

## **The effect of teaching on an important need model in amending the wrong historical concepts and contemplative thinking of literary fifth-graders to develop their Comprehensive Thinking**

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### **Abstract**

The current research aims to define the effect of teaching with the NED Important model in modifying the wrong historical concepts and contemplative thinking among fifth-grade literary students. The researcher chose the fifth-grade literary students as a sample for the current research and their number reached (60) students according to two experimental and control divisions. The research results showed the superiority of the experimental group over the control group in the test is the amendment of erroneous historical concepts, and a test of reflective thinking. In light of the research results, the researcher came out with a set of conclusions, recommendations and proposals for research that complements the current research.

**Keywords:** Needham Model, Concept Adjustment, Wrong, Reflective Thinking, Female Students

### **Chapter One: Definition of Research**

#### **First: Problem of the Research**

Misconceptions remain stuck in the mind of the learner and resist modification and change, especially when using traditional teaching methods and wrong teaching methods by the teacher or teacher (Abdel-Saheb and Jasim, 2011: 103).

Based on that, the research problem is determined by answering the following question:

(What is the important effect of teaching with the NED model in modifying mistaken historical concepts and reflective thinking among fifth-grade literary students)?

Second: Importance of the Research

The importance of the current research is evident in the following points:

- 1- The importance of modern educational models in raising the adequacy of the educational process for a subject - - history, including the Needham model, which may have a role and effectiveness in modifying misconceptions for fifth-grade literary requests.
- 2- Contributing to encouraging history teachers to use modern models in teaching and increasing their awareness of the importance of using them.
- 3- The importance of history and its role in building the human personality.
- 4- The importance of modern education in the development of societies and its interest in the learner.

**In all academic levels.**

Third: The aim of the research and the two hypotheses of Aim and Hypothesis of the Research

The research aims to identify the effect of teaching with the NED model is important in modifying mistaken historical concepts and reflective thinking among fifth-grade literary students.

To achieve the aim of the research, the researcher formulated the following null hypothesis

1- There is no statistically significant difference at the level of significance (0.05) between the average grades of the experimental group students who study the concepts of modern and contemporary European history according to the Needham model and the average scores of the control group students who study the same subject in the usual way in the test of correcting wrong concepts Dimensional

**Fourth: Definition of Terms:**

Needham model defined by Umar and Abidin (2007): a model consisting of five stages (orientation, idea generation, organizing ideas, application of ideas, and meditation) in which the learner is active and responsible for his learning (Umar and Abidin, 2007, 10).

Amendment: Defined by: (Abd al-Salam 2006): "The process of substituting a scientifically acceptable perception replaces a false perception (Abd al-Salam 2006: 232) p.

The concept: he defined it: (Hussein 2007): "A set of symbols, objects and information that are perceived in an organized manner and have common characteristics." (Hussein, 2007: 24) Reflective thinking

Arifah: (Salama 2001): It is the thinking that takes into account all the stages of the solution and its steps leading to the best solution while making use of all the alternatives (Salama, 2001: 54).

**Chapter II****Stages of the Needham Model**

The stages of the Needham model can be summarized as follows:

- 1- Orientation stage: This stage provides a psychological preparation and preparation for the learners towards the subject of the lesson, as it aims to attract attention.
- 2- The idea generation stage: it aims at awareness of the previous information and knowledge that the learners possess, by writing down the predictions presented.
- 3- The stage of rebuilding ideas: This stage includes four sub-procedures, which are the interpretation of ideas, presentation of contradictory ideas, development of new ideas, evaluation of learning, aimed at reaching the correct ideas through the learners' practice of educational activities in small groups according to
- 4- The ideas application stage aims at the learner's application of new learned ideas in different situations.
- 5- The contemplation stage, in which the learners are given the opportunity to reconsider their thoughts again and be sure the stages (steps) of reflective thinking

The researchers had many opinions about defining the stages and steps of reflective thinking, but in essence they were pouring into the same meaning and content, and accordingly the

researcher will present some of these views: Smith &Hulfish have defined the steps of contemplative thinking in four stages, namely

- 1- The existence of a problem situation (and recognition of it).
- 2- Clarification of the problem.
- 3- Forming and testing hypotheses.
- 4- Working on building the most reinforcing hypotheses.

### Chapter III

#### Research Methodology

The researcher followed the experimental method, the aim of her research, as it is the most accurate type of curriculum, as the researcher stands in a neutral position on the phenomenon and uses the experiment mainly to study the problem discussed (Al-Klinayi and Nidal, 2007: 31).

#### Second, experimental design

The experimental design with the partial control (the control group and the experimental group with the post-test) was chosen to modify the erroneous historical concepts and reflective thinking, and the design can be clarified.

Third: The research community and its sample: The research community was destroyed from secondary and middle school day schools for girls in the Aziziyah District Center in Wasit Governorate to study for the academic year 2019-2020. Sample of schools and students: The researcher chose the Al-Hakim Preparatory for Girls in a random way to conduct the experiment. If the researcher determined the school in which the experiment would be conducted, she visited the school, accompanied by a book on facilitating the task issued by the General Directorate of Education in the Governorate of Table (1) explaining this.

Table (1) Distribution of the research sample students between the two groups (experimental and control), after excluding the students who have failed

Number of sample bits After exclusion	the group	T
30	Experimental	1
30	Control	2
60	Total	

The two research groups are equivalent to the variables

(Chronological age calculated in months, intelligence, diagnostic test, pre-application of the test of reflective thinking, educational attainment of parents, degrees of the history of Arab-Islamic civilization for the fourth literary grade)

The results showed that the experimental and control groups are statistically equivalent in the mentioned variables after using the appropriate statistical methods.

Research requirements and sources of information:

Defining the educational material: The educational material has been determined and represents the historical concepts shared with the previous academic stages, which will be studied in the second semester and as specified, as the number of concepts reached (14) concepts after verification by presenting them to a group of experts and arbitrators with geographical competence and teaching methods Sociology and educational psychology.

Preparing the teaching plans and behavioral goals: The researcher prepared the teaching plans for the two research groups depending on the number of concepts. (14) Plans were prepared for each of the two research groups, which corresponds in their number to the number of mistaken historical concepts targeted in the research experiment. These plans included the behavioral goals related to teaching these concepts if The number of (42) behavioral objectives have reached to achieve the processes of acquiring concepts at the level of concept definition, characterization of the concept, application of the concept. Samples of plans and a list of behavioral goals were presented to a number of arbitrators with competence in teaching methods and in light of their opinions and observations, some simple adjustments were made.

### **Research tool: the test of correcting erroneous historical concepts**

The researcher designed a test for adjusting erroneous historical concepts based on the content, including the concepts it represents, and a list of specific behavioral goals. The test preparation has gone through several stages, which are:

Numbers of test items: The researcher constructed test items that correspond to the measurement of the processes of definition, distinction, and application of the concept, and the objective pattern was chosen from multiple choice. The test formula. Since the number of concepts is (14) a concept, test items have been prepared covering the three processes for each concept, thus totaling the paragraphs Experimental (42) paragraphs, including (14) paragraphs to measure the definition of the concept, (14) paragraphs to measure discrimination and (14) paragraphs to measure the implementation of the concept.

The validity of the test: The researcher presented the concept acquisition test to a number of experts in educational and psychological sciences and social teaching methods, totaling (15) experts, and all the items of the test were accepted. The test score was determined in the range (0-42), thus the total score of the test reached (4263) degrees. Correcting the Test of Modifying Wrong Historical Concepts: Specific and typical answers were set for all test items for approval in their correction, and one score was given for each test paragraph if the answer was correct and a score of 0 was given if the answer was left or wrong. The first exploratory experiment: The researcher applied the test on an exploratory sample of fifth-grade literary students at Umm Salma School. The pilot sample of 25 female fifth-grade literary students was corrupted, and after applying the test it was found that the time spent on answering the test is (45) minutes.

Statistical analysis of the test: The researcher applied the test on an exploratory sample of fifth-grade literary students at Umm Salma School. The pilot sample of (80) fifth-grade

female students had the same specifications as the research sample. Difficulty coefficient: The researcher calculated the difficulty of each of the test items using her own equation, and it ranged between (0.41 - 0.64). These test items are acceptable. Discriminatory strength of the paragraphs: The researcher calculated the difficulty of each of the test paragraphs, and it ranged between (0.33-0.57). The literature of educational measurement and evaluation indicates that the paragraph whose distinction coefficient is less than (20%) is preferable to omit or amend it. The effectiveness of the wrong alternatives: The false alternatives efficacy equation was used for all test items. It was found that all of them were negative, so all the wrong alternatives were considered effective. Stability of the test: The reliability of the test was calculated using (Kuder-Richardson-20) because the stability factor extracted with this equation is an internal stability factor, which means the extent of consistency of the paragraphs among them. The coefficient of stability of the paragraphs was (0.87)

### Statistical means

The reliance on statistical methods was based on the spss program

### View and interpret results

After statistical treatment of the data, depending on the SPSS program, according to the research hypotheses

### The first hypothesis

There is no statistically significant difference at the level of significance (0.05) between the average scores of the students of the experimental group who study the wrong historical concepts in the Needham model and the average scores of the students of the control group who study the same subject according to the traditional method of examining the modification of erroneous historical concepts. To verify the validity of this hypothesis, the researcher used the t-test (t-test) of two independent samples to confirm the significance of the difference between the mean scores of the experimental and control groups, as shown in Table (2).

Table (2). The arithmetic mean, variance, and the calculated (t) value obtained by the students of the two groups in the erroneous historical concepts adjustment test

Statistical significance	T-value		Degree of freedom	standard deviation	SMA	the sample	the group
	Tabular	Calculated					
A function at the 0.05 level	2,000	4.4	58	2.88	40.51	30	Experimental
				2.88	31.06	30	Control

Whereas, the arithmetic mean of the experimental group that studied (with the strategy of listening teams) reached (40.51) and its standard deviation (2.88), while the arithmetic mean of the control group that studied (using the usual method) reached (31.06) and its standard

deviation (A) (2.88). This indicates the presence of indicators for differences. The arithmetic mean and variance of the scores of the two groups (experimental and control) in the geographical concepts acquisition test that was conducted after completing the experiment and after statistical treatment it appeared that the calculated T value (4,343) was greater than the tabular value of (2,000) at the level of significance (0.05) and with a degree of freedom (58).

### **First: Conclusions:**

After analyzing the research results, the researcher came to the following conclusions: Needham's model clearly affected the correct historical misconceptions of fifth-grade literary students, and she was able to win them the correct concepts instead of the wrong concepts. Based on the results and conclusions reached by the researcher, she recommends the following. The necessity of using the Needham model in the teaching of the natural history course by specialized teachers for its effectiveness and suitability for the middle school stage, and its clear impact on correcting erroneous historical concepts

### **Third: Proposals:**

To complement the current research, the researcher proposes to conduct the following research: -A study similar to the current study on other educational levels and on both genders.

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