Perceptions towards creativity and creativity related concepts by metaphor analysis

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Abstract. Creativity is considered to be a feature that emerges under appropriate conditions and settings. Use of metaphor analysis is one of the ways of learning the perceptions of individuals towards creativity. Metaphors are defined as cognitive structures of individuals through linguistic models. In this context, the aim of this study is to investigate the metaphors related to creativity of participants. Metaphorical perceptions of the participants towards creativity, creative child, creative teacher, creative parent, creative class, and creative activity were collected via the interview form prepared by the researchers. After the metaphors were divided into related categories, expert opinion was obtained and necessary consensus was reached for each concept. Metaphors are divided into different categories for each concept. The most appropriate example for each category is expressed in the study. As a result of the study, it was found that the categories created were in parallel with the characteristics of the creative individual.

Keywords: Creativity, creative person, creativity related concepts, metaphor analysis

INTRODUCTION

It is accepted today that creativity is not only an innate ability but it is a feature that emerges under proper conditions. For this reason, the subject of supporting creativity in school and family environments has become a center of attraction (Gözen, 2017). Rooted in the Latin word "creare", the concept of creativity is defined by Torrance (1968) as a new product put forward by individuals against a problem or while solving a problem. According to this definition, creativity can be defined also as individuals' making suggestions, thinking differently, and reaching to the result by creating solutions against deficiencies or disharmonies. Similarly, it is accepted that creativity is a concept that includes some mental processes like flexibility, ability to comprehend, and intuition (Çakmak & Geçmiş, 2018). Many features in the individuals play a role in the development of creative thinking. These features can be collected in three categories as cognitive features, personality characteristics, and biographical features (Starko, 2015). For this reason, creative individuals differ from each other in terms of way of thinking, attitude, and sources of motivation.

Many theories like psychoanalytic theory and cognitive theory deal with the concept of creativity. Being the pioneer of the psychoanalytic theory, Freud considers the creativity within the framework of mental processes (Freud, 1910). It is thought that conflicts between id, ego, and superego directs people to the creativity and finding creative solutions (Vexliard, 1966). Cognitive theory puts forward that the creativity and the creative skills are a dynamic structure and deals with the creativity as putting forward an original product with the skills obtained and problem solving skills (Onur, 2018). According to the cognitive development theory, it is accepted that the aim of education is growing up individuals that think creatively and are able to put forward an invention (Akçum, 2005). Even if there is no direct relationship between creativity and intelligence, it is known that creative activities prepared by an educator has an effect on the creativity levels of children (Torrance & Safter, 1986). When we think that the feelings of curiosity and discovery are inherent to the children, the school environment has an effect on supporting

creativity. For uncovering the creativity inherent to the children and supporting it, school and class environments should be prepared in appropriate conditions. It is thought that the creative school and the creative class are an environment which constantly renews itself, presents meaningful experiences to the children, supports perception, and have unique features (Gökalp, 2016). In addition to this, when we look at the international literature, we can see that creative skills are supported by the classes that have appropriate materials, provide autonomy to the children, and enable a flexible studying environment (Davies, Jindal-Snape, Collier, Digby, Hay, & Howe, 2013).

In addition to the class and school environment, it is revealed that teachers' approach, teaching methods, and creative activities applied are important for developing creativity of children (Gözen, 2017). Some of the factors that support creativity of children are teachers' states of being creative, showing cheerful, and challenging attitude (Çetingöz, 2002), being open to changes, and providing an accepting environment towards each child. Creative teachers are expressed as those who are self-confident, flexible, and eager to try applying new ideas, insistent, have sense of humor, and learn on life-long basis (Poole, 1980). Similarly, creative teachers, with the creative activities they create, should focus not only the product, but also the emergence process of the product. The prepared creative activities are expected to enable an appropriate context for encouraging the students to produce new and different responses (Chow, Hui, & Chui, 2018). It has been found in a study that pre-school teacher candidates having creative traits design activities that support creativity more (Lee & Kemple, 2014). In a study by Dere and Ömeroğlu (2018), the Creativity Training Program was prepared and the planned creative activities were applied to the children 3 times a week for 12 weeks. At the end of the study it was determined that there were positive changes in the creative behaviors of the children to whom creative activities were applied. Within this context, we can say that creative activities are problem-based, interesting, different, and flexible (Çetingöz, 2002).

Families should undertake some roles so that creativity supported in the school environment becomes permanent and the children gain a creative attitude. When we examine the father and mother attitudes, it is revealed that there is a positive relationship between democratic parental attitudes and creativity (Mehrinejad, Rajabimoghadam & Tarsafi, 2015). In addition, it is known that authoritative or careless parental attitudes prevent the creativity of children. For example, it has been found that the line occurring between the parents and children in the authoritative and strict home environment affects the children negatively and the children cannot freely express themselves (Dinçer, 1993). Within this context, it can be seen that parental behaviors that supports creativity are showing democratic attitude, intuitive approach, and giving importance to discover (Çakmak & Geçmiş, 2018).

When we look at the literature, we can see that one of the ways to define the features of creativity is studying metaphors. Metaphors are used as a base for defining daily cognitive structures by using linguistic models and uncovering both individual and collective patterns of thoughts and actions (Schmitt, 2005). In this context, metaphors are accepted not only as a way of speaking, but also as a way of thinking (Musolff, 2012). When we examine the metaphor studies, Tok (2015) investigates metaphors of pre-school teacher candidates about creativity in a study. According to the findings of this study, metaphors stated by the participants are categorized under the headlines of features, importance of creative thinking, and creative personality traits (Tok, 2015). In another study, metaphors of pre-school teacher candidates from different grades about creativity was examined. It was found at the end of the study that categories show important differences at the class levels. In addition, while the category of nature is the most metaphor receiving category, the animal, and action categories are the least metaphor receiving categories (Pekdoğan & Kanak, 2015). When we look at the creativity metaphors of psychology department students, we can see that the creativity metaphors are gathered under 10 different headlines as uncertainty, originality, freedom, art, eternity, divine creation, discovery, invention, favorableness, and interesting things (Açıl & Kanlı, 2018). Even if there are studies in the literature that investigate the creativity and the metaphors about the creative children, we cannot see studies that analyze metaphors about the creative teacher, the creative parents, the creative class, and the creative activity. Moreover, the current study does not limit the sample

with pre-school teachers but it includes child development and child development two-year degree candidates who have a direct contact with the children in the study.

Purpose

The purpose of the study is investigating the creativity metaphors of pre-school teaching, child development and child development two year degree students who take lessons about art and creativity. For this general purpose, the metaphors about the below concepts have been investigated:
1. Creativity
2. Creative child
3. Creative teacher
4. Creative parents
5. Creative classroom
6. Creative activity

METHODS

In this research, we used the phenomenological design. Phenomenological method is a qualitative research method which is beneficial in deeply explaining the phenomenon with the data collected from the participants that experience the same phenomenon (Creswell, 2013).

Participants

Sample of this study is consisted of the students registered in the programs of pre-school teaching, child development, and child development two-year degree. 133 students from a state and private university from Ankara and İstanbul has been included in the study with an appropriate sampling method. The data have been collected in the 2018-2019 Fall Academic Term during the classes. Participants included in the study took a lesson related to creativity and art in the early years. Distribution of the participants is shown in the Table 1.

Table 1. *Frequency and percentage of participants*

	f	%
Pre-school Teaching	32	24.1
Child Development	36	27.1
Child Development Two-Year Degree	65	48.9
Total	133	100.0

Data Collection Instruments

Firstly, the Ethics Committee of Human Research has been applied and necessary ethical permission has been taken for applying the study on the students. In the next stage, a structured interview form has been prepared for getting metaphors about the creativity. The prepared interview form includes open ended expressions asked for investigating metaphors of the participants about the creativity, the creative children, the creative parent, the creative teacher, the creative class, and the creative activity. For this purpose, the participants have been asked to fill in the sentence "The creativity is like ………… because ……………". The metaphors about the creative child, the creative teacher, the creative class, and the creative activity have been measured via the statements prepared in the same format. The expression "like" used in the metaphor studies are preferred for scrutinizing the relationship between the metaphor subject and source.

Data Analysis Process

For analyzing the metaphors, content analysis method which is used in the qualitative studies was applied. In addition, the frequencies of the metaphors in the related categories was measured by using descriptive studies. The below steps for analyzing the metaphors with content analysis were followed:

1. Organization of the Data: In this stage, the metaphors the participants produced about the creativity, the creative child, the creative parent, the creative teacher, the creative class, and the creative activity have been sorted and enumerated. The relationship between the subject and source of metaphor was examined and the data that are not related to the purpose of the study and do not have metaphors were removed. The remaining data have been enumerated and sorted. A frequency table has been created.

2. Creating the Categories of the Metaphors: The relationship between the subject and the source of the metaphor was examined in deep. Written by the participants for every group, the metaphors are collected under one category with regards to the mutual meaning and characteristics. Lastly, how many students answered to these categories was calculated by using frequency table.

3. Validity and Reliability Studies: In the reliability stage, metaphors and categories have been sent to an expert giving lessons in this field and asked to give opinion in order to measure whether the metaphors in the determined categories represent the category or not. Metaphors and categories received from the expert have been compared with the categories of the researcher. Accordingly, the reliability of the categories was calculated by using the reliability formula determined by Miles and Huberman. In the calculation, it was firstly determined the numbers of "consensus" and "divergence" and put into the formula (Reliability = consensus / consensus + divergence X 100). According to Miles and Huberman, the concordance between the experts and researchers is expected to be at least 70% for reaching adequate level of reliability in the qualitative analyses. In this study, the reliability values have been calculated as 89% for the creative parent, 91% for the creative activity, 87% for the creative child, 93% for the creative class, 91% for the creative teacher and 95% for the creativity.

For ensuring the validity of the research, we referred to the criteria determined by Yıldırım and Şimşek (2016). The data analysis process was elaborated in accordance with these criteria and determined the metaphors that represent each category best and included them in the findings part. In addition to the metaphors, giving samples of the statements by the participants about the metaphors is accepted as one of the factors that increase the validity (Yıldırım & Şimşek, 2016). For this reason, we quoted from the statements of the participants in the part of findings.

RESULTS

Firstly, it has been determined that the participant groups produced metaphors in different numbers in the category of creativity, as stated in Table 2 according to the results of the research.

Table 2. *Distribution of the metaphors produced by the students with regards to the department*

Metaphor Groups	Pre-school Teaching		Child Development		Child Development Two-Year Degree	
	f	%	*f*	%	*f*	%
Creativity	22	22.0	29	29.0	49	49.0
Creative activity	26	26.3	26	26.3	47	47.5
Creative class	26	26.0	29	29.0	45	45.0
Creative pattern	16	17.0	27	28.7	51	54.3
Creative teacher	26	26.0	25	25.0	49	49.0
Creative children	23	23.5	28	28.6	47	48.0
Total	113	100	164	100	288	100

According to the research findings obtained by examining every concept category one by one, the participants of this study produced 99 metaphors about the creativity in total. These metaphors have been separated into eight different categories with regard to the relationship

between the subject and source of the metaphors and expert opinions. As it is seen in the Table 3, most of the participants (37.4%) expressed the creativity as unlimited (Metaphors: Unlimited, eternal, endless etc.). The category for which the least metaphor was produced is the effort demanding creativity (Metaphors: Effort, art).

Table 3. *Frequencies and percentage distribution of the creativity metaphors*

	Metaphors	*f*	%
Unlimited creativity	Cloud, sea, well, universe, galaxy, sky, dream, ocean, black hole, eternity, space	37	37.4
Creativity expressed as productivity	Tree, paper, invention, dream, machine, art, dough, production	18	18.2
Creativity in which individual differences play a role	Mind, soul, power, inspiration	16	16.2
Creativity associated with nature	Sun, water, soil	12	12.1
Creativity of vital importance	Rainbow, laugh, black hole, water	6	6.1
Suddenly emerging creativity	Power, mine, lightning	5	5.1
Interesting and entertaining creativity	Sun, play, toy	3	3.0
Effort demanding creativity	Effort, art	2	2.0
Total		99	100.0

Metaphor samples by the participants about creativity are shown in the Table 3. Samples of statements about these metaphors are as follows:

1. **Unlimited Creativity:** "Creativity is like the sky because thinking unlimitedly is necessary." "Creativity is like the universe because it is endless. Creativity is like eternity because it provides an unlimited point of view."

2. **Creativity Expressed as Productivity:** "Creativity is like a dream because a product is designed with a dream and it is produced and emerges." "Creativity is like a machine because creative people want to produce constantly."

3. **Creativity in which Individual Differences Play a Role:** "Creativity is like an art because it is unique and special to everyone."

4. **Creativity Associated with Nature:** "Creativity is like water because it is important for the future." "Creativity is like soil because you give a shape to the soil."

5. **Creativity of Vital Importance:** "Creativity is like a rainbow because it lends color to the life."

6. **Suddenly Emerging Creativity**: "Creativity is like power because it emerges suddenly."

7. **Interesting and Entertaining Creativity:** "Creativity is like sun because creativity in children is bright and interesting."

8. **Effort Demanding Creativity:** "Creativity is like an effort because you think, dream and give an effort."

When we examine the metaphors of participants about the creative class, it has been found that 100 metaphors were produced in total. These metaphors are collected under 7 different categories stated in Table 4. In the creative class group, the category for which most metaphors were created has been the class consisted of unique learners (Metaphors: World, galaxy, orchestra), 3 metaphors belonging to the entertaining class has been produced (Metaphors: amusement park, entertaining).

Table 4. *Frequencies and percentage distribution of the creative class metaphors*

	Metaphors	f	%
Class consisted of unique learners	Intelligent, active, world, flexible, rainbow, orchestra, unique, special, candy, gallery	29	29.0
Productive class	Active, unity, team, squad, practical, impatient, weird, coherent, star, brainbox	22	22.0
Class presenting different opportunities and points of view	Mirror, light, paper, store room, amusement park, colorful, festival, supermarket	21	21.0
Class having natural living environment	Aquarium, environment, flower garden, sea, world, galaxy, planet, forest, ocean, soil, nature, universe	12	12.0
Unlimited and free class	Birds, free, parallel universe	8	8.0
Supportive and educative class	Breath, flock, chance, beneficial	5	5.0
Entertaining class	Entertaining, amusement park	3	3.0
Total		100	100.0

Samples of metaphors by the participants about the creative class are stated as follows:

1. **Class Consisted of Unique Learners**: "Creative class is like a rainbow because there is someone for each color."
2. **Productive Class**: "Creative class is like a squad because without someone of the squad others cannot do anything and proceed."
3. **Class Presenting Different Opportunities and Points of View:** "Creative class is like a light because it enables us to see the places and things we look at."
4. **Class Having Natural Living Environment:** "Creative class is like a soil because it brings up and nourishes.", "Creative class is like a flower garden because it relieves people, enables positivity and gives urge to work."
5. **Unlimited and Free Class:** "Creative class is like a bird because it can fly freely."
6. **Supportive and Educative Class**: "Creative class is like a chance because it is always good, it makes life better."
7. **Entertaining Class**: "Creative class is like an amusement park because you can be entertained while learning."

In the creative teacher group, the participants produced 100 metaphors. After examining the source and subject of the metaphors, the metaphors were divided into 6 categories. The category for which most metaphors were produced by the participants has been teachers as information source (Metaphors: frameless glasses, rainbow, Google). The least metaphor containing category is teacher as the source of inspiration (Metaphors: thread, magic, wormhole).

For the metaphor samples given in Table 5, sample statements made by the participants are as follows:

1. **Teacher as Information Source**: "Creative teacher is like an information source because they know what to do" "Creative teacher is like an information source because every question of them becomes a new light."
2. **Rarely Found Teacher**: "Creative teacher is like a matchless creature because they are one and only with their thoughts and actions."
3. **Teacher as Life Source:** "Creative teacher is like sun because they are most important factors necessary for bringing up seeds."
4. **Teacher as Source of Joy**: "Creative teacher is like a magician because they amaze the children while entertaining them."
5. **Productive Teacher:** "Creative teacher is like a cook because they do not fear trying new things."

6. **Teacher as Source of Inspiration**: "Creative teacher is like a thread because there is surprise in what product will emerge from this thread."

Table 5. *Frequencies and percentage distribution of the creative teacher metaphors*

	Metaphors	*f*	%
Teacher as source of information	Key, teller, informant, glasses, light, idol, medicine, bridge, miracle, quality, strainer, magical wand, chance, brainbox	41	41.0
Rarely found teacher	Precious, matchless creature, source of inspiration, unique, comfortable, productive, innovator, clever, rainbow	17	17.0
Teacher as source of life	Meadow, sun, light, earthquake, ocean, forest, water, soil	12	12.0
Teacher as source of joy	Entertaining, joyful, magician	11	11.0
Productive teacher	Active, cook, painter, artist, scriptwriter, productive, innovator	10	10.0
Teacher as source of inspiration	Attention grabbing, energetic, effective, thread, sample, magic, wormhole	9	9.0
Total		100	100.0

As it is seen in the Table 6, participants produced 99 metaphors about the creative activities and these metaphors are collected under 6 categories. While the category of supportive activity includes 35 metaphors (Metaphors: nature, laboratory, felicity) the least metaphor receiving category is multiple stage activity (Metaphors: horizon, building, science-fiction film).

Table 6. *Frequencies and percentage distribution of the creative activity metaphors*

	Metaphors	*f*	%
Supportive activity	Family, elevator, food, nature, beneficial, ship, sun, informative, color, soul, water drop, book, salt	35	35.4
Unique / Unexpected activity	Tree, sky, glasses, unique, unlimited, rain, exciting	22	22.2
Open ended and unlimited activity	Open door, deserted way, pool, drop, meter, way	20	20.2
Enlightening activity	Bulb, flash lamp, tool, imaginary, light, window, art, paint	12	12.1
Entertaining activity	Amusement park, game	7	7.1
Multi-stage activity	Building, science fiction film, horizon	3	3.0
Total		99	100.0

Sample statements for the metaphors mentioned in the categories are as follows:

1. **Supportive Activity:** "Creative activity is like a family because it supports the mental development of the children."
2. **Unique/Unexpected Activity**: "Creative activity is like a tree because its fruits are sui generis."
3. **Open-ended/Unlimited Activity**: "Creative activity is like a meter because it gives a detail information in every centimeter, it is endless and rich."
4. **Enlightening Activity**: "Creative activity is like a light because the resulting product enlightens their mind."
5. **Entertaining Activity**: Creative activity is like an amusement park because it attracts, entertains, arouse curiosity and encourages others."

6. **Multistage Activity**: "Creative activity is like a building because it has some stages."

Table 7 shows the categories created for the metaphors produced by the participants about the creative parent. The category for which most metaphors created is supportive and developer parent (Metaphors: Tree, riddle, sun). Explorer parent category has 3 metaphors (Metaphors: explorer, free).

Table 7. *Frequencies and percentage distribution of the creative parent metaphors*

	Metaphors	*f*	%
Supportive and Developer parent	Island, tree, mother, vaccination, present, riddle, needle, life, scissor, felicity, bridge	64	68.1
Entertaining and adventurer parent	Mother, friend, detective, toy	9	9.6
Unique and productive parent	Life, light, wonderful	9	9.6
Role model parent	Sample, lodestar	7	7.4
Matchless and rarely found parent	Mind, gold, clover	3	3.2
Explorer parent	Explorer, free	2	2.1
Total		94	100.0

Sample statements by the participants for the metaphors they produced about the creative parent are as follows:

1. **Supportive and Developer Parent:** "Creative parent is like a mother because they always have a creative idea." "Creative parent is like a present because what we learnt in the school is strengthened in the home with family.
2. **Entertaining and Adventurer Parent:** "Creative parent is like a detective because they want to discover constantly and they like adventures."
3. **Unique and Productive Parent:** "Creative parent is like a life because they always ingrain thinking broadly and differently in their children, they do not limit their children."
4. **Role Model Parent:** "Creative parent is like a lodestar because children imitate their parent."
5. **Matchless and Rarely Found Parent:** "Creative parent is like a gold because it is hard to find."
6. **Explorer Parent:** "Creative parent is like an explorer because they make research for their children and they become creative at the end of it."

Lastly, participants created 98 metaphors about the creative child. These created metaphors have been separated into 5 categories. The category for which most metaphors were produced is the category of questioner and curious child (Metaphors: Unique, robot, rubber). 5 metaphors were produced in the category of entertaining and happy child (Metaphors: Happy, clown, efficient).

Sample statements about the creative child are given below:

1. **Questioner and Curious Child:** "Creative child is like a rubber because they have a flexible thinking and creating power."
2. **Precious and Protection Demanding Child:** "Creative child is like an ore because they are one and precious." "Creative child is like a star because they shine in whatever environment they are in."
3. **Productive Child:** "Creative child is like a fire because when they burn they enkindle their surroundings."
4. **Free Child:** "Creative child is like a bird because they are free and they think whatever they want, they have no limitation."

5. **Entertaining and Happy Child**: "Creative child is like a clown because they have entertainment inside them."

Table 8. *Frequencies and percentage distribution of the creative child metaphors*

	Metaphors	ƒ	%
Questioner and curious child	Meaningful, rainbow, dreamer, discoverer, curious, rubber, a new age, clever, magician	42	42.9
Precious and protection demanding child	Gold, moon, fish, plant, flower, diamond, ore, treasury, coffee, brilliant, color, star	21	21.4
Productive child	Fire, future, color, space, invention	15	15.3
Free child	Black rose, bird, ocean, light, dreamer	15	15.3
Entertaining and happy child	Happy, clown	5	5.1
Total		98	100.0

DISCUSSION and CONCLUSIONS

Metaphor is a method used for reducing the information obtained in qualitative research and consisted of complex meaningful structures into the structured patterns (Schmitt, 2005). In this research, we examined the metaphorical perceptions of pre-school teaching, child development and child development two-year program students about the concepts of creativity, creative parent, creative child, creative activity, creative class, and creative teacher. Participants produced metaphors for each concept in different numbers. While determining the categories for the concepts, we have not looked at the metaphors associated to the concepts but we have looked at the relationship between the metaphors and their sources and for what reason the metaphors are used. We reorganized the created categories in accordance with the expert opinion and reached consensus.

When we look at the metaphors created by the participants in the category of creativity, it can be seen that the participants defined the creativity mostly (37.4%) as unlimited. In addition, 8 categories have been created in total as creativity expressed as productivity, creativity in which individual differences play a role, creativity associated with nature, creativity of vital importance, suddenly emerging creativity, interesting and entertaining creativity, and labor demanding creativity. When we look at the literature, we can see some studies that use metaphors to get the perceptions of pre-school teacher candidates and the students of psychology department about the creativity (Tok, 2015; Pekdoğan & Kanak, 2015; Açıl & Kanlı, 2018). In the study by Tok (2015), metaphors obtained from the pre-school teacher candidates was categorized as "Characteristics of Creative Thinking", "Importance" and "Characteristics of Creative People". In parallel with the current study, the author reached the subcategories such as "Endless", "Bringing the differences together and developing", "Creating different and various ideas", "Suddenly emerging (coming of inspiration)" (Tok, 2015). In a similar study, 53 metaphors by the participants about the creativity were divided into 7 different categories like "animal", "human", "object" (Pekdoğan & Kanak, 2015). Moreover, the creativity was associated with nature like in the current study. When we look at the metaphors of the psychology department students about the concept of creativity, we can see some similar results with the current studies (Açıl & Kanlı, 2018). Similarly, in this study, the concept of creativity has been categorized as "Eternity/limitedness", "Producing a new thing/invention", "An interesting thing". Differently from the current study, the participants produced metaphors in the categories of "Uncertainty", "Divine creation" and "Art" (Açıl & Kanlı, 2018). When we think that the current study has been done with the participants that took a course about art and creativity, the reason why similar results have been reached may be that the participants have some knowledge about the creativity.

When we look at the produced creative class metaphors, it can be resulted that the produced metaphors are divided into two main headlines as class as a physical environment and class as a community. When we look at these metaphors, we determined 7 categories as "Class consisted of unique learners", "Productive class", "Unlimited and free class", "Class presenting different opportunities and points of view", "Supportive and educative class", and "Entertaining class". When we examine the literature, there is not any study that directly analyses metaphors about the creative class. However, in a compilation study about the relationship between school environment and creativity, it was stated that the school environment supporting creativity supports productive personality, offers an infrastructure to the practices of problem solving, and gives importance to the group work (Alfuhaigi, 2005). In another study, it was seen that the most school factor supporting the creativity of 5-6 age group children is using various materials in the activities (Kara & Ünüsan 2007). These findings show parallelism with some categories obtained in the current study. The concept of creative activity has been defined by the participants as "Supportive Activity", "Unique/Unexpected Activity", "Open-ended and Unlimited Activity", "Enlightening Activity", "Entertaining Activity" and "Multistage Activity". In parallel with the current study, it is stated in the literature that the creative activities should be activities that enable the children think freely (Mayesky, 1990), and are open-ended and unique.

One of the most important sources in supporting the creativity is teacher and parent. When we look at the categories about the creative teacher obtained from this study, we can see that the categories produced by the participants are collected under 6 categories as "Teacher as Information Source", "Rarely Found Teacher", "Teacher as Life Source", "Teacher as Source of Joy", "Productive Teacher", and "Teacher as Source of Inspiration". In a study which analyses the metaphors of the teacher candidates about the creative teacher, the participants created 8 different categories as "Problem solving", "Leading/pathfinder guide", "Sprouting Again", "Necessary for life", "Renewing", "Protecting/watching over", "A pleasant feeling", "Productive/hard-working" (Schreglmann & Kazancı, 2016). When we compare it with the current study, the creative teacher's being life source and productive is a finding which was found in both of the studies. When we think about the characteristics of the creative teachers, these findings are usual. When we look at the creative parent metaphors, it can be seen that the total of 94 metaphors are collected under 6 different categories as "Supportive and Developer Parent", "Entertaining and Adventurer Parent", "Unique and Productive Parent", "Role Model Parent", "Matchless and Rarely Found Parent" and "Explorer Parent". When we look at the characteristics of the family supporting the creativity, we can see that the parents offer an area of freedom, they support different ideas of their children, they spend time of good quality with their children and they pose a role model for their children (Kara & Şençiçek, 2015). These characteristics are in parallel with the findings of the study. Finally, the creative child metaphors have been collected under 5 different categories and they are named as "Questioner and Curious Child", "Precious and Protection Demanding Child", "Productive Child", "Free Child" and "Entertaining and Happy Child". Kara and Şençiçek (2015) define the creative child as the children whose curiosity and imagination is developed and who express their feeling and thoughts in different ways, find different ways of solution, give importance to details, take the leadership.

As a conclusion, when we look at the metaphors of the participants about the creativity, the creative child, the creative patent, the creative class, the creative activity and the creative teacher, we find that the produced metaphors and created categories are in parallel with some of the studies in the literature. At the same time, we determined that the created categories are in harmony with the characteristics of the concepts. This situation can be interpreted as that the participants have a knowledge about the creativity.

Suggestions

Metaphors are accepted as imaginary reflections of the thoughts of the people. In this study, when we analyze the metaphors produced by the participants who took lessons of art or creativity about the creativity, the creative child, the creative teacher, and the creative parent, these metaphors are in parallel with the characteristics of the creative individuals. For this reason, a

lesson about creativity can be made obligatory in the education programs. Similarly, the concept of creativity can be dealt with in the family education programs and in-service training programs for supporting the creativity in home and school environment and strengthening the perceptions of the individuals about the creativity. When we analyze the categories about the concepts, there are categories about "productivity" and "being producer" in every category except for the category of "creative activity". For this reason, practices for the creativity can be included in the lessons and the individuals can be supported to be productive.

The future studies can be made by including the groups who did not take a lesson about art and creativity in order to determine effect of the lesson on the mental images and metaphoric perceptions of the students. The creativity is an area of development not only for the occupational group working with the pre-school children, but also for all the students in all levels. For this reason, the future studies may include other teacher candidates like primary school teaching, mathematics teaching and measure the metaphoric perceptions about the creativity.

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