

The Impact of Teaching using the Cycle Learning in the Development of Deductive Thinking at Al-Hussein Bin Talal University in Islamic Culture Students

DR:omar alkhateeb.

University: Alhussain Bin Talal University.

*E-mail of the corresponding author:Omar58khteeb@yahoo.com

Abstract:

The aim of the study to show The impact of teaching using the learning cycle in the development of deductive thinking at Al-Hussein Bin Talal University in Islamic culture Students. The study sample included (70) students of Al-Hussein Bin Talal university the Superiority was to the experimental group that studied in the learning cycle way over the control group which studied in the lecture way in the development of deductive thinking strategy at al Hussein bin Talal University students , the study recommendation the following:

1. The need to train teachers to use the learning cycle in the detection of concepts for the development of different kinds of thinking.
2. Make other studies on the learning process and its impact on learning processes and the formation of an integrated conceptual structures in other religious materials.

Keyword: the cycle learning, deductive thinking, Islamic culture.

• Introduction:

The educational research Saw that during the past two decades there was a main shift in the vision of the educational process by researchers; so it turned attention to raising questions about the external factors that affect learning, such as the variables of teacher personality , and the clarity of their Expressions; to raise the question of how they are configuration and acquisition the knowledge , what is going on inside the student's mind, such as their prior knowledge, and their ability to remember and information processing, and how to make up the meanings of the concepts they have, and the role of the previous understanding of the formation of these meanings, and relationships between these concepts together, as Turned attention to help students in their physical and mental, and moral, emotional, and explore what the possibilities students have, and the creative energies trying to show and development, and the conviction taken root of the need to develop the thinking levels among students, and finding the conscious mind, and the intellect who can deal with the knowledge, and the face of the various problems of life, and the challenges of the future (Zolar, 1991) . (Kuhn & Dean, 2004).

Bruner Research (Bruner) Has helped on this transformation that are interested to organize material course , and the theory of Gagne (Gangne) interested in the idea of the previous learning and its impact on the subsequent learning, learning theory with a sense of Ozbil (Ausubel), which focuses on the organization of course material and the previous learning Pressley,(1997).McCormick and (yearning et al, 2001; Pressely and Woloshyn, 1995).

The Constructivism is one of the theories that have emerged from this research and its carried according to Gelisierzfeld opinions (Glaserfeld, 1995) that the knowledge built by the student himself and doesn't move passively from teacher, and that the function of knowledge is a function of adaptive, by adapts the teacher with knowledge until it reaches to the required effect.

Some studies have shown as a study of (Chiang, 1998; El-Hindi, 1997; Commander, 2001) that the use of knowledge-building strategies explicitly in education improves the learning process and the students' mastery of these processes leads to:

1. Help students to develop positive attitudes towards the subject of learning and school (Osborne, 2000).
2. Help students to transfer the impact of training, using cognitive processes over knowledge in new situations similar to, the original situation in difficulty (Nickerson, 1985).
- 3.Help students to increase their perception of their effectiveness, where they feel that they are able to perform the task and deal with strategies to solve, and reduce the possibility of gain (non-beneficial) acquired by the students when they feel that they are unable to production (Osborne, 2000).
4. configure perceptual students over cognitive, possess the cognitive processes that enable them to solve the problem, and help them in the sense of responsibility for the learning position, and management, and as a result of learning that aspire to achieve (Osborne, 2000); (al-Sheikh 0.1989).

and one of the suggested teaching models to make effective learning among students Learning Cycle Model, which appeared by Robert Carbul and Myron Alcon, which is a practical application of the theory of Piaget (Adams, 1999) and the learning cycle consists of three consecutive and integrated stages and each step lead to particular job pave to the phase which followed and these stages are:

2. Explore the concept stage Exploration:

The student at this stage have a series of activities aimed to exploring the concept, and make his best to get the details of being able to link what was discovered and other experiments carried out in advance, and the limited role of the teacher in giving instructions without explaining the concept and this phase corresponding representation stage with Piaget that the student at the end of this stage, reach to a state of loss cognitive equilibrium as a result of the questions that has generated such as to why this is happening? What are the things that cause to happen? And other questions and the role of the teacher are: ask guiding questions to help in the development of thinking skills of the students, and provide some assistance to students in continuing exploration.

1. Stage interpretation of the concept Introduction:

At this stage, students presents the results obtained from the exploration phase, and the teacher directs students thinking by building concept in a collaborative way by organizing information, and then the teacher providing language, and the questions that help self-exploration build of the concept.

2. the stage of the application of the concept or expansion Concept Application:

At this stage, the student uses the information obtained to be applied in new situations that leading to the understanding of the theories and models, and here is provide learners with additional expertise in order to increase the Surveying skills by looking at the correlation between science, technology and society, and this has lead to the exploration of the next lesson.(Bakri, Aleksoani ,2001) and (Mohammed ,2000); (Adams, 1999) and (Dessouki,2004)

3. Learning cycle model was based on a set of assumptions, including:

That learning is linking new information prior knowledge, the information stored in memory in the form of structures of knowledge called schemes, and the schemes is the inter subject the learner knows about, and the learner used this information to form hypotheses or predictions related to the sense of the text and its purposes so these assumptions and forecasts serve become the purpose of learning.

1. The learning is the organization of knowledge, the organizational Pattern is the order of ideas and information can be differentiated.

2. The learning is to gain experience from cognitive structures, and above cognitive structures, that learning be strategic when learners are aware of the skills and strategies they use in learning and caught their attempts to use (Sheikh, 1989).

3. That science develops as a result of the transition from a mind frame to another.

4. The process of conceptual change is based on the conversion of the concepts that held by the students through the learning process, the new Ideas not only added to the old ideas, but interact with them and change, and the two sides may changed together. (Perez & Alis, 1985, Strike & Posner, 1985).

5. The teaching that takes as previous concepts for students leads to owning the best scientific concepts and delete alternative concepts (Hewson & Hewson, 1983).

6. That the discussion and to consider the views of others in learning leads to a change in the views of the students (Driver, Guesne, & Tiberghien, 1989).

7. That the students do not understand the real understanding of what only they create and realize, and what they find by themselves (1997 ,Woolfolk),.

8. The learning is an active process ; Students build new ideas through learning , and they develop their conceptual base , the concepts meaning self-built by the individual learner ; meaning that knowledge is rooted in the mind of the learner, and this meaning formed as a result of his senses interact with the external environment, and as a result of this constant interaction , individual reorganizes that the knowledge learned by organized proportional with evolutionary preparing , enabling it to progress in the acquisition of knowledge, and Proficiency of its process and reduce the gap between the advanced level of knowledge and elementary levels (Good & Brophy, 2004).

And Brown indicate (brown) to knowledge-building strategies that they are characteristic of effective thinking and it can be removable; students when they are working to solve the problem, they are conducting cognitive activities treated in their knowledge systems , continuously and continuous; they are testing their decision and adjusted it constantly to reach the resolution, which they see as a solution of the problem; and therefore the teaching strategies over cognitive help students improve their abilities, and their process to solve the problem, and therefore develop their thinking abilities , Brown also has pointed out that the students' learning knowledge strategies is usually followed by employment over knowledge skills helps them to adjust their thinking and organization (Atallah, 1992).

The learning cycle is an important strategy in the development of deductive thinking strategies among students as they work on stimulate student cognitively in degree of inspecting the balance of knowledge, or reaching to mind state it's called by Piaget (Non-equilibrium) in order to make the student search for new information up to himself or to discuss them with colleagues as help to restore the balance, representation and harmonization, and help him to use basic and integrated learning processes and make it more interactive and

positive in educational process (Khtaabh , 2005) (Hudhaifi and Al-Otaibi, 2002).

Deductive thinking knows as the ability to reach a new result of earlier information and that a transition from the whole to a part and from generalities to particulars, and from rules to applications (Otaibi, 2009)

Defined as: Mental process moving from general principles to specific cases, and begin to address information using measurement or induction or both to extract new facts (Abu Shamala ,2010)

And is defined as: the study and analysis of the overall situation of the position in order to extract new knowledge is the molecules special cases linked to the general situation (Ibrahim, 2004).

Deductive thinking skills:

1. Deductive thinking depends on a range of skills , cited by Aldmkh (2006), namely:
2. Recognize the contradictions in the position.
3. Link introductions with each other to get to the integrated results.
4. Infer relationships and access to results.
5. Distinguish between correct and incorrect conclusions.
6. Solving problems based on the perception of spatial relations

4. Steps deductive thinking:

Ibrahim pointed to a set of deductive thinking steps is:

1. Analysis of the overall situation in position the study included initial elements.
2. Find a relationship between each element of the general situation.
3. Crowd the Evidence on the validity of relationships that have been reached.
4. Conclusion new cases linked to the same general condition under study.
5. The formulation of the results and actually use (Ibrahim 2004).

5. Importance of deductive thinking:

The deductive thinking has great importance in the educational process, including multiple benefits:

1. The development of thinking among students access to the results.
2. The survival impact of self-activity in the learning.
3. Stir students' motivation and self-confidence.
4. Keep pace with the normal method of access to knowledge.
5. Help the student to understand the facts. (Anzi ,2010).

Although many researchers agree on that education for thinking or learning strategies, an important goal of education; however, this goal is often conflict with reality within its in practice; the existing educational system often does not provide sufficient experiences in thinking. The teacher is the owner of the word, and the center of the act, the textbook often his only reference, and he knows the book material absolute truths, using questions do not require more than a low-order thinking skills,, the teacher often still maintaining his traditional role now is to provide students with information and asking them assimilated and saved and tested by questions require keeping and retrieval of information (Jerwan ,1999) and in front of this fact unsatisfactory form educational system, in general, and the curriculum of Islamic education in particular; it took interested in looking for ways and means that can help to make the transition from traditional learning to the thinking teaching as an essential component of scientific education and curriculum and teaching structural components strategies considers one of strategies that are working on the development of thinking , and lead to adapt the curriculum material and the way in terms of simplicity and complexity with students' abilities, and its contribute to the process of collection concepts. The need for the use of teaching strategies above knowledge in the teaching of religious concepts; where the teaching job of these concepts no longer provide knowledge to students , but has become the goal of this process is to provide students with experiences, and opportunities that link them to the understanding of science, such as an entrepreneur knowledge building , and help them to think and creativity , and gain self-learning skills, and the ability to continuous learning, employing what they have gained in the solution of problems facing them in their daily lives, especially with what the world is witnessing the scientific, technological and cultural revolution. Which is confirmed by a study (Abu smorh ,1995; and almshalh ,2004). Religious concepts play an active role in students' preparation correctly religiously prepared , by make individually and collectively Awareness ,of the realities of their religion and legislation; to become practices behavior in their practical lives; they seek to composition balanced Islamic personality , and therefore came this study was to look at the impact of the use of the learning cycle strategy in the development of deductive thinking skills in Islamic culture on al Hussein Bin Talal University students.

6.Study Problem

The researcher Note during his presence in the university education of the problems facing the education of religious subjects, and appeared in some aspects, including: The student having low level in achievement of Islamic subjects they studied.

The low level of students in the use of different thinking skills during the discussion in classrooms and their dependence mostly on the lecture method

Accordingly, and in response to calls for the need for development of methods and teaching methods and strategies advocated by the educational

Accordingly, the study identified the problem in the following question:

What the effect of using the learning cycle strategy in the development of the deductive thinking skills of Al Hussein Bin Talal University students in Islamic culture ?

7.The study hypothesis:

The hypothesis of the study Formulated are as the follows:

- There are no statistically significant differences at ($\alpha = 0.05$) in the development of deductive reasoning skills to the Al-Hussein Bin Talal University in Islamic culture students due to the method of teaching (learning cycle strategy, the usual way)

8.Objective of the study:

The study aimed to detect the effect of the use of the learning cycle in the development of deductive reasoning skills to the Al-Hussein Bin Talal University in Islamic culture students.

9.The Importance of the study:

Consistent with the modern trend of interest education in the aimed Islamic education field at the need to use modern strategies to face the contemporary challenges.

1. in line with the growing interest in developing methods of teaching Islamic concepts, because of the students weakness faced in learning these concepts.
2. may help educators to develop more effective educational strategies that contribute to the skills development of deductive thinking models.
3. They respond to the recommendations of the teaching of the Islamic religious Conference in universities), held in Zarqa Private University in 1999 which called for the need to find a true scientific awareness through attention to religious concepts and presentation, and application of modern strategies in teaching (, (Dawood, 2000).

Operational definitions: Learning cycle are: a set of integrated procedures and a row followed by the researcher in the experimental group teaching concepts (religion, worship, morality) for students of Al-Hussein Bin Talal University, which is the student's participation for the three stages of learning and they are:

10.Explore the concept stage Exploration

And where is the goal of identifying the problem by having the students a range of activities, processes and steps to get the details of the link between being able to find out what other experiments carried out in advance . this stage aimed to explore the concept.

Stage interpretation of the concept Introduction

At this stage, the students presented the results obtained from the exploration phase, and the teacher providing language and questions and directs students to think about organizing information This phase aims to help students self-exploration build of the concept of cooperative manner.

The application of the concept stage or expansion (Concept Application)

At this stage, students use the information obtained to apply them in new situations and it aims to understand the theories and models and provide students with additional expertise in order to increase the skills of the survey, and the interrelationship between science, technology and society.

deductive Thinking skills: intended in this study, the amount of the resulting changes to the Al-Hussein Bin Talal University students in improving their deductive thinking skills, namely: transition in principles, judgments and generalizations from the public to private, and generals to parts, they have after their studies topics (religion, worship, ethics) of Islamic culture material using traditional learning cycle strategy . And measured the amount of improvement through achievement test consists of 30 paragraph.

11.The traditional way:

Is a set procedure in which the control group students learn Islamic culture material, namely, (religion, worship, morality) prescribed for them with the help of a teacher and guidance material direct way lecture.

Islamic culture material: Intended in this Islamic material culture study studied by Al-Hussein Bin Talal University students in the first semester of the first academic year 2014- 2015, which includes the following concepts: religion, worship, morality.

Al-Hussein Bin Talal University students:

The regular students in the first year at the King Hussein Bin Talal University in the first semester of

the academic year 2014-2015.

12.The limits of the study and its determinants:

This study was carried out in the light of the following parameters:

This study was limited to: the Islamic culture material concepts of: religion, morality, worship assessed on Al-Hussein Bin Talal University Students

A .sample of Al-Hussein Bin Talal University of regular students in the first year at the King Hussein Bin Talal University in the first semester of the year 2014-2015.

B. the results of this study in part, including the following:

1. Characteristics of measuring instruments used and the ability to detect the discrepancy between the students in improving deductive thinking in Islamic culture skills.

2.The teacher's ability to apply the study using the learning cycle used by the teacher in the application of this study, a strategy has already been publicized at the beginning of the procedural definitions.

13. Previous studies:

Abu Shamala study (2010) aimed to investigate the effect of the use of analytical narrative of the holy Quran story on the development of deductive thinking and the trend towards learning the story with the female students of the twelfth grade, and achieve the objectives of the study were selected sample of female students in twelfth grade in "Acca Girls' Secondary School", where he distributed the study sample into two groups, an experimental one and its (30) students and the other controller (32) Student, where he was scheduled to return to the book and choose the two stories of three Quranic stories, and then rewrite the two stories events according to analytical narrative approach . Teacher preparation guide was commensurate with what you stated with the proposed narrative material was preparing a test of deductive thinking and a measure of the tendency to learn the story and the results showed statistical significant differences in favor of the method used in the test.

Al Bu Saidi study (1998) aimed to know the effect of the use of the two way to discovery guided and dialogue for the teaching of geography in the development of deductive thinking skills to Second grade students and the study sample consisted of (210) students from second grade preparatory students studying in Directorate of Public Education schools in the area of the Interior in the Sultanate Oman and stand to know the impact of the use of guided and dialogue discovery have been prepared measurement test the skill of deductive thinking and after the application of the study, the researcher suggested the presence of statistically significant differences in favor of the guided and dialogue discovery used in the teaching.

Altarawneh study (2006) aimed to investigate the effect of using the two amended learning sessions premise explanation assurance predictive and habitual in the understanding of tenth grade female students to the scientific concepts and development of critical thinking in physics material with comparison with the usual way, where study sample consisted of (147) female and male students from the primary tenth grade in "Bab El waad secondary School" in Amman was divided in to three grouped two experimental consisted of (47) female students studied using the modified learning cycle and the second consisted of (49) female students studied using the usual learning cycle and the third control group consisted of (51) female students studied using the normal method the results showed statistically significant differences between the averages of the marks of the students in the three study groups to test the understanding of scientific concepts and test critical thinking skills due manner and in favor of teaching students who studied using the modified learning cycle compare to who studied using the normal cycle of learning.

Zoubi (2011) Held study aimed to investigate the impact of teaching conform to the constructivist learning form in achievement and mathematical thinking with the classroom teacher students at the University of Muath The study sample consisted of 83 students, the sample was divided into two groups, one experimental reached (42) students learned conform to the constructivist learning form and other control reached (41) students studied in the usual way. The results showed the presence of statistically significant differences between the averages of the collection of the two groups in favor to the form structural as results revealed the presence of statistically significant differences between the averages of the two groups of thinking for the benefit of the specimen constructivist.

obedat (2013)Held study aimed to build educational program based on the constructivist theory and test its impact on the development of scientific thinking and learning skills, and the trend towards mathematics at the basic stage students the study sample consisted of (107) students from the tenth grade students were divided into two groups (50) students and 57 female students Distributor on four group and studied experimental group using and based on the theoretical structural model group control studied in the usual way and the results showed superiority of the experimental groups in the mathematical thinking test and in the collection and in the development of positive attitudes towards mathematics as the results showed no statistically significant differences among students in the mathematical thinking test in directions Posterior attributed to the type of results indicated the presence of a statistically significant differences among students in achievement test in

terms of the type in favor of females and no effect on the interaction between the group variable (the program) and the variable type in achievement in students' attitudes towards mathematics.

Through a review of previous studies on the impact of the use of teaching learning cycle strategy in teaching can be recorded

The following observations:

the researcher Had not seen any study about the use of the learning cycle strategy on the development of thinking deductive in Islamic education materials and it's have been studies that have informed the researcher by looking at the use of the learning cycle strategy in general science and math materials such as(obedat studying 2013) and(Zoubi study 2012) and (Tarawneh study 2006)has Studies showed the superiority of the use of the traditional way of learning cycle strategy in achievement and the development of mathematical thinking skills. He also briefed the researcher on two studies about thinking deductive one development was in geography which(Busaidi study in 1998) showed the superiority of the use of guided discovery and dialogue strategy on the development of deductive thinking in geography, and the other was in effect analytical narrative of the story of the holy Qur'an on the development of deductive thinking which(Abu Shamala study 2010) showed superiority analytical narrative way of the story of the way in the normal development of deductive thinking

The most important characteristic of this study is preceded by studies that focus on the use of the learning cycle strategy in the development of deductive thinking in Islamic culture, also distinguishes this study from other studies they dealt with abstract concepts that have never been studied these strategies informed by the researcher.the theoretical was foundations upon which it relied in previous studies, the effect of directing this study, where the researcher was based on the following theoretical basis:

- the need to provide an opportunity for the training of a knowledge test of self-discovery by the learner.
- Presentation of learning materials to suit the learner characteristics and stages of growth.
- Develop learner in the learning environment compatible with the new behavior and build on the learner's needs and objectives.
- Develop the concept in the form of a position or a problem, leading to the learner urged to make more of an effort to gain access to new knowledge.
- the process of social interaction frees the student from Egocentrism.

14.The method and procedures

The study sample:

The study sample included (70) students of Al-Hussein Bin Talal University students who were studying Islamic culture material has been selected this sample deliberate, so as to suitability for the researcher in terms of access to procedures, and the study sample was distributed to the experimental group included (35), and a control group included (35) students as well.

15.The study tool:

First, the development of deductive thinking test .

Prepared test to measure deductive thinking to the concepts of Islamic culture and the test has passed in several stages:

- prepare a list of educational goals required for selected concepts of Islamic culture material; designed to measure the possession of Al-Hussein Bin Talal University students to the skills of deductive thinking.
- formulated the test items, bringing the number of paragraphs (50) paragraph of multiple choice. Showing the test on a judgment made up of nine university professors, studied university courses in methodology and substance of Islamic culture. And asked them to check the following:
 1. Over measuring the question of the level of the objective have to be.
 - 2 .The clarity of the question.
 - 3 . Over the wording of the question needed to be amended.
 - 4 . The extent of overlap answer and independence options.

Based on the views of the judgment and a review of the test has been shortened to become (35) paragraphs instead of paragraph (50) paragraph.

The test on a sample of forty students from the study population (they Hussein Bin Talal University) students from different disciplines have never studied the Islamic culture material.

16. Stability testing:

The test was a examine in its final form on a sample of the study population consisted of forty students from non-members of the current study members was the analysis of the results of students and keep them, and then re-test after three weeks on the same sample, which has already been test was carried out in its final form, and for the purpose of measuring the test stability has the reliability coefficient paragraphs account by Pearson

correlation coefficient between the students' marks for the first time, and their marks in the second time, its value was. (87.0), indicating that the test has a degree stability suitable .

Educational material: They are two types:

1. Special educational material in cycle learning strategy .
2. Special educational material in a normal learning way .

First: Special educational material in learning cycle strategy has been prepared according to the following steps:

A material analyzed topics of Islamic culture under study and extracted concepts contained therein.

(B) divided the topics of Islamic culture material into sub-concepts revolves around each particular idea.

(C) derived from these concepts general objectives and special focused on having students mental skills Supreme conclusion skills.

(D) allocated for each concept of these concepts in terms of total private lectures amounted to (22) lecture.

(E) the notes of the concepts developed in accordance with the selected learning cycle strategy and offered a group of arbitrators, and they showed simple observations around and amended in the light of these observations.

Second, educational material for the usual way of learning. Has been prepared according to the following steps:

- 1.jurisprudence worship topics analyzed under study and extracted concepts contained therein.
- 2.derived from these concepts general objectives and special focused on clarifying the concept, and his explanation.
3. allocated for each of these concepts, the concept of special lectures the total amount of lectures (22) lecture.
4. memos prepared for the lessons according to the usual way of learning (the lecture way) that depend on speech. Where he covered all the basic concepts and sub-concepts contained in the subject of the study, also included educational goals formulated in the behavior.

17.Study design and statistical treatment:

This quasi-experimental study, in which the sample was selected in intentional. It is based on the fact the impact of the learning cycle to measure the possession of Al-Hussein Bin Talal University students for deductive thinking skills of the concepts of Islamic culture strategy.

Independent variable which is a type of teaching strategy has two levels:

1. learning cycle strategy.
2. Learning the usual way.

The group that studied the first strategy has concenter as experimental group, while the group that studied the way the second consider as control group.

The dependent variable is the development of deductive thinking skills

To verify equal the experimental group, and control group, with what Regards to variables mentioned above, the student average has been calculated on each variable in each group, and then use the analysis of variance associated ANCOVA)) to compare the averages posteriori, after deducting the impact of tribal exam.

18.Results of the study and discussion:

This study aimed to investigate the impact of the learning cycle strategy in the development of thinking deductive skills in Islamic culture at Al-Hussein Bin Talal University students, compared with the usual method of teaching and after applying the procedures of the study, the study found the following results:

19.First results on the hypothesis of zero:

This hypothesis states that there is no statistically significant differences at ($\alpha = 0.05$) in the development of deductive thinking skills to the Al-Hussein Bin Talal University in Islamic culture students due to the method of teaching (the use of the learning cycle strategy, the usual way).

To test the zero hypothesis has been calculating averages, and standard deviations for signs of the two students in the control and experimental testing on the development of the deductive thinking skills of , and are shown in Table (1) descriptive data on two groups of the study sample.

Table 1 : The Averages and standard deviations for signs of the experimental group and control group students in the pre-test and post in the development of deductive thinking skills .

(Table 1)

type test Effectiveness Index	Experimental				control			
	pre average	Standard deviation	Post average	Standard deviation	pre average	Standard deviation	post average	Standard deviation
total	31.72	4.48	36.00	5.97	31.44	4.41	31.36	4.73

(Table 1)

Notes through the table (1) that the average of experimental and control groups students markers may generally increased in the post-test for the pre-test, except that the amount of increase in the average group signs of the experimental group Students was greater than the amount of the increase in the average student signs in the control group; the post average was for signs of the experimental group students (36.00 mark) and standard deviation (5.97); while the post average signs for the control group students (31.36) mark, and standard deviation (4.73).

To find out whether there is a statistically significant difference between the use of the learning cycle strategy and way of normal learning on the development of deductive thinking skills, used the variance associated analysis (ANCOVA); to test the first hypothesis of zero on the impact of the use of the learning cycle strategy in the development of deductive thinking skills in Islamic culture material.

Table (2) the results of analysis of associated variance with a summary of the performance of the development of study sample to test deductive thinking skills in Islamic culture .

Table (2)The results of analysis of variance associated

For the performance of students in the experimental group and control group to test the development of deductive thinking posttest.

Table2

Source of variation	Squares sum	DF	Sq. mean	F	sig
Post test	368.29	1	368.29	141	0.001
Learning cycle	230.0001	1	230.0001	8080	0.004
error	1802.30	68	26.12	--	--
total	84095	70	--	--	--

Table2

Notes from the results of associated variance with analysis of the performance (marks) test sample study of individuals to develop the deductive thinking skills (Table 2); the presence of a statistically significant (h = 0.0001) for the value of the statistical "P" that (equal), on the impact of the use of the learning cycle strategy contrast study sample marks on the development of deductive thinking skills test in Islamic culture and in favor of the experimental group average (36.00) and a standard deviation (5.97). This can be explained and attributed to several factors, most notably the following:

1 - Using the learning cycle strategy for interactive feature that is built on participation (experimental group students) for several stages of learning began to students in search of the problem and identified, and the formation of new speculation around, and then interpret the concept and its application, contributed to install concept reached (experimental Group students), any sense concept and its properties and levels of achievement, students also helped in improving the skills of deductive thinking and this is what is missing in the usual way of learning that depend primarily on the teacher.

2 - the focus of the learning cycle strategy on the need for awareness of learners' skills and strategies they are learning to learn, and adjust their attempts to use; make learning (experimental group students) strategically structured learning.

3 - the adoption of the learning cycle strategy in the presentation of the teaching content commensurate with the logical organization of the content based on the gradient concept of easy to difficult; helped in the development of deductive thinking skills students of the experimental group.

4. Adoption of cycle learning strategy to tailor educated concepts , and the gradient and the sequence in the display, and clarified, infused experimental group students, the ability to own a deductive thinking skills.

Referring to previous studies showing that the results of the current study are consistent with the results of a study of all(Zoubi ,2013) and (Troana ,2006) and Abu (Shamala ,2010) and (Al Busaidi ,2006).

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