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# **The Impact Of The Strategy Of Cognitive Discrepancy Schemes In The Achievement Of Students In The Second Grade Intermediate In The Arabic Grammar And The Development Of Their Learning Patterns**

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## **Abstract**

The present research aims to identify the effect of the strategy of cognitive discrepancy schemes in the achievement of intermediate students in the Arabic grammar and the development of their learning styles. In light of the research objective, the researcher formulated three zero hypotheses. The researcher adopted the experimental design of the experimental test of the experimental group and the control group for the suitability of the nature of the research. The sample of the research was chosen from the second grade intermediate students in the middle of Omar bin Jandab in Tikrit for the academic year 2017-2018. The total number of students was 62 students, 31 students as experimental group (31) students as control group. The researcher conducted the equivalence process on experimental and control groups in variables, previous achievement in grammar and age in months, intelligence and learning patterns. The researcher prepared the necessary inputs for his research and included the identification of the scientific material for the study, the formulation of the behavioral objectives of the specific scientific material, and the preparation of teaching plans for the scientific material by teaching the experimental and control groups. The research seeks two tools: the first is an achievement test in the Arabic grammar, which is in the final form of (37) test paragraphs of a choice of multi-choice four alternatives, after verifying the veracity and level of difficulty and force of discrimination of its paragraphs. ). The second tool is the measure of learning which is in the final form of (15) questions and each question (3) alternatives and before each alternative (3) options are (apply to me to a large extent, apply to me to a small extent, do not apply to) Equation (Alpha - Kronbach).

The experiment lasted two full weeks, and after the completion of the experiment, the tools were applied (the achievement test and the learning patterns scale). After processing the data statistically, the results showed that the experimental group, which was studied according to the strategy of cognitive conflicts, was superior to their peers in the control group in the achievement test. In the light of these findings, the researcher developed a number of conclusions, recommendations and proposals.

## **El impacto de la estrategia de los esquemas de discrepancia cognitiva en el logro de los estudiantes de segundo grado intermedio en la gramática árabe y el desarrollo de sus patrones de aprendizaje.**

La presente investigación tiene como objetivo identificar el efecto de la estrategia de los esquemas de discrepancia cognitiva en el logro de los estudiantes intermedios en la gramática árabe y el desarrollo de sus estilos de aprendizaje. A la luz del objetivo de la investigación, el investigador formuló tres hipótesis cero.

El investigador adoptó el diseño experimental de la prueba experimental del grupo experimental y el grupo de control para la idoneidad de la naturaleza de la investigación. La muestra de la investigación fue elegida entre los estudiantes de segundo grado de nivel intermedio en el medio de Omar bin Jandab en Tikrit para el año académico 2017-2018. El número total de estudiantes fue de 62 estudiantes, 31 estudiantes como grupo experimental (31) estudiantes como grupo de control. El investigador realizó el proceso de equivalencia en grupos experimentales y de control en variables, logros previos en gramática y edad en meses, patrones de inteligencia y aprendizaje.

El investigador preparó los aportes necesarios para su investigación e incluyó la identificación del material científico para el estudio, la formulación de los objetivos de comportamiento del material científico específico y la preparación de planes de enseñanza para el material científico mediante la enseñanza de los grupos experimentales y de control. .

La investigación busca dos herramientas: la primera es una prueba de rendimiento en la gramática árabe, que está en la forma final de (37) párrafos de prueba de una opción de cuatro alternativas de opción múltiple, después de verificar la veracidad y el nivel de dificultad y fuerza de dis-

criminação de sus párrafos. ) La segunda herramienta es la medida del aprendizaje que se encuentra en la forma final de (15) preguntas y cada pregunta (3) alternativas y antes de cada alternativa (3) las opciones son (se aplican a mí en gran medida, se aplican a mí en un pequeño extensión, no se aplica a) Ecuación (Alpha - Kronbach).

El experimento duró dos semanas completas, y después de la finalización del experimento, se aplicaron las herramientas (la prueba de rendimiento y la escala de patrones de aprendizaje).

Después de procesar los datos estadísticamente, los resultados mostraron que el grupo experimental, que se estudió de acuerdo con la estrategia de los conflictos cognitivos, fue superior a sus pares en el grupo de control en la prueba de rendimiento.

A la luz de estos hallazgos, el investigador desarrolló una serie de conclusiones, recomendaciones y propuestas.

#### Research problem

The problem of the study is the need to improve the methods and methods used in teaching and activating the role of the learner within the classroom. The researcher found through the familiarity with the curriculum of Arabic grammar and the methods used in teaching in middle and secondary schools that they may not be designed to develop students' Receiving and retrieving the information through the monthly and quarterly examinations without absorption, application or employment, thus disrupting their active and influential role in classroom activity and in developing their abilities and mental skills. This contradicts the modern educational philosophy that emphasizes the development of mental skills among students. Moreover, some Arabic grammar teachers do not prefer the use of modern teaching methods and strategies due to the lack of their expertise and knowledge regarding the use of these methods and methods. The evidence provided by the studies and research conducted in recent decades, especially the analytical studies of the exam questions and the methods of teaching adopted in our schools, which is a reading of the reality of teaching and has confirmed that most of the exams focus on remembering and neglect the side of questions that depend on understanding and analysis. However, many teachers have used traditional methods that fit the objectives of the exam questions, hampering the growth of students' higher mental skills. The most important factors that have a decisive impact on the teaching of thinking are (teacher, teaching methods) (Alhsu, 2010: 94).

The researcher considered that the detection of the impact of the strategy of cognitive incompatibility schemes in the achievement of students in the second grade in the rules and the development of their learning patterns, because of the enrichment of studies and educational research. The previous and leading steps in linking the mastery of education to the development of the minds of learners and that this type of study did not take its share of the practical application in the rule of the rules by Iraqi researchers to the knowledge of the researcher.

It is important to note here that the teacher should diversify the use of classroom teaching strategies, not only by changing the class routine, as some believe, but the basis is that the learners are different in their learning patterns, including audiovisual. In addition, students' backgrounds are sometimes different and their social and economic standard of living is different. There are many factors that distinguish between learners, which require the teacher to diversify in the teaching strategies they use in his classroom (Ambosaidi, 13: 2018).

The problem of the current study is summarized by the following question: What is the effect of the strategy of the cognitive discrepancy schemes in the achievement of the second grade students in the rules and the development of their learning patterns?

The importance of research and its need:

The strategy of cognitive conflict schemes is one of the modern methods and strategies of the structural philosophy developed by Tsai. It is defined as an educational technique used to organize or teach lesson content to help learners correct their misconceptions to make a conceptual change to the rest of the impact (Tsai, 2000, 308).

This strategy is based on the idea of creating a cognitive conflict between what exists in the cognitive structures of the learner of alternative perceptions before the new learning and the correct scientific perception of the concepts contained in the new learning by presenting the conflicting event and concepts that support the correct perception in order to replace the wrong alternative. Making conflict a key component of the strategy of cognitive conflict schemes and the requirements of conceptual change and helping learners to learn, re-evaluate and change their thinking (Tsai 2001).

This strategy intersects some of its parts and objectives with the strategy of teaching conflicting events and differ in the issue of providing sensory support in the form of a conceptual map: a visual tool to represent a series of educational components sequentially directed to alternative perceptions

of learners. The series of components is the alternative and conflicting scenarios, the concept of the scientific objective, the critical event or its interpretation, and other scientific concepts associated with the concept of the event.

The cognitive conflict that distinguishes itself from the components of the strategy of opposing events (Students, 2006, 81).

The strategy of cognitive incompatibility schemes raises strong feelings for the learner to observe. In general, the learner has inner feelings of knowing more about how this contradictory event has occurred. The learner grows the desires and forces of love to solve these conflicts. This strategy makes learners excited activists They do several activities to find a solution to the conflict, which makes them learn a lot of the scientific content of the lesson (Balochi, 2007, 5).

It also develops the learner's powers, draws his attention, stimulates his motivation and makes him actively interact with the educational situation and gives him the opportunity to enjoy the learning itself. It enables them to retrieve information more easily and retain it for longer, because it has lived the experience of acquiring it and motivates learners to learn and stimulate their motivation by actively participating in the learning process (Al Bayati, Mehdi, 2009, 2-3).

The application of the strategy of cognitive conflict schemes affects the motivation of thinking among students as thinking is one of the important goals in the educational process, being the way the individual receives, organizes, registers, stores, and thus integrates them into his knowledge base.

The researcher believes that this strategy may be effective in the development of thinking among learners as it provides an opportunity for them to practice, the methods of science, processes and skills, and investigate themselves and here the student takes the behavior of the small world in his research and reach the results.

The importance of learning patterns starts from being considered the main means of learning in learners. It is necessary to take into consideration the level of learner and his previous experiences. The methods and methods used by the teacher should be suitable for the learning patterns desired by learners in order to help them absorb, understand and effectively receive the information they receive through the period To learn them, the art of learning through vision, and there are those who learn better learning among learners (Dashti, 1989: 70).

It is necessary for the teacher to be familiar with the different learning

styles, methods, methods and learning strategies appropriate to each pattern. This awareness should be transmitted to the learner's desired learning patterns, which will make him / her self-aware and will therefore use appropriate strategies and adapt to learning patterns The other (Ramadan Mohammed, 1990: 12).

Different types of learning vary among individuals, depending on the different stimuli they are exposed to, whether environmental or social, as well as their physical and emotional needs. This requires the use of multiple learning methods to meet their different needs (Stone, 1986).

Because of the interest of scientists in the study of individual differences in the patterns of learning and thinking, and resulted in a number of models of classification of learning patterns, and each model involves a lot of educational content.

Based on the above, it is clear to us the importance of the present study as follows:

1. The importance of learning about modern teaching methods represented by the strategy of cognitive conflict schemes
2. The importance of the strategy of cognitive incompatibility schemes, because it is a modern teaching technique designed to modify the misconceptions of learners and correct them to make a conceptual change the rest of the impact.
3. The importance of learning patterns and their development in students and the promise of a basic goal in teaching Arabic grammar.
4. The importance of the intermediate stage for students as the preparatory stage for the subsequent preparatory stages.
5. The importance of Arabic grammar as part of the important and fundamental sciences in all educational stages.

The aim of the research: - The aim of the research is to identify the impact of the strategy of cognitive conflict schemes in the achievement of students in the second grade intermediate in the rule and the development of their learning patterns.

research assumes:-

The first hypothesis: There are no statistically significant differences at (0.05) between the average score of the experimental group who study the rule rule according to the strategy of the cognitive discrepancy schemes and the average grade of the control group students who study the same method of the same subject in the achievement test.

The second hypothesis: There are no statistically significant differences at (0.05) between the average score of the experimental group who study the



rule rule according to the strategy of the cognitive discrepancy schemes and the average grade of the control group students who study in the usual way of the same subject matter in the learning patterns scale.

The third hypothesis: There are no statistically significant differences at the level of (0.05) between the mean scores of the tribal scale of the experimental group, which is studied according to the strategy of cognitive discrepancy schemes and the average of the post-criterion scale of the same group in the learning patterns.

Limitations of research: - This research was conducted in light of the following limits:

1. Students in the second grade in the schools (day) of the Directorate General of Salahuddin Education / Department of Education Tikrit for the academic year 2017/2018.

2. The first three chapters of the Arabic grammar book to be taught to second-grade students.

3. The first semester of the academic year 2017/2018

Terminology:

Conflicts of knowledge

(Madi, 2011): It is a “conceptual scheme of the constructive philosophy based on the positive learner used by the teacher as an educational tool in the educational situation to replace the sound scientific concepts with alternative perceptions of the scientific concepts to be learned” (Madi, 2011, 8).

The researcher defined it as a procedural:

Events that put the students of the experimental group studying the Arabic grammar under the influence of educational positions that contradict the consciousness of his previous experiences, which surprises him and then prompts him to love the survey and stimulate the motivation for information that solve this conflict.

Learning patterns

(Al-Zayyat, 2009) “cognitive, motivational, psychological and mood indicators that reflect the learner’s reception of information, how to handle it, interact with it and how to respond positively to it through the learner’s environment” (Al-Zayyat, 2009, 58).

Chapter II

Background Theory

Strategy of Conflicts of Knowledge

The philosophy of the cognitive conflict strategy concentrates on learner-centered learning, which makes it the focus of the learning process. It

focuses on the need to provide opportunities for him to practice various science processes and to develop his thinking by thinking about the largest number of solutions to the single problem. In light of this philosophy, the learner should be given the opportunity to discuss with his peers or with the teacher, thus gaining the language of sound dialogue, making him active and developing a spirit of cooperation (Balushi, 2007, 3).

The idea of conflict is based on the congruence between the prior knowledge of the learner, which is well-structured and focused, and the new knowledge that is not established in memory unless it is consistent with previous knowledge in one way or another (Lulu, 2008, 53).

And put this strategy learner under the influence of events or concepts of education contrary to what he or his previous experiences, which is surprising and then curiosity and stimulate the motivation for information that resolve this conflict,

([site.iugaza.edu.ps/eafana/files-p-2012](http://site.iugaza.edu.ps/eafana/files-p-2012), Internet)

This strategy of cognitive incompatibility is compatible with certain aspects of Jean Piaget's theory, particularly the concepts of representation and alignment, and their importance, especially when thinking about ways to increase the motivation of learners towards learning. When we face a similar situation to previous situations, Knowledge and learn new facts, concepts or functional relationships.

When we encounter information that differs from the information we have previously experienced, we are in a state of non-Atzan, and thus get tense about the new information. This tension can be addressed by retaining the new information without merging it with the old information or thinking about the new information and processing it within the knowledge building, so that we can make changes in this structure. Changes are called adaptability and here the concepts and functional relationships are modified and modified, especially those in the cognitive structure to interpret the new data we have observed or we can be new concepts and functional relationships that differ from the data The learning in class is often achieved through what the teacher causes to his students in the case of unbalance, using contradictory events in which learners can face new information that challenges their current inaccurate concepts. (Ali, 2003: 75-76).

Advantages of the Conflicts of Knowledge Strategy:

- The learner is characterized by activity and effectiveness
- Learning is based on sharing between learners' experiences with each other and between them and their teachers.
- The use of this strategy leads to cognitive conflict between the learner

and this generates the desire and inclination to knowledge, which helps him to build and develop his knowledge system.

- One of the important techniques of this strategy is cooperative learning and this gives the learner a positive tendency towards cooperation and work in groups.
- This strategy is to attract the attention of learners, which increases the effectiveness of education and the activity of the learner.
- Using a strategy of cognitive conflict schemes that has an active role in developing problem solving skills and the thinking skills of learners (Al-Balushi, 2007, 56).

The foundations of the strategy of conflict of knowledge schemes

The strategy of conflict of knowledge schemes is based on a set of principles:

- Learners prepare their personal experiences with them into the classroom and these experiences have a great influence in shaping their own vision of the world.
- Learners come to educational situations and have a variety of knowledge, feelings and skills and from this knowledge, feelings and skills should begin the process of learning.
- Previous knowledge within learners is growing as an inevitable consequence of their interaction with friends and the environment around them.
- Learners build understanding of themselves and teachers through their previous experiences and use their own ideas as criteria to judge the validity of their understanding of different phenomena.
- Learners build their ideas, expectations and interpretations of natural phenomena so that they realize the importance of their daily experiences.
- The cognitive structure of the learner resists any change drastically as the learner adheres to his knowledge, although it is wrong but seems convincing to him with regard to the data of experience.
- The meaning is built self by the cognitive system of the learner himself and is not transferred from the teacher to the learner.
- The situation of the learner in an educational position in which it contradicts with his prior knowledge happens to him a kind of confusion in the construction of knowledge or the so-called imbalance and at this moment activates the mind of the learner in pursuit of balance.
- Learner uses previous experiences in understanding new ideas and information. Learning can therefore occur when the learner's ideas are changed, either by providing the learner with new information or by restructuring the learner's cognitive structure. (شج عا) 2011, 12-13)

Strategic objectives of cognitive conflict schemes:

- Developing the problem-solving abilities of learners.
- Play the role of the small world where learners play the role of the small world as they work to formulate questions related to the conflicting event to reach its interpretation and solution.
- Develop the questioning capacity of learners as the process of questioning is the basis of scientific discoveries and innovations, and the conflicting events provide the opportunity for learners to question repeatedly to reach a solution to the conflict.
- Contrasting events help to formulate hypotheses as learners with their successive questions present various hypotheses of the phenomenon before them and thus make sure that they are correct when they are presented.
- Helps to ask questions as it is a skill that needs a high level of intelligence and acumen and is gradually formulated and presented in a way that leads eventually to reach, to the correct interpretation.
- The development of scientific curiosity among learners, the contradictory event and the events that are contradictory to what the learner experienced in advance and the desire to reach an interpretation of this contradictory event begins with the mind of the learner puzzled and searching for what satisfies his curiosity. It also helps learners to search for a solution for the event, which gives the educational situation an atmosphere of fun and suspense, which are essential elements of the educational process (Atwa, 2010, 11).

Stages of the Strategy of Conflicts of Knowledge:

When using the strategy of cognitive discrepancy schemes, consideration should be given to the appropriate process of presenting the conflicting event and determining the appropriate time to conduct and manage the necessary examinations to determine the different aspects of the problem and the final and unexpected outcome of the event. Interpretation of unexpected results. (Al-Bilawi, 2009, 51-53). And those stages as defined by (Tsai) as follows:

- a. Alternative perceptions of students: - are the alternative perceptions of the concept to be learned and owned by students before learning new concepts through their surroundings and the experiences they experienced.
- B. Contradictory event: Conflicting events represent a fundamental and pivotal part of the stages of the cognitive conflict strategy: it is a puzzling and concrete position related to the alternative concepts in which the learner sets up to create a cognitive conflict between him and the alternative concepts and is in the form of tangible activities or images presented

within a social scientific context that helps the learner To seek and resolve this conflict. At this stage, the attention and motivation of the learners are raised and encouraged to ask questions about the conflict. (Asiri, 2015, 75).

The teacher must follow the following steps when presenting the conflicting event:

- The teacher must present the conflicting event by explaining the processes involved without mentioning the reasons for this.
- To guide the attention of the learner to the main purpose responsible for the emergence of the result and to achieve it must be involved in the learner in various mental processes such as observation, measurement and conclusion and prediction and interpretation of data and identification of variables and control and the imposition of hypotheses and experimentation.
- The learner's participation in activities involving conflicting events is based on the same scientific concept, clarifying it and enhancing the learning process. Learners can act individually, in pairs or in small groups.

The conditions that must be taken into consideration when presenting the conflicting event are:

- The conflicting event depends on a puzzling problem for the learner
- Allow the learner to observe and practice opposing events.
- Focus on the examples associated with the concept in everyday life until we reach meaningful learning.
- The teacher should show general enthusiasm when presenting the confusing event and spread pleasure on the subject in general (Balochi, 2007, p. 5).

C. The correct scientific perception (the concept of scientific objective): It is the correct scientific concept to be learned and the teacher to write and display to the learners

Dr.. Critical Event or Explanation (Explain): This event will explain and explain the contradiction between conceptual construction of students' alternative concepts and scientific concepts to be learned. The sensitive subject of the alternative concept should be aimed at students and aims at replacing the alternative concept with the correct scientific concept.

E. Other scientific concepts related to scientific perception: These concepts are related to the correct scientific concept provided by the teacher to strengthen and promote the scientific concept where it is taught in addition to the scientific concept and the right to highlight the relations between them.

And. Cognitive supports: They are sensory supports that represent appli-

cations or scientific activities that support the scientific concept appropriately.

This strategy starts from the students' perceptions of the concepts and then presents the conflicting event to resolve the conflict and then presenting the correct scientific concept to be taught to explain the conflict and then the critical event or interpretation to be presented to clarify the conflict and to consolidate the building of the new concept. The scientific concept is supported by the scientific concepts associated with it and cognitive support. Related. (Asiri, p.)

Concept of Learning Patterns:

Recent and varied trends have emerged in the study of the individual, and perhaps the study of cerebral control and learning patterns of the learner with the different attitudes he is going through was one of the most prominent of these trends. Farrell (1992) argues that "the success and progress of an individual depends on the kind of cognitive preferences he uses. Most people make many decisions that confront them, such as those that relate to their personal, social and educational experiences. When they face situations and problems that affect their ability to succeed socially. The learning mode refers to the way in which the individual learns to receive and analyze the information and how to deal with problems in the progress of his progress. In general, the learning pattern is usually used to process information" (Farrel, 1992: 122). Fideler (1996) agrees that learners during their development build their knowledge and experience and develop their diverse skills according to learning methods that are appropriate to their preferred learning styles. He believes that such patterns control their ways of thinking about stimuli and problems. They face it during life interactions. (Felder, 1996: 19). Learning patterns reflect learners' ways of interacting with the stimuli and environmental experiences they experience. This is reflected in their methods of focusing on information, processing, storage, and retrieval (Dunn & Dunn, 1993) and explains the difference in learning styles from Thorndike's point of view. And personality and biological and emotional of individuals, so the learning pattern is a concept or term refers to the appropriate response of the individual to the stimuli in the contexts of learning, and these responses to the stimuli are the behaviors, which are the components of the individual learning style (Nufella, 2008: 3). Learning is an internal process measured in terms of behavioral outcomes. The learning pattern illustrates the differences between learners in their learning in the same teaching context, and indicates differences in the ability to process information. "Learning patterns rein-

force and support specific actions that increase the level of destiny, (Bull, Montgomery & Kimball, 2000: 33). The pattern of thinking and learning is the manner in which the learner receives knowledge, information, and experiences, and maintains them in a physical, semi-visual, or symbolic way of character, word, and number. These methods and tools vary Hence, each learner has his or her own way of thinking and learning (Torrance, 1979: 25).

According to Gregorc (1979), “the learning pattern is a set of learner-specific behaviors that serve as indicators of how to learn and adapt to the environment” (Gregorc, 1979: 234). This is confirmed by de Bono (1997) The preferred behavior that acts as an indicator of how the learner learns from and adapts to the environment, and gives hints on how the brain works. Keefe (1979: 1) believes that the learning pattern is a set of behavioral, cognitive and psychological characteristics that are relatively consistent indicators of how learners perceive, interact with, and respond to the learning environment. Qatami Yusuf and others (2002) agree that the learning pattern is a description of the appropriate adaptive processes that make the learner responsive to the various environmental stimuli in line with his emotional, social and physical characteristics. Preferences are patterns, and the pattern is a virtual structure that helps explain the learning process. The learning pattern is the way in which the learner receives, organizes, registers, stores, and thus integrates them into his knowledge base. (Barbara & Newman, 1979) quoting (Gharaybeh, 2010: 20)

Hsieh & etal, 2011: 1194 The different methods used by the learner to process and organize information or respond to environmental stimuli refer to their own learning patterns, and identify the types of learning that they use. Learning style as a way of thinking to understand and manipulate information means that it is a personal style of perception and processing of information (Gokap 2013: 628). Sometimes the concepts of “learning style” and “cognitive style” are adopted. These concepts differ from each other but complement The “learning pattern” refers to each other For the way in which the learner responds ideologically, emotionally and physiologically to the environment, while the “cognitive style” describes how the learner responds to his or her psychological differences and that the main difference between them becomes apparent when applied. Cognitive patterns apply to a large number of varying situations, Learning patterns are applied to classroom behavior and learning. Learning patterns involve the scientific application of one of the cognitive patterns. Cognitive patterns of learning include learning patterns. This does not include all aspects of

cognitive patterns (Campbell, 2008: 12). Most definitions of learning patterns are grouped as The How preferred by the learner when responding to or interacting with the educational environment and in accordance with its characteristics and what learns the way better.

Search procedures

First: experimental design of the research

The researcher adopted experimental design with tribal and post-test (Cohen, et al., 2003,214) because it fits the current research and includes two equal groups in a number of variables. The first was taken as an experimental group that is taught according to the strategy of cognitive discrepancies. As shown in the following chart (1):

<b>The dependent variable</b>	<b>Independent variable</b>	<b>Before test</b>	<b>set</b>
Collection Learning patterns	Strategies of Conflicts of Knowledge	Learning patterns	test
	Normal way		exact

Schema (1) experimental design for research

Second: Determine the research community and choose the sample

Research Population

The research community will be second-grade students in secondary and middle schools in Tikrit City Center for the 2017-2018 academic year.

Research Sample

Omar Bin Jendab Boys School was selected in an intentional manner to carry out the research experiment for the following reasons:

- 1 - Students belong to the school to a geographical area and one to ensure the convergence of cultural and social level among them.
- 2 - near the school of accommodation researcher.

The experimental and control groups were randomly selected, as (B) was chosen to represent its students in the experimental group that taught the Arabic grammar. The strategy of the cognitive discrepancy plans, which has 31 students and a) represents the control group studying the same subject in the usual way. The number of students (31) students. After excluding students who are statistically absent from the two research groups for having previous experience.

Third: Equivalent of the Groups Research



The researcher carried out the equivalence of the members of the two research groups statistically in a number of variables. These are the details of the procedure and the results of these variables:

The age of the students was calculated in months: after the researcher obtained data on the ages of the research sample in cooperation with the school administration and converted them to the ages calculated in months until (30/9/2017) the beginning of the official school hours. The results showed that there is no statistically significant difference between the two groups, The two groups are equal in this variable, and Table (3) shows this.

Degree of achievement of the Arabic grammar: The researcher obtained the grades of the rules of the second grade for the average of the students of the research sample for the previous year from their own record. The results showed no statistically significant difference between the two groups, indicating that the two groups are equal in this variable. This explains intelligence quotient

The researcher chose the IQ test prepared by Dr. Ahmed Zaki Saleh (1964) and was applied before the experiment began. The results showed no statistically significant difference between the two groups, indicating that the two groups are equal in this variable. Table (3) shows this.

Degrees of learning patterns in tribal testing

The application of the learning patterns scale was carried out before and after the students' grades were recorded. The results showed no statistically significant difference between the two groups, indicating that the two groups are equal in this variable. Table (1) shows this.

Table (1)

The arithmetic mean and variance of the two sets of research with the calculated value (t) and (t) of the equivalence variables.

T value (T)	Calculated value (t)	set				Equivalence variables	
		exact		test			
		variance	Arithmetic mean	variance	Arithmetic mean		
2,00	0,57	7,59	163,12	9,02	163,54	The chronological age of months	a
	0,21	92,35	71,03	103,08	71,58	Collecting the degree of rules	B
	0,87	13,10	34,03	15,95	34,87	intelligence quotient	C
	0,33	112,55	80,38	124,14	81,29	Patterns of tribal learning	D

Table (1) shows that the calculated T values of all equivalence variables are less than the scale value of (2.00) at the level of significance (0.05) and the degree of freedom (60), thus the two groups are equal.

Fourth: Research requirements Requirements of the Research

(1) Identification of scientific material

The researcher identified the scientific material covered in the research, which will be taught to the students of the two groups of research during the experiment according to the vocabulary of the Arabic grammar book to be taught to the second grade intermediate students.

(2) formulation of behavioral purposes

Following the researcher's introduction of the Rule Book, he formulated 143 cognitive behavioral objects based on the Bloom classification of the first three levels of memory (knowledge), level of comprehension (comprehension) and level (application). These behavioral objectives were presented with content The scientific material on the selection of experts and arbitrators to express their views on the validity and integrity of the formulation, and suitability of their knowledge levels. In light of these observations and proposals, some of the objectives and the levels they measure were modified and the percentage of the validity of those goals was adopted in their final form as agreed by more than 80% of the experts for each behavioral purpose.

Preparation of teaching plans

In the light of the content of the book of rules for intermediate second grade students and the identification of scientific material and behavioral purposes, 36 educational plans were prepared and 18 curricula were prepared for each group. The results of models of the plans were presented to a group of experts and specialists in the fields of education, Teaching, to express their views on them and their relevance to the teaching method and the content of the article, and some have proposed to make amendments to them and obtain approval of more than (80%) of them to take the final version.

Fifth: Research Tools Tools of the Research

First: Building the achievement test:

The researcher has prepared the test of achievement, and the researcher has verified the validity and stability of this test as well as finding the coefficient of discrimination and the strength of the difficulty of its paragraphs. The researcher covered 37 topics to cover the subjects covered by the study. All these topics covered the basic aspects of the nine topics within the levels of Bloom's classification of "knowledge, understanding and

application.” The researcher took several steps in preparing these tests, as follows:

- Preparation of the table of specifications: - which was as in Table (2)

Table (2)

Specification table for the final test

total	aims			Concentration ratio	Number of shares	Subject	s
	%38 Implementation	understand %24	knowledge %38				
5	2	1	2	%13.04	3	Incomplete, compartmentalized and extended	1
5	2	1	2	%13.04	3	Muthanna and its annex	2
5	2	1	2	%13.04	3	Collecting the masculine peace and its annex	3
3	1	1	1	%8.7	2	Collect Feminine Peace	4
3	1	1	1	%8.7	2	Collection of crackers	5
3	1	1	1	%8.7	2	Prohibition of exchange	6
3	1	1	1	%8.7	2	The five names	7
5	2	1	2	%13.04	3	Question Tools	8
5	2	1	2	%13.04	3	Tools of the necessary condition	9
37	14	9	14	%100	23	Total	

- Virtual honesty: -

The researcher presented the test paragraphs in its preliminary form to a number of arbitrators with experience and specialization in the educational and psychological sciences asking them to express their views on the validity of the paragraphs and represent them for the behavioral purposes of each level of specific knowledge and thus achieve the truthfulness.

Application of the test on the survey sample:

After verifying the veracity and veracity of the content, the test is ready to be applied to a sample survey to know the following:

1. Know the time and length of the test.
- 2 - Diagnosis of the paragraphs are not clear for the purpose of reformulation.
- 3 - Find the coefficient of discrimination and difficulty of the test paragraphs.
- 4- Calculating the stability of the test.

The total number of sample (70) students was recorded. The time of completion of the first student of the answer was (35) minutes and the end of the last student was (45) minutes and after calculating the average time found that the appropriate time to complete the test is (40) This is to determine the time to apply the test.

Test correction: -

The researcher assigned one degree to the correct answer and a zero for the wrong answer. The paragraphs that did not indicate or put more than one answer on the alternatives were dealt with the wrong answers.

Find the difficulty factor: -

We found the difficulty of the paragraph for all the paragraphs of the test according to the equation, which came close to (21% - 78%), and this proportion corresponds to what is stated in the literature.

Finding the power of discrimination:

In order to find the strength of discrimination, the papers were arranged after correcting them in descending order from the highest grade to the lowest grade. The number of papers was 70 and then the researcher took (27%) of the upper and lower categories which reached (19) 25%) was more a criterion for distinguishing paragraphs as an acceptable discriminatory force for paragraphs and all paragraphs were within the acceptable range.

Stability of the test: -

To calculate the stability of the test, the researcher used the equation "Cuder Richardson (20)". The reason for choosing this equation is that it can be applied in tests where the degree of response to the paragraph is true, take one degree or the error is taken zero. The stability factor for the test of achievement (79%) Coefficient of high stability.

Second: measuring learning patterns

Through the researcher's knowledge of studies on learning patterns, he prepared the learning patterns scale, which is in its initial form of (15) questions, and each question (3)

(Visual, auditory, sensory). In the face of these three alternatives, 3 alternatives have been developed for the answer (they apply to me to a large extent, apply to me to a small degree, do not apply to me).

#### Virtual honesty

For the purpose of verifying the validity of the scale, the researcher adopted a virtual honesty. Therefore, the scale was presented to a group of experts, specialists and arbitrators in education, psychology and teaching methods in order to verify its validity and investigate its validity as a research tool and to express their views on its paragraphs. And above the opinions of experts, and the rate of honesty is high if it reached (80%) and above.

#### Highlight paragraphs:

The researcher applied the scale to a sample of 50 students randomly selected from second grade students. After collecting the responses, their responses were analyzed and ranked in descending order and divided into two equal categories (50%). For each paragraph, the results showed that the calculated T value of the paragraphs was greater than the T-table value (2,0126) at the level of significance (0.05) and the degree of freedom (48).

#### Stability of the scale

The alpha-kronbach equation (0.82) was applied, which is generally acceptable and thus the scale is ready for final application to the students of the basic research sample.

#### Procedures for applying the experiment

The researcher applied his experience in the first semester, if he taught the experimental group with the strategy of cognitive discrepancy schemes, and the control group in the usual way. After applying the experiment, the researcher applied the achievement test and the measurement of learning patterns to the students of the two research groups.

#### Seventh: Statistical Instruments

The following statistical methods were used in this research, whether in its procedures or in the analysis of its results. (Test of two independent samples, alpha-kronbach formula, equation of paragraph discrimination coefficient, coefficient of difficulty coefficient, equation of coefficient of the effectiveness of wrong substitutes, Koder-Richardson equation, 20).

#### View and interpret results

##### 1- Results of collection

To validate the first hypothesis, the researcher calculated the arithmetic mean and the T value using t.test for two independent samples to compare the mean scores of the experimental group with the average score of the

control group in the achievement test. Table 3 shows that:

Table (3) Results of the test (t- test) for the grades of the students of the two research groups in the achievement test

Statistical significance at 0.05	Value t		Degree of freedom	standard deviation	SMA	no	Groups
	table	calculated					
function	2,00	5,31	62	2,16	31,53	32	Experimental
				3,56	27,63	32	Control

This indicates a statistically significant difference between the average scores of the experimental group and the average scores of the control group students and for the experimental group in the concept acquisition test. Therefore, reject the null hypothesis and accept the alternative hypothesis

2. Results of learning patterns

To validate the second hypothesis, the researcher calculated the arithmetic average and the T value using t.test for two independent samples to compare the mean scores of the experimental group and the average control group scores in the learning patterns scale and Table 4,

Table (4) Results of t-test for the scores of the two groups of research in the learning patterns scale

Statistical significance at 0.05	Value t		Degree of freedom	standard deviation	SMA	no	Groups
	table	calculated					
function	2,00	8,04	62	5,90	99,63	32	Experimental
				4,56	89,03	32	Control

This indicates a statistically significant difference between the mean scores of the experimental group and the average scores of the control group and the experimental group in the learning patterns scale. This is the second hypothesis and the alternative hypothesis is rejected. To calculate the differences between the experimental and control groups in each type of learning, The results were as in Table (5) as follows:

Table (5)

The results of the t-test for grades of students of the two research groups in each type of learning

Statistical significance at 0.05 calculate	Value t		Degree of free	standard deviation	SMA	no	sets	the pattern
	table	calculate						
function	2,00	3,22	62	2,86	32,47	32	Experimental	Audio
				2,65	30,25	32	Control	
function		5,68	62	4,18	32,84	32	Experimental	Visual
				2,41	28,00	32	Control	
function		5,48	62	2,64	34,31	32	Experimental	Sensory
				2,51	30,78	32	Control	

- Results of learning patterns before and after the experiment:

To validate this hypothesis, the researcher calculated the arithmetic average and the T value using t.test for two independent samples to compare the mean scores of the experimental group in the pre-experiment and post-experience learning scale and table 6,

Table (6) Results of the t-test of the experimental group scores in the pre-and post-experience learning patterns

Statistical significance at 0.05 calculate	Value t		Degree of free	Deviation of differences	Average differences	standard deviation	SMA	set
	table	calculate						
function	2,04	7,94	31	7,54	10,59	5,90	89,03	after
						4,56	99,62	befor

It is clear from the above table that the arithmetic mean of the students' scores for the pre-experiment learning level is (89.03) and the standard deviation of (5.90), while the mean of the students' scores for the learning patterns after the experiment is (99.62), 56) and that the calculated T value was (7.94), which is greater than the scale value of (2,04) at the degree of freedom (31) and the level of significance (0,05). This indicates a statistically significant difference between the average grade of students The patterns of learning before the experiment and the average grades of students to measure the patterns of learning after the experiment and in favor of students in the scale of learning patterns after the experiment and thus reject A. Dah zero and accept alternative hypothesis.

Second: Interpretation and discussion of the results

1. Teaching using the strategy of cognitive conflict schemes Give students the opportunity to test their concepts and past ideas and their misconceptions by using these concepts and ideas in completing the transition from the wrong perception to the correct perception.

2. The strategy of conflict of knowledge schemes depends on confronting students with events and problems that challenge their thinking. Their previous knowledge is unable to solve them. This has stimulated students' interest, attracted their attention and created motivation to reach knowledge that helps them develop their creative thinking.

3. The strategy of cognitive incompatibility schemes makes the learner a focal point of the educational process and a positive participant in building knowledge himself by doing many of the activities that the student plays a major role.

4. Learning according to the strategy of cognitive conflict schemes is a meaningful understanding based on understanding, which increases students' ability to understand concepts correctly and modify their misconceptions.

5. Provide a collaborative educational environment free of fear and criticism and encourage students to dialogue and discussion and allow them the freedom to put ideas in their knowledge without fear, which helped the teacher to identify their misconceptions and focus on the amendment while carrying out activities in the framework of direct interaction between students and some of them and between them teacher

### III. CONCLUSIONS:

In the light of the current research results, the following conclusions were reached:



The reliance on the new strategies emanating from the structural theory in the educational process has an effective and significant effect to raise the level of achievement and develop the thinking skills in general among the students.

1. Adapting the strategy of cognitive incompatibility schemes with the vocabulary of philosophy and psychology taught to fifth graders.
2. The application of the steps of the strategy of cognitive conflict schemes raised in the students the vitality and activity and love to participate in the lesson when compared to the usual way.
3. As we live in modern society, we need to take care of the knowledge building and the knowledge innovations of the curricula and use them to be used in all areas of life, so the curriculum should be directed to help teachers and learners to acquire new patterns to develop their thinking and not just to new knowledge. And their application

Fourth: Recommendations:

In the light of the findings of the study, the researcher recommends the following:

1. Emphasis on the need to adopt modern strategies based on structural theory, such as cognitive conflict schemes in the teaching of philosophy, psychology and other materials as a result of what the results of the current research revealed an effective impact in the development of creative thinking
- 2 - Stay away from the usual methods in teaching the material of philosophy and psychology and benefit from the strategy of this research because of this strategy made it possible to raise the level of creative thinking among students.
3. The educational means, the means and the appropriate conditions should be available to make it easier to use the strategy of cognitive discrepancies in the education process.
4. Adopting modern strategies that raise the level of students' thinking and development.
5. The Ministry of Education should prepare a guide that includes modern strategies, such as the strategy of cognitive conflict schemes that have proved effective in teaching, and this is what has been proven by the current research results with the development of models of teaching plans for these strategies.
6. Teachers and teachers of social subjects, especially philosophy and psychology, should be involved in developmental courses in how to use modern teaching strategies, including our current research strategy.

The vocabulary of teaching methods in the faculties of scientific and human education and the faculties of basic education should be included in modern teaching strategies,

Fifthly. Proposals:

In order to complete this research, the researcher proposes the following studies and researches:

1. Conduct a study to find out the impact of the strategy of cognitive conflict schemes in the development of other types of thinking, including reasoning, logical thinking, scientific thinking.
2. Conduct a study to find out the impact of the strategy of cognitive conflict schemes in the collection of materials and other stages of study to ensure the effectiveness of these strategies.
3. Conduct a similar study on other variables such as trends or tendencies or some emotional variables.
4. Conduct a study to compare the strategy of cognitive conflict schemes and other instructional strategies for better knowledge.

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