

## THE EFFECT OF AL-MADINAH PROGRAM ON CRITICAL THINKING OF TALENTED STUDENTS IN JORDAN

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### ABSTRACT

This study aimed at assessing the role of the Al-Madinah Program in enhancing the critical thinking of talented students. This study used quasi-experimental method approaches was used to examine the effect of the Al-Madinah Program on critical thinking. 40 talented students consisting of seventh, eighth, and ninth graders were surveyed from the KATS School in Madabah, Jordan. The sampled forty talented students were divided equally into two groups; control and experimental. The control group received the regular enrichment program that was adopted by the Jordanian Ministry of Education while the experimental group received Al-Madinah Program. Watson tests was adopted to assess the students' critical thinking in the pre and post application of the regular enrichment program and Al-Madinah Program. The findings showed a significance difference between the control and experimental groups (after intervention) with regards to the development of the critical thinking of the talented students. Also, the findings indicated that the talented thinking abilities were significantly enhanced after the application of Al-Madinah Program. This study confirmed that critical thinking can be enhanced through specialized programs directed at the development of critical thinking .

**Keywords: Al-Madinah Program, Talented Students, Critical Thinking, The Concurrent Thinking Theory.**

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## **1. Introduction**

Developing critical thinking of students is one of the major goals of education (Mattar, 2000). Over the years, innovative changes in educational practices have been introduced in different parts of the world to promote the development of critical thinking skills among students of different grades and levels. The development of critical thinking and skills among students in schools is often associated with the desire to build the capacity of students in solving problems and making decisions over personal and societal issues (Okam, 2002).

## **2. Statement of the problems**

The enhancement and promotion of the abilities of talented students are crucial as this will assist them in coping with the current vast development in this millennium. These developments include rapid evolution of science and technology, reform of social communications, globalization, and the impact of technological interactions on civilizations. Talented students have important roles to play in driving innovation and sustaining philanthropic development in the face of the current societal challenges. Hence, the importance of proper development of the talented students (JMOE, 2013).

In the same vein, Tracy (2012) highlighted the importance of developing talented students' abilities. The researcher stated that teaching technique in the 21st century should be able to equip talented students with the 21st century skills. Ku (2009) underscored the importance of developing the abilities of talented students stating that it is part of requisites of the present rapidly changing world. Also, Fertig (2008) stressed the importance of developing the critical thinking skills of talented students. Talented students should be encouraged to question raw assertion and, they should be trained not to accept information as facts, because this will stimulate their analytical and application skills (Fertig, 2008). Of course, analytical and application skills are two fundamental components of critical thinking skill.

This study aims to measure the effect of Al\_Madinah Program on improving critical thinking of talented student.

## **3. Research objectives**

- To examine the effect of Al-Madinah program on critical thinking of talented students.

- To examine if there is a significant difference between critical thinking of the experimental and control groups of the talented students after the intervention using Al-Madinah program.

#### **4. Research Questions**

- Does Al-Madinah program significantly have effect on critical thinking of the talented students ?
- Is there any significant difference between critical thinking abilities of the experimental and control groups after the intervention?

#### **5. Hypotheses**

The researcher proposed to test the following hypotheses based on the preceding research questions:

H<sub>01</sub>: Al-Madinah program does not significantly influence critical thinking the talented students.

H<sub>02</sub>: There is no significant difference between critical thinking of the experimental and control groups after the intervention using Al-Madinah program.

#### **6. Significance of the study**

It was expected that the findings and results of this study would initiate research on methods for improving the critical thinking of the talented students.

To the best of the researcher's knowledge, the Arab world, particularly Jordan, still lack studies that focus on promoting critical thinking abilities, for talented students. Therefore, this study is of particular important for the Jordanian and Arabic environment.

Given the above facts, this study contributed theoretically to the extant body of knowledge, and it contributed contextually and practically, as it would serve as a guide and reference for the stakeholders and policy makers in Jordan.

## **7. Definition of terms**

The following terms were used in the course of our investigations and discussions:

### **8.1 Talented students**

This refers to a student who exhibits high performance in one potentiality or more compared to his/her group of the same age. These potentialities include general mental abilities, creativity, artistic, leadership, and special academic. Talented students are experimentally defined as those students enrolled in the 7<sup>th</sup> to the 9<sup>th</sup> grade level at KATS. Those students were selected based on their performance in international talent assessments, which were administered by the Jordanian Ministry of Education.

### **8.2 Critical Thinking**

Jerwan (1999) defines critical thinking as a composite thinking that is connected with unlimited number of behavioral issues in a wide range of situations, and is interconnected to other principles such as logic.

In this study the critical thinking is one of the thinking patterns in which the learner use to differentiate between correct and false principles using five skills. These skills depend on formulating: assumptions, reasoning, debating, inference, and conclusion. The critical thinking is measured by the grade that the individual receives in Watson's Critical Thinking Assessment.

### **8.1 Al-Madinah Program**

Al-Madinah Program was designed by Abdeen&Zuri at 2015 from university sainsmalaysia,(USM),The main objective of Al-Madinah Program is to enrich educational material by producing programs for talented students to develop the thinking abilities of talented studentsa(alaswad&alsharary,2016:aljabab,2016).

The scientific model of Al-Madinah Program was based on four educational and talent theories: (1) successful intelligence theory(Sternberg,2003); (2) concurrent theory(Abdeen, 2014).; (3) brain-based theoryCaine& Caine,2002); and (4) need for achievement theory(McClelland, 1985).. The development of Al-Madinah Program integrated three aspects: (1) the cognitive process; (2) sentimental processes; and (3) A-Madinah Program strategies. The Al-Madinah Program strategies are comprised of five strategies: (1) brain power; (2) critical acceleration; (3)

synchronization; (4) self-generating; and (5) exploitation. The Al-Madinah Program strategies are directly linked to the educational and talent theories (Abdeen & Zuri, 2015).

Each of the Al-Madinah Program strategies is the foundation for creating specialized activities that targets stimulation and development of all the categories of critical thinking abilities focusing on enhancing verbal fluency for talented students.

## **9. Study limitations**

This study involved design of Al-Madinah program with the aim of enhancing critical thinking abilities of talented students in the context Jordan. Also, this study aimed to examine the effect of Al-Madinah program on the critical thinking abilities of the talented students covering the 7th–9th grades students of the KATS at Madabah governorate in Jordan.

However, this study is limited in its scope by sampling only the 7th–9th grades students of the KATS. The scope of this study is also limited by limiting the population to the talented students in Jordan. Being first research to design a program for the improvement of talented students' critical thinking.

## **10. Selection of student sample**

This study was conducted in the KATS at Madabah governorate in Jordan during the academic year 2014. The sample in this study was purposive sample from KATS. As discussed earlier, KATS is a specialized school that serves the Jordanian talented students. Accordingly, 40 talented students (N = 40 male and female) from KATS were selected to comprise the study sample from the Madabah governorate in Jordan.

## **11. Research design**

Talented students selected from among all talented students in the KATS in the 7th–9th grades.

The sample will be divided into two groups: control and experimental. The two groups are pre-tested before the implementation of the experiment. A post-test is conducted after completing the implementation of the measurement tools (i.e., the currently used normal program for the control group and the Al-Madinah Program for the experimental group) to evaluate the critical thinking ability of the talented student. The post-tests are then compared to determine the effectiveness of the treatment. The study is conducted by using the Watson test as the pre- and post-tests.

The data are collected by using quantitative (experimental) data collection methods. Watson is used as the pre- and post-tests to achieve the purpose of this study.

### 13. RESULTS

Testing the Hypothesis:

*Al-Madinah program does not significantly influence critical thinking the talented students.*

*There is no significant effect on the critical thinking in control and experimental groups after intervention done of the talented students.*

This hypothesis is rejected because Al-Madinah Program significantly improved the critical thinking of students in experimental group based on pre and post sessions. Moreover, Al-Madinah Program was not implemented in control group therefore the hypothesis in this group could not reject this hypothesis and This hypothesis is rejected because Al-Madinah Program significantly improved the abilities of watson Test of students in experimental group based on pre and post sessions. Moreover, Al-Madinah Program was not implemented in control group therefore the hypothesis in this group could not reject this hypothesis.

The result showed that there was significant difference between experimental and control group after intervention in critical thinking abilities.

The findings of the second hypotheses assume that students trained under the AL- Madina Program achieved higher post-test results than students who taught using the regular program. The findings show that students who received training under the AL-Madinah Program have enhanced levels of critical thinking compared with the students taught with the regular program. Thus, the first and second hypotheses are not supported. The findings show statistically significant differences in the level of critical thinking abilities of students in the experimental group who were subjected to the AL-Madinah Program and the students of the control group who were subjected to the regular program. The program applied in this study enhanced the critical thinking of the experimental group talented students compared with their peers who did not participate in the program, This result is in agreement with the study alrjoob (2015). anssar(2014),alzayat(2015).

These findings show that AL-Madinah Program enhances the critical thinking of talented students. Several researchers supported this study for thinking because of the positive results obtained by individuals from these programs. The results of this study indicate that the Al-Madinah Program is more effective in enhancing the critical thinking skills of the KATS talented students than the program that is offered through KATS. This could be due to the fact that Al-Madinah Program fostered the experimental group with exceptional learning environment, which promoted critical thinking and enabled the students to thoroughly express themselves. The Al-Madinah Program was also unique in that it offered the students a real opportunity to participate in a hands-on activities that promoted their critical thinking abilities.

The results of this study indicate that the Al-Madinah Program had a positive impact on the experimental group as it enhanced their innovation and talents. This result is to be considered a unique success of the Al-Madinah Program in addition to its general success in the enhancing critical thinking, It is due to the strategies that are implemented in the program. The strategies were designed to parallel the ongoing scientific advancement, evolution of knowledge, and speed of information technology. The Al-Madinah Program strategies enabled the students to be current on the demands and expectations of their generation by encompassing ideologies and methods that specialize in promoting critical thinking.

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