

CREATIVE THINKING PROGRAMS

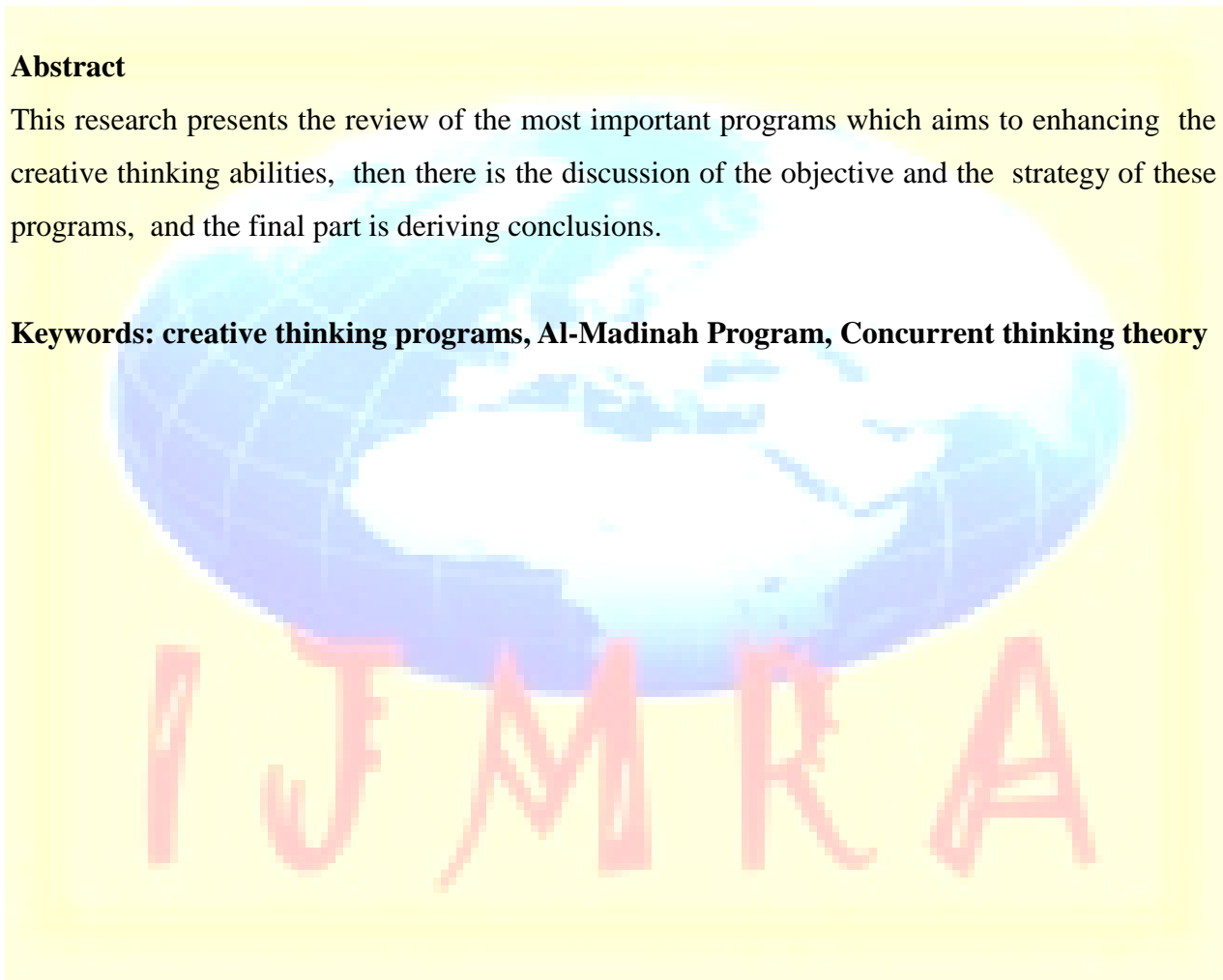
Dr.Samar A. Abdeen*

Dr. MohdZuriGhani**

Abstract

This research presents the review of the most important programs which aims to enhancing the creative thinking abilities, then there is the discussion of the objective and the strategy of these programs, and the final part is deriving conclusions.

Keywords: creative thinking programs, Al-Madinah Program, Concurrent thinking theory



* **University Science Malaysia, Penang, Malaysia**

** **Taibah University, Almadinah Almunawarah, Saudi Arabia**

Introduction

Some researchers tried to backdate the beginning of developing training programs that aim to enhance creativity. They tried developing these training programs since the 1930s of the last century. The interest in developing creativity has continued up to the present.

Following Table lists the international creative thinking training programs, and the following section summarizes the most important programs.

List of creative thinking training programs.

NO	Name of the Creative Thinking Training Programs	Year Developed	Author
1	TRIZ	1946	Altshuller
2	CORT	1976	De Bono
3	Master Thinker	1988	De Bono
4	LINK Think	1995	De Bono
5	FAT/CAT	1997	De Bono
6	Six Hats	1997	De Bono
7	SCAMPER	1997	Bob Eberle
8	Al-Madinah Program	2015	Abdeen&Zuri

TRIZ

TRIZ by Henry Altshuller developed in 1946. In this year TRIZ has developed and has been created based on the belief that "there are universal principles of invention that are creative

innovations that provide technology basis, and that if was not possible to identify these principles and codified, they can be taught to people to make the invention process more predictable (TRIZ Journal, 2013).

As a result, a general method to solve the problem, TRIZ is not established on trial and error, but on the established principles (Savransky, 2000). Also, it shows that the evolution of technology is not a random process, but one governed by a number of "laws" (Souchkov, 1997). And contradiction matrix and the principles of separation could be solved by technical contradictions and physical using the principles of a group of 40. Forty principles is a key tool in solving TRIZ problem and very easy to use and effective.

CORT

This program was developed to teach students a number of thinking tools that will help them cognizant escape from familiar thinking patterns to see things broadly and more clearly. The program includes training on 6 thinking skills distributed in 6 books. Each skill is trained on through 10 lessons per unit. Each lesson contains 10 training exercises/drills develop to be covered in 30 min for each lesson. Implementing the course needs a total of 60 lessons distributed against the following units: (1) Unit One - Breadth of Conception: This unit is meant to train students on thinking from all angles of the situation in every possible manner. The results of each test are considered against the achieved objectives. De Bono (1976) made a point of teaching this unit first. The other units can be taught in any random order. This unit is the domain of the research because the training course aiming at developing the creative thinking ability of 4th grade students is built on this unit of CORT strategies. (2) Unit Two - Organizing: This unit effectively focuses the students' attention in an organized manner with emphasis on the situation. (3) Unit Three - Interaction: This unit is concerned with sufficient evidence and reasonable arguments. (4) Unit Four - Creativity: This unit presents a number of generating ideas and how to review and evaluate them. (5) Unit Five - Information and Feelings: This unit focuses on emotional factors affecting thinking. (6) Unit Six - Action: This unit aims to provide a general framework to solve problems by connecting the strategies in previous studies or taking them on individual basis.

Master Thinker

De Bono built this program in 1988. Like his other programs, it aims to teach thinking to children. The Master Thinker program comes in a kit of 4 cassettes for the trainer, 2 main books, and a third supplementary book. The content is in 2 books and is distributed in 11 chapters (Al-Sror, 1996).

Think Links

This program comprises 36 games that are developed by De Bono (1990), to develop specific thinking skills. These games vary in the level of difficulty and are good for beginners to adults. De Bono (1990), listed them under 10 main headings: pairing/matching, patterns, shape description, links and relations, grouping, random pairing, problem solving, ordering, short story checking, and group power.

FAT/CAT

The Fixed, assigned, task, creative, action team (FAT/CAT) implies that tasks are fixed and specified to be implemented by small teams responsible for creativity by generating ideas and new concepts about those specific tasks (Al-Nawawi, 2005; De Bono, 1995).

Six Thinking Hats

This program was developed by De Bono (1997), to explain and simplify thinking and make it more efficient. By using this program, a person does one thing at a time. He moves from one thinking pattern into another. The six hats of different colors are a means that the individual uses at all times during his life. The hats emphasize that thinking is a multi-process. The six hats are as follows: (1) white hat, which represents objectivity and shows results without interest in explanations; (2) red hat, which represents emotions and keeps logic and justification away; (3) black hat, which expresses a negative evaluation; (4) yellow hat, which expresses positive and productive thinking; (5) green hat, which signifies creative thinking; and (6) blue hat, which is the controlling hat of all hats. The six hats are the main components of the thinking map. For example, a person wearing the sad hat should act sad and act happy when he wears the happy hat. This rule applies to the remaining hats. All hats are used in a role-play. De Bono (1997), supposed that broad thinking has a large thinking hat partitioned into six hats or six different

roles of six colors. A person using these hats puts on the suitable hat to play the role. Therefore, anyone wearing a hat has a goal. Thus, each individual is considered a planner and a thinker. Accordingly, he does this for a purpose (Suror, 2003).

SCAMPER program

SCAMPER program is the enemy the Bob Eberle development program (1997). It includes various games that enable students to improve their creative thinking. Technology enemy, for one, uses a set of directives, the idea of stimulating questions suggest some addition to, or modify something that already exists. He also received a lot of attention as a learning tool promotes awareness, drive, fluency, flexibility and originality(Wahib&Nada,2001). Motivation comes from requests to respond to inquiries from would constitute one does not usually. The changes that the enemy stands for the following: (1) S: Alternative (for example, components, materials and people), (2) C: combining (eg, mixing, combine with boards or other services, and integration), (3) Air (for example, change, job change, use part of another element), (4) M: Increase / modification (for example, increased or reduced in size, and change shape, modify attributes), (5) P: Put to other uses (6) E: elimination (for example, and remove items, and simplify and cut to the core) functions, (7) R: Rearrange / Reverse (for example, the inside turns to the outside or upside down

AL-Madinah Program

The Al-Madinah Program is founded on modern, influential educational theories of the 21st century. The most important of these theories is the concurrent theory which means thinking of multiple things at the same time, i.e., doing more than one mental process simultaneously and thus processing more than one task at a time (Abdeen,2014)

The Al-Madinah Program integrated five brain learning stages (i.e., preparation, acquirement, descriptive, construction memory, and functional integration). The activities of the Al-Madinah Program utilizes multiple teaching methodologies such as discussions, cooperative learning, . imagination, brainstorming, brain maps, and problem solving

The Al-Madinah Program is a flexible, robust program by which the teachers can utilize in diverse ways. The Al-Madinah Program can enhance the creative thinking abilities of the

talented students within relatively short time. One of the most notable characteristics of the Al-Madinah Program is its efficiency in promoting self-learning. Moreover, the Al-Madinah Program contemplates individuals' differences, and maintains the students' enthusiasm

The Al-Madinah Program is founded on modern educational and talent theories. The scientific model of Al-Madinah Program is based on three fundamental aspects: Cognitive processes, Sentimental processes, and Program strategies. The Al-Madinah Program strategies are applied through specific activities to enhance the creative thinking abilities students. Al-Madinah Program, which targets to enhance the creative thinking abilities of students

The main pillars of the Al-Madinah Program are: (a) developing creative thinking abilities such as verbal fluency, ideational fluency flexibility, elaboration, and originality and (b) Stimulating the ambitions of the talented student by developing his/her personal motives and believe in one's abilities

This program is developed to simplify the exercise of the creative process and make it possible, and thus, allow students to change the thinking pattern of the recipient from reactant and imitator to creator and to individual deal with creativity independently and directly. This program provides students with tools for creative work in different life situations. It particularly aims to develop creative thinking and enhancing creative thinking ability.

Conclusion

The first creative thinking enhancing program appeared in 1948. None the less, the development of creative thinking enhancing programs reached its peak between the years 1988-1998, but ceased between after 1998. This created a gap in the development and advancement of creative thinking programs between the years 1998-2015. Thus the development of Al-Madinah Program is of great importance as it targets enhancing creative thinking skills taking into account the new technological and pedagogical advancement post 1998.

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