

## The effect of creative acceleration strategy on creative thinking abilities of talented students in Saudi Arabia

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DOI: <https://doi.org/10.37134/bitara.vol12.sp.2.2019>

Received: 24 October 2019; Accepted 20 November 2019; Published 12 December 2019

### Abstract

This study aimed at assessing the role of the Creative Acceleration Strategy in enhancing the creative thinking abilities of talented students. Quasi-Experimental approaches were used to examine the effect of the Creative Acceleration Strategy on creative thinking abilities. 60 talented students consisting of were surveyed from the Taibah University in Saudi Arabia. The sampled sixty talented students were divided equally into two groups; control and experimental. Torrance tests were adopted to assess the students' creative thinking abilities in the pre and post-application of the regular Creative Acceleration Strategy. Data were collected using quantitative (experimental) approach. The findings showed a significant difference between the control and experimental groups (after intervention) with regards to the development of the creative thinking abilities of the students. Also, the findings indicated that the students thinking abilities were significantly enhanced after the application of Creative Acceleration Strategy. This study confirmed that creative thinking abilities can be enhanced through specialized strategies directed at the development of creative thinking abilities.

**Keywords:** *Creative Acceleration Strategy, CreativeThinking, AL-Madinah Program, Talented.*

### INTRODUCTION

Creative thinkers are regularly centered around finding numerous and exceptional responses to issues. Imaginative capacities have been perceived as basic in fathoming complex individual, social, and worldwide issues through a lot of research (Kattsounis, 1970). With this acknowledgement, advancing thinking has risen as a noteworthy instructive issue in a few nations. Creative thinking is a significant sort of reasoning. It is characterized as the availability and ability to deliver something new. It is likewise portrayed as a procedure in which a result, a novel answer for an issue, or another profitable yield (Abdeen,2009). Creativity is a guided and objective-oriented thinking style wherein an individual seeks new relationships to his problems(Al-Hasna,2014).Bougie(2013) guarantee that creative thinking believing is sweeping, and it incorporates the ability to exhibit different reactions within the sight of an improvement. What's more, Jarwan and Abadi (2014) focused on that creative thinking is a procedure wherein an individual achieves new phenomenal outcomes.Jarwan(2008) claim that the cognition processes that participate in the development of creative thinking abilities are: The flexibility of thinking includes the modification and development of contemplations and to adjust to changing circumstances and issues. Adaptability identifies with a variety of thoughts, strategies, styles, and feeling. Originality portrays the results, for example, answers and methodologies. Inventiveness is described by the reality, uniqueness, innovation, and disposition of the results.The fluency, which is the generation of a myriad of outcomes such as ideas and words, which are easily accessed and retrieved. fluency can be classified into four classes: (a) expressive fluency, (b) association fluency, (c) ideational fluency, (d) and verbal fluency. Elaboration the capacity to add new and different elaboration to a thought or answer for an issue or a delineation for improvement, advancement, and usage.

## CREATIVE ACCELERATION STRATEGY (CAS)

Creative Acceleration Strategy is creative by Samar Abdeen and Moh Zuri (2015).

### **General concept:**

Training programs in the area of creative have confirmed that the mind can be trained through activities, which can raise the level of brain abilities to its maximum capacities (Torrance, 1993). The brain is such a muscle that improves with practice (Jamal, 2014).

When evaluating the ability of a person, notice should be paid that this assessment reflects the ability of the individual at a specific time (test time) and that these capabilities developed and can be changed and improved. Accordingly, many research efforts were aimed to find programs that help people increase their abilities by training (Abdeen, 2009).

**Table1:** *The main concept of the creative acceleration Strategy.*

Strategy	Main Concept
The Creative Acceleration Strategy	Time constraints to finish a task.

### **Explanation of the strategy:**

The Creative Acceleration Strategy (CAS) is based on the concept of using the time of fulfilment to measure how well the task was mastered. Thus, the time taken by a person to solve an issue shows whether a person is ready to forward into a further level of skill. knowing of time taken to complete a task helps the person to concentrate and stay focused. This is due to the verity of creative thinking abilities, such as fluency, are linked to time(Abdeen,2016).

The Creative Acceleration Strategy (CAS) concentrate on using the time of completion of the task as an indicator to measure performance. The time that is taken to solve a specific duty is then used to assess the level of the person and signal for the readiness for advancement to the following level of the program. The purpose of the Creative Acceleration Strategy (CAS) is to improve and accelerate rendering utilizing training and recurrence within a certain time constraint. The recurrence of tasks can help achieve completing the skills in a shorter time, thus producing improved performance(Abdeen&Zuri,2015).

### **Procedure:**

Abdeen and Zuri (2015), are Identifying the task or creative ability (i.e., fluency, flexibility, and originality) that needs to be accelerated through:

#### **Identifying a suitable time for completing the task.**

Monitoring the person and observing the waste time element in accomplishing the task; the preceptor or observer needs to determine whether the time is wasted because of a lack of focus or because the person is in need of information or if just due to natural or shallow factors (e.g., exhaustion).

Reach the acceleration process by treating the imbalance along with repetition and focus on decrease time.

### **AL-Madinah Program:**

Creative Acceleration Strategy (CAS) is one of the most remarkable strategies for the Al-Madinah program, AL-Madinah program was prepared based on modern educational by Abdeen and Zuri (2015). The scientific model of AL-Madinah Program was based on three main aspects: Cognitive processes, Sentimental processes, and Program strategies. The AL-Madinah Program is covered four strategies: Creative acceleration; Self-generation, exploitation; and synchronization. The program

strategies were applied through specific activities to promote the creative thinking abilities of students (Aljabab,2016; Abdeen,2015,2014). The vision of AL-Madinah program starts up from the noticing that each student has special abilities and skills, which can be further high through suitable training if the students possess the desire and trust in his/her own abilities. The main bases of the program are: (a) expansion of students' creative thinking abilities involving (verbal fluency, ideational fluency flexibility, elaboration, and originality); and (b) energizing of the goals of students by improving their personal motives and self-esteem (Abdeen&Zuri,2015; Alherbawy,2017).

AL-Madinah program includes sixteen handbooks, each one was designed to comprise one session which extent 45-minutes activities. Handbooks concentrate on certain categories of creative thinking abilities and adopted various educational methodologies and tools (Abdeen,2016; Alaswad&Alsharari,2016). Alaswad&sharari (2016), in his study, sought to determine the level of the creative capabilities of talented students, The study of Alaswad & sharari used the creative acceleration strategy at Al-Madinah program. The results showed significant statistically differences in the growth of the capabilities of creative thinking.

In the study of Aljabab (2016), which sought to measure the effect of using the Al-Madinah program which includes the creative acceleration strategy on improving the academic achievement level of the talented student, the results showed significant statistical differences in the growth of achievement level of the talented student.

Moreover, the study of Abdeen (2016) used the creative acceleration strategy at Almadinah Program, in her study, sought to determine the level of the creative capabilities of talented students, The results showed significant statistical differences in the growth of the capabilities of creative thinking.

Also, Alherbawy (2017) sought to determine the level of the creative capabilities of talented students, The study of Alherbawy used the creative acceleration strategy at Al-Madinah program. The results showed significant statistical differences in the growth of the capabilities of creative thinking.

## **PROBLEM STATEMENTS**

Improvement of creative thinking abilities in an educating learning situation can request dissimilar instructional advancements. Subsequently, it profits of instructors to plan or create programs for the individuals who have just shown understudies (Al-Hasna, 2014). The significance of improving creative thinking abilities understudies can't be exaggerated. The way that the significance of advancing, creative thinking abilities and creative thinking speculation in instruction have been generally perceived (Jarwan&abadi, 2014).

More so, the improvement of creative thinking abilities about the understudies is a need of the instructive procedure, where the understudies are tested to utilize and apply creative thinking intuition in taking care of regular daily existence issues. Understudies have high capacities to perform at abnormal states in various orders, contingent upon the individual possibilities.

Henceforth, estimating the creative thinking and helping the gifted understudies in building up their inventive thoroughly considering capacities an advanced projects, which can lift their creative thinking and competency are of significant cities about the understudies is a need of the instructive procedure, where the understudies are tested to utilize and apply creative thinking in taking care of regular daily existence issues. Understudies have high capacities to perform at abnormal states in various orders, contingent upon the individual possibilities. Henceforth, estimating the innovative reasoning and helping the gifted understudies in building up their inventive thoroughly considering capacities an advanced projects, which can lift their creativity and competency are of significance (Qararah, 2014).

Also, Alaweida (2014) focused on the significance of building up the creative thinking abilities of skilled understudies. Gifted understudies ought to be urged to address crude statement and, they ought to be prepared not to acknowledge data as actualities since this animates their logical and application abilities (Alaweida, 2014). Obviously, scientific and application aptitudes are two major segments of creative thinking skill.

## OBJECTIVES

### *Research objectives:*

To examine if there is a significant difference between creative thinking abilities of the experimental and control groups of the students after the intervention using creative acceleration strategy.

## RESEARCH QUESTION

Is there any significant difference between creative thinking abilities of the experimental and control groups after applying the Creative Acceleration Strategy?

## HYPOTHESES

There is no significant difference between creative thinking abilities of the experimental and control groups after the intervention using Creative Acceleration Strategy.

## SIGNIFICANCE OF THE STUDY

Creative thinking abilities are viewed as key angles that advance suburb results from which understudies are set up for future vocations (Al hasna, 2014). This study stands out in its contribution to the extant body of knowledge. In addition, this study presented a new strategy, Creative Acceleration Strategy, which focused on developing creative thinking abilities.

## METHODOLOGY

### *Research design*

The current study is also to experimentally develop the level of creative thinking abilities of students at the talented student of Taibah University. The samples were 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 to evaluate the creative 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 Torrance test as the pre- and post-tests.

*Table2: Experimental and control demographic of the sample.*

Teaching Materials	Groups	N
Currently used Program.	Control group	30
Creative Acceleration Strategy.	Experimental group	30
Total	2 groups	60

The study used SPSS 20 to achieve its objectives. the reliability coefficient method was used to compare the results in the pre- and post-tests. A t-test examination of the differences between groups was also be used.

**Instrument**

The researcher adapted the instrument to measure the talented student’s level of creative thinking abilities, the test is Torrance test which measures ideational fluency, flexibility, originality and elaboration abilities test (1987), for the Arabic culture, The first drafts of instrument were submitted to four professors in the university, two educational experts,. These judges are asked to assess the face, content, construct validity of clarity, and specification of the tools. The standard scoring of the test was used to obtain an accurate result.

Creative thinking ability has a specific standardized manual-scoring modification in the creative acceleration strategy. Therefore, the use of these measurements provided accurate statistical results for measuring creative thinking abilities. Standardized tests are perceived as fairer than non-standardized tests. The consistency also permits a reliable comparison of outcomes across all test takers.

**RESULTS**

Research Question: Is there any significant difference between creative thinking abilities of the experimental and control groups after applying the creative acceleration strategy?  
 Independent t test is the appropriate test can be used to find the difference between two different groups. There was no significant difference in most of abilities of Torrance test between the control and experimental groups.

**Table3:** Overall score of Torrance test in pre session between control and experimental groups using independent t test.

Abilities	Control group Mean (± SD)		Experimental group Mean (± SD)		Mean difference	t value	p value
Originality	32.28	10.476	24.35	12.341	7.855	2.700	0.009
Elaboration	34.70	11.403	40.15	13.751	-5.450	-1.918	0.059
Ideational Fluency	17.60	7.013	17.50	5.118	0.100	0.079	0.937
Flexibility	17.98	4.086	18.65	6.077	-6.75	-0.612	0.543
Overall score	84.95	31.302	83.02	35.6944	1.900	0.295	0.769

There was significant difference found in abilities and overall scores of Torrance test. The score of originality, elaboration, Ideational fluency and flexibility significantly was higher in experimental group than in control group. Also, the overall score of Torrance was significantly higher in experimental group than in control group, as shown in Table 4.

**Table 4:** Overall score of Torrance test in post session between control and experimental groups using independent t test.

Abilities	Control group Mean (± SD)		Experimental group Mean (± SD)		Mean difference	t value	p value
Originality	30.65	6.346	42.95	14.349	-12.300	-4.938	<0.001
Elaboration	28.93	10.125	52.00	12.651	-23.075	-7.798	<0.001
Ideational Fluency	18.50	3.867	23.85	8.244	-5.350	-3.914	<0.001
Flexibility	15.88	6.934	19.70	4.122	-3.825	-3.556	0.001
Overall score	87.97	23.954	132.522	30.420	-44.550	-7.277	<0.001

### **Testing the hypothesis:**

There is no significant difference between creative thinking abilities of the experimental and control groups after the intervention using Creative Acceleration Strategy. This hypothesis is rejected for the post-session, where the score of creative thinking abilities of the Torrance test was higher in the experimental group than in the control group.

The result showed that there was a significant difference between the experimental and control group after applying the creative acceleration strategy in creative thinking abilities. The findings of the hypotheses assume that students trained under the Creative Acceleration Strategy achieved higher post-test results than students who taught using the regular strategy. The findings show that students who received training under the Creative Acceleration Strategy have enhanced levels of creative thinking abilities compared with the students taught with the regular strategy. Thus, the hypothesis is not supported. The findings show statistically significant differences in the level of creative thinking abilities of students in the experimental group who were subjected to the creative acceleration strategy and the students of the control group who were subjected to the regular strategy. The strategy applied in this study enhanced the creative thinking abilities of the experimental group talented students compared with their peers who did not participate in the strategy. This study targeted all creative thinking abilities:

Originality.  
Flexibility.  
Elaboration.  
Fluency.

There were significant statistical differences in the enhancement of all the creative thinking abilities between the control and experimental group in favor of the experimental group at p value of  $\alpha < 0.01$ .

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