

The Variants that Effecting Creative Thinking Skills of Music Teachers

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ABSTRACT The objective of this research is to examine the viewpoints of music teacher candidates on activities about creativity in singing during pre-school music lessons and offering a number of suggestions for the music education program designers by making use of the results. The scale used in this research is applied to 124 students studying at various levels at Atatürk Faculty of Education (Department of music) Marmara University, during the 2014/15 academic year. In the light of the findings this research has concluded that the candidate teachers are aware of the necessary measures of creative activities in pre-school music education, and that they are capable of coming up with a solution to possible problems that can arise in music education. It is detected that the students who took the “general approaches in pre-school music education lessons”, have developed more of an awareness of creativity than those who did not.

INTRODUCTION

Nought to six year age period (pre-school years) is the impressionable period. This is the time the child builds the foundations of learning. Pre-school education is paramount in moulding the child, not only in educational terms but also its mindset and for the future. Education received in the early periods of life will inevitably affect the success to be achieved during one's life (Temiz 2006).

Appropriate for their personal skills and improvement levels, pre-school period education is the basic education which directs and supports the physical, emotional and social development of children between the ages (0-6). Generally, while children of 0-3 age take education in crèches, those between 3-6 receive their education in kindergartens.

We may define pre-school education as ‘systematic education’ where instructors and parents get actively involved and children are made to feel confident. It is also in this period that their creative skills are developed as well as positive personalities (Ministry of National Education 2012).

During pre-school education children have developed 80 percent of their intelligence by the time they are 7 years old. Development stages include joining groups, developing healthy relationships, protecting cultural values and socializing with peers. At this stage children have developed a healthy vocabulary and pronunciation. Because family can't do this alone, pre-

school education which provides children with an environment where they can spend time with their peers and maintain their physical and mental development is compulsory and of vital importance (Ministry of National Education 2012).

Music Education in Pre-school Period

Music is one of the most efficient and important techniques that supports all of the development areas of children and is used in the education of children that require normal or special education needs in pre-school period. Musical development at early ages largely depends on planning children's skills, knowledge, comprehension and cultural background according to their learning needs. In this period, the purpose of music education is to minimize the differences in their development which may result from a diverse social environment and lead to a lack of opportunities in primary school, and which help them with their kinetic, sensual and cognitive development, to approximate development line of children and to prepare them for basic education by providing the development in their native language (Choi 2007).

Children who are familiar with music gain a new point of view during their learning process with music. Children who are interested in music are quite different in demonstrating their creative skills, being more productive, assuming responsibility and developing self esteem.

Music education is an unseperable part of contemporary education, performed and regu-

lated in the frame of science, art and technique. Contemporary education practices are those that consider interests and skills of the students and where rich education environments are offered to meet each individual's development and learning skills. Music education which is an unseparable complement of contemporary education "is a process of purposeful development or alteration of musical attitudes of individuals via their own living or of creating purposeful specific changes in individual's musical attitudes through their own living" (Uçan 2005).

The ambition in music education is to place music in children's lives while expressing him/herself without being realized, because music is actually a playmate which is satisfied in a purposeful education. Thus it has a most beautiful expression in children's language.

While musical activities are regulated, admiration and requests of children must be concerned (Temmerman 2000). In order to take positive results from music lessons, it is considered that the activities easy to conduct should be preferred and that teachers avoid the approaches that may push or bore students. "Music education is an efficient dimension in development phases of people and it has positive effects in all the other phases that follow" (Özdemir and Yildiz 2010; Tas 2011).

With a well prepared music education program, children may understand the meaning and pleasure of life, and what it is like to live in a class environment, society and the world. They may make national or world history meaningful. Their creativity may develop different kinds of thoughts of activity and positive improvements in their attitude can be observed (Çilden 2001).

Creativity

Nowadays many a definition of creativity is made by scientists and creativity is defined diversely. However, the common ground on which the scientists meet defining the concept is that creativity is making something new and different or it may be evaluated depending on an observable product (Erdogdu 2006).

According to Freud, creativity in terms of physico analytics is the ability of creating imaginary products and having the ability of finding new and available solutions. Imaginaries are the comprehension process of designs of unreal objects and events. This process which produc-

es unreal designs is a creative acquisition and it finds answers to questions and requests never thought before (Bozkurt 1995).

Slochower examined the processes of creative phases in two stages. He views inspiration and sub-consciousness as the first phase. The creative process may show itself to be visible in any place and time as part of your imagination, fantasy or deep thought. He sees imagism and supraliminal perception as the second stage. In art and culture, it is essential to turn the creative process into some sort of an image. Imagism and creativity functions depend on the role of sub-consciousness during the creative process. Imaginary needs of people results from their not being satisfied in physical life (Yavuzer 1994).

Maslow himself distinguished creativity that necessitates innate aptitude and self realization from personal characteristics. The latter is defined as realizing something in a creative way and is regarded more like humor than a great work of art. According to Maslow, a creative individual manages to see things in a way that a child sees them. What matters is being able to catch this point of view (Sungur 1997).

Creative Thinking and Education

In a fast growing and changing world today, creative and productive persons having the ability to solve problems using a different point of view are needed. Especially in education community, productive teachers are needed who never cease to work, keep themselves and their students updated with what is new. In this context, the education given in schools must be open to development and making difference. What is education then?

Education is cognitive, emotional and kinesthetic gains of what has been experienced in life, be it outside or inside one's self, and a development process which helps one to prepare themselves to life in a purposeful and permanent manner (Gelen 2005).

It is revealed through many a study that there is a reverse U – function between the relationship of creativity and formal education. It is maintained that as the education level increases, the level of creativity increases to an optimum level which is then followed by a period when creativity declines during continuous formal education. The milestone is observed in secondary education, senior high school and entrance to higher education (Tekin 2008).

Creativity is a means of expressing both emotional and intellectual life. A creative activity does not form by itself. It is a constant method which becomes a life style with encouragement and guidance. In creativity there are unique characteristics, such as being original, extraordinary, exceptional, and uncommon and being in another shape different from what it always was. Creative individuals bear unique characteristics, such as readiness to learn, fluency in language, intellectual fields and connotations, flexibility and being free in thoughts, ability to use imagination, test, research, question, find and get rid of stereotypes and create new ideas, volunteer to face what is new and different, and take risks (Adigüzel1993; Verber1979; Ömeroglu 1990).

According to Rawlinson, the most frequent criticism of education systems in less developed countries is “their being lack of creativity”. Of the factors that contribute to the sacrifice of creativity in the name of developing other skills and abilities are the routine attitudes children are made to develop during their school period towards education (Tekin 2008).

Creative thinking is the association of the objects or thoughts which have never associated before. The point to be made here is that as many as 22 creative thinking is derived from the already existing objects and thoughts (Rawlinson 1995).

Moran et al. (1983) found out that pre-school students show more original expressions than their elders between the ages (9-12). These findings indicate that the students having spent more time in formal school lessons are adversely affected by the primary school education programs that do not allow for any thought of original kind. Pre-school students, however, have not yet encountered these pre-structured formal schools that are governed by strict rules (Moran et al. 1983).

The Role of the Teacher in Creative Education

In creativity education, the teacher must hold a relaxing, far-seeing, productive and collaborative position. The teacher should be a good observer and offer different materials to children and prepare the activities together.

Creativity is a skill which can be developed and is revealed under appropriate conditions. In developing and providing a true education environment, the teacher plays an important role. In

order to discover the creative potential of children and educate creative individuals, teachers themselves should have the ability to think creatively and have the knowledge of planning creative lessons. Teachers must gain these knowledge and skills during their years in school (Gürgen 2006).

Problem

In terms of which variables the creative thinking skill scores of students studying at music teaching department display a significant difference?

Based on the fundamental problem stated above, the study seeks to investigate whether the students’ scores in creative thinking skills show any significant difference in terms of level of age, level of class, basic instrument, gender, the education level of parents. Of the variables explored are whether or not the target population received primary school education and took any lessons related to the pre-school education during their years at university.

METHODOLOGY

Since the research is aimed at revealing an existing situation, it bears the quality of a survey model.

Universe and Sample

The universe of the study is composed of the students of Atatürk Faculty of Education Department of Fine Arts Education Department of Music education, Marmara University during 2014-2015 academic year. The research sample is made up of 124 of these students who were then available.

Data Gathering Tools

The creativity scale “How creative are you?”, developed by Raudsepp (1977) is translated into Turkish as “Ne kadar yaratıcısınız?” by Çoban (1999). There are 50 expressions in this scale, which is designed by taking into account the attitudes of individuals, values, interests, motivations, personal characteristics and many other variables. This scale consists of a range of options, such as strongly agree (-2), agree (-1), neutral (0), disagree (1) and strongly disagree

(2). According to each expression, the options above have a score. Then by collecting these scores, the creativity scores of the participants are sought to be revealed. Scale scores below suggest that; the ones getting the scores between 100-80 have high creativity level, those getting between 79-60 have above the average creativity level, those getting between 59-40 have a fair creativity level, those getting the between 39-20 have under the average creativity level and the ones who get the scores between -19 and -100 are not creative. The reliability factor of the scale is found Cronbach Alpha; 0.95 (Tekin 2008).

In order to determine some characteristics of the socio-economic levels and educations of students, a survey with 10 questions is prepared by the researcher and applied to sample group students with creative thinking scale.

Analysis of the Data

In order to test the differences in creative thinking scores of sample group students in terms of the variables in the survey, independent Grp t-test, Mann-Whitney U test and Kruskal-Wallis test are each administered.

RESULTS

According to these results, potential music teacher participating in the sample group Creativity score average of the students is 35.42 and in this scale minimum score is 5.00, maximum is 67.00 (Table 1).

Table 1: Illustrative values of the creativity scale for the application group

<i>n</i>	<i>Minimum</i>	<i>Maximum</i>	<i>x</i>	<i>S.S.</i>
124	5.00	67.00	35.42	15.28

There is a significant difference in favor of males as a result of independent t test scores of

creativity of the students in the application group in terms of their gender ($t=2.77, p<0.01$) (Table 2).

Table 2: The results of independent t test administered to the creativity scores of the students in the application group in terms of gender

<i>Gender</i>	<i>n</i>	<i>Average</i>	<i>S.S.</i>	<i>t (df = 120)</i>	<i>p</i>
Male	54	39.63	13.75	2.81	$p<0.01$
Female	70	32.17	15.70		

There is a significant difference in Tyranny Tendency Scale as a result of Kruskal-Wallis test administered to the scores of creativity in terms of the students' level of class in the application group ($\chi^2=15.48, p<0.01$). In order to figure out in which class levels there is a difference in terms of creativity scores, Mann-Whitney U and independent Group t test technique is used (Table 3).

Table 3: The results of Kruskal- Wallis test administered to the creativity scores in terms of level of class

<i>Class</i>	<i>n</i>	<i>Average Sequence</i>	<i>Chi-square (df=4)</i>	<i>p</i>
Class 1	24	69.67	15.48	$p<0.01$
Class 2	16	57.13		
Class 3	18	59.17		
Class 4	36	47.00		
5 and above	30	80.23		

There is a significant difference between the student's creativity scores of class 1 and class 4 in favor of class 1 ($z=2.18, p<0.05$).

There is a significant difference between the student's creativity scores of class 2 and the ones in their leap year in favor of leap year students ($z=2.40, p<0.05$).

There is a significant difference between the student's creativity scores of class 3 and the ones in their leap year in favor of leap year students ($z=2.22, p<0.05$) (Table 4).

Table 4: The results of Mann Whitney U test administered to the scores of creativity scale of students of different classes

<i>Type of high school</i>	<i>n</i>	<i>Average sequence</i>	<i>Total sequence</i>	<i>u</i>	<i>z</i>	<i>p</i>
Class 1	24	36.50	876.00	288.00	2.18	$p<0.05$
Class 4	36	26.50	954.00			
Class 2	16	17.00	272.00	136.00	2.40	$p<0.05$
Class 5	30	26.97	809.00			
Class 3	18	18.72	337.00	166.00	2.22	$p<0.05$
5 and above	30	27.97	839.00			

There is a significant difference in the results of independent group t test of creativity scores of leap year students who still receive education and class 4 students and the difference is in favor of leap years students ($t=3.71, p<0.001$) (Table 5).

Table 5: The results of independent group t test administered in terms of gender to the creativity scores of class 1 and leap year students participating in the application group

Class	n	Average	S.S.	t (df = 120)	p
Class 4	36	29.33	14.53	3.71	$p<0.001$
5 and above	30	43.20	15.61		

DISCUSSION

There are no significant differences between the creativity scores of the students in terms of level of age, level of class, the high school they graduated from, their basic instrument, gender, the education level of their parents, and whether or not the target population received primary school education and took any lessons related to the pre-school education during their years at university.

In a study entitled “An Evaluation of the Relationship Between the Learning Domains of “Musical Perception and Acquainting” and “Musical Creativity” based on Teaching Programme of 2006 Primary Education Music classes of Sixth Grade Level”, Aras (2010) examined the stages, vision, the core approaches, core skills and values, teaching methods and techniques and learning-teaching process of the 2006 Elementary Music Class Teaching Programme. Aras also carried out a literature review on the subject. Sample of study; comprised of classes 6-A, 6-C, 6-E, 6-G at Erzurum İMKB İnönü Elementary School. Observation method was employed and data obtained was analysed in accordance with frequency (f) percentage (%) analysis. The research concluded that an assessment of the relational situation between the learning domains of B. Musical Perception and Enlightenment and C. Musical Creativity revealed supporting and complementary aspects of both domains.

In a study entitled “The Effects of Creative Drama on Acquisition of the Attainment of musical Creativity Learning Domain in Third Grade Music Lessons in Primary Education,” Sever

(2010) determined whether there was a significant difference between the obtainment of the learning outcomes of the 3rd Year Music Musical Creativity Class in terms of the influence of the forseen method when compared to the Creativity Drama method. For the purposes of the research, control grouped pre-test/post-test was used as an experimental design model. The working group of the research was formed of two groups of 3rd year students at an Elementary School in the province of Bolu. The study comprised of 52 students in total; 22 in the Experimental group and 30 in the Control group. Evaluation tools developed in line with the pre and post learning domain outcomes were implemented with the aim of determining whether there was a significant difference in the acquiring of the students’ Musical Creativity learning domain outcomes. The data was analysed and collected by experts. SPSS the statistical programme was used for the statistical interpretation of the data obtained and in addition to core statistical procedures, the t-test statistical technique was used for all sub-problems depending on structure. According to data obtained, there was a significant difference when the post-test scores were examined between the group who had been taught with the Creative Drama method and the group who had been taught with the planned method. There was a significant difference in favour of the Creative Drama method. Thus it was concluded that upon comparison with the planned method, the Creative Drama method was deemed to be more effective than the other method in the obtainment of the students’ Musical Creativity learning domain outcomes.

The study of Kandemir (2009) entitled “The Effect of Improvisation Work Using Orff Approach on Primary School Music Education,” was realised with the aim of investigating the effect of the Orff approach in classroom music teaching on the musical creativity process with reference to improvisation work. The study was also carried out with a view to putting forward recommendations about the curriculum for elementary level music classes. The overall aim of the research was to determine the effect of improvisation that used the Orff approach on the development of musical creativity. For the purposes of the research, pre-test/post-test was used as an experimental design model. The Khatena-Torrance Creative Perception Inventory (KTCPI) developed by Joe Khatena and E. Paul

Torrance a self report measure of creativity comprising of two sub-tests was implemented on the experimental and control groups at the pre-test stage. Subsequently improvisation work was carried out on the experimental group using the Orff approach for a 6 week duration whereas the control group was exempt. The post-test stage of the research witnessed the implementation of the same scale on both the experimental and control groups with the aim of determining whether improvisation work using the Orff approach had an effect or not on the musical creativity of the students. Mann Whitney U and Wilcoxon tests were used in the analysis of the pre-test and post-test results. According to the statistical results, the musical creativity of the students in the experimental group who had been taught with the Orff approach witnessed an important increase whereas the level of musical creativity in the control group remained witnessed no change.

In their study entitled, "The Influence of Pre-School Education on Creative Thinking Ability," Yapar and Aral (2010) aimed to examine the creative thinking of the creative thinking ability of children who had attended pre-school and also of children who had not. The research for the study was realised at central Ankara based elementary schools and focussed on a group of pupils aged six who were in the nursery class at school. The sample of the research comprised of 210 children, a combination of those who had attended pre-school education and those who hadn't, randomly selected from a total of eight schools. A "General Information Form" was used to obtain information regarding the children and the "The Test for Creative Thinking - Drawing Production Test (TCT-DP)" which was developed by Urban and Jellen (1996) and used by Can-Yasar (2009) on Turkish children under the age of six was implemented with the aim of ascertaining the creative thinking level of the children. The Mann Whitney U-Test was used to analyse the relationship between the pre-school status, gender and creative thinking ability of the children. The research concluded that the creative thinking score of children who had attended pre-school was significantly higher than those children who had not ($p < 0.05$). It was also found that the gender of children was not an important factor where the level of creative thinking was concerned.

In a study by Ömeroglu (1986), the relationship between IQ and creativity is tested on 70

students who go to kindergarten. In the research the relationship of intelligence and creativity levels of children between the ages of 5-6 is examined by using a form test of Torrance test of creative thinking with figures and Stanford-Binet intelligence test. A relationship between intelligence and creativity level of children has been detected. However, this relationship is not a strong one. At the same time, Ömeroglu maintain that age does not affect the relationship between intelligence and creativity. In the research it is observed that all dimensions of creativity have a strong relationship with one another (Tekin 2008).

Dinçer (1995) searched the relationship between the attitudes of parents and creativity on 5 year old students who go to kindergarten. The research is fulfilled with data obtained from 50 students, 23 female and 27 male, and 44 father and 50 mother. For the evaluation of creative thinking, Torrance test of creative thinking has been employed. While "Information form" is used to gather general information about the families, "family life and child rearing attitude scale" is made use of to assess family attitudes of both parents. As a result, although there appears some significant relationship between family attitudes and creativity of 81 participants, these relationships are not very strong. The children of the fathers with a graduation from primary school are less creative than those of the fathers having university degree. When comparing the creativity scores of male and female students, there is a significant difference in favor of females in terms of enrichment (Tekin 2008).

Gönen et al. (1997) searched the effects of gender and age on creativity with 60 students of both male and female aged between 5-6 who go to kindergarten and did not find a significant difference. In flexibility, originality and enrichment scores, females were ahead and in fluency males get much higher scores than females (Tekin 2008).

In a research, Davasligil (1984) emphasizes that creativity is an important dimension of learning. He also stresses that creative thinking in gathering information has a vital importance because the environments appropriate for the development of creativity are efficient incentives for children to develop positive attitudes towards learning and making learning a fun (Tekin 2008).

Bound to limitations, formal education, the one received at school, brings about the creation of an education system based on rote-learning and sterilization of thoughts. It destructs

active education and knowledge enhancing productivity.

Thinking about the purpose of creative education, one may come to conclude that it is the revelation of creative potential in humans and the provision of the desired environment for such a task. Any kind of education that supports creativity and originality will help the student to make a difference in other people's eyes, to express himself/herself in a different way and to step to the fore.

CONCLUSION

There is a significant difference in favor of males creativity of the students in the application group in terms of their gender.

There is a significant difference in Tyranny Tendency Scale scores of creativity in terms of the students' level of class in the application group. There is a significant difference between the student's creativity scores of class 1 and class 4 in favor of class 1. There is a significant difference between the student's creativity scores of class 2 and the ones in their leap year in favor of leap year students. There is a significant difference between the student's creativity scores of class 3 and the ones in their leap year in favor of leap year students.

There is a significant difference in scores of leap year students who still receive education and class 4 students and the difference is in favor of leap years students.

RECOMMENDATIONS

1. Creativity can be developed in all students. In order for students to be more productive, active rather than passive teaching should be employed. Active education should ensure that students express their emotions and creativity more easily in a democratic environment.
2. Creativity developing methods and approaches should be incorporated into the curriculum of "Music Teaching Methods" and related classes in institutions that train teachers. Individual talent should be brought to the forefront whether it be in the teaching of musical instruments or vocal training. Studies should not solely be knowledge-based but studies should also be carried out to increase the level of creativity.

Empirical studies that research the role of creativity in education nationally should be carried out.

3. Vocational seminars focussing on the integration of teachers' creative disciplines with music should be given and creative music classes should be offered on Undergraduate Programmes for trainee teachers.
4. Studies on the internalisation of music should be carried out and teachers should be introduced to teaching approaches such as Orff Schulwerk, one of the unique music teaching approaches, that incorporate different methods.
5. The opportunity for students of music education and pre-school education departments to be taught jointly should be realised and creativity enhancing tutorial work should be undertaken for students of both departments. Through the tutorial work in question, trainee teachers should steer students towards performance that motivate, differences should be embraced, moulds should be broken and innovation should be welcomed.
6. More importance should be given to creative work that develops the improvisation and drama skills of music education department students in performance-dance music classes. For the purposes of their own personal development and their teaching career, the employment of different practices by the trainee teacher should be ensured to unearth the characteristics of pupils who will be taught. On this issue teachers should benefit from the imagination and inspiration of students but must first themselves be open to development.

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