Determining the Opinions of Preschool and Primary School Teacher Candidates on Creativity and Metaphorical Perception*

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Abstract

Aim of this research is to determine the opinions of teacher candidates about creativity and to reveal their perception of creativity concept through the use of metaphors. The data have been collected from 193 Preschool and Primary school teacher candidates and a survey, which had been prepared by researchers, has been used as the data-collecting tool. It is seen that teacher candidates see creativity as creating different, extraordinary, and genuine products. Teacher candidates see thinking skills, genuineness and innovation as features of a creative person. Teacher candidates think that not everybody can possess creativity and that it is an improvable and learnable feature. While it has been determined that there is a significant difference between gender, branch and the number of the books read in a year in respect of creativity, it is seen that 4th grade students have more positive opinions than other teacher candidates who are interested in painting.

Key Words

Preschool Teacher Candidates, Primary School Teacher Candidates, Creativity, Metaphorical Perception.

"Change" is one of the concepts that gained importance in twenty first century. Change brought about innovation and learning. Embracing concepts like upbringing of individuals for information society, innovation, creativity, growth, and self-realization constitute the basis of change. New values regarding the nature of information, and changes in their learning and teaching processes have taken place. Everyone has a different way, speed and capacity for learning. Thus, it is seen that humane approach stands out in new education paradigm. That is why curriculums tend to be flexible, changeable, participation-based and planned as basic frameworks, and teachers' authority to make changes on them tend to be expanded. Thus, these curriculums have features that improve the individual skills of the children along with their communication skills, their competencies to work in a team, their senses, creativities and imaginations.

The creativity has been getting very popular in education and business life in recent years. It is seen as one of the most needed skills in business life (Friedman, 2005) and as a key feature in creating educational environments that enable creative thinking skills (Loveless, Burton, & Turvey, 2006; Zhao, 2006).

Creativity is finding one's own solution by going through various stages in order to solve an existing

* This paper was revised after being presented at the International Conference on Global Issues of Early Childhood Education and Children's Rights, Gaziantep, Turkey, 27-29 April 2012.

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problem (Dirim, 2002). Even though creativity is described as presenting new things, creating an object or a situation that did not exist before, there are many features that can be called creativity. In other words, being creative also involves adapting to living conditions, developing new solutions against new circumstances, "creating" the most suitable satisfaction type for individual needs. That is why creativity develops by supporting both psychological maturity and cognitive skills (Akaygün Cüntay, 2005). Creativity is described as genuine and new ideas that are realized; evaluated in respect of a genuine concept or idea and benefit it provides for an individual. A creative thought put into practice can become a discovery, an innovation, a change and a synthesis (Sungur, 1997). Creativity requires critical thinking, making new suggestions, discovering relations between objects or thoughts that had never been discovered before. It is to be unorthodox, in other words authentic, to see the problem, to get new results through different solutions (Çağlar, 2003).

Creativity is an instinct, a power, a trait that every individual has. People are born with it and use it to solve and interpret the problems of daily life. People cannot be creative in every field. However, human-specific skills and powers such as thinking, researching, wondering, and testing allow people to create new concepts through discovery (Dirim, 2002; Kağıtçıbaşı & Özgediz, 1979).

The most distinct characteristic of creative people is being unafraid of mistakes and putting their ideas into practice. It has been discovered that such individuals value imagination and authentic thoughts, like being and working by themselves and independency, dislike behaving accordingly to the expectations of society and don't care about others' opinions about themselves. Another characteristic of creative people is that, even if they know that they won't be liked, they desire to create different and authentic things (Açıkgöz, 2007).

Creative individuals can benefit from opportunities, find new solutions for hardships they face, be curious and ask questions and speculate, tend to research and experiment, and have a strong imagination. They focus their attention on a subject for a long time, pay attention to details and feel imperfections (Dinçer, 1993). Creative individuals are ready to learn and they are attentive. Their use of language is fluent. Their thoughts are flexible and independent. They have distinct characteristics such as being able to use their imagination, being inclined to understand differences,

think unusual and unique concepts and take risks (Argun, 2004).

A creative individual tries to use his potential in a productive manner and transforms his idea into a concrete product. A child's developed and rich vocabulary and ability to speak fluently can be considered a positive trait but if he uses these traits for telling a story or writing poetry, he shows a creative behaviour (Dinçer, 1993). They use these powers freely both in using various equipments, assembling them and in oral testimonies. They create scenarios, and they are capable of imitating different objects (person, animal, vehicle, etc). They are also creative in oral and physical expressions. In theatrical activities they can easily grasp the situation and play their role realistically. By using their hands they create authentic products with various materials. They look for innovation, pay attention to details and detect mistakes and imperfections easily (Oğuzkan, Demiral, & Tür, 2001).

Gartenhaus (2000) states that creativity is neither a subject of a divine inspiration nor a special insight that very few fortunate people earn by luck, and creative thinking is a skill. Moreover many research authorities including Alex Osborn, Sidney Parnes, Angelo Biondi and Donald Treffinger state that they concluded that creativity can be provoked and increased through application (cited in Gartenhaus, 2000).

Kurtzberg (2005) has stated that creativity, which is a positive force in working areas that change every day, plays an important role on job satisfaction senses, practices and self-esteems of individuals and added that giving creative thinking education to individuals must be in the center of the education.

Purpose of education is creating people with skills to make innovations, not people redoing what has been done by previous generations. According to Piaget creative, inventor and discoverer people are those who have an observant mind and who don't accept everything as is (Sungur, 1997).

Creativity cannot be learned but can be developed under right circumstances and guidance. Creativity emerges with rich and various experiences. With each passing day children are in search of newer and more different products because of the flexible and stimulating environment and guidance both at school and at home (Dirim, 2002; Oğuzkan et al., 2001). In order to improve creativity in children, teachers, most of all, should have a creative personality and become a role model for children. In other

words they should have a fluent, flexible and authentic way of thinking so that they can create a teaching-learning environment that will encourage children to be creative and that they can supervise the development of creativity (Yenilmez & Yolcu, 2007).

In modern countries the most basic criticism against compulsory education and education system is that they restrain development of creativity. In order for education system to allow students to achieve their potentials and to play an effective role in country's development, education's content and methods should be reorganized to improve skills such as critical thinking, scientific thinking, relational thinking, reasoning and creative thinking (Doğan, 2005).

In order for creativity, which is not a skill that comes with birth and is not a skill peculiar to artist, to develop and progress fertile environment and conditions should be provided. Restrictive, authoritative and strictly structures environments are not creative environments. Primary condition for children to be creative, productive and use their natural creative powers to the fullest is that they should be free and independent, and should use the tools they have without hesitation and fear. Teachers who have a significant role in emergence of creativity should also be confident, well informed, natural, sincere and full of joy (Aral, 1999; Dirim, 2002).

Most particularly, emotional freedom and opportunities to use the tools at hand without hesitation and fear should be provided for children to be creative. If not, children lose their self-confidence, cannot be productive, instead, they tend to imitate others' methods, processes, thoughts and their creativity dwindles (Kağıtçıbaşı & Özgediz, 1979).

Developing individuals' creativity from childhood is considered an important education objective in order to be able to solve problems in today's already complicated physical and social environment and thus to adapt. On the other hand, one of the reasons why creativity development should gain importance in education is the need of the child to reach original solutions and realize his/her full potential (Önder, 2003).

Children feeling supported affect success of education. Deciding to acquire a new skill that they consider hard to acquire affects them. Handling the hardships and self-confidence are necessary for creativity. Both individual and team work, reaching the source of information, motivation in line with student's interests and needs are foundations in new education understanding. Problem solving method is more effective than traditional method in increasing students' knowledge levels and ac-

tivities in which a student is active and able to use creativity should be concentrated on during activity choice, which has a significant importance for applying problem solving method. In this sense each teacher should be a capable guide. Teacher candidates who are to become future teachers having creative skills is important in training students who are equipped with these qualifications. That is why, evaluation of teacher candidates' knowledge, experience, feelings and thoughts, in a word their opinions on creativity gains importance.

Objective

Aim of this research is to determine teacher candidates' opinions about creativity and reveal their perceptions of creativity concept through the use of metaphors. In order to do this, following questions have been asked:

1. What are teacher candidates' opinions on creativity? (Regarding description of creativity, its importance, reasons for its importance, characteristics of a creative person, relation between teaching profession and creativity, reasons for relation between teaching profession and creativity, creativity's improvability, creativity's presence in everyone, its learnability, finding themselves creative, the fields they find themselves creative, things to be done in order to bring out creativity, activities which develop creativity)

2. What are teacher candidates' opinions on their own creativity in respect of the number of book they read in a year?

3. What are teacher candidates' opinions on characteristics of a creative person in respect of class level?

4. What are teacher candidates' metaphorical perceptions about creativity?

5. Is there any difference by gender on teacher candidates having positive opinions on creativity?

6. Is there any difference by branch on teacher candidates having positive opinions on creativity?

7. Is there any difference by the number of books read in a year on teacher candidates having positive opinions on creativity?

8. Is there any difference by class level on teacher candidates having positive opinions on creativity?

9. Is there any difference by field of interests on teacher candidates having positive opinions on creativity?

Method

This research that has both quantitative and qualitative aspects is a screening model descriptive study. In qualitative aspect of the research phenomenological design has been used. Phenomenological design focuses on facts that we know but don't have any deep and detailed understanding of.

Population and Sample

Population of the research consists of teacher candidates who study in Uludag University Faculty of Education. Research consists of 1st and 4th grade teacher candidates from Preschool Education Program and Primary Education Program. This study has been made in 2011-2012 academic year with 193 teacher candidates who study in Uludag University Faculty of Education.

Table 1.
Gender Distribution by Branch

Gender	Branch					
	Preschool Teacher Candidate		Primary School Teacher Candidate		Total	
	n	%	n	%	n	%
Girl	92	96,8	80	81,6	172	89,1
Boy	3	3,2	18	18,4	21	10,9
Total	95	100	98	100	193	100

Sample of the research consists of a total of 193 teacher candidates, a total of 95, 92 female and 3 male, from Preschool Education Program, and 80 female, 18 male from Primary Education Program.

Data Collecting Tool

 Survey, prepared by researchers, has been used as the data-collecting tool. In survey, following questions have been directed to teacher candidates: in order to acquire information about teacher candidates, descriptive questions, many open-ended questions regarding their opinions on creativity and in order to determine whether their opinions are positive or not, 10 questions with yes, no, and partially options. In addition, in order to determine primary school and preschool teacher candidates' metaphorical perceptions about creativity, they have been asked a question such as "creativity is like/ similar to ...., because ...." and told to complete the sentence.

Analysis and Interpretation of Data

In order to determine whether teacher candidates' opinions on creativity are positive or not, the answers they have given to questions are graded 3 if yes, 2 if partially, and 1 point if no. In the section of these questions the minimum points to be taken are 10, and the maximum points to be taken are 30. T-test has been done to examine the difference between opinions by branch and class level, and analysis of variance has been done to examine reading habits. Open-ended questions about opinions on creativity have been analyzed with content analysis method, tabulated by classifying by research variables, frequency count and percentage calculations have been made, and chi-square test has been applied. Content analysis is done in order to find concepts and relationships that can explain the collected data. In content analysis the aim is to discover concepts and themes that haven't been discovered with a descriptive approach by subjecting the data that has been summarized and interpreted in descriptive analysis to a deeper processing.

Metaphor analysis, one of qualitative research methods, has been used in order to determine metaphorical perceptions. Metaphors are described as an individual's way of expressing a concept or a fact through imitations as he perceives them (Aydın, 2010). Individuals can use metaphors when they describe both their own and others' feelings and thoughts. These metaphors can be considered an important element for individuals to express their perception of life. That is why metaphors represent individuals' perception of themselves, their environment, events, concrete and abstract concepts (Girmen, 2007), and they are considered a tool for using different imitations to explain (Cerit, 2008).

Metaphors, which are effective mind mapping and modeling mechanisms for individuals to understand and form their own world, are also employed in education. Metaphors, which serve as a mental tool and help us to understand, visualize and explain the external world, are especially effective in materializing abstract concepts and structuring information (Arslan & Bayrakçı, 2006).

Naming, Sorting, Reorganizing and compiling, Category development phases have been used during analysis and interpretation process of metaphors. First, similar metaphors have been grouped, and then categories have been formed by reading each metaphor's reason. After that, they have been evaluated in their own category.

In order to provide credibility in research, meta-

Table 2.

Opinions Regarding Description of Creativity by Branch

Description of Creativity	Branch				Total	
	Preschool Teacher Candidate		Primary School Teacher Candidate			
	n	%	n	%	n	%
To be able to produce different, authentic, original product, to do different things	55	**59,1**	70	**72,9**	125	**66,1**
Having different and authentic ideas, thinking and perceiving differently, finding different solutions for problems, free thinking.	33	35,5	22	22,9	55	29,1
Creating something that does not exist	2	2,2	4	4,2	6	3,2
Life style, life itself, reason for existence	3	3,2	0	0,0	3	1,6
To be able to produce different, authentic, original product, to do different things	93	100	96	100	189	100

phors have been matched with notional categories and its frequency table has been created. Then an expert in the field has been asked to match the same metaphors with notional categories and match-ups of the expert and researches have been compared. As a result of comparison it has been seen that there is consensus rate of 87%. For the sake of validity of the research it has been decided to make a detailed report about data that has been acquired, to explain how the researcher has reached notional categories and to make quotations from student opinions in findings section.

Findings

In this section there are findings compiled from data which is acquired through investigation of teacher candidates' knowledge, experience, feelings and opinions about creativity by taking their branches, class levels, interests and reading habits as variables in order to determine teacher candidates' knowledge, experience, feelings and opinions about creativity and to evaluate their suggestion and views.

When opinions regarding the definition of creativity is examined by branch, a total of 66,1%, 59,1% of preschool teacher candidates and 72,9% of primary school teacher candidates have described it as "To be able to produce different, authentic, original product, to do different things". A total of 29%, 35,5% of preschool teacher candidate, 22,9% primary school teacher candidates described it as "Having different and authentic ideas, thinking and perceiving differently, finding different solutions for problems, free thinking." It has been observed that teacher candidates focus on creation of a different and authentic product instead of an idea when asked about creativity.

Table 3.

The Distribution of Opinions on the Importance of Creativity by Branch

Is it important to creativity?	Branch					
	Preschool Teacher Candidate		Primary School Teacher Candidate		Total	
	n	%	n	%	n	%
Yes	91	96,8	93	95,9	184	96,3
No	3	3,2	4	4,1	7	3,7
Total	94	100	97	100	191	100

When opinions on the importance of creativity are analyzed by branches, it is seen that 96,8% of preschool teacher candidates, 95,9% of classroom teachers and 96,3% of teachers in general think that creativity is important.

When opinions regarding why the creativity is important are analyzed in respect of branches, it is seen that 37,9% of preschool teacher candidates, 43,9% of classroom teacher candidates and 40,9% of total have stated that "It increases self-confidence, breaks monotonous and is essential for quality life and occupation and important for individual and social development". 31,6% of preschool teacher candidates, 15,3% of classroom teacher candidates and 15,3% of total have stated on the importance of creativity that "It increases the skill of thinking, accommodates and solves problems".

Table 4.

Distribution of Opinions By Branch Regarding The Reasons Why Creativity Is Important

Why creativity is important?	Branch				Total	
	Preschool Teacher Candidate		Primary School Teacher Candidate			
	n	%	n	%	n	%
It increases self-confidence; it relieves of monotonous and is essential for quality life and occupation and important for individual and social development.	36	37,9	43	43,9	79	40,9
It enhances the skill of thinking, accommodates and solves problems.	30	31,6	15	15,3	45	23,3
It is essential for making innovations, being original and different.	17	17,9	16	16,3	33	17,1
It helps us produce.	3	3,2	12	12,2	15	7,8
The ones not answering.	4	4,2	6	6,1	10	5,2
It helps us focus and take attention.	3	3,2	4	4,1	7	3,6
It increases success.	2	2,1	2	2,0	4	2,1
Total	95	100	98	100	193	100

Table 5.

The Distribution of Opinions on the Relation between Teaching Profession and Creativity by Branch

Relation Between Teaching Profession and Creativity	Branch				Total	
	Preschool Teacher Candidate		Primary School Teacher Candidate			
	n	%	n	%	n	%
Yes	91	96,8	93	95,9	184	96,3
No	3	3,2	4	4,1	7	3,7
Total	94	100	97	100	191	100

When the relation between the branch, the profession of teaching and creativity is analyzed, 96,8% of preschool teacher candidates, 95,9% of classroom teacher candidates and 96,3% of total think that there is a relation between teaching profession and creativity.

When the reasons of relation between teaching profession and creativity are analyzed, it is seen that 60,9% of preschool teacher candidates, 62,5% of classroom teacher candidates and 61,7% of total correlate the profession of teaching and creativity by stating that "it teaches the child easily in a short period of time, finds activities suitable for their developments and carries them out, can get to their levels".

Table 6.

Distribution of Causes of the Relation between Teaching Profession and Creativity by Branch

The Reasons of the Relation Between Teaching Profession and Creativity	Branch				Total	
	Preschool Teacher Candidate		Primary School Teacher Candidate			
	n	%	n	%	n	%
It teaches the child easily in a short period of time, finds activities suitable for their developments and carries them out, can get to their levels.	56	60,9	60	62,5	116	61,7
It enhances the imagination of children, creates different viewpoints, gives chance to think creatively.	25	27,2	30	31,3	55	29,3
Teachers need to be creative in order to improve themselves.	9	9,8	3	3,1	12	6,4
Teachers are stereotyped.	1	1,1	3	3,1	4	2,1
We don't have to be creative.	1	1,1	0	0,0	1	0,5
Total	92	100	96	100	188	100

Table 7.

The Distribution of Opinions on Improvableness of Creativity by Branch

Can creativity be improvabled?	Branch					
	Preschool Teacher Candidate		Primary School Teacher Candidate		Total	
	n	%	n	%	n	%
Yes	81	95,3	90	97,8	171	96,6
No	4	4,7	2	2,2	6	3,4
Total	85	100	92	100	177	100

When improvableness of creativity is analyzed by branch, it is seen that 95,3% of preschool teacher candidates, 97,8% of classroom teacher candidates and 96,6% of total think that creativity is improvable.

Table 8.

The Distribution of Opinions on Creativity That Everybody Has by Branch

Creativity That Everybody Has	Branch					
	Preschool Teacher Candidate		Primary School Teacher Candidate		Total	
	n	%	n	%	n	%
Yes	25	26,3	26	26,5	51	26,4
No	70	73,7	72	73,5	142	73,6
Total	95	100	98	100	193	100

When the opinions on creativity that everybody has are analyzed by branch, it is seen that 73,7% of preschool teacher candidates, 73,5% of classroom teacher candidates and 73,6% of total think that creativity is not a feature that everybody can have.

Table 9.

The Distribution of Opinions on Learnability of Creativity by Branch

Can creativity be learned?	Branch						Chi- Square	
	Preschool Teacher Candidate		Primary School Teacher Candidate		Total			
	n	%	n	%	n	%	Chi-Square	p
Yes	44	52,4	48	52,7	92	52,6		
No	40	47,6	43	47,3	83	47,4	0,002	0,961
Total	84	100	91	100	175	100		

When opinions on learnability of creativity are analyzed by branch, it is seen that 52,4% of preschool teacher candidates, 52,7% of classroom teacher candidates and 52,6% of total think that creativity is learnable. There is no relation between the branch and learnability.

Table 10.

The Distribution of Opinions on Finding Oneself Creative by Branch

Are you creative?	Branch						Chi- Square	
	Preschool Teacher Candidate		Primary School Teacher Candidate		Total			
	n	%	n	%	n	%	Chi-Square	p
Yes	62	65,3	65	66,3	127	65,8		
No	33	34,7	33	33,7	66	34,2	0,02	0,876
Total	95	100	98	100	193	100		

Table 11.

The Distributions of Opinions Regarding the Things to be done in order to bring out the Creativity

What needs to be done in order to bring out the creativity?	Branch					
	Preschool Teacher Candidate		Primary School Teacher Candidate		Total	
	n	%	n	%	n	%
Not to restrict the individuals, let them free, presenting a free environment	25	**26,6**	31	**32,6**	56	29,6
Presenting thought-provoking games, using thinking skills (brain storms), thinking differently, respecting different ideas	26	27,7	27	28,4	53	28,0
To know the fields of interest of the child and support them, to know the child and make him/her know himself/herself	17	18,1	17	17,9	34	18,0
To increase the environmental stimulus	16	17,0	6	6,3	22	11,6
To read books	4	4,3	4	4,2	8	4,2
To encourage	5	5,3	1	1,1	6	3,2
To create something different (like script)	0	0,0	5	5,3	5	2,6
To know how to use the information and become a model	1	1,1	4	4,2	5	2,6
Total	94	100	95	100	189	100

Table 12.

The Distribution of the Fields where Teachers Find Themselves Creative by Branch

On what fields you find yourself creative?	Branch				Total	
	Preschool Teacher Candidate		Primary School Teacher Candidate			
	n	%	n	%	n	%
In writing, creating stories, theatre, drama activities, painting, poetry and music	20	21,7	**26**	**28,6**	46	25,1
Producing ideas, imagining, solving problems and finding practical solutions	**26**	**28,3**	20	22,0	46	25,1
I don't find myself creative in any field	16	17,4	14	15,4	30	16,4
When I do things I like.	11	12,0	13	14,3	24	13,1
In handicrafts.	14	15,2	7	7,7	21	11,5
I am creative in every aspect.	4	4,3	6	6,6	10	5,5
In communicating	1	1,1	5	5,5	6	3,3
Total	92	100	91	100	183	100

When the opinions of teacher candidates on whether they find themselves creative or not are analyzed by branch, it is seen that 65,3% of preschool teacher candidates, 66,3% of classroom teacher candidates and 65,8% of total find themselves creative. There is no relation between the branch and being creative.

When the distribution of the things to be done in order to bring out the creativity and the distribution by branch is analyzed, it is seen that 26,6% of preschool teacher candidates, 32,6% of classroom teacher candidates and 29,6% of total have chosen "Not to restrict the individuals, let them free, presenting a free environment"; 27,7% of preschool teacher candidates, 28,4% of classroom teacher candidates and 28% of total have chosen "Presenting thought-provoking games, using thinking skills (brain storms), thinking differently, respecting different ideas"; 18,1% of preschool teacher

candidates, 17,9% of classroom teacher candidates and 18% of total have chosen "To know the fields of interest of the child and support them, to know the child and make him/her know himself/herself".

When the distribution of the answers to the question of "On what fields you find yourself creative?" is analyzed, it is seen that 21,7% of preschool teacher candidates, 28,6% of classroom teacher candidates and 25,1% of total have answered as "In writing, creating stories, theatre, drama activities, painting, poetry and music"; 28,3% of preschool teacher candidates, 22% of classroom teacher candidates and 25,1% of total have answered as "Producing ideas, imagining, solving problems and finding practical solutions"; 17,4% of preschool education teachers, 15,4% of classroom teacher candidates and 16,4% of total have answered as "I don't find myself creative in any field".

Table 13.

The Distribution of the Activities that Increase Creativity

Activities that increase creativity	Branch				Total	
	Preschool Teacher Candidate		Primary School Teacher Candidate			
	n	%	n	%	n	%
Art activities (painting, drama, music)	39	**41,5**	24	**25,3**	63	**33,3**
Playing activities (intelligent games, educative toys)	18	**19,1**	23	**24,2**	41	**21,7**
Science-nature activities	7	7,4	23	24,2	30	15,9
Leisure time activities (the activities that don't need guidance like clay modeling etc.)	22	23,4	7	7,4	29	15,3
Reading books, story completing	5	5,3	5	5,3	10	5,3
The interesting activities they do with their peers, social activities, group activities	2	2,1	6	6,3	8	4,2
Individual activities	1	1,1	7	7,4	8	4,2
Total	94	100	95	100	189	100

Table 14.

The Distribution of Relation between the Number of the Books Read in One Year and Considering Oneself Creative

Are you creative?	The Number of the Books Read in One Year								Chi-Square Test	
	0 – 12 book		13 – 24 book		25 and above book		Total		Chi-Square	p
	n	%	n	%	n	%	n	%		
Yes	76	63,9	29	56,9	**18**	**94,7**	123	65,1		
No	43	36,1	22	43,1	1	5,3	66	34,9	8,95	0,011*
Total	119	100	51	100	19	100	189	100		

p<0,05

When the distribution of the activities that increase creativity is analyzed by branch, it has been determined that art activities (painting, drama, music) come first in every branch while the playing activities (intelligent games, educative toys) come second. 41,5% of preschool teacher candidates, 25,3% of classroom teacher candidates and 33,3% of total find "art activities (painting, drama, music) as the activities that increase creativity while 19,1% of preschool teacher candidates, 24,2% of classroom teacher candidates and 21,7% of total point at "playing activities (intelligent games, educative toys)".

There is a significant relation between the number of the books read and being creative. 63,9% of the ones reading 0-12 books, 56,9% of the ones reading 13-24 books and 94,7% of the ones reading 25 or more books say that they are creative.

When the answers of teacher candidates to the question of "What are the features of a creative person?" are analyzed, it is seen that the majority of the answers are about thinking skills. 31,8% of teacher candidates labeled thinking skill as a creative person feature while 8,1% of them labeled genuineness and 5,4% of them labeled innovativeness.

When the answers of teacher candidates to the question of "What are the features of a creative person?" are analyzed, it is seen that the majority of the answers are about thinking skills. It is determined that 62,3% of first grade students, 53,33% of fourth grade students and 57,9% of total agree to this idea. Also, it is seen that teacher candidates from 1st grade to 4th identify being genuine (22,22%) and innovative (15,56%) with thinking skill. Nevertheless, the students in the 1st grade agree on the topics of freedom, self-esteem (9,68%) at an equal rate. While the communication and empathy skills are

Table 15.

The Distribution of Creative Person Features

What are the features of a creative person?	n	%	What are the features of a creative person?	n	%
Thinking skill	**106**	**31,8**	Empathy skill	6	1,8
Genuine	**27**	**8,1**	Skillful	6	1,8
Innovative	**18**	**5,4**	Fun	5	1,5
Searching skill	17	5,1	Useful	4	1,2
Innovative	17	5,1	Observation skill	3	0,9
Independent	17	5,1	Hardworking	3	0,9
Intelligent	17	5,1	Flexible	3	0,9
Self-esteem	14	4,2	Left blank	2	0,6
Critical thinking	13	3,9	Respectful to differences, agreeable	2	0,6
Problem solving skill	10	3,0	Attentive	1	0,3
Communication skill	9	2,7	Leader	1	0,3
Producing original products	8	2,4	Respectful	1	0,3
Patient	7	2,1	Participator	1	0,3
Decision-making skill	7	2,1	Time management	1	0,3
Positive, objective	7	2,1			
Total				333	100

Table 16.

The Distribution of Creative Person Features by Class Level

Creative Person Features	Class Level				Total	
	1. class		4. class			
	n	%	n	%	n	%
Thinking skill	**58**	**62,37**	**48**	**53,33**	**106**	**57,92**
Genuine	7	7,53	**20**	**22,22**	**27**	**14,75**
Innovative	4	4,3	**14**	**15,56**	**18**	**9,84**
Searching skill	5	5,38	12	13,33	17	9,29
Intelligent	7	7,53	10	11,11	17	9,29
Innovative	6	6,45	11	12,22	17	9,29
Independent	**9**	**9,68**	8	8,89	17	9,29
Communication skill- Empathy skill	**11**	**11,83**	4	4,44	15	8,20
Self-esteem	**9**	**9,68**	5	5,56	14	7,65
Critical thinking	7	7,53	6	6,67	13	7,10
Problem solving skill	**0**	**0,00**	**10**	11,11	10	5,46
Producing original products	3	3,23	5	5,56	8	4,37
Patient	3	3,23	4	4,44	7	3,83
Positive, objective	4	4,3	3	3,33	7	3,83
Decision-making skill	3	3,23	4	4,44	7	3,83
Skillful	2	2,15	4	4,44	6	3,28
Fun	2	2,15	3	3,33	5	2,73
Useful	2	2,15	2	2,22	4	2,19
Observation skill	1	1,08	2	2,22	3	1,64
Hardworking	1	1,08	2	2,22	3	1,64
Flexible	1	1,08	2	2,22	3	1,64
Respectful to differences, agreeable	0	0,00	2	2,22	2	1,09
Other	1	1,08	1	1,11	2	1,09
Attentive	0	0,00	1	1,11	1	0,55
Leader	1	1,08	0	0,00	1	0,55
Respectful	0	0,00	1	1,11	1	0,55
Participator	0	0,00	1	1,11	1	0,55
Time management	0	0,00	1	1,11	1	0,55
Total	93	100	90	100	183	100

at 11,83% rate in the 1st grade, this rate drops to 4,44% in the 4th grade. The ones who need creativity in case of problems are teacher candidates in the 4th grade.

The metaphors created by 158 primary school and preschool teacher candidates who have participated in the research have been given as frequency levels and percentages in the table. A total of 99 metaphors have been created on the concept of creativity. The most frequently used metaphor is "pomegranate" (f=14). "Ataturk" (f=10) and "modeling clay" (f=8) are other frequently used metaphors. And 75 metaphors have been created by a single teacher candidate.

Table 17.

The Metaphors That Teacher Candidates Make On the Concept of Creativity

Metaphor	f	%	Metaphor	f	%	Metaphor	f	%
Acun Ilıcalı	2	1,1	Formun Üstü Philosopher	1	0,5	Formun Üstü Architect	2	1,1
Formun Üstü Person Felt In To The Island	1	0,5	Camera	1	0,5	Photo Of Mona Lisa	1	0,5
Tree	1	0,5	Gerard Way	1	0,5	Musical Instrument	2	1,1
Chicken Spawns Golden Eggs	1	0,5	Scorers Player	1	0,5	Pomegranate	14	7,6
Pineapple	2	1,1	Sky	1	0,5	Play Dough	8	4,3
Mother And Grandmother	3	1,6	Beautiful Nature Photo	1	0,5	Toy	1	0,5
The Founder of Apple (Computer)	1	0,5	Everything which is Beautiful	1	0,5	Statue Of Liberty	1	0,5
Cook	2	1,1	Dough	1	0,5	Sultan	1	0,5
Ashura (Food)	1	0,5	Gift Wrapping	1	0,5	Clown	2	1,1
Ataturk	10	5,4	Any Material	1	0,5	Picasso	3	1,6
Balloon	1	0,5	Everything	1	0,5	Pythagoras	1	0,5
Nothing	1	0,5	Formun Üstü Sculptor	1	0,5	Painter	3	1,6
Dissolution Of Gasoline On Water	1	0,5	Coconut	1	0,5	Spirit	1	0,5
Computer	3	1,6	Human	4	2,1	Clock	1	0,5
Inventor Of The Computer	1	0,5	Internet	1	0,5	Salvador Dali	1	0,5
Scientist	1	0,5	Woman	1	0,5	Artist	4	2,2
Paint	1	0,5	Paper	1	0,5	Liquid	1	0,5
Crayons	1	0,5	Pen	1	0,5	Athlete	1	0,5
Chameleon	2	1,1	Closed Box	1	0,5	Surprise	1	0,5
Cloud	1	0,5	Snow Grains	2	1,1	Painting	1	0,5
Strawberry	1	0,5	Watermelon	1	0,5	Technology-Technological Tools	2	1,1
Bugs Bunny -Cartoon Characters	1	1,1	Book	2	1,1	Television	1	0,5
Child	1	0,5	Kiwi	1	0,5	Tailor	1	0,5
Four Seasons	1	0,5	Scented Eraser	1	0,5	Theatre Of Play	1	0,5
Artificial Islands in Dubai	1	0,5	Comedian	1	0,5	Theater Artist	1	0,5
Person Acts Whitout Thinking	1	0,5	Crystal Prism	1	0,5	Seed	1	0,5
Edison	1	0,5	Bird	1	0,5	Food	2	1,1
Crafts	1	0,5	Lego	4	2,2	Man Trying To Fly	1	0,5
Vacuum Cleaner	1	0,5	Leonardo Da Vinci	1	0,5	Space	1	0,5
Everything That I Have Found Different	1	0,5	Mantı (A kind of pasty)	1	0,5	Burning Candle	1	0,5
Fazıl Say	1	0,5	Sloth	1	0,5	Egg	1	0,5
Ferman Akgül	1	0,5	Monkey	1	0,5	Intelligence	2	1,1
Nuts	1	0,5	Fruit	2	1,1	Mental Cube	1	0,5
Total	50	26,6	Total	42	21,6	Total	66	34,9

Table 18.

Grouping of the Metaphors That Teacher Candidates Make On the Concept of Creativity

Grouping	Metaphors	Number of Metaphors
Inanimate object	Balloon (1), The Computer (3), Paint (1), Crayons (1), Cloud (1), Artificial Islands in Dubai (1), A Vacuum Cleaner (1), Camera (1), Sky (1), Dough (1), Gift Wrapping (1) Any Material (1), Paper (1), Pen (1), A Closed Box (1), Snow Grains (2), Book (2), Scented Eraser (1), Crystal Prism (1), Lego (4), Sloth (1), A Musical Instrument (2), Play Dough (8), Toy (1), Clock (1), Liquid (1), Television (1) A Burning Candle (1), Egg (1), Mental Cube (1)	30
Human and roles	Person Felt In To The Island (1), Mother-Grandmother (3), Cook (2), Inventor Of The Computer (1), Scientists (1), Children (1), Person Acts Whitout Thinking (1), Philosopher (1) , Scorers Player (1), Sculptor (1), Human (4), Female (1), Comedian (1), An Architect (2), Sultan (1), Clown (2), Painter (5), Artist (4), Athlete (1), Tailor (1), Actor (1), Man Trying To Fly (1)	22
Special People	Atatürk(10), Acun Ilıcalı(2), The Founder Of Apple (Computer) (1), Edison(1), Fazıl Say(1), Ferman Akgül (1), Gerard Way(1), Pythagoras (1), Salvador Dali(1), Picasso(1), Leonardo Da Vinci(1)	11
Plant	Tree (1), Pineapple (2), Strawberry (1), Nuts (1), Coconut (1), Melon (1), Kiwi (1), Fruit (2), Pomegranate (14), Seed (1)	10
Global-Intangible Terms	Dissolution Of Gasoline On Water (1), Four Season (1), Web (1), Spirit (1), Surprise (1), Technology- Technological Tools (2), Space (1), Intelligence (2)	8
Artistic Products	Crafts (1), Beautiful Nature Photo (1), Photo Of Mona Lisa (1), Statue Of Liberty (1), Painting (1), Theatre Play (1)	6
Food	Ashura (1), Mantı (A Kind Of Pasty) (1), Food (1), Türlü (Food Mixture) (1)	4
Animal	Chameleon (2), Bird (1), Monkey (1)	3
Cartoon and Fable Characters	Chicken Spawns Golden Eggs (1), Bugs Bunny (1), Cartoon Characters (1)	3
Everything	Everything That I Have Found Different (1), Everything Which Is Beautiful (1), Everything (1)	3
Nothing	Nothing (1)	1

Table 19.

The Categories of the Metaphors those Teacher Candidates Create on the Concept of Creativity

Categories	Metaphors	Number of Metaphors	Number of Students who choose metaphor	Percentage of metaphor
Being different, extraordinary, genuine and original	Pomegranate (9), Artist (4), Picasso (3), Chicken Spawns Golden Eggs (1), Tree (1), Acun Ilıcalı (1), Pineapple (2), Mother (2), Cook (2), Ashura (1), Ataturk (1), Dissolution Of Gasoline On Water (1), Inventor Of The Computer (1), Scientists (1), Painting (1), Grandmother (1), Strawberry (1), Cartoon Characters (1), Four Seasons (1), Artificial Islands İn Dubai (1), Crafts (1), Edison (1), Everything That I Have Found Different (1), Fazıl Say (1), Ferman Akgül (1), Nuts (1), Philosopher (1), Camera (1), Gerard Way (1), Sky (1), A Beautiful Nature Photo (1), Everything (1), Sculptor (1), Human (3), Pen (1), Snow Grains (1), Melon (1), Book (2), Kiwi (1), Scented Eraser (1), Comedian (1), The Crystal Prism (1), Lego (2), Leonardo Da Vinci (1), Sloth (1), Monkey (1), Fruit (2), Architect (2), Mona Lisa (1), A Musical Instrument (1), Toy (1), Pythagoras (1), Painter (3), Clock (1), Salvador Dali (1), Liquid (1), Surprise(1), Painting (1), Technology (1), Television (1), Tailor (1), Theatre Play (1), Man Trying To Fly (1), Children (1), Food (1), Intelligence (2)	66	91	57,6
Too functional, anything can happen	Play Dough (7), Computer (1), Crayons (1), Chameleon (1), Person Acts Whitout Thinking (1), A Vacuum Cleaner (1), Dough (1), Paper (1), Coconut (1), Lego (2), A Musical Instrument (1), Pomegranate (1), Spirit (1), Technological Tools (1), Actor (1), Türlü (Food Mixture) (1)	16	23	14,6
It is for the sake of society.	Ataturk (6), Computer (1), Person Felt In To The Island (1), The Founder Of Apple (Computer) (1), Any Material (1), Human (1), Internet (1)	7	12	7,59
Being impressive and attractive	Pomegranate (3), Acun Ilıcalı (1), Chameleon (1), Everything Which Is Beautiful (1), Gift Wrapping (1), Female (1), Clown (2), Space (1), Mental Cube (1)	9	12	7,59
It requires patience and effort	Mantı (A Kind Of Pasty) (1), Pomegranate (1), Athlete (1), Seed (1), Egg (1)	5	5	3,16
Can solve problems and finds quick solutions	Ataturk (2), Computer (1), Scorers Player (1), Closed Box (1),	4	5	3,16
Needs to be free	Baloon (1), Bird(1), Play Dough (1), Statue Of Liberty (1), Burning Candle (1)	5	5	3,16
Power, the most powerful person	Atatürk (1), Bugs Bunny (1), Cloud (1), Sultan (1)	4	4	2,53

The metaphors have been evaluated under 8 categories in the light of the answers given by teacher candidates on their preferences of association. These categories are listed as "Being different, extraordinary, genuine and original", "Too functional, anything can happen", "It is for the sake of the society", "Being impressive and attractive", It requires patience and effort", "Can solve problems and finds quick solutions", "Needs to be free" and "Power, the most powerful person".

The pomegranate metaphor for "Being impressive and attractive" can be explained with the expression of "It is seen a single fruit on the outside but possesses new things inside and surprises people".

The modeling clay metaphor can be exampled by the expression "It takes different colors at the hands of different children" for the category of "Too functional, anything can happen".

Modeling clay metaphor can be exampled by the expression "You are free to shape it however you like" for the category of "Needs to be free".

Ataturk metaphor can be exampled by the expression "He has succeeded in finding quick solutions against problems" for the category of "Can solve problems, finds quick solutions".

Ataturk metaphor can be exampled by the expression "He has original ideas that nobody has" for the category of "Being different, extraordinary, genuine and original".

As seen in the table, 91 teacher candidates out of 158, in other words 57,6% of them see the creativity as "Being different, extraordinary, genuine and original", 23 i.e. 14,6% of them see it as "Too functional, anything can happen"; 12 i.e. 7,59% of them see it as "It is for the sake of the society"; and 12 i.e. 7,59% of them see it as "Being impressive and attractive". Supporting this finding, Sungur (1997) also identifies the creativity as an original notion or an idea and a benefit for the individual.

Table 20.

Difference between Teacher Candidates Having Positive Opinion on Creativity by Gender

Variable	Gender	n	x̄	sd	Std. Error Mean	t	df	p
Positive Opinion	Girl	173	24,75	2,87	0,22	-1,40	191	0,163
	Boy	20	25,70	2,85	0,64			

When teacher candidates having positive opinions on creativity has been analyzed by gender, it has been found that the average of females is 24,75% and the average of males is 25,70%. According to the t-test results teacher candidates having positive opinions on creativity has been examined by gender and no statistical difference between female and males has been determined.

Table 21.

Difference between Having Positive Opinion on Creativity by Branch

Variable	Branch	n	x̄	sd	Std. Error Mean	t	df	p
Positive Opinion	Preschool Teacher Candidate	95	24,89	2,62	0,27	0,21	191	0,83
	Primary School Teacher Candidate	98	24,81	3,11	0,31			

When teacher candidates having positive opinions on creativity has been analyzed by branch, it has been found that the average of preschool teacher candidates is 24,89% and the average of classroom teacher candidate is 24,81%. According to the t-test results teacher candidates having positive opinions on creativity has been examined by branch and no statistical difference between preschool teacher candidates and classroom teacher candidates has been determined.

Table 22.

Having Positive Opinion on Creativity by the Number of Books Read in A Year

The Number of Books Read in a Year	n	x̄	sd	Std. Error Mean
0-12 book	119	24,79	2,88	0,26
13-24 book	51	24,94	2,79	0,39
25 and above	19	25,16	3,04	0,69
Total	189	24,88	2,86	0,21

When having positive opinion on creativity has been analyzed by the number of books read in a year, it has been found that average of those who read 0-12 book in a year is 24,79%, average of those who read 13-24 books in a year is 24,94%, and average of those who read 25 or more books in a year is 25,16%.

Table 23.

ANOVA Results of the Difference between Having Positive Opinion on Creativity by the Number of Books Read in a Year

	Sum of Squares	df	Mean Square	F	p
Between Groups	2,59	2	1,29	0,16	0,855
Within Groups	1539,09	186	8,27		
Total	1541,69	188			

When having positive opinion on creativity by the number of books read in a year has been investigated to see if there is a difference, it has been determined that there is no statistically significant difference.

Table 24.

Difference between Having Positive Opinion on Creativity by Class Level

Variable	Class Level	n	x̄	sd	Std. Error Mean	t	df	p
Positive Opinion	1. class	97	24,10	2,97	0,30			
	4. class	96	25,60	2,57	0,26	-3,75	191	0,00

When teacher candidates having positive opinions on creativity has been analyzed by class level, it has been found that the average of classroom teacher candidates in first grade is 24,89% and the average of classroom teacher candidate in fourth grade is 24,81%. According to the t-test results teacher candidates having positive opinions on creativity has been examined by class level and it has been determined that between first and fourth grade classroom teacher candidates there is a statistically significant difference in favor of fourth grade classroom teacher candidates.

Table 25.

Having Positive Opinion on Creativity by Field of Interest

Positive View	n	x̄	sd	Std. Error Mean
Painting	32	26,12	2,39	0,42
Music	88	24,68	2,75	0,29
Theatre	19	24,57	3,02	0,69
Sport	33	24,09	3,18	0,55
Photography	11	25,09	2,77	0,83
Poetry	2	22,00	5,66	0,25
Total	185	24,81	2,88	0,21

When having positive opinion on creativity has been analyzed by field of interests of teacher candidates, it has been determined that the average of those who are interested in painting is 26,12%, average of those who are interested in music is 24,68%, average of those interested in theatre is 24,57%, average of those who are interested in sports is 25,09%, and average of those who are interested in poetry is 22,00%.

Table 26.

ANOVA Results of the Difference between Having Positive Opinion on Creativity by the Field of Interest

	Sum of Squares	df	Mean Square	F	p
Between Groups	91,52	5	18,30	2,28	0,049
Within Groups	1436,86	179	8,03		
Total	1528,38	184			

When having positive opinion on creativity by field of interest investigated to see if there is a difference, it has been determined that there is no statistically significant difference.

Table 27.

Source of the Difference between Having Positive Opinion on Creativity by the Field of Interest

(I) Interest	(J) Interest	Mean Difference (I-J)	Std. Error	Sig.
Painting	Music	1,44	0,58	0,13
	Theatre	1,54	0,82	0,41
	Sport	2,03*	0,70	0,04*
	Photography	1,03	0,99	0,90
	Poetry	4,12	2,06	0,34
Music	Theatre	0,10	0,71	1,00
	Sport	0,59	0,58	0,91
	Photography	-0,40	0,90	0,99
	Poetry	2,68	2,03	0,77
Theatre	Sport	0,48	0,82	0,99
	Photography	-0,51	1,07	0,99
	Poetry	2,57	2,11	0,82
Sport	Photography	-1,00	0,98	0,91
	Poetry	2,09	2,06	0,91
Photography	Poetry	3,09	2,18	0,71

When the difference between having positive opinion on creativity by the field of interest is analyzed, it is seen that difference originates between those who are interested in painting and those who are interested in sports.

Conclusion and Result

The findings obtained from the study have been summarized below.

It is seen that teacher candidates see creativity as creating different, extraordinary, genuine products. Maslow (1959) states that the word creativity can be used for not only products but also characteristics of individuals, activities, process and attitudes. When defining creativity teacher candidates consider creativity only as a product or thinking differently (cited in Sungur, 1997).

Teacher candidates see thinking skills, genuineness and innovation as features of a creative person. Argun (2004) has also suggested that creative people tend to be flexible and free when they think and give importance to imagination and genuine ideas.

Teacher candidates give importance to creativity and explain the reason why they see it so important as stating that "it increases self-esteem, breaks monotonous; it is essential for a quality life and profession and important for the individual and social development".

Teacher candidates consider themselves creative and find themselves more creative in fields such as "writing, story making, theatre and drama activities, painting, poetry, and music". Furthermore, they think that there is a relation between the profession of teaching and creativity and explain the reason behind this relation by stating "it teaches the child in an easier way in a short period of time, find suitable activities for individual differences, practices them and can get low to their levels". Yıldız, Zırhlıoğlu, Yalçınkaya, and Güven (2011) have determined in a study that they have done with physical education teacher candidates that their senses of creativity are high.

Öztürk and Darıca (2003) have also explained that teachers play a big role in teaching the children how to find different alternatives in solutions of the problems they come across and that teaching is one of the professions that need creativity the most.

Teacher candidates think that not everybody can possess creativity and that it is an improvable and learnable feature. But Dirim (2002) emphasized that creativity is a natal strength and features that everybody has and every person possesses creative indications and features in some degree, and states that creativity can't be learned but can be improved with proper conditions.

It is also suggested in the literature that creativity is an improvable practice and it can be enhanced as long as it is guided and the conditions are fulfilled (Dirim, 2002; Gartenhaus, 2000; Oğuzkan et al., 2001).

Teacher candidates express that in order to bring out the creativity, it is needed not to "restrict the individuals, let them free and create a free environment". It is also emphasized in the literature that suitable environment and conditions must be secured and these environments must not be restrictive, peremptory or excessively structured in order to improve creativity (Dirim, 2002; Kağıtçıbaşı & Özgediz, 1979; Önder, 2003).

Yenilmez and Yolcu (2007) have also suggested that teachers should know their children, develop programs suitable for their developmental features and needs and carry these programs out. Furthermore, he has added that they also should have the necessary creativity to be able to plan various activities as much the number of students in their classes.

They state that art activities (painting, drama, music) should be used more frequently as activities that improve creativity. Teacher candidates who read more than 25 books in a year find themselves more creative.

As a result of the metaphor analysis, teacher candidates have identified creativity as "Being different, extraordinary, genuine and original", "Too functional, can be anything", "Being impressive and attractive", "Needs patience and effort", "Problem solving and finding quick solution" and "Being powerful".

While it has been determined that there is no statistically significant difference between gender, branch and the number of the books read in a year in respect of creativity, it is seen that 4th grade students have more positive opinions than other teacher candidates who are interested in painting.

While most of the studies in the literature suggest that there is not a significant difference between genders in respect of creativity, (Argun, 2004; Biber, 2006; Can Yaşar & Aral, 2010; Chan, 2005; Gizir-Ergen & Köksal-Akyol, 2012; Henderson, 2003; Konak, 2008; Yıldız, Özkal, & Çetingöz, 2003); Gök and Erdoğan (2011) and Özben and Argun (2005) have found significant difference in favor of female teacher candidates in their researches. In addition, Wang (2012) and Özben and Argun have stated in their research that there is significant relation between reading books and creativity.

As a conclusion, this study is important in introducing the opinions of teacher candidates on creativity. Teacher candidates who are to become future teachers having creative skills is important in training students who are equipped with these qualifications. Self-esteems of teacher candidates can be increased and their attitudes can be differentiated positively by augmenting information on creativity. It is thought that this study can create awareness in making teacher candidates starting their careers with positive convictions and graduate with a rich fund of knowledge about the things to be done in order to increase the potentials of children. Hence, the opinions of teacher candidates about creativity have been evaluated in this study and their positive or negative opinions have been determined. It is also important in being a guide to change the negative opinions against creativity.

Suggestions

Necessary measures should be taken in teacher training programs to allow teacher candidates in primary and preschool program to improve themselves in fields they have interest in.

Teacher candidates are required to consider creativity as a conscious life style and adopt it.

A positive point of view on the importance of creativity should be encouraged for all teacher candidates.

It should not be forgotten that creativity is vital for development of individual and society. Being creative increases the rate of success.

In the context of relation of teaching profession and creativity activities that are easier and suitable for individual differences should be organized for children in short periods of time.

Flexibility and functionality aspects of education programs should prevent teachers from conducting stereotypical behavior at all times.

Teacher candidates should change their preconceptions that not every individual has a creative characteristic.

Teacher candidates should agree that creativity can be learned.

Teacher candidates should know themselves and should be able to self-evaluate.

In order to bring out creativity individuals should be unrestricted, given freedom, provided with unrestricted environment and should be respected for their ideas.

In order to allow them to know themselves and bring out their existing potential studies for teacher candidates who don't consider themselves creative in any way should be made.

It should not be forgotten that art and playing activities are the most important activities that improve creativity.

Different motivation and evaluation standards should be employed to increase the number of books that teacher candidates read.

Thinking skills, authenticity, innovativeness and research skills should be encouraged.

Teacher candidates should be encouraged to develop their empathy and creativity skills through theatrical activities.

This study can also be applied to teachers other than teacher candidates.

By observing teacher candidates throughout their career their efficiency in organizing activities that promote children's creativity can be evaluated.

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