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# Picture of the creativity

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#### **Abstract**

Lots of thing can change with the magic word called creativity. In modern world, which change and develop so fast, people face various and different problems. Torrence (1968) describes the creativity is to find original and new solutions to the problems. In this context, creativity can be evaluated as the key of problem solving, analytic thinking and learning process. Creativity concept plays an important role for teacher training programs that grow the architect of the future. The purpose of this study is to determine the pre-service teachers' ideas/opinions and evaluation about the creativity. Researchers asked to the pre-service teachers four questions; "Do you think that you are creativity person or not?", "Do you know a person who is creativity and why he/she is creativity according to you?", "What are the characteristics of creativity persons?", "What is the creativity according to you and draw the creativity picture." Descriptive analysis method was used for analyzing the results. Research results show that the opinions of the pre-service teacher regarding creativity show parallelism with the body of literature data. In this article, the results pertaining to the pre-service teachers' opinions before they took the creativity lecture is interpreted. Views on 14 weeks of lecture are also collected.

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#### 1. Introduction

Creativity is the rising value of our century. Schools of today aim to raise innovative and creative individuals that will fulfill the requirements of 21<sup>st</sup> century. Creativity should not be regarded as a special talent tailor-made for special people. Creativity can be developed and support of this process from early childhood is also essential. Enriching attitude of parents and pre-school teachers is a determiner in the process of creativity development. However, knowledge and perception of teachers in the creativity context should also be questioned in this process. It is because the creativity foundation of teachers will affect their teaching skills directly. Therefore, teachers should develop awareness in improving their own creativity. Training of teacher candidates in the subject of creative thinking increases the possibility for them to become creative teachers. Diploma programs that train teachers should be enhanced in developing creativity levels. It's especially important for these programs to make teacher candidates

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to feel the need to improve their creativity. Children can move their creativity levels to the highest levels with the creative learning environment formed by creative teachers.

Torrence (1974), who has developed tests of creative thinking, describes creativity as being responsive to problems, insufficiencies, lack of information, unavailable elements and inconsistencies and as identifying challenges, searching for solutions, making predictions, building hypothesis regarding deficiencies or changing hypothesis, choosing one of the solution methods and trying, trying again and presenting the results afterwards (as cited in Aslan 2001).

Aslan (2001) also defines creativity as a cognitive process that has emerged as a talent dependent new and unique product which involves specific problem solving processes in a person that uses elements of intelligence for unique production.

Torrence and Goff (1989) stated that creative thinking is not a singular talent; but, it contains many talents within. Taking something from its simple form and detailing, enriching and developing that something and describing it different than others and conventional ways are characteristics of creativity.

The purpose of this research is to identify the opinions of pre-school teacher candidates about creativity.

## 2. Methodology

#### Sample

65 pre-service teachers training in Hacettepe University Faculty of Education Pre-School Teaching sophomore year and taking "Creativity and Development" classes are included in the study. 86% (n:56) of study group consists of female and 14% (n:9) consists of male pre-service teachers.

#### 2.2. Research method and material

Mix method is applied in the research where quantitative and qualitative data are used together. Interview method which is one of the data collection methods of qualitative studies is used as a data collection tool. Sophomore students training in pre-school teaching department are asked four questions before they were given any information about creativity about "definition of creativity, properties of creative individuals, whether they think of themselves as creative persons, and whom they find as creative persons" and asked to paint a picture of creativity. Besides that, Torrance Test of Creativity A Form is applied to pre-service teachers in the first stage of the research. After 14 weeks of creativity classes, same questions were asked again and it is also asked to repaint the picture of creativity but this time Torrance Test of Creativity B Form was applied. In this article, answers of teacher candidates before they took the creativity class are discussed only.

#### 2.3. Data management and analysis

Interview texts in the interview form pertaining to participants collected for data analysis are inspected through descriptive analysis method, grouped under related titles and their frequencies are identified. The pictures painted by participants are combined with definition of creativity.

### 3. Findings and discussion

Opinions of pre-service teachers in the study group on "what creativity is" are in Table 1.

Table 1. Definition of creativity by pre-school teacher "before the creativity class"

Definition of Creativity. "What is creativity in your opinion?"	f
It is to connect the parts in a meaningful way by looking in different angles, it is the difference by exhibiting his/her own ideas, it is to think differently, to break the taboos and unleash the thought	20
It is to escape boundaries, corners, to force the limits of mind, it is challenging edges that human mind can reach	15
It is to create solutions, ideas, it is many thought that come to mind when something is said, to reflect ones point of view	12
It is to be black when everyone else is white, it is being different from everyone, it is to interpret what everyone sees as "A" as "B", seeing different things in the same thing, it is being able to be the Little Prince	11
It is to open a window with a view that no one else can see. To see light in the darkness, to use existing things out of their purposes, remold with imagination	10
Creativity is an incomprehensible complexity, it is a live, abstract concept and is personal, it cannot be fit into concepts	7
It is everything you lived throughout your life, the things you fit into your imagination, your expression, it is one's co-thinking real life with imaginary world and present some ideas, it is creating new colorful things out of real life events	7
It is contemporary thinking, new tricks to old dogs, mixing coffee with a toothpick	4
It is a way of thinking, developing thoughts and thinking in multiple dimensions	4
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It is presenting nonexistent things, innovation, connecting one's things to tell to a visual or written result	4
Intervening to the rules of life and making them an enjoyable process, deciding for your own self regardless of the majority and being happy	3
Presenting an emotion, curiosity and question marks, madness	3
It is an action emerging out of needs, it is the fulfillment of blanks in human life	2
It is the complete personal method of understanding	2
It is the latest stage human brain can reach. It is the transformation process of abstract knowledge into concrete, inventing new things in the	2
brain with thoughts and bringing up innovations	
It is like a universe without any dead ends, a space.	2
It is a universal thing emerging with challenging the limits of brain, universal subject without limits, it is a phenomenon starting in human	2
brain and continues as the mind being used	
It is creating a new "me" out of yourself, expanding one's horizons	2
It is to be able to make jokes	1

According to the findings in Table 1, pre-service teachers defined creativity as *being different* (20), *knowing no limits*(15) and *producing solutions, problem solving* (12), *being different* (11), *imagination* (10).

Answers of teacher candidates to the question "What are the properties of creative individual in your opinion?" are presented in Table 2.

Table 2. Definition of the characteristics of creative individual by pre-school teacher "before the creativity class"

Characteristics of a creative individual. "What are the characteristics of a creative individual in your opinion?"	f
One who can think differently and a lot, one can make brainstorming	47
Designer, productive, presenting, inventing	21
Different, finds original ways out, interpreter, genuine	18
Making use of waste, enhancer of the existent, using his/her things logically	18
Positive, happy, fun, alive, interested, cozy	16
Takes responsibility, unselfish, problem solver, directing his/her own life	15
Imaginative, emotional, excited	14
Smart, has practical intelligence	13
Curious	12
Colorful view of life, possess a child's spirit, wide horizon, not detached to his/her time, connected to life	12
Likes to research, hardworking, knowledgeable	9
Adaptive to changes, open to changes and development	9
High self-esteem and high self-respect	9
No boundaries, wants more	7
Expresses his/her thought in spite of oppression, unyielding, won't give up on his/her ideals, the one being laughed at	7

Focusing multiple objects at once, intensive, versatile, uses every inch of senses, working	6
Different stature in the community, walking the path of his own way	6
Determined, stubborn, resolute	6
High communication skills, open minded	4
Attentive on details, aware of everything around, observant, meticulous	4
Patient	4

Aware of his/her surroundings, not looks but sees	4
Likes surprises, games, makes jokes	4
Free, brave, closes ears to criticism	4
Travels a lot, different environments	3
Talented, experienced	2
Realizes himself/herself	2
Unprejudiced	1
Self-criticizes	1
Energetic	1
Collects	1
Sleeps less	1

Participants defined the characteristics of a creative individual mostly as *thinking differently* (47), *designing* (21), *being original* (18) and *making use of residual material* (18).

Creativity concept was taken as a concept and process by researchers, educators and thinkers since the second half of the 20<sup>th</sup> century. People that are interested in creativity pointed different aspects when defining creativity related topics. Yavuzer (1989) have explained creativity with characteristics forming innovation in science, different pieces in fine arts, and new inventions in industry in this context. As much as creativity was described as a product, process or a personal property for some points of view, the consensus states that creativity is a process of "presenting something novel and unusual." Thinking differently than the majority, daring to try new ways and originality are the main properties of the creativity definition (Torrance and Goff, 1989).

To the question whether they find themselves creative, 45% (n: 29) of the participants replied as yes, 23% (n: 15) as partially yes, 32% (n: 21) as no. When the question "Is there anyone you think that is creative?" and "who is if there is?" was asked, and (35) of them answered family members, their teachers (8), artists (7) and 4 of them said they find their friends to be creative. Other than these answers there were participants that stated that they think kids (7), scientists (1) are creative and 8 people said that there is no one creative that they know of.

52 of the teacher candidates answered yes and 13 of them answered no to the question "can you paint the picture of creativity?". Breaking the taboos, state of happiness, easing the life, fitting so much in a frame, filling the blanks, expression of the imaginary world, holding on to foundation, being different, point of view, shaping, colorfulness, seeing the unseen, opening a window, madness headlines were involved in creativity paintings.

Torrance (1965, 1974, 1987, 1989), Torrance and Safter (1999), Aslan (2001), Okutan (2012) defines creativity with characteristics such as curiosity, hypothetical thinking, richness of imagination, fantasy, emotional storytelling, verbal and intellectual fluency, redefining, humor, metaphor, breaking taboos and habits, creating unusual situations, abstract thinking, synthesizing (relating, making meaningful connections), fast and various thought production, focusing on details, being original and staying away from the obvious, bewildering, outstanding visual perspective, inner visualization, strong memory and positive memory perception, unconventional responses, unreal perceptions, focusing attention, connotation skills, risk taking, liking intellectual and conceptual topics, independent thinking, spontaneous memory, unconventional point of view, storytelling with lines, etc.

Participants in the study group included the same collective consensus definition in their own answers. In the study which Yıldırım (2006) published, opinions of 30 pre-school teacher was inspected, 7 of them defined creativity as *original thought and behavior*, 4 of them *different interpretation of thought*, 3 of them *innovative thinking and superior intelligence* and 2 of them as *high imagination level and making use of residual material*. In the same research, 57% of them defined themselves as creative and 43% of them the other way. When asked of reason why they find themselves creative, they answered as *being involved in different activities, genetic tendency, problem solving skills, having a hobby*. In the context of this research, opinions of participants before the 14 week lecture is compared to their opinions afterwards, but this article is limited with the first opinions.

## 3. Conclusion and implications

In many studies about creativity, it is often stated that the relation between teachers' opinions of creativity and the level of creativeness of children should be considered. Through training teachers about creative thinking before and during service, schools can be enhanced to a quality that will focus children on learning. Creative schools are

kid-friendly schools that prioritize children's interests and needs, enables kids to express their own preferences, freely and originally. As these schools can only be functional with the involvement of creative teachers, it is necessary to improve teachers' knowledge and experience about creativity. University lecture programs are only an instance of these opportunities. Creativity lecture that is presented in graduate level should be in compliance with the nature of the lecture and flat and monotonous lecturing must be avoided. Avoiding approaches that arise from mixing creativity concept with other disciplines (i.e. art and creativity) and that limit creativity concept in certain patterns will enable pre-service teachers to develop a more visional point of view.

Sample of the study is limited with the pre-school teaching department sophomore students (grade 2). Longitudinal studies may be executed in the future researches with similar questions. When creativity is considered as emerging worth, it is an important phenomenon for all occupational groups; when it is considered that the teachers are architects of future in these occupational groups, during undergraduate study of pre-service teachers, studies including process and classes in respect of gaining and changing creativity concept are practicable. Also, may be applied to other faculty of education students. Comparisons between creative thoughts of pre-service teachers to engineer, doctor or economist candidates can be made by applying a similar research to other faculty's students. Same research may also be applied to pre-school kids and the opinions of children and teachers on the concept of creativity can be inspected.

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