)

Critical thinking is a style of thinking that depends on examining the student, investigating the information provided to explain it, linking it up, concluding and extrapolating relationships between them, and giving arguments and proofs. "(Saqr, 2005: 60)

critical thinking skills

There are multiple classifications of critical thinking skills, most notably the Watson and Glaser classification:

They divide critical thinking skills into five skills:

- Identify assumptions: It refers to the ability to distinguish between the degree of truthfulness and lack of truthfulness of specific information, and the distinction between truth and opinion, and the purpose of the information given.

Interpretation: It means the ability to define the problem, know logical explanations, and decide whether generalizations and results based on certain information are acceptable or not.

Deduction: It refers to the individual's ability to determine some of the consequences of introductions or previous information.

Conclusion: It refers to the individual's ability to extract a conclusion from certain observed or borrowed facts, and he has the ability to perceive the correctness or error of the results in light of the facts given.

Arguments evaluation: means the individual's ability to evaluate an idea, accept and reject it, distinguish between primary and secondary sources, strong and weak arguments, and pass judgment on the adequacy of information (Al-Atoum et al., 2015: 78)

Critical thinking criteria:

Critical thinking criteria mean those general specifications that researchers agree upon in the field of critical thinking and which are the basis for judging the type of thinking practiced by the student while confronting a specific task, problem, or topic. The following:

Clarity: the statement must be clear, and if it is not clear, the learner is not able to understand it and he cannot know the intentions of the speaker and then he cannot judge them.

Validity: The correctness of the statement is meant to be correct and documented.

Accuracy: This criterion means that the subject fulfills his right to be treated and expresses it without adding or decreasing it.

Linkage: It means the extent of the relationship between the question, intervention, or phrase that is the subject of discussion or the problem at hand.

Depth: It means that the intellectual treatment has a depth commensurate with the complexities of the problem or the ramification of the topic.

Breadth: Critical thinking is characterized by breadth and comprehensiveness, because it must take up all aspects of the issue or problem at hand.

Logic: is the organization, sequence, and interconnection of ideas in a manner that gives a clear meaning or a result with acceptable indications (Qatami, 2001: 143)

Significance and importance: It is intended to recognize the importance of the problem or situation compared to other problems and situations (Al-Atoum et al., 2015: 76)

The teacher's role in teaching critical thinking:

It is taken for granted that the classroom education process depends on two basic components:

The teacher and the learner and their behavior, and the teacher's behavior can be considered the basic role in producing thought and behavior in the morals of the learner, and the teacher has basic roles in order to facilitate the process of critical thinking among the learners and among these roles are the following:

The teacher outlines the education process:

The teacher organizes in his daily lesson plans and quarterly plans the performance goals, sample questions, educational materials and activities that will define the goals of teaching and the means to achieve them (Al-Azmeh, 2007: 56)

The teacher is a problem for the classroom climate:

That the psychological and emotional climate necessary for learning based on experience and proactive investigation is that which employs the principles of group and participatory participation in the consolidation of a coherent group climate in which the expression of opinion, free exploration, cooperation, trust, support and encouragement is valued. Therefore, the teacher's role is not limited to identifying students' needs. By examining their problems and proposing solutions to them, asking questions, gathering data and making the decisions themselves, but beyond that to the belief that decision-making in the manner of consultation and participation must be learned through real experience in a permanent collaborative classroom atmosphere (Jad Allah, 2004: 82)

Teacher is initiator:

This is done by using a variety of materials and activities and introducing students to situations that focus on students' real and life problems, and using the questioning method to effectively engage students.

The teacher keeps communicating:

The easiest task that the teacher can do is to raise the students 'interest in interesting and real issues, but the difficulty that he faces is to maintain their attention, and this requires the teacher to use activities and exciting questions to motivate the students.

The teacher is a source of knowledge:

The teacher is often a source of knowledge, as he prepares information, provides the necessary equipment and materials for students to use, while avoiding providing students with answers that hinder their relentless pursuit of conclusions that they can reach and form themselves.

The teacher performs the saber role:

And that is through asking deep, scrutinizing questions that require justification or support for their ideas, assumptions, and conclusions that they have reached.

The teacher is setting an example:

Because the teacher is a model for students, he introduces the behavior that shows that he is a caring, inquisitive person, critical in his thinking and reading, energetic, creative, sympathetic, wishing to probe his thinking in pursuit of evidence (Majeed, 2008: 142)

Obstacles to critical thinking:

There are many obstacles that hinder the critical thinking and skills of the learners, and affect their growth negatively, and the most important of which are the following: -

1- Intolerance and adherence to a certain opinion or idea, and judging it from a specific point of view, determined by the set of circumstances in which the learner grew up and that are consistent with his personal inclinations and whims.

2- Rushing to understand and comprehend readable, visual or audio material.

3- Commitment to customs and traditions and what they contain from the hadiths of the ancestors and popular examples ... etc.

4- Keeping up with the directions without judging the mind.

5- Rush to issue judgments and express opinions.

6- Stagnation in thinking, followers of routine, inflexibility and resistance to change.

7- Get away from thinking logically.

8- A person's reluctance to think objectively because of his emotional and emotional tendency towards the subject of thinking.

9- Extremism in expressing an opinion on a certain topic or issue, which impedes its correct evaluation (Al-Atoum Others, 2015: 85)

Previous studies :

Studies of the cluster umbrella:

1- Study (Al-Khafaji, 2002) the effect of each of the cluster questions and the questions classified according to Bloom's cognitive levels on achievement and scientific thinking among second-grade students, the Teacher Education Institute

This study was conducted in Iraq and it aimed to know the effect of the cluster questions and the questions classified according to Bloom's levels of knowledge on the achievement of the second grade female students, the Teacher Preparation Institute for their scientific thinking, the researcher adopted the experimental method and chose the experimental design with partial control (two experimental groups that control each other The post-test (for academic achievement and thinking) and the number of the sample was (60) female students of the second grade at the Teacher Preparation Institute, by (30) students for each group. The researcher gave an achievement test consisting of (60) items of a multiple-choice type Various effective questions to measure students 'achievement for the first three semesters. Its validity, stability, and all its psychometric properties were verified. The researcher used the T-test for two independent samples and reached the following results:

1- There is a statistically significant difference between the average scores of the experimental group (the first and the second) at a level of significance (0.01) in the achievement test in the science subject in favor of the first experimental group.

2- There is a statistically significant difference between the average scores of the experimental group (first and second) at a level of significance (0.01) in the scientific thinking test in favor of the first experimental group.

2- Study (Al-Husseini, 2016) the effect of the cluster umbrella strategy on the achievement of geography among second-grade intermediate students and their attitudes towards it

This study was conducted in Iraq and was aimed at knowing the effect of the cluster umbrella strategy in the achievement of geography among middle-grade second-grade students and their attitudes towards it. The study sample size reached (60) students who were chosen by the intentional method by the researcher from among students of Cordoba Boys Intermediate School affiliated to the General Directorate For education in Baghdad governorate in Iraq, the researcher divided the study sample into two groups, of (30) students for the experimental group and (30) students for the control group, as the researcher taught the first group using the cluster umbrella strategy method, while the second studied it in the usual way and the researcher used the experimental method as a methodology for the research. After the researcher applied the achievement and trend tests on the two groups, he analyzed their results statistically using the T-test for two independent samples, as he reached the following results:

1- The experimental group excelled in the achievement test that was taught the geography course according to the cluster umbrella strategy at the expense of the control group that was taught in the usual way.

2- The trend for geography was high for the experimental group.

Studies on critical thinking:

1- The study of Hillatt et al. (2009)

This study was conducted in Jordan, and it aimed to investigate the effectiveness of using historical documents in developing critical thinking skills (knowledge of assumptions, interpretation, evaluation of evidence, deduction, conclusion) among the tenth grade students in the history course, and the researchers adopted the experimental method, and the sample of the study reached (165) Male and female students, and the experimental group reached (81) male and female students, who studied according to the strategy of historical documents, while the control group reached (84) students who studied according to the usual method. Two independent and (T-test) for two correlated samples, and the Pearson correlation coefficient, and the results of the study showed statistically significant differences between students of the experimental and control groups in the post-critical thinking test between students of the experimental and control groups and in favor of the experimental groups.

Al-Akoul and Al-Saudi study (2016):

This study was conducted in Jordan, and it aimed to reveal the effect of an educational program based on the principles of "RISK" on achievement and critical thinking in the subject of Islamic education among students of the eighth grade basic. The researchers followed the semi-experimental approach, and the researchers prepared an achievement test, as according to the Critical Thinking Scale Watson & Glaser (Watson & Glaser) to measure critical thinking skills, and the number of study members reached (50) students who were chosen by the intentional method, divided into two groups, one of which is an

experimental group of (25) students who studied in the educational program based on the principles of RISK, and the other is a control consisting of (25) A female student who studied in the usual way, and the researchers used the analysis of single-co-variance (ANCOVA) and analysis of multiple covariance (MANCOVA). The results of the study showed a statistically significant effect of the educational program based on the principles of "RISK" in improving academic achievement in the subject of Islamic education. And improving the critical thinking skills of the eighth grade female students.

Comparing previous studies

Previous studies were compared according to the following:

1- The study (Al-Khafaji, 2002) aimed at the effect of each of the cluster questions and the questions classified according to Bloom's levels of knowledge on achievement and scientific thinking among second-grade students, the Institution for Teacher Education and the study of (Al-Husseini, 2016) aimed at the impact of the cluster umbrella strategy in the achievement of geography among grade students The second medium and their attitudes towards it while the study of Hillatt et al. (2009) aimed to investigate the effectiveness of using historical documents in developing critical thinking skills (knowledge of assumptions, interpretation, evaluation of evidence, deduction, and conclusion) among tenth grade students in the study of history and the study (Al-Akkul and Al-Saudi, 2016) Aimed at uncovering the effect of an educational program based on the principles of "RISK" on achievement and critical thinking in the subject of Islamic education among students of the eighth grade, and the aim of the current study is to identify the effect of the cluster umbrella strategy on developing critical thinking among fifth intermediate students in the history subject.

2- The previous studies agreed in terms of the method, as the experimental method was used, and the researcher also used the experimental method.

2- The studies differed in the place where the study was conducted, as a study (Al-Khafaji, 2002 and Al-Hussaini, 2016) was conducted in Iraq and a study (Hilat and others, 2009 and Al-Akoul and Al-Saudi 2016) in Jordan, and the current study was conducted in Iraq.

3- The sample differed in previous studies, so the sample (Al-Khafaji, 2002) was from female teachers at the Teachers 'Institute, (Al-Husseini, 2016) was intermediate second grade students, and a sample (Hilat and others, 2009) was for tenth grade students and a sample was (Al-Akkol and Saudi, 2016) for grade students The eighth basic and the sample of the current study consisted of the fifth middle school students.

4- The results of all previous studies showed that the experimental group is superior. The results of the current study will be presented in Chapter Four.

Chapter Three Research methodology and procedures

First: Research methodology

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To achieve the goal of the research, the researcher adopted the experimental method, which is one of the closest research approaches to solving problems in a scientific way.

Second: Experimental design

The researcher adopted an experimental design with two groups (control and experimental) with pre and post test, as the researcher found it suitable for his research conditions.

Figure (2)

Experimental design for the two research groups (experimental and control)

Post test	variable Dependent	The Independent variable	The pre test	Groups
The critical thinking test	Thinking critic	The cluster parachute strategy	The critical thinking test	The experimental group
		Normal way		Control group

III. THE RESEARCH COMMUNITY AND ITS SAMPLE

The population of the current study consists of the fifth middle school students in the preparatory schools of the Rusafa Third Education Directorate for the academic year (2017-2018).

- The research sample :

The research sample was intentionally chosen, represented by the fifth intermediate students in the Republic Prep for Boys, and the research sample was (60) students, distributed equally among the experimental and control groups, by (30) students per group.

Fourth: the equivalence of the two research groups

In order to achieve the integrity of the internal research, the researcher, before starting to implement his experiment, conducted procedures of parity between students of the two research groups in some variables, namely:

The chronological age of students is calculated in months.

IQ test

Previous information

Critical thinking scale

Fifth: Control of extraneous variables

In addition to the equivalence measures that the researcher undertook between the experimental and control research groups, he tried to avoid the influence of extraneous variables that may affect in one way or another the safety, accuracy, and results of the experiment. The following are procedures for controlling some of these variables:

Associated accidents:

It refers to the accidents and natural conditions that the course of the experiment is exposed to, which prevents the continuation of the experiment, and the sample members were not exposed to any accident that affects the dependent variable as well as the effect resulting from the effect of the experimental variable.

Experimental extinction:

It is the abandonment or absence of some members of the sample in one of the two study search groups, or moving during the period of the experiment to another place of study, because this abandonment may affect the results of the experiment, and the members of the sample were not subjected to abandonment or interruption or moving from one division to another or to Another school, except for individual absenteeism cases that were close between the two groups.

Maturity:

The duration of the experiment was uniform between the two research groups, which is (12) weeks, as the experiment began on Monday, corresponding to 9/10/2017, and ended on Monday, corresponding to 12/25/2017, and if growth occurred in any aspect, this growth is equal for students The two groups (experimental and control).

The effect of experimental procedures:

The researcher was keen to control this variable through the following procedures:

Secret experience:

In order for the students' activity or their dealing with the experiment not to change, which leads to affecting the safety and accuracy of the results, the students were not informed of the nature of the experiment and its objectives.

Instructor:

The researcher personally taught the two research groups (control and experimental) in order to avoid the influence of this factor and in order to reach results that are accurate and objective.

Subject :

The subject for the experiment was standardized for the two research groups, and it is history.

Class Distribution Table:

The time and number of classes were adjusted for the two groups equally.

Duration of the experiment:

The time period for conducting the experiment was equal for the two research groups, as the experiment began on Monday 10/9/2017 and ended on Monday 25/12/2017.

Building:

The experiment was applied in the Republic Prep for Boys and in similar classrooms in terms of ventilation, lighting, space, teaching aids, and other teaching requirements.

Sixth: the search tool

The researcher adopted the scale (Al-Saadi, 2010) for critical thinking, and this scale was based on foreign standards as its paragraphs were borrowed from the Watson and Glaser scale, which is a local test that is distinguished by indicators of honesty and consistency, and the specialists and experts who have been consulted have agreed to use this test because it is clear, accurate and applicable By, and appropriate for the research sample.

Test components:

This test consists of social and life situations that any person passes through. The total number of positions is (25) distributed into five areas, namely:

(Knowledge of assumptions, interpretation, assessment of arguments, inference skills, deduction)

Honesty:

To verify the validity of the test and its ability to achieve the goals for which it was set, the researcher presented the test to a group of experts and specialists to find out the apparent validity Appendix (1) in order to find out their opinions about the validity of the test, its suitability for the research sample, the clarity of its paragraphs and the soundness of their wording, from a scientific and linguistic point of view, or Any other observations and the opinions of experts and specialists regarding the validity of the scale were taken into account, and the percentage of agreement between them reached (80%) to accept the paragraph, all the paragraphs were approved after making simple amendments to them, and thus the researcher reached the apparent validity of the test.

Finalized test:

The critical thinking test has become in its final form, Appendix (2), which consists of (25) paragraphs distributed into five areas (knowledge of assumptions, interpretation, evaluation of arguments, deduction, conclusion), meaning that each field consists of (5) paragraphs, while the answers (alternatives) are included So it became binary, and the degree of the answer became one score for the positive answer and zero - for the negative answer, so the maximum score for the scale is (25), and the lowest score is (zero).

Seventh: Procedures for implementing the experiment

The experiment began on Monday 10/9/2017 according to the following steps:

After the equivalency measures conducted by the researcher between students of the two groups, as mentioned previously, the pre-test for the Critical Thinking Scale was applied on Wednesday 10/4/2017

The experiment was applied by the researcher, and he studied both groups in order to ensure the safety of the experiment, and he used the same educational means to teach the students of the two groups, and the procedures for applying the experiment ended on Monday 25/12/2017.

The researcher set a date for the critical thinking test with the students, and that was on Wednesday 27/12/2017.

After students finished answering the paragraphs of the critical thinking test, their answers were corrected according to the model answers.

Eighth: statistical means

To achieve the research objectives, the researcher used the SPSS program and the following statistical methods:

1- T-test for two equal, independent samples

2- Pearson correlation coefficient

3- Spearman - Brown correlation coefficient

4- T-Test for two linked samples

The fourth chapter

Presentation, interpretation and discussion of results

First: Presentation of results:

After completing the current research experiment according to the steps and procedures presented in the previous chapter, the researcher presents the findings of the current research in light of its objectives and hypotheses after comparing the mean scores of the two research groups in the critical thinking test as follows:

A- The results of the first hypothesis:

There are no statistically significant differences at the level of (0.05) between the average scores of the experimental group students who study according to the cluster umbrella strategy and the average scores of the control group students who study according to the usual method in the post-test of critical thinking.

In order to verify the validity of the hypothesis, the researcher extracted the arithmetic mean and the standard deviation of the students' scores in the two groups (control and experimental) in the critical thinking test as shown in Table (1)

Table (1)

The results of the T-test for the scores of the students of the two groups of research in the post-critical thinking test

Indication level (0.05)	**Value t**		**Degree of free**	**standard deviation**	**SMA**	**No. of sample**	the group
	Tabular	**calculate**					

Statistical sign	2	5.94	58	1.97	16.97	30	Experimental
				2.02	13.9	30	Control

Table (11) shows that the average scores of the experimental group students who were taught according to the cluster umbrella strategy amounted to (16.97) and the standard deviation was (1.97), while the average scores of the control group students who were taught according to the traditional method reached (13.9) with a standard deviation (2.02). To find out the significance of the statistical difference, the researcher used the t-test for two independent samples, and that the calculated T value reached (5.94), which is higher than the tabular value of (2) with a degree of freedom (58) and at a level of significance (0.05), meaning that the result is statistically significant In favor of the experimental group, and thus the null hypothesis that there are no statistically significant differences at the level (0.05) between the average scores of the experimental group students who study according to the cluster umbrella strategy and the average scores of the control group students who study according to the usual method in the post-test For critical thinking.

IV. RESULTS OF THE SECOND HYPOTHESIS:

There is no statistically significant difference at the level of (0.05) in the mean differences between the scores of the pre and post tests for critical thinking among the experimental group students who studied according to the cluster umbrella strategy.

To verify this hypothesis, the T-Test was used for two correlated samples to find out whether there was a development in critical thinking among the students of the experimental group that was studied according to the cluster umbrella strategy, as the average differences between the scores of the group's students in the test of critical thinking before and after were averaged (2.9) with a standard deviation of (2.75) and Table (2) shows that:

Table (2)

The results of the t-test for two correlated samples for the pre and post application of the critical thinking test of the experimental group

Indication (0.05) level	**T-value**		**Degree of free**	**standard deviation**	**Average differences**	**No. of sample**	The group
	tabular	**calculate**					
Statistical sign	2,045	5.78	29	2.75	2.9	30	Experimental

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It appears from the previous table that the calculated T value amounted to (5.78), which is greater than the tabular value of (2,045) with a degree of freedom (29) and at a level of significance (0.05), meaning that the result is statistically significant and in favor of the post-test, and thus the null hypothesis that there are no significant differences was rejected Statistical significance between the scores of the pre and post tests, and this means that the students of the experimental group develop critical thinking.

Second: Interpretation and discussion of the results:

The results indicated that there are statistically significant differences between the two research groups in the variable of critical thinking, and between the pre and post test on the experimental group and in favor of the post test, as follows:

1- The experimental group students who studied according to the cluster umbrella strategy outperformed the control group students who studied according to the regular method in the critical thinking variable in favor of the experimental group.

2- There is a statistically significant difference in the mean differences between the scores of the pretest and the post test for critical thinking among the experimental group students who studied according to the cluster umbrella strategy.

The reason for this is that the cluster umbrella strategy developed among the students of the experimental group critical thinking, as the students, through teaching them according to the strategy, were accustomed to following steps that require them to think and be careful in making their judgments on matters to reach knowledge, and that teaching according to the aforementioned strategy helped students to practice Interpretation, deduction, and classification skills ... etc, which contributed to the development of the ability to think critically, and the reason for the students 'superiority is due to the fact that this strategy made the learner active, effective, and thinker, and that is due to the continuous discussion and dialogue between the students themselves and between the students and the teacher, and expressing opinions All this led to the students of the experimental group excelling in the critical thinking variable.

V. THE CONCLUSIONS

After analyzing the research results, the researcher reached the following conclusions: -

1- The adoption of modern teaching strategies emanating from the constructivist theory in teaching has a great impact on the development of thinking skills in general among students.

2- The cluster umbrella strategy has proven its effectiveness in making students the focus of the educational process and in developing critical thinking.

3- Appropriateness of the cluster umbrella strategy with the vocabulary of the history course taught to the fifth middle school students.

4- The cluster umbrella strategy has the ability to make students more capable in handling, organizing and processing numerous ideas as well as motivating and directing them to interact, think and experiment with the ideas of others, which leads to a diversity of ideas among them.

5- Students 'departure from routine and usual methods that lead to monotony, boredom and lack of attention when presenting classes that are largely based on the teacher.

Recommendations

In light of the research findings, the researcher recommends the following recommendations:

1- The necessity of adopting modern teaching strategies based on constructivist theory, such as a cluster umbrella strategy in teaching history and other materials, due to the effective impact of this strategy on critical thinking that the current research results have reached.

2- The necessity of holding training courses in teaching methods for teachers on modern teaching models and strategies, including the cluster umbrella strategy.

The proposals

1- Conducting another study that is similar to the current study in other study subjects and stages of study other than this stage to ensure the effectiveness of this strategy.

2- Conducting another study to find out the effect of the nodal umbrella strategy on developing other types of thinking.

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