

# The Effect of the Six Hats Based on Program in the Development of the Pivotal Thinking of Islamic Concepts Students in Hussein University

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## Abstract

This study aimed to detect the effect based on the strategies of the six hats in the development of the pivotal thinking on the achievement of the Al-Hussein University Students Islamic concepts of the program has reached the study sample (216) students, were divided randomly into two groups: an experimental group of (108) students and consisted of (54 students), and (54) student and reached the control group as well (108) students were divided into (54) and students (54 students). The results showed that the degree of improvement with the experimental group students were better than the degree of improvement with the control group on the achievement test results also showed that the degree of female interaction with the teaching method was better than that of the male study recommended: similar studies on other articles of Islamic education materials, the need to develop Islamic education curricula according to different thinking skills, the need to train teachers to use the strategies of the six hats in the teaching of their importance in the development of thinking and improve the education process.

**Keywords:** six hats, pivotal thinking , islamic concepts.

Thinking ,at the present time, is a growing concern of philosophers, politicians and educators because of its key feature of the individual learner, and the target of an important breeding for its vital role in the success of individuals and progress within the institution and outside, with its skills necessary for success in academic and public tasks. (Swaidan,2004); (Jarwan, 2008) There were numerous definitions that dealt with thinking Pierre (Beyer, 2001) defines it as a mental process by which the learner can do something meaningful, experience going through. And Wilson (Wilson, 2002)defined it as a mental process of being on its way to know a lot of things and remember, understand and accept.So thinking is "an active process which includes many events ranging from regular and simple to solve difficult and complex problems everyday dreams and they form an internal dialogue going on and accompanying multiple acts such as taking a specific duty or a note view or the expression of a specific point of view." HE (2011). (De Bono), referred to in Nofal, and Saivan (2011), thinking as" an explore the experience of Metro in order to reach the goal, and that goal is to achieve understanding, or decision, or problem-solving, or judgment on things, or do the work what". And that thinking is a process that leads out intelligence activity on experience that includes the ability to use intelligence heritage and take it out to the ground.

Thinking as a mental process does not take place in a vacuum, and you need to materials to make different representations for the thing being thought in , these visual or audio or tactile materials may be, is being brought in from the surrounding environment to the interior in different shapes and symbols to replace the original form and that to solve a specific problem, or to take a particular decision, after a different treatment processes like comparison and elicitation, analysis, fabrication, installation and decision-making, and Calendar to reach the target or multiple targets individual seeks to achieve (Kitami, and Aranke 0.2007); (Maiden, 2002).

The importance of thinking in academic success and life, effective thinking has a vital role in the success of individuals and progress in education institutions and outside, because their performance in the performing life skills and attitudes during the study and after are the products of their thinking and which is determined by the extent of their success and failure thinking renewed strength to the survival of the individual and society in today's world and tomorrow, and that teaching thinking skills benefit learners and teachers together they elevate the degree of excitement and attraction of the experience, and make the role of students' positive and active, which is reflected in the improvement of the level of achievement and success in school exams, and achieving educational goals for which the teachers and the schools responsibility. (Abraham, 2005; and sentences 0.2005)

The "thinking skills Movement" has produced specialized programs in the eighties to improve the quality of students thinking and focused on teaching methods to enhance this thinking, and adopted to improve the quality of thinking of the students. Robert Shortz (2003) has begun interest in Arab countries teaching thinking and private independent software programs, the prevalence of this trend, where many international programs appeared in the education of thinking, which contributed to the development of the movement of teaching thinking in many countries of the world, including (Talent Unlimited and Bordeaux for the

development of creative thinking, and Master Tnker, and (TRIZ) for the development of creative thinking, and Courtyard, and Skambr, and six Thinking Hats) this is a program of the most famous independent training programs to teach thinking.

The six hats strategies for one of the important strategies that work on the education of thinking and organizing its operations and the idea and design of these caps traces back to Edward de Bono, an effective thinking encourages parallel thinking tool, and regular construction (Kitami 0.2010) and is based on the division of thinking into six patterns and consider each style as a hat worn by human or takes it off according to his way of thinking in that moment, it is believed that this method gives the man in a short time a great ability to be successful and successful in the process and personal attitudes and they turned rigid attitude to creative attitudes it's a way we learned how to coordinate the various factors to arrive at creativity (Edward de Bono, 2001). colors six styles Has been selected to bestow a kind of psychological atmosphere on the thinking process has been scientifically proven that the colors of the psychological impact on the people through the process of showing which role the colors in the excitability of different psychological feelings of experiments, have been associated with some of the colors in the not aware of many of the people over the centuries specific feelings: red colour symbolized love therefore chosen for demonstrating the emotional thinking, and the yellow was linking to think positive, which is taken from the yellow color of the sun as they have a great role in the process of life and growth on the surface of the earth are the source of all types of energy, and the black related to thinking pessimistic clear and needs no further statement, while the white color symbolizes boil purity and serenity, therefore making the symbol of the neutral thinking that does not carry any pre-orientation is not a positive nor negative, while green symbolizes the creative thinking which is the color of the plants because of the great God creation the visible , and blue symbolizes the totalitarian thinking, a sky blue color as the surrounding land that landlocked ocean color of the sea (Kitami 0.2010, a). It is noteworthy de Bono (De Bono, 2004) that the Six Thinking Hats technically clear and organized way and every hat hats represent a part of the thinking, which is as follows:

White Hat: objective, and impartial, and focus on objective facts and figures.

Red Hat: red symbolizes anger (anger blush) and anger and emotions, and the red hat that represent the emotional matter (intuition, feelings, and emotions)

Black Hat: black color suggests sad and negative, black hat and focus on the negative aspects, and the weakness and failure points, and focus on the negative sentences, and the development of the reasons for the failure of the idea.

Yellow Hat: Yellow color is bright and positive, yellow hat and a symbol of optimism, hope and positive change, they represent the sunrise.

Green Hat: Green indicates the grass a lot, growth and fertility, green hat symbolizes innovation, creativity and new ideas.

Blue Hat: thinking about thinking, and control operations, and team management, and decision-making, they play the role of regulator to control the process of thinking and the use of other hats and Fallon and a cool blue color of the sky above the everything.

Explains De Bono (De BONO, 2004) that the process remember the function of each easy hat if it is linked painted extending the wailing and the collapse of the meanings or ideas, and can think of color bilaterally as follows: white, red, black, yellow, green, and blue.

Shows de Bono (2001) that there are two functions for the concept of the Six Thinking Hats as follows:

Primary Function: Simplify think the opportunity in front of the thinker to deal with one issue at a time, instead of entering the emotions and sensations, logic and information, hopes and creativity all at once, and the thinker can deal with each case individually, instead of using logic to enhance the emotion half hidden, can thinker passion directed to the surface using a red thinking without having to justify hat. After that comes the role of the black hat thinking to deal with the logic element, the more the enemies of thinking is complexity that leads to confusion and confusion, when the thinking is clear and simple becomes more enjoyable and effective. For the six thinking hats this very simple and easy to use.

The second function: the concept of caps a six is to allow thinking for the transfer of thinking and converted. If a persons attitude negatively in a meeting, you can ask him to take off his "hat black thinking," This is a signal to him that he insisted on usurped can ask him to wear a hat yellow thinking and thus directly asked him to be positive, and in this way allows us to think about the six hats term specific without being aggressive, and a disservice to others, and most importantly, is the lack of personal other threat, but turn the situation to represent the roles or to the game, bringing the use of six Thinking is to follow the way one thought at a time and instead of doing everything at the same time this is similar to color printing, where each color is printed separately, then combine all the colors.

The importance of hats as distributed roles of thinking, where the thinker feels pride and pride when you represent all of these roles. Without formalize hats some thinkers continue in my thinking pattern one, may be a black hat thinking pattern, that this program is very easy, but the essence of each hat to remember (de Bono,

2001).

It is believed De Bono (2002) that this method gives the human in a short time a great ability to be superior and successful in professional and personal situations, and in the scope of work or in the home range, and they turned negative attitudes to positive attitudes

And stereotypical attitudes to creative positions, it's the way you learn how to coordinate the various factors to reach the results, it is easy to understand the six types of thinking, but the important thing is early training, even wearing the six hats becomes a habit, and Hat intended here is not a real hat, but they symbolize a way of thinking, that is, it will not be real here wearing any hat or takes them off, but the use of a certain way of thinking, then move to the other way, and so on.

Clear of the show's former method of work of the six hats, the inclusion of the six hats to all types of thinking, and ease of use of this program and its potential application to the students, he worked hats six is only a tool for the management of attention, draws our attention to more than one type of thinking, and offer us the opportunity to shift from one dimension of thinking into a six-dimensional thinking.

six hats Comes to encourage thinking at all levels starting with the basic thinking skills (pivot), to reach the boat thinking skills, like thinking critical and creative, which includes a number of pivotal thinking skills, and observation,. And identify the problem. Thus, an individual must be aware of what the skills to play, to be up to the skills of thinking and metacognition (Kitami, and Aranke 0.2007).

The researchers characterized the thinking in the field between the two levels of thinking: the basic thinking (axial), thinking compound. It includes many basic skills including: knowledge, observation, comparison, and classification. It is a finely honed skill is necessary before moving on to the levels of the compound thinking (Jarwan 0.2002). The compound thinking represents a set of complex mental processes, which includes five thinking skills, which are critical, and creative, problem-solving and decision-making and thinking over the cognitive (Mansouri, 2009).

But the pivotal thinking skills (Core Thinking Skills) other names, such as the basic thinking skills (Basic Thinking Skills), and the central thinking skills (Central Thinking Skills). Skills and know pivotal Think of it as the necessary skills needed for any logical thinking process group, and include basic skills base, can be performed by everyone, and is the start of a more complex and creative skills (architecture 0.2010). He knew (Maaszako), mentioned in Abu Gado, and Novell (2010) Skills pivotal think it necessary basic skills in the recruitment of other dimensions of thinking, since it can be used in service operations above knowledge and thought processes and critical and creative thinking.

And help skills pivotal in organizing information and knowledge development thinking, and the intervention in most kinds of thinking and operations and strategies, they are essential in the critical thinking skills, it helps the learner to reach new conclusions and assumptions and expectations. And the need to solve the problems as well as the capacity to relate to the classification of objects or ideas or arrangement according to a certain standard. The decision-making process, they include higher thinking skills such as analysis, evaluation and induction and deduction, and this includes a pivotal thinking skills such as comparison and classification and arrangement skills. (Mesaieed 0.2003).

The skills are pivotal means of specific goals and targets, such as critical thinking and objective analysis of the argument. When meant, for example, the use of these skills in thinking beyond the cognitive, the formulation of objectives process must be substantially directed towards cognitive goals or mental, and objectives of emotion, and that people who have a large capacity of thinking using mostly skills pivotal thinking in certain categories, and the actual use of these skills emphasizes interdependence with each other (Abu Gado and Nofal 0.2010).

And identified the American Association for Curriculum Development and Education twenty essential skill can be taught and reinforced in school, distributed according to the following areas: (Jarwan 0.2002)

- Focus Skills: includes the definition of the problems, and setting goals.
- gather information skills: include: observation, and wonder.
- remembering skills: include: encoding, pager.
- organization skills: include: comparison, classification and arrangement, and the representation of information.
- Analysis Skills include: determining the characteristics and components, and identify relationships and patterns.
- Productivity Skills / obstetric: include: Conclusion, forecasting, and verbosity.
- integration and integration skills: include: the summary, and reconstruction.
- Calendar Skills include: evidence and identify errors.

This study addresses the following skills: comparison, classification, arrangement, one of the organization skills and skill to predict which of the productive skills, and the skill of the summary is one of integration and integration skills, has been selected these skills in the study of their importance in learning more complex thinking skills, any thinking skills Supreme.

This is the basic skills in all kinds of thinking and strategies. They are involved in critical thinking skills, and problem-solving skills, decision-making and skill, and creative thinking skills, and other types of strategies

and different thinking. They relate mainly to organize and use information effectively in a meaningful way, which will reflect positively on learning and achievement, and life in general. In order for the educational process of learning must take place in satisfactory manner organizing and presenting information to students in a meaningful way. This is achieved by play and learns these skills. Mesaieed (2003)

### **Comparison skill**

Comparison is one of the basic thinking skills and are used to examine two things or two things or ideas or two positions, to discover the similarities and points of difference, or is the skill that are looking for the way in which things are similar and sometimes different at other times (HE 0.2011)

The importance of comparative skill necessary to interact with the environment, and help students organize their knowledge of new and old at the same time (HE 0.2011). The availability of this skill the opportunity for students to think flexibly and accuracy in two or more at once, and add the thrill and excitement of the position of the educational component, and increase students' motivation to learn, and the organization of human knowledge and society; for it is the comparison is difficult to ascertain from previous knowledge, and consequently the difficulty of new knowledge generation. As compared to that of an important role in the processes of scientific research and experimental studies in various sciences (Jarwan 0.2002), and help learners to organize the new information and the information stored in a manner that facilitates retrieval (Abu Gado, and Novell 0.2010).this skill is used in the compound issues such as classification and reasoning and decision-making, problem solving, reasoning, and used by teachers to explain many of the concepts and knowledge that students learn (Nofal, and Saivan 0.2011)

### **Rating Skill**

It includes classification knowledge common characteristics among all the vocabulary class or family and certain not available in the vocabulary of class or another family of objects or objects, and create a system or method for the separation of vocabulary and append categories, each with its own characteristics that distinguish them from other groups (Jarwan 0.2002). Classification and skill used to assemble things on the basis of their characteristics or qualities in groups or categories, which is also a mental process is being put things together in groups, so make it something meaningful (HE 0.2011).

The importance of teaching skill rating to it helps students to organize and establish many meaningful relationships, and facilitate information storage and retrieval process and access to generalizations, and understand the nature of things and elements and characteristics, and assists in the concepts or developed Development (HE 0.2011). And it is a basic skill of thinking to build knowledge of the individual reference frame, and the need for scientific progress and development, and the organization of knowledge in distinct architectures and frameworks (Jarwan 0.2002). It organizes and facilitates the process of remembering, and is working to retrieve information from the memory of the long-term to short-term memory, which is a necessary skill for building concepts in human knowledge, which is a prerequisite for thinking (Abu Gado, and Novell 0.2010).

### **Skill ranking**

Ranking is a fundamental skill of thinking organization skills and means put concepts or things that are associated with each other one way or another in the context of the arena according to a certain standard (Jarwan 0.2002). And knew Abu Gado and Novell (2010), "she skill include subjecting items or vocabulary to organize depending certain standard, or is a sequence of items according to a predetermined standard"

Forecasting skill (Prediction)

It is adept at reading the data or information available and reasoning about what is beyond that in time, topic, or the community, (Jarwan 0.1999)

And defined also as an educational guess based on a hypothesis which expresses the student about his expectations of what can be under this title or of ideas that can be addressed by the writer of .alobeida issues, al-Dulaimi, and Abu rice 0.2006); (Mustafa, 2012).

The importance of teaching this skill to it bother making forecasts or assumptions about reading before the actual reading, and this works to link previous experience as will be dealt with the subject, making it easier to understand on the one hand, and on the other hand, it prepares the mind to process cash readable by calling some of the information that may the meanings of the words or concepts or facts which the reader needs to assess the material read and pass judgment on them. (LADGHAM 0.2004).

### **Summarizing skill (Summarizing)**

It is an analytical process that includes the ability to find the heart of the matter and extract the main ideas in it and express them briefly and clearly, a process that involves reading what between the lines and stripping, revise and connect salient points, and the result is a process where Rephrase the idea or the main ideas that form the

crux of the matter, (Jarwan 0.1999 ).

Also known as the summary rewrite specific text terms less while maintaining a sense, the thread of ideas in the original text (Attawaha 0.1995).

And requires doing a sort of words and ideas summary, and try to separate what is essential from what is essential, and processing concepts and ideas contained the language of the summary and upon his experience and understanding of the subject to him, also requires skill in order of priority. It is a systematic hand, the summaries are important tools for teaching thinking; it helps the student to install the ideas in mind, and provide training on identifying ideas and concepts President, also provide opportunities to organize information according to certain priorities and on the other hand, is gaining skill summary of paramount importance in various aspects of contemporary life that the characteristics is not consistent with redundancy and elaboration in the commentary excess padding on the subject, in the sense that everything is incremented by the transition and focus on the task of elements that are directly related to the subject (Jarwan 0.1999)

There is no doubt that the adoption of teaching thinking in learning environments has changed the roles of the traditional teacher and learner, has turned the traditional role of a teacher of transmission of knowledge to the designer to learn and coordinator of its activities, and Musharraf in the learning environment, and the conversion of the role of the learner from a negative outlook to the active and effective access to information, analysis and link them capable of self-learning calendar, and management itself and dialogue with others.

And can contribute to teaching thinking in enriching Islamic education through teaching strategies, different thinking for students of Islamic education characterized by a lot of properties, including the susceptibility to the development and regeneration, and the organization of the curriculum and content expertise, in line with the times in which we live; this will be beneficial and interest on the teacher and the learner, this study was to detect the effect of the six strategies hats pivotal in the development of thinking on the achievement of the Al-Hussein Bin Talal University students Islamic concepts.

### **The study Problem:**

The curriculum of Islamic education care should be a pressing issue and a fundamental and necessary and given the importance of this article and continuing impact on the lives of students, they develop the thought of the learner, and regulate their behavior and live up his emotions, and achieve the objectives of Islam in the life of the individual learner and seen the reality of Islamic education curriculum and instruction the difference between them and other materials known as the usual method of teaching prevail in the teaching of Islamic Education, which reduces the benefit of the students of this article and to achieve its goals Almtalo (Subaie 0.2009).

We must develop methods of teaching Islamic education to suit the spirit of the age in which we live using the methods and strategies to respond to the reality in which we live and call for the need to bring about development in the teaching methods, which referred to "teaching Islamic jurisprudence in the universities," Conference held in Zarqa Private University in 1999, noted in its recommendations to the need to make use of modern techniques in the teaching of Islamic Jurisprudence and, and take advantage of the means of communication and modern educational techniques in the teaching materials Fiqh (David, 2000).

### **Study questions and hypotheses**

#### **First, the study questions**

1. Are there significant differences at the level of significance ( $0.05 = \alpha$ ) in the achievement of Al-Hussein Bin Talal University Students Islamic concepts due to the method of teaching (the program based on the six hats pivotal in the development of thinking, a way of teaching the usual)?
2. Are there significant differences at the level of significance ( $0.05 = \alpha$ ) in the achievement of Al-Hussein Bin Talal University Students Islamic concepts attributed to the interaction between teaching and kind way?

#### **Hypotheses**

1. There were no statistically significant differences at the level of significance ( $0.05 = \alpha$ ) in the achievement of Al-Hussein Bin Talal University Students Islamic concepts due to the method of teaching (the program based on the six hats pivotal in the development of thinking, the traditional teaching method)?
2. There are no statistically significant differences in the significance level ( $0.05 = \alpha$ ) in the achievement of Al-Hussein Bin Talal University Students Islamic concepts attributed to the interaction between teaching method and the kind?

#### **Importance of the study**

six caps strategy has gained a great deal of attention worldwide, especially in the areas of education and training, has been recognized as an opportunity to improve the teaching and learning process, blending methods of teaching regular education activities to allow more interaction between teacher and student, or between students themselves

This study is gaining significance of it is trying to detect the impact of the strategy of the six hats in the development of thinking skills and pivotal achievement among undergraduates, providing practical model on

how the merger between normal and teaching thinking learning and the use of learning activities in the educational process. The study also contributes to provide relevant educational process, including teachers with practical applications on how the education being considered in teaching.

### **Objective of the study**

This study aims to investigate the impact of the strategy of the six hats in the development of the skills of thinking and axial impact on the achievement of Islamic concepts at Al-Hussein Bin Tala's University students.

### **The study terms**

the the six hats based on program: it is a set of activities and strategies of training consisting of (20) formed a lecture each lecture training session included the different positions of the researcher, the time of each lecture (50) minutes.

Axial thinking: is a set of strategies followed by a researcher in the teaching of Islamic concepts to undergraduate a comparison strategy, classification, arrangement, and forecasting, and the summary, aims researcher of teaching these strategies to help students organize information and develop knowledge to gain access to the assumptions and new expectations conclusions.

Comparative skill: based on examination or test characteristics or related concepts presented qualities, and make a list of the differences or differences between these concepts and work to summarize the similarities and differences previous points.

These strategies aims to student assistant on the organization and the establishment of many meaningful relationships, and facilitates information storage and retrieval process and access to generalizations, and understands the nature of things and elements and characteristics, and assist in the concepts or develop and build a reference and knowledge-based framework for student development, and increase scientific progress.

Skill rating is based on the knowledge of the common characteristics of all the vocabulary class or family of certain items not available in the category of family or other things or objects, and create a system or method for the separation of vocabulary and append categories, each with its own characteristics distinguish them

The aim of the researcher to teach this skill to a student assistant on the organization of the environment in which they live, and the establishment of many meaningful relationships, and facilitate information storage and retrieval process and access to generalizations, and understand the nature of things and elements and characteristics, and assist in the concepts, development and organization of knowledge in architectures and frameworks development.

### **Skill ranking**

Ranking is a fundamental skill of thinking organization skills and means put concepts or things that are associated with each other one way or another in the context of the arena according to the standard.

The researcher aims of using this strategy to organize content organized logically contributes to the understanding of the processes of thinking and obtained.

### **Forecasting skill (Prediction)**

It is a guess based on the educational status hypotheses and read the available data or inference from which information on what is beyond that in time or subject.

The aim of this strategy to give students the ability to make forecasts and linking past experiences as will be dealt with the subject, making it easier to understand on the one hand, and on the other hand, it prepares the mind to process cash readable by calling some of the information that may be the meanings of words or facts or concepts which need the reader to assess the Article print and pass judgment on them.

### **Summarizing skill (Summarizing)**

It is of analytical process include the ability to find the heart of the matter and extract the main ideas in it and express them briefly and clearly, a process that involves reading what between the lines and stripping, revise and connect salient points, and the result is a process where Rephrase the idea or the main ideas that form the core of the subject.

This strategy aims to student assistant to install the ideas in mind, and provide training on identifying the main ideas and concepts, and provide opportunities to organize information according to priorities.

Achievement: Achievement is defined procedurally as: the amount of change happening at Al-Hussein Bin Talal University Students Islamic concepts and achievement and is measured by (40) multiple-choice question.

**The Islamic concepts:**Is a set of concepts linked to the Islamic jurisprudence and revolves around a lot of controversy, namely: (Literature dispute, knowledge purposes, knowledge of priorities, the jurisprudence of reality, knowledge of concepts in the light of reality, truth and metaphor in words).

### **Al-Hussein Bin Talal University students**

They Almentzmon students in the College of Education at Al-Hussein Bin Talal University in the first semester of the academic year 2014/2015.

### **Determinants of the study**

1. This study was limited to a sample of students at the University of Hussein bin Talal in the first semester of

the academic year 2014/2015.

2. The results of this study are determined partly characteristics of measuring instruments used and the ability to detect the discrepancy between the students on achievement test Islamic concepts.

Previous studies:

Researcher briefed on a range of studies on the use of hats strategy in education, thinking this is the pivotal studies:

Conducted by John Dnyis (John & Dennis, 1995) study on the parallel thinking of creative teams, and measures the Effect of training adjust the risk and the training of parallel thinking on the ability of preventive professionals to find health and preventive solutions to problems, where the study aimed to measure the impact of three training interventions, namely: (thinking parallel, adjust the risk, and the training of parallel thinking, and the training of danger adjust) the sample consisted of 150 people, has been chosen at random in the previous three training groups, was used (Occupational Health & Safety) (occupational health and safety) for the evaluation of training, and was using the method of the six hats to think of this training, the main objective of hats, and the idea of parallel thinking is to create a collaborative thinking within the team, and the results showed that for the cases of laboratory testing (OHS) that both the training interventions separate, adjust the risk and thinking parallel, did not increase from the creative team, showed that the use of six further improve thinking and understanding of training on thinking caps.

Conducted Carl (Carl, 1996) study of the Six Thinking Hats: Polemics and respond to the model of thinking, this study provides a model cognitively of thinking called "Six Thinking Hats", the study sample consisted of 31 students, are students from the Rochester Institute of Technology in the Department of row I graduated in the Business School for the institute, this study focuses on the individual response to the model "six Thinking Hats" and its relationship to Basma dialectic, and applied researcher in this study Anvart and Rancr controversial measure, took researcher grade to train associates on how to use the six Thinking Hats, and then dish associate model the exercise is designed thinking by the researcher and the members of the body, and then conduct a survey about the associate in response to the use of all the hat of the six hats in the model were conducted link series of tests and tests of variance (ANCOVA) on the data that are classified into low, medium, and high for levels of controversy, In order to identify any significant levels of response variables and relationships. Yielded results that responses to model individual caps different in general, and showed no significant between the level of controversy relationships and respond to the model, did not check polemics and a forecast of good and useful to respond to the model of the six hats in the patterns of individual thinking, but it aroused the curiosity to know the answers to questions by prospective studies within this field.

Dan and Wieland and Martin and advances have been made (Dan, Feland, Martin & Self, 1999) A comparative study entitled form a team strategy based on the six hats development and compared based on the way to the Myers-Briggs technique for the formation of the courses in Engineering (MBTI), the study aimed to assess the thinking strategies (MBTI -6-hats). And evaluation of a new strategy to increase academic success, the researchers developed it and named it (TFS) based on the thinking caps, and Mizerberger program, a program that fosters creativity, this study was conducted at the Academy madder air in the United States, and the sample of 50 students divided into two divisions each division consisted of (25) distributors (10) teams each team consists of (4-5) Lacquer b. These strategies apply in full course, was the use of several tools developed by researchers to measure the effectiveness of strategies, aimed at determining the extent superiority of these strategies, and application tool to determine the preferred communication styles when the student, in addition to the use of Kearsley tool, and the results showed that (TFS) based on the six hats had a more effective teams in total than those based teams (MBTI), in addition to that, the difference that the criteria for the six hats were more effective statistically from the other teams in terms of, and results indicate that the tool is used to set the connection pattern with six hats in the design of the formation of the team worked well, with a rate of 84% compared with 42% for those students who applied to them (MBTI), and in the averages and standard deviations account, grades results highest demonstrated in both based on the six hats questions (1.11) versus (0.84) as well as questions based on (MBTI) (0.90) compared to (0.62).

Naifeh (2005) also conducted study entitled (the impact of the effectiveness of education in a manner the six thinking hats on the level of the achievement of basic ninth-grade students in the Study of Mathematics), where her studies aimed at identifying the impact of the teaching method of the six thinking hats style in the achievement of ninth grade students in mathematics, compared to the impact of the traditional way, which included a sample studied (118) students, were measured student achievement in the study by achievement test of multiple choice, where the results of the study showed that there are significant differences between the achievement of students who have studied the way the six hats, who studied the way traditional way in favor of the six hats, did not show statistically significant differences in student achievement is attributable to gender or interaction between teaching and gender way.

Conducted Returns (2006) study entitled (the impact of the use of methods of brainstorming and hats of the six active and lecture in the achievement and thinking contemplative at the tenth grade students in the Study

of National Education in Jordan) by showing the existence of differences between the active lecture and method of the six hats in favor of the six hats in student achievement, as found differences in reflective thinking due to the method of teaching, where the differences between the six hats active and lecture for the benefit of the six hats.

He also held Subaie (2006) study aimed to build an existing training program on the Six Thinking Hats with Bono and measure its impact on the development of leadership behavior among high school students in the State of Kuwait, and to achieve this goal has been built on the Six Thinking Hats training program design, and to measure its impact on leadership behavior has been building measure of the behavior of the leader, was chosen as a sample consisting of (80 study) students from atheist twelfth grade students from Saeed Bin Amer secondary School for Boys in educational Ahmadi area, and distributed in a double major semesters (literary, scientific) of Mrtfie achievement and Mediterranean achievement , The sample was divided into two groups (experimental, officer), each group consisting of 40 students, and the results revealed the presence of statistically significant differences between the experimental and control groups differences in favor of the experimental group, and the results showed the existence of differences between the experimental group Mrtfie achievement and Mediterranean achievement , in the total score for the scale of leadership behavior and dimensions following (democratic behavior, take responsibility, and initiative) in favor of Mrtfie achievement, not results show differences were statistically significant between Mrtfie achievement and Mediterranean achievement in after (the decision), and the results indicated that there were no significant differences differences between the experimental group depending on the academic specialization (literary, and scientific). The overall results indicate that the training program based on the Six Thinking Hats was active in the study variables.

Saadi study (2009) This study aimed to investigate the effect of the strategy of the six hats in expressive performance and skills beyond knowledge when students third grade preparation parameters at Baghdad University institutes reached the sample size (61) female students from the third grade at the Institute of preparation parameters were divided into experimental groups and other officer, the results showed the presence of Statistically significant differences in favor of the experimental group to the control group. In expressive performance, skills and knowledge beyond

Khazraji study (2011) This study aimed to identify the impact of the Strategy is the six hats in achievement among middle school students in history, total sample size of 84 students divided the sample into two experimental group and numbered (41) students, and a control group and numbered (43) students, and the results indicated the presence of a statistically significant difference in favor of the experimental group that studied using six hats.

Study Haj (2012) aimed to detect and effectiveness of a training program document to the Six Hats program in the development of the skills of decision making love and defended the poll among students excelling in the College of Princess Tharwat, was the study sample of (40) students is superior, has been their distribution into two groups: (20) student pilot group and (20) student control group. The researcher has implemented a training program document to the six hats are of two measures: the first measure of decision-making, and the second measure of love motive which has been prepared by the researcher survey, the results showed a statistically significant differences in the performance of the study sample to the total score for measuring the dimensional scale making skills differences the decision was in favor of the Group b experimental, the telemetric scale defended curiosity results showed differences in the dimensions (activity, independence, satisfaction, and the degree to college) and was in favor of the experimental group, while there are no differences between the two study groups in after attention, and the results showed no and no statistically significant between the average performance of the two sets of differences in study skills on a scale of decision-making due to the level of educational and academic specialization. And the lack of differences in the dimensions (Attention, independence, complacency) in the performance of students on the love defended the poll scale depending on the variable level of education, but after activity there differences in the performance of the two study groups according to the level in this dimension and the difference was in favor of the students the second year, and the lack of differences in the performance of students excelling depending on the variable of academic specialization (educational, commercial, Applied Arts, medical) to love defended the poll in the dimensional scale (attention, independence, self-esteem), with the existence of differences between the means of performance of the two study groups according to specialize in after activity the total score, and the differences were for the benefit of students of educational specialization, when compared with commercial and medical specialty, as well as for the benefit of specialization of Applied Arts when compared with commercial specialization in after activity and class bitch, and infer from these findings training program based on the six Hats program effectiveness in development taking skills resolution, love and defended the poll among students excelling in the College of Princess Tharwat.

Azzawi study (2012) This study aimed to identify the impact of the six caps on the fourth-grade students achievement of Islamic Education at the middle school in Diyala, Iraq, reached the study sample (49) students, were divided into experimental groups amounted to 44 students and an officer and reached 50 students have the results showed superiority of the experimental group that studied the strategy of the six hats to the



control group which d docked in the usual way.

#### **Shown by previous studies**

- Exceeds the six hats strategy on: student achievement as a study Naifeh 0.2005, and the study of Saadi 0.2009, and the study of returns 0.2006, and the study of al-Azzawi, 2012 also showed the use of the six hats strategic development of parallel thinking as a study by John Dnyis 0.1995 and stir curiosity as a study Carl 1996, improving pattern of communication as a study of Dan and Wieland and Martin and advances 0.1999, and the development of behavior as a study Subaie 0.2006 and expressive performance and skills beyond knowledge as a study Saadi 0.2009, and the superiority of the six hats strategy on the skill of the decision-making love and defended the poll as a study Haj 0.2012

- That most of the studies reviewed by the researcher dealt talk about some of the kinds of thinking and talking about did not address the impact of the use of the six hats strategy to develop the skills of thinking pivotal to the achievement and this is what distinguishes this study from others.

#### **The method and procedures**

##### **The study population and appointed**

The study population consisted of all the students of Al-Hussein Bin Talal University in Jordan and numbered (8500) students, the study sample consisted of 4 groups of university students were randomly selected from the study population, the sample for the study of (216) students, were divided randomly into two groups: an experimental group of (108) and consisted of students (54 students), and (54) student and reached the control group as well (108) students were divided into (54) and students (54 students).

##### **Tools of the study**

To achieve the objectives of the study were set up and use only the following tools:

##### **First test achievement Islamic concepts**

The researcher developed a test to measure the achievement of students in the two study groups of Islamic concepts, after the content of the material educational analysis, and determine the general and specific outcomes expected to be achieved, has been the formulation of the test items on the table specification, the test of multiple choice, so that contain each paragraph of the test four alternatives only one of them is true and be the test in the initial image of the (50) question.

##### **Believe test**

View Finder test with educational goals and educational material to a group of specialists in Curriculum and Instruction, and measurement and evaluation, was to make appropriate amendments to the paragraphs of the test and the test will be in the final version of (40) question.

Stability testing

##### **To ensure the stability of the test**

Been using the test method and re-test (Test -Retest)

To check the test the stability of the reliability coefficient calculation manner Replay time lag a three-week preliminary sample exploratory composed of 40 students, where results showed a high reliability coefficient, when extracting Pearson correlation which reached coefficient (87.0%) This is an acceptable value for the purposes of the study.

Second, the training program based on the strategy of the six hats:

The training program building after consideration of the theoretical framework of the program of the six hats (with Bono, 2001), in addition to a number of studies and theses in this field, for use in building your training program the present study.

##### **The overall objective of the program**

The program aims to develop the pivotal thinking; and that by simplifying the process of thinking and practice and make it possible process, allowing the student to change his thinking pattern, and give students the ability to think independently, direct and flexible.

##### **Specific objectives of the program**

- Clarify and simplify thinking to achieve greater efficiency.
- change from transverse thinking to deliberately thinking.

Gain students various aspects of education.

- Achieve the goal communicate with any other person.

What distinguishes the program?

Ease of learning and education and employment.

Usability at all levels

Besides feeding and effective thinking focus

To assist in decision-making

Create a collaborative team to think about

Building the foundations of the program:

- Defining roles, the most important obstacles to thinking, ego defense is responsible for the majority of the

process of thinking errors, and allows the strategy of the six hats for students to think and say their views without offending ego.

- To draw attention, so by directing attention to appearance after another, and so the six hats strategy opens the door to focus attention to six different aspects of the subject.

-almilaema, Symbolic of the six hats method suited to question others, to be positive or negative, creative or non-creative, or emotional.

Elaboration of the rules of the game, students are inherently good at learning the rules of the game thinking, and thinking is a game intended mapping.

- Use appropriate means and tools to overcome the problems and psychological barriers to being able to reach a successful and appropriate to the nature of these problems and resolve solutions.

The length of time needed to implement the program:

The training component of the program (Building 20) training session was to determine the time each of them based on lectures researcher who has conducted the study during the first semester of the academic year: 2014/2015

Steps application program: The program was applied according to the following steps:

- the program included two training sessions : including a session to boot the program and to make it, and a second session for the application of the pre-test (grades) test.

-tm Training on each hat through individual session for four sessions, and then merge the six hats in a comprehensive application and training positions for six sessions, and then training on the use of three caps during the two sessions, and then merge the six hats in six sessions.

- Finally, it is applied and implemented in two sessions: including final session includes discussion about what we have benefited from this program, in addition to the hearing for the application of post-test (achievement test). Total has reached 20 meetings.

#### **Believe program**

The program was presented to the (10) arbitrators with different disciplines in educational and psychological sciences, to judge the sincerity and honesty virtual content for this program, and based on their recommendations have been made appropriate adjustment and then applied to the students.

Study design and statistical treatment:

This study is based on the quasi-experimental approach (Quazi-Experimental), where the sample was randomly choose. It is based on the fact the impact is based on the six hats in the development of the central concepts of Islamic thinking at Al-Hussein Bin Talal University Students program.

Variables of the study: In this study, the following variables:

(A) the independent variable:

1. The way of teaching and her two levels:

Training program based on the strategy of the six hats.

The usual method of education

Type: A male B female.

(B) The dependent variable:

Student achievement on the final test which was applied at the end of the study.

**Table (1)**

Averages and standard deviations of student achievement by group and gender

|         |      | control |      | experimental |      | total |      |
|---------|------|---------|------|--------------|------|-------|------|
|         |      | pre     | post | pre          | post | pre   | post |
| males   | mean | 7       | 20.9 | 6.4          | 30.4 | 6.7   | 25.6 |
|         | St.d | 2.6     | 4.2  | 2.8          | 5    | 2.7   | 6.6  |
| Females | m    | 4.7     | 18.1 | 5.3          | 31.3 | 5     | 24.7 |
|         | St.d | 2.6     | 5.1  | 2.7          | 3.9  | 2.7   | 8    |
| total   | m    | 5.8     | 19.5 | 5.9          | 30.9 | 5.8   | 25.2 |
|         | St.d | 2.8     | 4.9  | 2.8          | 4.54 | 2.8   | 7.4  |

Notes from the table (1) that the degree of improvement with the experimental group students were better than the degree of improvement with the control group, has reached the arithmetic average of the tribal students of the control group (5.8) and the mean was posttest them (19.5) with an average improvement of 13.7 degrees, while the average arithmetic tribal students pilot ABG (5.9) and the average arithmetic dimensional them (30.9) with an average improvement (25.0) degrees, and to find out whether these differences between the averages of statistical significance has the researcher to conduct joint analysis of variance, as shown in the table (2)

**Table (2)**

Covariance analysis to examine the effect of the educational program based on the six hats

|           | Squares sum | df  | Sq. mean | f      | sig   |
|-----------|-------------|-----|----------|--------|-------|
| pre       | 0.1         | 1   | .09      | .01    | .949  |
| group     | 6992.5      | 1   | 6992.52  | 331.85 | .000  |
| sex       | 45.7        | 1   | 45.68    | 2.17   | 0.142 |
| Group×sex | 181.7       | 1   | 181.93   | 8.63   | .004  |
| error     | 4446.0      | 211 | 21.07    |        |       |
| total     | 11671.3     | 215 |          |        |       |

The results of (Table 2) indicates that there is a statistically significant difference at the significance level ( $0.05 = \alpha$ ) in the averages of student achievement in the experimental group, and the average student achievement in the control group, the value of P calculated (331.85), which is statistically significant at the level of (0.0000), and as shown in the table (3) that this difference in favor of the experimental group students, the average rate of achievement posttest (30.9), while an average achievement rate of the control group students dimensional (19.5).

**Table (3)**

Averages dimensional modified and standard errors for student achievement by group and gender

|        | control |                | exp  |                | total |                |
|--------|---------|----------------|------|----------------|-------|----------------|
|        | mean    | Standard error | mean | Standard error | mean  | Standard error |
| Male   | 20.9    | .6             | 30.4 | .6             | 25.6  | .5             |
| Female | 18.1    | .6             | 31.3 | .6             | 24.7  | .5             |
| total  | 19.5    | .4             | 30.9 | .4             | 25.2  | .3             |

Based on this has been refused the first null hypothesis, which reads: There were no statistically significant differences at the level of significance ( $0.05 = \alpha$ ) in the achievement of Al-Hussein Bin Talal University Students Islamic concepts due to the method of teaching (the existing program on the six hats, and way of teaching the usual) .otffq this result with the result of the study of each of the Naifeh 0.2005, and the study of Saadi (2009), and the study of returns 0.2006, and the study of al-Azzawi, (2012), which showed the superiority of the use of the six hats strategy to the achievement, also agrees with the result of John the study and Dnyis (1995), which showed superiority strategy six Hats to stir curiosity as a study Carl 1996, improving communication pattern as a study of Dan and Wieland and Martin and advances to 1999, and the development of behavior as a study Subaie (2006) and increase the capacity for expressive performance and skills beyond knowledge as a study Saadi (2009), and the superiority of the six hats strategy on the skill of the decision and defended curiosity as Haj study (2012).

**This could be the result attributable to the following:**

- Steps that went out of the six hats strategy played a role in the removal of students from the intellectual stagnation, and by supporting those independent steps for each student in the opinion about each subject and put in front of his colleagues without fear or shame of failure or criticism, boosting their self-confidence.
- Provided the six hats strategic opportunities and positive attitudes interact with students, which led to the stability of the information they have.
- Six Hats strategy is based mainly on the work of the mind and think about the concepts and information, this method gives students a wide range and experience in learning how to overcome the rote memorization of information, but beyond that to think about the attitudes and organization of self, which helped to form the impact of the longest to learn and increase the achievement of information.
- Provide information, and ideas at the beginning of each lesson, in the form of a real problem linked by the daily life of students, encouraged students to research and exploration of data and information, which helped to recognize common characteristics and relationships between knowledge, ideas and information, and analyze and classify and identify similarities and differences between them, and compared with the information and ideas possessed by the student, which led to an increase in student achievement concepts.
- High mental skills that were used in training sessions led its role in the development of students who are trained to program the skills and hence the students performed better than the control group, the fact that the strategy of the six hats of modern teaching strategies for students, and therefore met with enthusiasm and turnout well by and interest them, and this things led to increased student achievement.
- Six Hats strategy helped to give students new experiences and new ways of thinking.
- Follow interesting in the presentation of educational material to fit on hats and movements attractive method embodied reality and stimulate the senses of the students, and to increase their focus on the follow-up of educational material, so to use two senses is better than the existing expertise to invest the sense of one, the

menu and experience on three senses investment better than experience-based the use of two senses This led to an increase in student achievement concepts.

Second: The results concerning the answer to the second question, which reads as follows:

Are there significant differences at the level of significance ( $0.05 = \alpha$ ) in the achievement of Al-Hussein Bin Talal University Students Islamic concepts attributed to the interaction between teaching and kind way?

To answer this question, the researcher conducting joint analysis of variance, as shown in the table (4)

**Table (4)**

Covariance analysis to examine the effect the educational program based on the six hats on the type and the interaction between the method and type

|           | Squares sum | df  | Sq. mean | f      | sig  |
|-----------|-------------|-----|----------|--------|------|
| pre       | .1          | 1   | .09      | .01    | .949 |
| group     | 6992.5      | 1   | 6992.52  | 331.85 | .000 |
| sex       | 45.7        | 1   | 45.68    | 2.17   | .142 |
| Group×sex | 181.9       | 1   | 181.93   | 8.63   | .004 |
| error     | 4446.0      | 211 | 21.07    |        |      |
| total     | 11671.3     | 215 |          |        |      |

The table (4) shows that there are statistically significant differences in the averages of student achievement by the interaction between the group and the type has the value (P 8.63), a statistically significant at the significance level (0.004) As shown by averages dimensional amended in the table (5) that the degree of improvement among females were better than that of males, it has averaged achievement for females in the control group (18.1), has improved as a result of the program to (31.3) in the experimental group, while male scores improved from (20.9) in the control group (30.4) in the the experimental group.

**Table (5)**

Averages dimensional modified and standard errors for student achievement by group and gender

|        | control |                | exp  |                | total |                |
|--------|---------|----------------|------|----------------|-------|----------------|
|        | mean    | Standard error | mean | Standard error | mean  | Standard error |
| Male   | 20.9    | .6             | 30.4 | .6             | 25.6  | .5             |
| Female | 18.1    | .6             | 31.3 | .6             | 24.7  | .5             |
| total  | 19.5    | .4             | 30.9 | .4             | 25.2  | .3             |

The table shows that the degree of interaction with the female teaching method was better than that of males. Based on this has been rejected zero hypothesis regarding the interaction between teaching and kind way, which states that there is no statistically significant differences in the significance level ( $0.05 = \alpha$ ) in the achievement of Al-Hussein Bin Talal University Students Islamic concepts attributed to the interaction between teaching method and the type of students.

- Can be attributed to the fact that students are more willing and interested in the activities and events associated with the strategy of the six hats, which helped to increase their attention and increase the attainment of concepts.
- Students often Aker motivation of students has helped to increase interest and follow-up by the students and thus increase the achievement to have concepts.
- Students often more willing than students in learning through patterns, which helped to increase the acquisition of knowledge of the concepts that have been studied.

Recommendations, the study recommends, to:

- Conduct similar studies on other articles of Islamic education materials.
- The need to develop Islamic education curricula according to different thinking skills.
- The need to train teachers in the use of strategies in teaching the six hats to their importance in the development of thinking and improve the education process.

### Results of the study

This study aimed to build an educational program based on the strategy of the six thinking hats in the development of the axial and its impact on the achievement of Islamic concepts at Al-Hussein Bin Talal University students.

First results on the answer to the first question, which reads as follows:

Are there significant differences at the level of significance ( $0.05 = \alpha$ ) in the achievement of Al-Hussein Bin Talal University Students Islamic concepts due to the method of teaching (the existing program on the six hats, the usual method of teaching)?

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