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ABSTRACT

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Creative thinking skills, Arabic, Technology, Saudi Arabia. Creative thinking skills plays a paramount role in child's developments. It is the heart and soul of child's education. It is the foundation on which the personality of child is built. The study of mother-tongue is of dire necessity on the aforementioned skills. Teachers rarely use teaching technology like multimedia, instructional technology etc. They adopt lecture cum text book method-a boring procedure. No attempt is made to arouse their creativeness or encourage their self-expression so what they learn is poor learning. The researcher takes the initiative to bridge the relationship between the utilisation of technological methods in Arabic classes and the enhancement of critical thinking skills as a result of adopting technological methods.

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Introduction

The Educational policy of Saudi Arabia is develop based on Islamic principles (Al-Enezi, 2003; Al-Kasi, 2000). The Islamic education focus on culture and value for Muslims; specifically, creative students who are raised for the advancement and development of the society (Al-Said, 2000). The Saudi Ministry of Education emphasise that teachers have to identify and take care of creative students (Maajni, 1996). Creative thinking is developed when the appropriate environment exists for students within their families and in their schools. The effect of a creative students care centre begins whenever the students are given, the psychological, social, and scientific care (Al-Issawi, 1994). There was initially great progress in identifying and caring for creative students in Saudi, in which it was intended that students improve the skills required for achieving better in their studies (Al-Attas, 2005). Creative students are expected to get an important role in the development of the country, and the tools to achieve their potential is an areas of priority for government. It is noted that spending on creative students was estimated to reach millions of riyals, Saudi currency, in a bid to establish institutions and programmes necessary to improve students' creativity (Al-Akder and Hussein 1993). Moreover, the Saudi Ministry of Education started a program for creativity during the year of 1998, at the school centre of Prince Sultan educational in Riyadh (Tuwaijri, Abdulmajed, and Mohmmad, 2000). That creativity centre aim is to encourage studies in the area of creativity and to establish programs to improve creativity. It is important to say that the centre only accommodates one to two per cent of Saudi students. In addition, more and more schools are participating in enhancing creative students' skills.

Creative Thinking Skills

These days, the global environment we live in, where technology and information are changing because of science is developing new insights. For instance, Cropley (2001, P135) stated that: "the knowledge and skills needed in the future may not even be known at the time a person attends school".

These changes led teachers to consider the importance of improving children skills that are needed for the future and to become better learners. There is less agreement on the method to improve such skills. However, creativity training is recommended by many of educators as a successful way to give students the power to understand their learning styles, abilities, and ultimately to use these skills in their studies.

The movement promoting creativity training as a central tool in schools began in the 1950's. It is argued that improving the levels of creative thinking is of an importance and it is the result of teachers and parents effort to improve creative thinking skills (Torrance 1963). Moreover, Russell and Meikamp (1994) summarised creative thinking skills through arguing the following points:

Creative thinking help students to maintain a good mental health, enhancing their personality development.

It might result in the acquisition of more and new knowledge.

It might help students to solve daily problems they might face.

It is related to the nurture of a future generation that lead to a sustainable tomorrow.

However, notwithstanding that changing and adding to the specification posited by Torrance is possible, rejecting the value of any of the previous items is difficult. Actually, individuals who is interested in in creativity (e.g., researchers, educators, or education leaders) seem to agree on one the values of creative skills training.

Nevertheless, not everyone believes that creativity can be trained (Fraenkel, 1977). Based on Runco (2007) study, the position suggesting that creative thinking skills can not be trained might be resulted from a misunderstanding of the means to elicit behavioural changes. Though, behaviours are considered to be flexible. They reflect a range of reactions and proactive responses. Though, skills and behaviour are reactions to the sum of experiences that individual go through. Skills are similar with exercising. Many play sport but not every one of them join the Olympics. In theory, only exceptional athletes are eligible to stand a chance.

Similarly, creative thinking skills are nurtured through techniques and programmes, which in turn are thought to improve the chance on individual behaving in a creative manner (Runco, 2007).



As such, training students creative thinking skills might yield different results among those students. To that end, creative skills might be teachable and measurable through flexibility, fluency, elaboration, and originality (Amabile, 1983, 1989; Blagg, 1991; Dacey, 1989; Getzels and Jackson, 1962; Guilford, 1967; Parnes, 1963; Sternberg, 1995, 1999, 2000; Torrance, 1962a, 1963, 1972; Torrance and Safter, 1989). Moreover, findings of experimental research supported the aforementioned notion. For example, Torrance (1972) results suggest that teaching children how to think creatively is possible. Additionally, more recent research added more support to the argument that creative skills can be improved through training (e.g. Ma, 2006; Scott et al., 2004a, 2004b).

Discussions surrounding creativity often distinguishes between creativity in eminent individuals and creativity in the less eminent. A common way to refer to these two types of creativity is big creativity and little creativity (Kaufman & Beghetto, 2009). Research on the concept of creative thinking skills is needed because as would be expected so much emphasis is placed on big creativity, or creativity that is recognized by large swaths of society. It is just as important to value little creativity, mini creativity, and even everyday creativity (Kaufman & Beghetto, 2009).

Though, creative thinking skills is part of the overall concept of creativity. Moreover, other variables of this research (for review see, Amabile, 1996; Ausubel, 1963; Boden, 2001; Lubart, 1994; National Advisory Committee on Creative and Cultural Education, UK (NACCCE), 1999; Onda, 1994; Rogers, 1954; Zabelina & Robinson, 2010). In other words, creativity reflects the larger phenomenon that encompasses variety of dimensions, including but not limited to, creative thinking skills.

To that end, it central to state that creative thinking is an ambiguous term, yet it constitutes to be an important facet of our daily lives. While resources and procedures are the foundations for the achievement of any task, the outcomes of any endeavour might be improved through creative or lateral thinking. This individual-based skills are believed to enhance the overall levels of productivity across various spectrums. Conceptually, the concept of creative thinking is traced to Barron (1969), who emphasised the core concepts of meaningfulness and originality that form the genesis of models and definitions that proliferated over time. Though, the ambiguity surrounding the concept is whether creativity is an innate individual's quality, or it is a skill that can be taught and nurtured. If it is innate quality, then creativity's positive attributes should be encouraged; if it is a skill to be learned, then again, there should be a curriculum for students to master. On the hinges of the previous argument, a number of scholars asserted that creative thinking has a significant role in curriculums' development (Cropley, 2001; Guilford, 1968; Sternberg, 1999; Vong, 2008). Therefore, the challenge is to define creativity, measure it, analyse its effects on children using various methods of teaching, and, ultimately, extrapolate on the findings of such endeavours to develop creative pedagogy.

Creative thinking can be defined in terms of a series of attributes or dimensions of an individual's abilities to produce valuable ideas or novel and workable tasks, or an individual's unique talent and productive imagination (Amabile, 1996; Ausubel, 1963; Boden, 2001; Lubart, 1994; National Advisory Committee on Creative and Cultural Education, UK (NACCCE), 1999; Onda, 1994; Rogers, 1954; Zabelina & Robinson, 2010). There is a wealth of literature on creative thinking, starting from the concept early theorists, Guilford and Torrance (Sternberg, 2006). Extrapolating on Guilford's assessment, Torrance designed Torrance Test of Creative Thinking (TTCT) in the 1960s. It is believed to be a measure of divergent thinking, which in turn is predictive of individual's creativity. This test was revised and revised several times. It is last version was revised in 1998 (Sternberg, 2006). According to Kim (2006, P.11) 'TTCT appears to be a measure, not only for identifying and educating the gifted, but also for discovering and encouraging everyday life creativity in the general population'. **The Effect of Technology**

To that effect, motivated by the researcher researcher's own experience in the educational field and extrapolating on the available literature, it is noted that as regard to the concept of creative thinking skills there is little-known about the use of technology-based method in nurturing such skills in the field of Arabic language teaching. Furthermore, teaching of Arabic in Saudi schools rarely relay on teaching technology like multimedia, instructional technology, online space etc. (Malmasi and Dras, 2014). Commonly they adopt the text book method. Additionally, training of creative thinking, so far, is limited to the fields of science and giftedness (Alwehaibi, 2012; Aljughaiman & Grigorenko, 2013; Alosaimi). To that end, it is noteworthy that the aforementioned research mainly utilised cross sectional method, despite the fact that testing the impact of technology based method in training students' creative thinking skills requires an experimental design. This method is expected to allow researcher to support the argument that the use of technological means have an impact on students creative thinking skills.

Overall, the question of whether technology-based programmes are effective in improving students' creative thinking skills, in the context of Saudi Arabia and in teaching Arabic, is left unanswered. In addition, the lack of experimental research on the phenomenon in Saudi schools makes it urgent to examine the role of this type of programmes on creative skills improvement. The fact that the function of schools is changing from teaching the required material to teaching students how to think poses an immense need for probing the role of the proposed method (use of technological tools) in the realisation of that objectives. Retrieving form earlier argument, creative learning centres are not available to the mass which reinforce the need for this study in order to bring about future advancement.

To that effect, it is noteworthy that in the recent times, the term Technology' is widely used. The present era is known for technological advances. H. J. Learil defined technology as problem of technology is essentially related to attempt to be rational and affect greater efficiency (Mandeep & Gursharan, 2011). According to Granth technology includes methods and strategies of teaching, mechanical and electronic devices and instruments, media equipment, library inventories and text books. Technology is a means of components however observation of practice and other evidence lead to the conclusion that frequently advocates and the users tend to view them as ends. Technology is the contribution of cybernetic psychology or theory of feedback having three basic components as shown below:



Figure 1. Error! No text of specified style in document. Technology

Source: Mandeep & Gursharan (2011)

Technology means scientific principles applied to practical task for specific outcome. Thus, technology has the following characteristics:

- _ Technology is based on the theory of feedback
- _ It has three components-input, process and output
- _ It makes human tasks effective as well as efficient

_ Technology indicates the use of machines or engineering

_ It does not produce anything but it is used for specific outcomes.

The questions, "how we can teach efficiently?" can only be answered by technology. The use of machines and technology makes educational process more efficient, economical from time, energy and money point of view. The application of technology in teaching-learning tasks makes education efficient as well as object cantered. The basic concept of Technology in Education' is also termed as "Education Technology".



Figure 1. Error! No text of specified style in document..1: Education Technology

Source: Mandeep & Gursharan (2011)

The main features of educational technology are:

_ The major emphasis is on the use of machines in teaching, training and instruction such as radio, television, computer etc.

_ It has shifted the emphasis from learning to teaching in educational context.

_ It includes all the concepts such as technology of education technology in education system approach.

_ The major feature is to use media in education.

_ It establishes close relationship between teaching and learning in view of achieving educational objectives.

_ It employs hardware, software and system approach in the process of education to make it effective as well as efficient.

Education is the development of the power of adaptation to an ever changing social environment. Technology is a science of techniques and methods of doing things related to any art, science or a profession. Educational technology could be considered as a science of techniques, methods and media by which educational goals could be realized put in simple words, it is nothing but a communication process resulting from the adaptation of the science method.

Technology has come to stay. It has extended human capabilities, which is fundamental to the successful use of technology. In other words, "increased productivity is a function of human abilities extended through the soft (methods) and the hard (equipment) components of technology. Kersey (1984) goes on to quantify productivity as:

Increased Productivity = Human Abilities + Soft Technology +Hard Technology

Twentieth Century "has been rightly remarked as the Computerized Century. Technology in the form of computers introduced a very important instructional capability. Though in 19th century, it was developed as a calculating tool. But in the 20th century, it has brought a revolution in the field of education with the use of computers for instructional purposes. Computer assisted instructional system is a common educational practice the west at all levels of education. Multi-media in education and training have enhanced the quality of education in various educational organizations and training institutes. Recently Japanese technology has introduced some of the educational technology devices such as laser video disc player and recorder, national language processor, speech synthesizer and Robotic talking computer. These are also very useful as interactive learning devices in language teaching and research.

Scientists and engineers in the developed countries have entered the educational scene, particularly in language teaching to hasten the development of instructional technology. Educational technology in its wide sense includes the development, application and evaluation of systems, techniques and aids in the field of learning". Educational technology-based approach can certainly help to improve the efficiency and effectiveness of the teacher learners and teaching process.

Furthermore, technological-based method is an application of philosophical, sociological and scientific knowledge to teaching for achieving some specific learning objectives. It implies the input, process and output aspects side by side. All the three types of objectives, cognitive, affective, and psychomotor can be achieved by this technology. The teaching can be organized from memory level to reflective level. Teaching technology can be used formulate teaching theories. The pupil teachers and in- service- teachers can improve their teaching and make it more purposive by the teaching technology.

Moreover, instruction has significant role in human learning because most of the human learning is accomplished through instruction. The systematic actions which induce learning are known as instruction. Instructional technology means a network of techniques or devices employed to accomplish certain defined set of learning objectives. It implies an application of psychological, sociological and scientific principles and knowledge to instructors for achieving the specific objectives of learning. The learner gets an opportunity to learn according to his own pace. Thus, the individual differences can be controlled through this technology. The instructional theory may be developed by using this technology in learning process. According to Murin (1970), instructional technology is defined as a systematic way of designing, carrying out and evaluating the total process of learning and teaching in terms of specific objectives based on research, on human learning and communication and employing a combination of human and non-human resources to bring about more effective instruction.

In addition, behavioural technology is an application of scientific knowledge or modifying the teachers' behaviour. This is also termed as training technology. The theory and practice of class room teaching behaviour are included in behavioural technology. It is not confined, only to study the classroom teacher behaviour but mechanism of feedback devices for modification of teacher behaviour are also employed for developing teaching skill s and competencies. Behavioural technology has the focus to achieve the psychomotor objectives. The specific teaching skills can be developed. It may be helpful in developing the theory of teaching.

Discussion

The main purpose of teaching Arabic as a mother tongue is to develop the students' communication skills. A lesson in Arabic is a failure if it does not nurture a gamut of skills. Therefore, it is very much needed to teach Arabic taking into account nurturing a variety of skills, including but not limited to, creative thinking skills. Arabic teachers might find teaching technologies fruitful in developing such skills. An instant of technological programmes is the use multi-media tools. That might have an impact on the effectiveness Arabic teachers in training creative thinking skills. Technologies, especially, instructional technology, play an important role as the handiest materials in the hands of teacher of Arabic. Technology made the lesson interesting, capture attention, impart first hand multisensory experience and increase students' participation in learning. Therefore if the development creative thinking skills is part of the programme, the use of technology might lead to more effective method to achieve this objective. As such, this study provides an avenue for future research. That is to say, it set a research agenda.

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