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# The Effectiveness of Teaching According to the Schemes of Cognitive Conflict in Understanding Rhetorical Concepts

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#### Abstract:

The aim of the current study is to know the effectiveness of teaching according to a cognitive conflict strategy in understanding the rhetorical concepts and to achieve the research goal, the two researchers intentionally selected the Al-Faiha prep. for boys, and by way of random drawing, choose Division (B) to represent the experimental group that studies rhetoric according to the cognitive conflict strategy, and a division (A) Represents the control group that studies rhetoric in the traditional way, the research sample reached (62) students with (31) students in each group. The researchers found parity between the students of the two groups in the following variables: (1. Academic achievement of mothers, academic achievement of parents, the chronological age of students calculated by months. The researchers determined the study subjects to be studied by the students after presenting them to a group of specialists in teaching methods. The researchers prepared teaching plans, and these plans were presented to specialists in teaching methods to ensure their validity. One of the researchers taught the two research groups. After the experiment ended, the two researchers applied the test of understanding the rhetorical concepts to the students of both groups. The researchers used the following statistical methods: (and the Pearson correlation coefficient of T-Test with two ends for two independent samples, and Kay square), and after analyzing the results, the researcher reached the following: The experimental group students who studied rhetoric according to the cognitive conflict strategy surpassed students The control group who studied the subject matter of rhetoric in the traditional way in testing the understanding of rhetorical concepts. The researchers concluded that the students responded to the strategy of cognitive conflict in teaching and interacted with it. The results indicated that, and the researcher recommended a number of recommendations, including: The necessity of using the cognitive conflict strategy in teaching rhetoric, because of its role in improving the understanding of rhetorical concepts for students. The researcher suggested a number of suggestions, including: Conducting a similar study in other variables such as achievement, inclination and direction.

Keywords: Effectiveness of Teaching, Cognitive Conflict, Rhetorical Concepts

# The study problem

It has appeared in these days a decline in the level of students in the subject matter of rhetoric in general and it seemed clear from the cost and ambiguity felt by the learners towards this lesson as a result of their automatic memorization of the rules, definitions and abstract terms, and the impossibility of teaching them to a boring dry science based on issuing mental judgments in error and right, no Technical judgments, and they stopped him from the position of doubt and confusion in his literary value, which led to the failure of rhetoric and its inability to achieve its goals and show its beauty and reveal the secrets of this beauty (Ibrahim, 1968: 305).

Al-Alousi believes that "teaching rhetoric has not succeeded in achieving the goal that is intended to be taught, as students feel helpless if they want them to taste texts in light of what they are learning from rhetorical rules, and they are excused about this because what they study at a previous stage related to literature does not enrich their tastes He does not cultivate their faculties, as the process of taste does not improvisation, but rather requires a natural progression in understanding, then digestion, and acting "(Al-Alousi, 1962: 2-3).

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On the basis of this and an attempt by researchers to address this problem, the researchers felt that they should choose cognitive conflict schemes in the teaching of rhetoric, so that it addresses the weakness in understanding and understanding rhetorical concepts in order to achieve the goal of their teaching.

#### The study importance

- 1. The importance of the Arabic language, as it is the language that God honored in his dear book, the Noble Qur'an.
- 2. The importance of Arabic rhetoric is the adornment of the crown of Arabia, evidence of the integrity of its tongue, the decoration of its words, and its ornamentation.
- 3. The importance of cognitive exposure schemes as a teaching strategy that makes the learner's position a positive attitude.
- **4.** The importance of concepts in expanding students' perceptions, raising their attention beyond the deaf memorization of the subject, and leaving the circle of indoctrination.
- 5. The importance of the preparatory stage as the stage that contributes to the strong preparation of students.

#### The study aims:

The current study aims at:

Knowing the effectiveness of teaching according to the patterns of cognitive conflict in understanding the rhetorical concepts of the fifth literary students in rhetoric.

#### The study hypothesis

To achieve the goal of the study, the researchers imposed the following hypothesis:

There is no statistically significant difference at the level of 0.05 between the average scores of students studying rhetoric according to cognitive conflict schemes and the average scores of students studying rhetoric in the usual way in a test of assimilating rhetorical concepts.

#### The study limits:

The study is limited to:

**1.**A sample of fifth-grade literary students, secondary and preparatory day schools in the Babil Governorate Center for the academic year 2017-2018.

2. A number of topics related to the fifth grade literary book

# **Defining terms:**

First: Knowledge Conflict Diagrams

Atiyah defined her as: "It is a modern teaching technique based on constructivist theory designed to organize the content of the subject of learning and its teaching in order to modify students' misconceptions and correct them for events of conceptual change to the rest of the impact; also called maps of epistemic conflict, (Atiyah, 2015, p. 369).

## Procedural definition of epistemic conflict diagrams:

It is one of the strategies of constructivism, which was employed to teach rhetoric to students of the experimental group (the research sample) to help students realize the material learned with minimal effort, and to stay longer for the information. Its impact is measured by the assimilation of rhetorical concepts prepared for the purposes of the present research.

#### Secondly:

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#### 1.Comprehension

Samara and Abdessalam defined it as: "a level of the cognitive domain, indicating the ability to understand the material, topic or ideas to which the learner is exposed, without necessarily implying that he is able to relate it to other information and ideas" (Samara and Abdel Salam, 2008: 38).

#### **Procedural definition of assimilation:**

It is the level at which the student reaches the connection between the rhetorical concepts and their awareness through the texts presented to him, and it is measured by the way students answer the test passages.

#### 2. The concept

D. Atiyah defined it as: "a mental imagery that has common characteristics, or is the mental image that consists of sensory perceptions" (Atiyah, 2009: 44).

#### **Procedural definition of the concept:**

It is the group of elements that are combined by common properties, and stimuli with properties, and this gives a name or a term.

# **Chapter Two**

# It includes a theoretical framework and previous studies

Knowledge discrepancy schemes are one of the strategies emanating from the structural philosophy developed by Tsai that contribute to the restructuring of information, the events of conceptual change, the acquisition of concepts, and the facilitation of the learning process, , And its effect stays for a longer period of time, which is derived from the strategy of contradictory events. The idea that was based on it depends on creating a knowledge conflict between the alternative concept in the student's mind, the correct scientific perception by presenting the conflicting event, and the concepts that support the correct scientific perception so that the contradictory context must be made with the meaning of the opposing ones. Al-Maarfi (Al-Kubaisi, Ifaqa, 2014, pp. 199–206).

In this strategy, the student is placed under the influence of attitudes, events, or educational concepts that conflict with what he knows from previous information and what he has in his possession about the natural world in which he lives. This discrepancy knowledge makes the student merges the conflicting to be interpreted, as well as stimulated by the research and survey, curiosity, and to raise motivation to reach an appropriate solution to the conflicting report to him, and through research and survey students using purposeful activities gain from the way a lot of experiences and information, and can this use the strategy in all different subjects, when teaching the use of conflict knowledge that the conflicting event is a must, the adoption of taking into account the puzzling problem for students need to be resolved, and to use when Timalhdt conflicting tools and materials familiar to the student while allowing him the opportunity to observe and practice of conflict cognitive, focus on examples associated with the concept of (example) and its applications in daily life Until we reach meaningful learning.

In addition, create an atmosphere of enthusiasm and enjoyment during learning, and interest in encouraging innovation in the student during teaching, linking new information to the student's previous information, and operating the largest number of senses to receive information (Fahmy, Mona, 2001, pp. 122-123). One of the most important who researched in the field of epistemic contradiction Sikman who developed in 1962 a method of teaching that adopts contradictory events by confronting the student with two opposing situations that seeks to reach a balance between the two concepts of what he has in front of him: Sikman had steped the following:

- 1. The teacher displays the conflicting event.
- 2. Students ask questions its answers (yes or no) to obtain experiences that help explain the conflicting events.
- **3.** Students discuss the information they have access to, and conduct a desk search to arrive at interpretations of the conflicting event.

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**4.** The teacher meets students, and leads the discussion to help students provide possible interpretations of the event, and to verify the validity of those interpretations or theories (Al-Fatli, 2016, p. 271). Cognitive conflict plays a clear role in modifying alternative concepts, whereby the student pushes to reorganize his cognitive structure with what attains cognitive balance by:

A- Improved ability to distinguish the new concept so that it becomes acceptable and beneficial, through its representation of new ideas within its existing information network.

B- Achieving a process of harmonization between the new concept and the alternative concepts found in the student's information network, where the new concept replaces the old concept. (Fiancee, 2011, p. 45).

**Previous studies** 

1.(Al-Makdami, 2012.) Study

(The effect of a cognitive contradiction strategy on the development of critical thinking among students in the fifth grade literary course in history).

This study was conducted in Iraq - Diyala University, College of Education for Humanities - and aimed to To know the effect of the strategy of cognitive contradiction in the development of critical thinking among students of the fifth grade literary in history. The researcher used the experimental approach in applying his experiment, because this method is more suitable for the experiment than other types of other approaches. Where the application of the experiment in a deliberate, and select the researcher appointed two sets of the experimental group represented by Baaadadah Sharif Razi Boys and the number of students (31) students studying history strategy contradiction cognitive, and the control group represented Butanuep tile martyrs for boys and the number of students (31) students are taught history in the traditional way.

The researcher rewarded between the two groups the following variables: (a test of tribal critical thinking, the age of the students calculated by months, and the grades of the subject matter of history in the final exam for the fourth grade of the academic year (2010-2011), And test scores IQ, and academic achievement for the father, and the academic achievement of the mother), and researcher prepared a test of critical thinking, and consists of this test of five tests Head is: (conclusion, knowledge of assumptions and concurrent, and deduction, interpretation, and evaluation of arguments), and check the researcher from the sincerity of its paragraphs, and transactions Her difficulties, and the strength of her distinction.

After the researcher himself studied the history groups in the first semester, the pre and post-test of critical thinking was applied to the research sample (students of both groups are the experimental group and the control group.)

To measure critical thinking, the researcher adopted the Watson-Klaser test, which consists of (75) paragraphs divided into five main tests: The conclusion, knowledge of assumptions or postulates, deduction, interpretation, and evaluation of arguments, and the researcher proved the sincerity of its paragraphs, the factors of its difficulty, the strength of its distinction, its persistence, its persistence, its persistence, consistency, and consistency in its discovery.

Then the researcher analyzed the data obtained, extracted the mean of the students' answers, and dealt with them by using the T-test to verify the validity of the null hypothesis, so he had the following:

(Students of the experimental group that studied history surpassed the strategy of cognitive contradiction over students of the control group that studied history over the traditional method of developing critical thinking). (Al-Makdami, 2012, pp. 3-168).

#### 2. (Habana, 2013)Study:

(The effect of knowledge contradictory schemes on acquiring historical concepts among middle school students and keeping them in the history of ancient civilizations). This study was conducted in Iraq - University of Babylon, College of Basic Education - and aimed at knowing (the effect of knowledge contradictory schemes on acquiring historical concepts among middle school students and keeping them in the history of ancient civilizations). The researcher chose an experimental design with partial control, and the choice was random, so the choice was made on Fatima bint Asad intermediate in the Karbala Governorate Center to be the same. The sample of the study consisted of

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(60) students, and by (30) students in both experimental and control groups, the researcher followed the experimental approach to conduct her experiment.

The researcher conducted a parity between the students of the two research groups in several variables, namely: (the life time is calculated by months, the grades of the history subject in the mid-year test for the previous academic year 2012-2013, the test of the previous information, and the academic achievement of the parents). The researcher prepared a conceptual test to show the extent of the students' acquisition of historical concepts, as the test consists of (45) test paragraphs of the type of choice from multiple, and confirmed by the researcher on the way of the researcher. And achieved stability applied on a prospective sample of medium students Almcilon for girls in the province of Karbala Center using the Pearson correlation coefficient, was the value of the link after the corrected equation Spearman - Braun- is (.89), and used the researcher statistical tool are: test (t- test ).

The most important findings of the study are the effectiveness of episodic contradiction schemes in acquiring historical concepts among students in comparison with the traditional method of teaching (Habbanah, 2013, pp: j-k)

# Comparing of previous studies

After presenting the above studies it became clear to the following researcher:

- 1. The objectives of the previous two studies differed from the goal of this study, due to the difference in its problems. The study of Makdoumi (2012) aimed to know the effect of the cognitive contradiction strategy on developing critical thinking among literary fifth graders. In the subject of history, the Habbanah study aimed (2013). To know the effect of cognitive conflict schemes on acquiring historical concepts among middle school students and keeping them in the subject of history, while the current study aimed to know the effectiveness of teaching according to cognitive contradiction schemes in understanding rhetorical concepts.
- 2. Both previous studies were conducted in Iraq and they agreed with the current study in the place of the procedure, which is Iraq.
- **3.** Both of the previous two studies used the experimental method and the current study is consistent with them in using the same method.
- **4.** Both of the previous two studies used the same experimental design, and the current study agreed with them using the experimental design characterized by partial, partial, and post-test.
- **5.** The numbers of individuals in the samples were close, so they were in the study of Makdoumi (62) students, and they were in the study of Habbanah (60) students, while the current study amounted to (62) students.
- **6.** Both of the previous two studies chose their sample randomly, and they differ with the current study in which the sample was chosen intentionally.
- 7. Studies varied in the statistical means used. In analyzing their data, they depended on statistical means, including: T-test, Pearson correlation coefficient, Kay square, difficulty coefficient equation, paragraph discrimination equation, non-parametric test, and alpha-Kronbach equation. As for the current study, The following statistical methods were adopted: Kay square, T-test for two independent samples, and Pearson coefficient correlation.

#### Useful aspects of the studies:

The researcher has benefited from the previous studies in the following aspects:

Determine the aim of the research. Choose the appropriate research method and design. Methods for selecting the sample And find parity. Selection and construction of appropriate measurement tools. And choosing the appropriate statistical means for the current research procedures and objectives. Find the results of the current search and the process of its interpretation.

**Chapter Three: Study Methodology and Procedures** 

I. Experimental design

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The current study requires the researcher to follow the experimental approach, because it is the appropriate method to achieve the goal of the research, and this approach adopts experience in its scientific sense, and is the best way through which to identify the causes of phenomena and problems that appear or discover in any field of multiple areas of life (Al-Jubouri, 2013: 194).

The researchers chose the experimental design with partial control, because it is more suitable for their research procedures, so the design came as shown in **Table (1)**.

## **Experimental design**

Group	Independent variable	Dependent variable	Management		
Experimental group	Diagrams of Knowledge Conflict	Comprehension of concepts	Comprehension test		
Control group	Traditional method				

Calculating the difference between the results of the two groups in a test of understanding the rhetorical concepts

#### Second: The research community and its sample

## 1. The study community

The current research community includes secondary and preparatory schools for boys in the Babil Governorate Center for the academic year 2017-2018, which includes two divisions for the fifth literary grade.

# 2. The study sample

The present study sample is divided into the following:

#### A. Sample schools

The researchers chose Al-Faiha Preparatory School for Boys intentionally.

## **B.** Sample students

The researchers found that the total number of students in the research sample was (62) students, (31) students of the experimental group, and (31) students of the control group.

Third: Equivalence of the two research groups:

The researchers found equivalence in the following between the experimental group and the control group:

1. Academic achievement of mothers, academic achievement of parents, and the chronological age of students, calculated in months.

Fourth: Control of foreign (non-experimental) variables.

The researchers adjusted the following variables: (the effect of the experimental procedures, the measuring instrument, differences in sample selection, experimental extinction, experiment conditions, and associated accidents).

Fifth: Defining the scientific material:

The researchers identified twelve topics from the Book of Rhetoric to be taught to literary fifth graders.

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### Sixth: Formulating behavioral goals:

The researchers formulated (80) eighty behavioral goals based on the general objectives and content of rhetoric topics to be studied in the experiment, distributed across the six levels in the cognitive domain of Bloom's taxonomy (knowledge, understanding, application, analysis, synthesis, and evaluation). The researchers presented it to a group of specialists with teaching methods to verify its validity.

#### **Seventh: Preparing teaching plans:**

The researchers prepared plans for the experimental group using knowledge conflict schemes. As for the control group, it prepared plans for them in the usual way. The researchers presented these plans to a group of specialists in teaching methods to verify their suitability.

#### **Eighth: Conducting the experiment**

One of the researchers \* taught the experimental group students using cognitive conflict schemes, while the researcher himself studied the control group according to the traditional method

#### Ninth: study tool:

#### Comprehension of rhetorical concepts:

The process of measuring the understanding of rhetorical concepts requires the presence of an instrument and this tool is the test, so the researchers examined the literature and previous studies in this field and found a test in understanding the rhetorical concepts prepared by one of the researchers • (Al-Khaldi, 2013, p. 89). And the researchers adopted it after presenting it to a group of specialists in teaching methods. The test was characterized as a recent test, and the society in which the test was applied is the same as the fifth literary research community, and the test preparer has taken into account its sincerity, consistency, and psychometric characteristics.

## Survey application for the test

The researchers applied the test of understanding the rhetorical concepts on a survey sample consisting of (46) :students, the purpose of which is

Learn about clarity of paragraphs

• Determine the appropriate time to answer the test

After applying the test to understand the rhetorical concepts on the exploratory sample, it was found that the test was clear to students of the exploratory sample and that the time required for the test is (40) minutes.

B apply the final test

The researchers applied the test of understanding the rhetorical concepts to the experimental group students and the students of the control group. The following was taken into account when applying the test:

Take the test at the same time, one of the researchers supervises the application of the test and explains and clarifies the instructions for the test.

# Stability of correction

To verify the reliability of the test correction, the researchers randomly selected (15) forms from the response forms for the two groups of (62) research forms, and extracted the correction of the test correction in two ways:

#### A. Persistence over time:

One of the researchers corrected the forms, and after two weeks, he repeated them again, and using the Pearson correlation coefficient formula, the degree of consistency between the two researchers corrected (0.94).

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# B. Persistence with another corrector

,The degree of consistency between the correction of one of the researchers and the correction of another corrector (0.80.(

Eleventh: Statistical means:

The researcher used: Pearson correlation coefficient and two-term T-test for two independent samples and Kay square (Ka2).

#### **Chapter Four**

## Presentation and interpretation of results:

#### First: Present the results

The researchers used the T-test equation for two independent samples, to find the difference between the average of the experimental group students and the average of the students of the control group in the test of understanding the rhetorical concepts, so the results were as they are in Table (2)

Table (2)

Arithmetic mean, variance, and T (calculated and tabulated) values, and the statistical significance of the scores of the two research groups in the test of understanding the rhetorical concepts.

Group	number	Average	variance	Freedom level	T- value	Tabled	Statistical significance at the level of 0.05
experimental	31	35.6	5.622				
Control	31	30.5	4.711	60	3.844	2	Statistical significance

It is noted in Table (2) that the average score for students of the experimental group was (35.6) and that the average score for students of the control group was (30.5), and that the difference between them was statistically significant at the level of significance (0.05) and degree of freedom (60), as the calculated T value (3,844) ) Is greater than the tabular value (2), and therefore the experimental group outperformed the control group in absorbing rhetorical concepts. Through what was presented, it was clear that the experimental group students who studied rhetoric according to cognitive conflict surpassed the students of the control group who studied rhetoric in the traditional way in the test of assimilating rhetorical concepts, thereby rejecting the zero hypothesis, and the alternative hypothesis is accepted:

There is a statistically significant difference at the level (0.05) between the average scores of the experimental group students who are studying rhetoric according to cognitive conflict and the average scores of the control group students

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who study rhetoric in the traditional way in the test of understanding the rhetorical concepts and in the interest of the experimental group.

## Second: Interpreting of the results

In light of the results presented, the researcher believes that the reason for the experimental group's superiority over the control group is due to the following:

- 1. The strategy of epistemological contradictory schemes is a modern strategy that has a major role in attracting students 'attention to the lesson, the speed of their understanding, and thus increasing the educational attainment of their experience.
- 2. The strategy of cognitive conflict diagrams is appropriate for the academic stage in which the experiment was carried out, which is the preparatory stage and specifically (the fifth literary grade), as students are aware of the cognitive conflict in what the group has helped to achieve.
- 3. The simultaneous presentation of examples related to the concept, and not related to the concept (example, and the like) gave students good opportunities to think about new situations; this helped to increase students' understanding of the rhetorical concepts of childhood.

## **Chapter Five**

#### **First: Conclusions:**

In light of the results shown by the current research, one can conclude the following:

First: Conclusions:

In light of the results of the research presented above, the researcher reached the following conclusions:

- 1. The Knowledge Conflict Strategies strategy helps increase students' motivation towards learning, and increases their level of learning.
- **2.**The Knowledge Conflict Diagram strategy works on the continuous positive interaction that, in turn, leads to continuous cooperation among students, and increases academic achievement.
- **3.**The strategy of epistemological contradictions enables students to rely on themselves to perceive the epistemic contradiction in what they read, or hear from lessons, especially Arabic grammar.

# **Second: Recommendations:**

In light of the results of the research presented above, the researcher recommends the following recommendations:

- 1. Instruct some teachers to respect the opinions expressed by students in the lesson, because these opinions contribute to the improvement of education and its development if it is well organized by the teacher.
- **2.**Training teachers of Arabic language and female teachers on using a strategy of knowledge contradiction schemes in their teaching of the subject, or engaging them in developmental courses on how to prepare and use this strategy.

### **Third: Suggestions:**

Continuing the aspects of the current study, the researchers proposes the following proposals:

- 1. Conducting a similar study in the strategy of cognitive conflict schemes for both males and females at the preparatory stage.
- **2.**Conducting a similar study in the strategy of knowledge contradiction schemes on other branches of the Arabic language, such as: expression, literature, or spelling.

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**3.** Conducting a similar study to identify the effect of the strategy of knowledge contradiction schemes and other dependent variables such as: creative writing, the trend towards material, or development.

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