

# **Pre-school Teachers' Perceptions Regarding The Concept of Creativity: A Metaphorical Study**

By

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## **Abstract**

This study aims at unveiling pre-school teachers' perceptions regarding the concept of creativity, how they conceptualize creativity through metaphors, and how this conceptualization is reflected in classroom practices. 348 pre-school teachers participated in the study. The study followed the qualitative case study method. The study is descriptive in the sense that it aims at examining teachers' conceptualizations of creativity. Pre-school teachers were given semi-structured interview questions such as "What do you think creativity is and what kind of creativity based activities are done in class?". To identify metaphors, they were given open-ended metaphors such as "According to you, creativity is like....because". Content analysis was done during the data analysis phase. The results suggest that pre-school teachers conceptualize creativity in relation to creating a new product, offering different solutions to problems, and thinking outside the box. Moreover, within the limitations of the curriculum, teachers find room for creativity based activities in all tasks that they do.

**Keywords:** *pre-school education, creativity, metaphor*

## **1. Introduction**

Creativity is a feature that helps in all areas of life, supports problem-solving and is inherently present in every individual. However, if not developed, it diminishes or even disappears. To define creativity within one sentence is almost impossible because it is a concept with multiple dimensions.

In defining creativity, some authors focus on "the product", others on the "thinking process", and yet others on "personal characteristics". However, despite all differences, what all have in common is the idea of creating something new and extraordinary. Within this process, "product" is characterized as adapting a different route, thinking outside the box, being able to establish relationships between concepts or being able to put forward an original idea or invention (Torrance, Paul et al., 1989, 136). In other words, it requires the ability to create something new by establishing relationships between things that at first sight seem to be irrelevant. Seeing is the starting point of creating. Actually, the most effective task of human beings is to use their cognitive skills to create a new product. Consequently, a lot of scientists and artists concentrate on the importance of creativity and a lot of educators conduct studies to improve their students' creativity abilities. In creativity, which involves invention and innovation, all cognitive competencies, thinking processes, imagination, and senses are in interaction with each other. Creativity plays a role in the development of all cognitive competencies. Within this context, creative thinking is a type of thinking that leads to invention, seeking innovation or offering new solutions to old problems and original thoughts. Erlendsson (1999) explains creative thinking in 4 dimensions.

- 1. Continuity:** To be able to develop several alternatives for an appropriate number of thoughts or problems,
- 2. Flexibility:** To be able to change approaches based on idea developing abilities and problem solving abilities that fall under different categories,
- 3. Originality:** To be able to create genuine and rational ideas or develop special solutions to problems,
- 4. Enrichment:** To be able to develop an idea by completing it, to go into details and to add answers.

As such, within information production context, creative thinking is an ability that needs to be developed and realized in an era based on information.

Education systems aim at training individuals who are able to develop their thinking skills, use their intellect in different forms, and create new things rather than repeating what former generations have done. In order to achieve this, creativity needs to be effectively employed in the education system. Liberal and critical thinking are the main requirements of creativity, and thus of the modern educational understanding (İpşiroğlu, 1993; Çellek, 2001; Noyonalpan, 1993).

Nowadays, a lot of families and education programmes aim at training creative individuals. An overview of the education models so far also shows that almost all of them left room for the development and training of creative thinking in children. Especially during pre-school period, importance has been given to children's development of creativity. NAEYC (2009), emphasizes that pre-school teachers need to consider and implement five significant rules for the development of children: forming student groups, supporting students, planning based on the programme, evaluating students' development and learning, and being in contact with the families. In addition to these, it is also important that students are provided the chance to join in activities appropriate to their development, to solve problems, to play games and to be in cooperation with their peers. The lack of one of these may impact the students' academic life in the future. Thus, the most important role of the teacher at this stage is to provide the pre-school student, who is curious, tries to explore the environment and asks questions, with an atmosphere appropriate for creativity, encouragement to use their creativity more effectively and reinforcement of their curiosity. Based on the finding that creativity is a skill that lends itself for development under the right circumstances, it would be fair to say that teachers have a crucial responsibility in establishing the required circumstances. For teachers to be able to bring out the creativity potential in a student and train creative students, they themselves need to possess creative thinking skills along with knowledge needed to plan creative lessons. Torrance believes that students can be given ways of finding new solutions to problems whereby they can develop their skills of risk taking and original production (Mamur, 2002, 14). To do this, teachers certainly need to know what creativity is and how it can be developed. Within this context, Jenkins (1998) compares students' primary education to a journey in a train; when students come to pre-school they have a perfect track in front of them. However, adults and the school culture corrupt the connections of the tracks. In other words, the teachers themselves need to be creative thinkers, flexible and open to innovations so that they can support students' creativity.

There is no doubt that the profession of teaching does not only mean transferring information to students but also equipping them with the ways of using the masses of information gained. The teachers who are responsible of realizing this education should have creative thinking skills themselves and adapt an approach that supports creativity.

Early childhood education is a new area for researchers in Turkey. Existing research is usually limited to experimental studies. Little attention has been given to research on the current situation along with teachers' in-class applications and teachers' beliefs (Varol, 2012). Moreover, no studies have been found related to pre-school teachers' views or perceptions related to creativity. Thus, the current study is believed to contribute to this area of study. It is also considered important in the sense of training creative individuals, and thus contributing to the training of teachers who have developed their skills in terms of life-long learning.

### ***The Goal of the Study***

This study aims at unveiling pre-school teachers' perceptions regarding the concept of creativity, how they conceptualize creativity through metaphors, and how this conceptualization is reflected in classroom practices. This study sought answers to the following questions in order to fulfill this goal:

1. What are pre-school teachers' perceptions of creativity?
2. What are pre-school teachers' metaphors related to the concept of creativity?

3. Which classroom activities do pre-school teachers perceive as creativity tasks?

***Rationale***

In the pre-school education programme, creativity has been taken as the foundation for the programme. That is why, "creativity" or "developing creativity" has not been identified as a separate objective. However, in accordance with objectives and gains, teachers are expected to consider both students' and their own creativity when planning and applying tasks (Gürkan and Haktanır, 2006). In Turkey, according to the programme prepared by the Ministry of National Education, pre-school education is supposed to contribute to students' cognitive, emotional, social and physical development. Those areas mentioned above also need to be supported within appropriate learning environments in terms of free time, art, art and music, drama, science, mathematics, and literacy activities. These activities are usually possible through problem-solving tasks, games and activities which bring about creativity (MEB, 2010). It should be noted that creativity is a critical concept for the success of the whole programme. Taking this as the starting point, this study determines pre-school teachers' metaphoric perceptions about creativity.

Metaphors are frequently seen as a simple figure of speech that is used to enrich discourse; however, their significance exceeds this function. Generally, metaphors help us to conceive the world by reflecting the way we think and see. For example, many studies conducted in different areas have shown that metaphors not only have an effect on the thinking style, language and science but also on the way individuals structure their way they express themselves. Although they are one of the main components of our language and thoughts, most of the time we are not aware of it. Even if we are aware of them, we do not concentrate on the deep meaning they connote (Lakoff and Johnson, 1980). However metaphors help us in forming and reconstructing images of a certain category, and they do also help us in attaching meaning to educational tasks. Teachers think about what they are doing during teaching. It is possible to develop a teacher's thoughts, images and applications through metaphors. Teachers who want to develop their teaching can change their classroom applications by giving meaning to their roles and responsibilities via metaphors (Johnson, 1987). Consequently, the things they believe about education and students will affect their classroom attitude and behaviour, their reflection about events and what should be done, and their belief about what is right and what is wrong. These beliefs are usually formed during childhood, and they have an influence on what the individual will learn about the teaching profession (Johnson, 1987). As stated by Yob (2003), for the past years, metaphors are seen as powerful cognitive tools that assist a person when trying to understand a highly abstract, complicated and theoretical concept. In light of the above mentioned details, teachers' perceptions and metaphors about creativity are seen worth researching in the current study.

**2. Method**

This study follows a qualitative research design. Qualitative study can be defined as research whose data collection is based on qualitative data collection methods such as observation, interview and document analysis. The aim is to describe perceptions and events within their natural context in a complete way by following a qualitative process (Yıldırım and Şimşek, 2006). Qualitative research techniques are preferred in cases where the aim is to draw upon individual's experiences or to understand their feelings and opinions (Ekiz, 2003). In this current study, the aim is to collect detailed and in depth data related to the research question. Thus, a qualitative research approach has been adopted, where the research method is based on a case study. It is a method in which one or more events, environments, programs, social groups or other interrelated systems are analyzed in depth (Yin, 2003). The study is descriptive in nature, examining teachers' conceptualization of creativity. Moreover, an analysis has been made with respect to the conceptualization and the way it is reflected in tasks done during pre-school education. Within their role defined in the pre-school programs, pre-school teachers were given semi-structured interview questions such as "What do you think creativity is and what kind of creativity based activities are done in class?". To identify metaphors, they were given open-ended metaphors such as "According to you, creativity is like...because". Teachers were asked to give their responses in writing. The aim was to reach the teachers' definitions regarding the concept through content-analysis. As stated by Yob (2003),

for the past years, metaphors are seen as powerful cognitive tools that assist a person when trying to understand a highly abstract, complicated and theoretical concept.

### ***Participants***

The sample group of the study consists of pre-school teachers working at either governmental or non-governmental pre-schools during the 2012-2013 academic year. However, because of the large sample group and the difficulty of collecting data, convenience sampling group was chosen which consisted of pre-school teachers located in Mersin, Turkey. According to the figures received from the Provincial National Education Directorate and Educational Statistics Module (ESM) about the 2011-2012 academic year, there are 428 pre-school teachers working for state primary schools and 110 in private kindergartens, totalling up to 538 pre-school teachers. However, data was collected on voluntary basis and some of the questionnaires which were returned were either not completely filled out or were erroneous, the data was based on the answers of 348 teachers. The number of the returned data collection instruments, after eliminating all erroneous questionnaires is large enough to represent the whole sample group (Neuman, 2009, 350-351). The reason why pre-school teachers are chosen as the study group is because of their fundamental role in the education of a creativity-based education programme. The details of the study group are demonstrated in Table 1.

**Table 1. Descriptive Information on Teachers' Seniority, Gender, and School of Graduation**

Variable	Gender		Working Status		Students Age Group		
	Female	Male	Full-time	Part-time	Age 4	Age 5	Age 6
N	207	41	226	122	53	92	203
<b>Total</b>			348				

### ***Data collection***

In qualitative studies, the most widely used data collection techniques are: observations, interviews and document analysis. In this study, the data were collected through semi-structured interviews. In structured interviews, the researcher prepares the questions in advance, however interviewees have the flexibility to restructure and discuss the questions (Patton, 1987)

While preparing the questions, the researcher forms some draft questions and asks for expert opinion. Here, expert opinion was sought and the questions were then finalized. The face to face interviews lasted for about 30 minutes, and with the consent of the participants were recorded in writing.

In order to determine teachers' metaphors, and thus images, related to creativity, they were asked the open-ended question "For you, creativity is like.... because.....". Researching metaphoric images is a powerful way to unveil teachers' roles in the classroom, their beliefs about students and education, and the underlying reasons for their assumptions (Ben-Peretz, Mendelson and Kron, 2003).

### ***Data analysis***

The data was analysed by following the steps of content analysis. During the main coding stage, two researchers worked on the same set of data independently. Then, the coding was compared for consistency purposes. The codes that were agreed on were taken as they are. The data was analysed again with the coding done. At the end of the coding procedure, the common codes and the conflicting ones were identified and interrater reliability was calculated based on Miles and Huberman (1994). The reliability was found as .87. As the value is above .70, the coding was found reliable. In order to determine the meaning that teachers attach to the concept of creativity, their statements were categorised based on content similarity. Finally, all categories were labelled, and thus main themes were identified (Patton, 2002). For simplification purposes, the results of the analysis are shown in tables based on

themes. While preparing the tables, theme variety was the main focus, and repeated definitions were excluded. This is why the number of statements included in the tables are different from the number of forms taken into consideration during analysis. When presenting the results, themes have been supported by the original statements of the teachers. The findings have then been supported and discussed by the literature in the field.

### 3. Findings and Comments

#### *Teachers' Conceptualization Regarding Creativity*

Based on teachers' answers about the concept of creativity, three theme groups have been identified; namely, "creating a new product via synthesizing (originality)", "an individual's engagement in acts for problem-solving", and "being outside common patterns". In addition, examples given by teachers on creativity have been evaluated separately. Within the first theme, the following expressions were foregrounded: innovation, difference, genius, inspiration, miracle and realizing dreams (Table 2).

**Table 2. Teachers' Creativity Conceptualization: creating a new product via synthesizing**

Creating a new product via synthesizing (f=93)

- 
- Innovation
  - Difference
  - Genius
  - Inspiration
  - Miracle
  - Realizing dreams
- 

Teachers' expressions like "creating a new product from an already existing situation or object", "developing different perspectives", "using a product in a way other than intended", "imagining something that does not exist", and "to bring about secret powers" have all been grouped under the category of "creating a new product via synthesizing. It can be seen that teachers used more daily language when expressing their definitions regarding creativity. Ülgen and Fidan (2000), focusing on the originality dimension of creativity, express that creativity has a role in the development of the thinking system which enables an individual to create formerly unknown intellectual or artistic work.

Another dimension for teachers' conceptualization of creativity is "an individual's engagement in tasks for problem-solving".

**Table 3. Teachers' Creativity Conceptualization: an individual's engagement in acts for problem-solving**

an individual's engagement in acts for problem-solving (f=76)

- 
- Thinking in a multi-dimensional way
  - Flexibility
  - Success
  - Achievement despite limited resources
  - Not feeling hopeless
  - Simplifying life
- 

Teachers who participated in the study consider creativity as the act of engaging in problem-solving activities. Especially, flexibility and being able to think multi-dimensionally are shown as the fundamental dimensions of creativity (Guildford, 1968). The participants of this study, too, center their

definitions around this dimension. For example, one teacher focused on multi-dimensional thinking by stating “to be able to see and understand different reasons of an event”, while another teacher expressed flexibility by stating “to be able to use a product in a way other than the one intended”. “Being able to produce solutions when in need” is also one of the statements which expresses that the person does not feel hopeless. Another teacher who emphasizes that creativity implies making life easier, states “being able to use present opportunities for different purposes”, implying that creativity can be associated with problem-solving skills. Similarly, Solso et al. (2007) foreground problem-solving and creativity connection by defining creativity as a cognitive act that results in seeing a situation or a problem from an original or new point of view. Within this respect, it can be claimed that teachers’ creativity associations are close to the thinking process dimension of creativity.

Torrance notes that creativity is a process of testing and explaining hypothesis by being sensitive towards problems, inadequacies, lack of knowledge, missing elements and disharmony; and recognizing difficulties, seeking solutions, forming predictions or forming hypothesis about inadequacies (cited in Güven, 1999). Thus, this shows resemblance to the meaning that teachers attribute to creativity.

Besides teachers’ association of creativity with creating a new product through synthesizing and offering solutions to problems, they also associate creativity with moving beyond patterns.

**Table 4. Teachers’ Creativity Conceptualization: Moving beyond patterns**

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Moving beyond patterns (f=82)

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- Acting with instinct
  - Being able to express oneself
  - Marginal thinking
  - Doing one’s best
  - Behaviour without limits
  - Taking risks
- 

In the explanations teachers made about the concept of creativity, another striking aspect is the emphasis on behaviour. Creativity is perceived as a “personality trait”. Here, explanations reflect the individual’s life, the effect on their perspective and the expectations of the society. Teachers highlight the personality traits with statements like “acting on instincts”, “realizing dreams despite everything”, and highlight the thinking process with statements like “thinking differently from others” and blending dreams with reality”. Bartlett (1958), too, stresses that creativity is a brave thinking type like deviating from the main road. Likewise, Fromm mentions that creative attitude and behaviour are characteristic features (cited in Gönen et al., 1998).

***Teachers’ Creativity Metaphors***

In order to determine the participant teachers’ metaphors related to creativity, they were asked the open-ended question: “For you, creativity is like.... because....”. Thus, teachers were given the chance to express what they compare creativity to, and why they make that comparison. Table 5 demonstrates the written answers of teachers about their perceptions of creativity.

**Table 5. Teachers' Creativity Metaphors**

<b>Question</b>		
<b>For you, creativity is like</b>		
<b>Metaphors</b>	<b>f</b>	<b>%</b>
Dream	47	13.50
Sky	42	12.06
Ocean	39	11.20
Freedom	32	9.19
Space	30	8.62
Walking on water	25	7.18
Breathing	21	6.03
Kite	18	5.17
Sun	14	4.02
Magic	13	3.73
Play dough	11	3.16
Bird	11	3.16
Life	10	2.87
Cake	9	2.58
Pencil	6	1.72
Lightning	6	1.72
Numbers	5	1.14
Baker's yeast	3	0.86
Taste	2	0.57
A new planet	2	0.57
Popcorn	2	0.57
<b>Total</b>	<b>348</b>	<b>100</b>

Table 5 shows that teachers associate the concept of creativity with 21 imagery metaphors. It can be seen that teachers associate creativity with the following metaphors: "dream" (13.50%), "sky" (12.06%), "ocean" (11.20%), "freedom" (9.19%), "space" (8.62%), "walking on water" (7.18%), "breathing" (6.03%), "kite" (5.17%), "sun" (4.02%) and "magic" (3.73%). Along with these, teachers mentioned creativity metaphors such as "play dough, bird, life, cake, pencil, lightning, numbers, baker's yeast, taste, a new planet and popcorn".

It can be claimed that teachers foreground the flexibility dimension of creativity based on their indications of metaphors such as sky, freedom, bird, space, kite and dream. Flexibility covers skills such as moving beyond ordinary patterns and thinking freely. Torrance (1965), similarly, mentions flexibility as one of creative features. Metaphors such as magic, a new planet and popcorn can be associated with the originality dimension of creativity. Some teachers perceive the concept of creativity as a personality trait or talent; or a sudden idea. Studies on creativity show that creative individuals are the ones who express their thoughts freely, by combining imagination, emotions and thoughts with internal motivation through their inborn creative abilities (Özden, 1993). Moreover, the metaphors expressed by the teachers are in accordance with expressions like imagining, and taking risks, which are in the sub-dimension of Williams (1980) test of feeling different.

#### ***Categories Based on Teachers' Perceptions of the Creativity Concept***

Table 6 demonstrates the list of categories formed based on teachers' metaphors of the creativity concept

**Table 6. Categories Formed based on the Creativity Concept**

Category	(f)	%
Independent Behaviour Category	245	70.40
Originality Category	56	16.09
Potential (ability) Category	47	13.50
<b>Total</b>	<b>348</b>	<b>100</b>

Table 6 shows that the categories formed by the teachers' responses regarding their metaphors for creativity, the majority centres around independent behaviour (act) (70.40%), with the remaining metaphors focusing on producing something original (16.09%), and the minority being based on potential (ability) (13.50%).

Some views of teachers which show that the concept of creativity is associated with freedom and independence are as follows:

*When we look beyond the sea, we see the horizon, but are unable to reach it as other horizons follow, one after the other. Besides, it shelters a lot of living creatures. Just like our feelings (ocean metaphor).*

*We enlighten both our environment and ourselves, and it warms everybody. The sun is an energy generator in its own. A creative person also generates his/her own energy (sun metaphor).*

*Even if you write in pencil and then erase, you can still see the traces. It never disappears completely (pencil metaphor).*

*First you do not expect the miracle from the corn; likewise, you may not know your potential inside. However, once on the oven, all corns pop (popcorn metaphor).*

*In every cake, there is flour, sugar and the like. However, there is a variety of cakes. What makes them different is the taste that it leaves in the person who eats it (cake metaphor).*

*It is the play dough which takes different shapes based on the imagination of the person who plays with it (play dough metaphor).*

It can be said that teachers perceive creativity as independent behaviour, producing something original and as a talent. However, metaphors related to independent behaviour irrespective of any situation, event or object can be claimed to reflect teachers' view about creativity. The reason is that the vast majority of teachers (70.40 %) have associated creativity with perceptions like exceeding borders, acts without limits, exceeding the full potential or thinking and feeling without limits. Robinson (2003) also claims that one of the three main features of creativity is independence, which means trying out and taking risks. In accordance with this is Barlett's definition of creativity which describes it as "deviating from the main road, being open to experiments, and moving outside patterns", further supported by San (1995), who claims that creativity is possible with independent and democratic environments.

#### ***Student Behaviour that is Perceived as Creative by Teachers During Class Activities***

Table 7 shows the list of student behaviour that is perceived as creative by teachers during class activities.

**Table 7. Student Behaviour that is Perceived as Creative by Teachers during Class Activities.**

<b>Student Behaviour that is perceived as Creative by Teachers during Class Activities</b>	<b>(f)</b>	<b>(%)</b>
Creating a product with leftovers	73	20.97
Different ways to solve problems	68	19.54
Using a material for purposes other than intended	57	16.37
Comparing an object with something different	43	12.35
Behaving outside routine range	33	9.48
Students' way of expressing themselves	22	6.32
Accomplishing task beyond their maturity level	17	4.88
Questions asked by the students	12	3.44
Different answers given to questions	11	3.16
Students' being social	9	2.58
Daily conversations	3	0.86
<b>Total</b>	<b>348</b>	<b>100</b>

Based on Table 7, we can say that the majority of teachers consider creating a product with leftovers (20.97%) and different ways to solve problems (19.54%) as creative, whereas less teachers consider daily conversations (0.86%), students joining in social activities (2.58%), different questions and answers given to questions as creative. The behaviour types that are perceived as creative are creative in nature. When definitions of creativity from different sources are analysed, it can be seen that the expressions listed in Table 7 are in accordance with the definitions. Torrance, Paul et al. (1989) see creativity as a "product" which refers to an invention, a scientific theory, a developed product, a literary work, a new design that has been developed by not accepting everything as it is, by trying out new ways, and by producing original ideas. Likewise, Rouquette (1992) emphasizes that creativity is the blend of pressure, person, process and product. When the features of creativity are taken into account, the findings of this study are in accordance with the literature.

#### ***Teaching Areas where Teachers use Creative Tasks in the Learning-Teaching Process***

Table 8 shows the areas where teachers use in class creative tasks

**Table 8. Teaching Areas where Teachers use Creative Tasks in the Learning-Teaching Process**

<b>Teaching Areas where Teachers use Creative Tasks in the Learning-Teaching Process</b>	<b>(f)</b>
All tasks	220
Tasks Related to Arts	198
Language Tasks	93
Science-Nature Tasks	86
Mathematics Tasks	76

(In Table 8, repeating expressions were grouped under the same label, thus the numbers indicated are not equal to the number of forms collected).

Table 8 shows that the large majority of teachers (f:220) use creative activities in all tasks, followed by tasks related to arts (f:198), language tasks, science-nature tasks and mathematics tasks. In the light of these findings, it is worth noting that creative activities are done in all tasks, which is of crucial importance in the pre-school programme based on creativity. The reason is that in the pre-school program, there are no topics to be covered, rather the aim is to help students develop in the necessary areas (MEB, 2010). From this point of view, to support students' creativity development within the learning-teaching context is considered important. Besides, when these findings are evaluated in relation to the findings shown in Table 7, it can be said that students are supported in terms of creativity in almost

all tasks. A look into the pre-school programme also shows the necessity of supporting students' developments via such tasks (Gürkan and Haktanır, 2006). There is also a consistency between students' use of wasted material and use of objects in a way other than the intended one in the area of tasks related to arts; and problem-solving and giving different answers to questions in the area of language related tasks.

#### 4. Discussion and conclusion

The findings of the research data show that teachers definitions of creativity centre around producing a new product (creativity based on invention), offering different solutions to problems (creativity in emergency), and moving beyond patterns (semantic creativity). These conceptualizations can be discussed within Taylor's (1983) five creativity dimensions, which he claims are present in human beings. Different authors have emphasized different components in their descriptions of creativity. For example, some authors focus on the product, some on the thinking process, and still others on personality traits (Torrance, Paul et al., 1989). Despite various emphases, the common point is that they all foreground the process of "producing something new and unusual". During this process, the focus is on "thinking processes" and "personality traits" such as following a different route than others, moving beyond patterns, not hesitating to explore new things, seeing different points in relationships between ideas, being open to innovation and not hesitating to try out new things. Thus, the conceptualization of creativity of the teachers supports the variety presented in the literature. In terms of the metaphors of the conceptualizations made by the teachers, the focus is mainly on "independence, moving beyond borders", which reflects the flexibility dimension of creativity. In light of the meaning that teachers attribute to the concept of creativity and the metaphors they mentioned, there is consistency between the findings and the in-class tasks, which are mainly producing a new product, offering different solutions to problems and using an object in a way other than the intended one. It can be said that there is a relationship between how teachers perceive creativity and the way they perceive creativity in students. The tasks that teachers do in-class are also in accordance with the metaphors mentioned. Vadeboncoeur and Torres (2003) state that in teacher training, metaphors play a crucial role as they help teachers to define classroom applications and determine modern educational understanding.

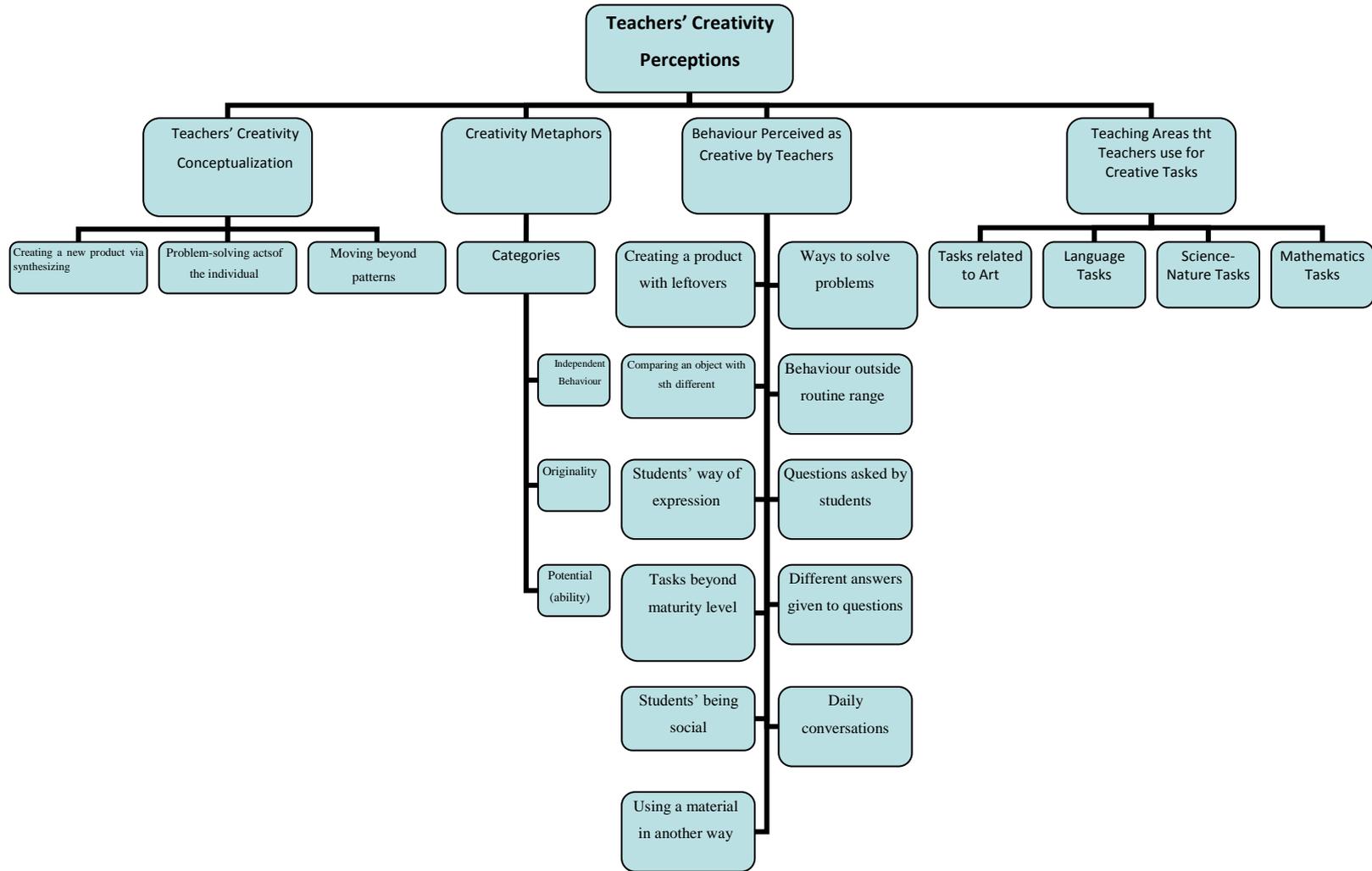
Another result of the study is that teachers, within the framework of their educational program, do creativity based tasks in all of their classroom activities. A vast majority of teachers indicated that they do activities that support the development of creativity. More than half of the participants mentioned that creativity based tasks could be more easily observed in tasks related to arts. This finding is important in the sense that it shows that teachers reflect their perceptions of creativity into the classroom activities they do with students. There seems to be a meaningful relationship between teachers' perception of creativity as producing a new product, the metaphors which reflect the idea of independently created products and the classroom activities done, especially in tasks related to art. Figure-1 (Pre-school Teachers' Metaphoric Perceptions about Creativity and In-class Activities) summarizes the findings of the research.

As a result, teachers who participated in the study foregrounded the importance of producing something new when explaining the concept of creativity. During the process of producing something new, the dimension of flexibility was foregrounded, and in terms of personality traits, independence were foregrounded when giving examples. These examples are in accordance with the creativity focus of the primary education programme.

It should be noted that education programmes in relation to creativity attract the attention of a lot of comprehensive research. However, it should be kept in mind that creativity has several dimensions. It can be suggested that processes like creative and flexible thinking be given more importance and its training

#### **Figure-1: Pre-school Teachers' Metaphoric Perceptions about Creativity and In-class Activities**

Pre-school Teachers' Perceptions Regarding The Concept of Creativity: A Metaphorical Study



be reflected in tasks that develop creativity. Besides, teachers may reflect their perceptions and tendencies to students. Consequently, it can be suggested that teacher training should include activities that develop teachers' creativity and equip them with the necessary skills to plan creative tasks.

## References

- Ben-Peretz, M., Mendelson, N. ve Kron, F. W. (2003). "How teachers in different educational context view their roles". *Teaching and Teacher Education*, 19, 277-290.
- Çellek, T. (2001). "Yaratıcılık ve Eğitim Sistemimizdeki Boyutu", *Cumhuriyet Bilim Teknik Dergisi*, 741, 18-19.
- Erlendsson, J. (1999). *The Role Of Creativity*, University of Iceland, [http://www.hi.is/~joner/eaps/cq\\_cr04.htm](http://www.hi.is/~joner/eaps/cq_cr04.htm)
- Ekiz, D. (2003). *Eğitimde Araştırma Yöntem ve Metodlarına Giriş*. Anı Yayıncılık: Ankara.
- Gönen, M. Ve arkadaşları (1998). *Çocuklar İçin Yaratıcı Etkinlikler*, Ankara.
- Guildford, J.P. (1968). *Intelligence, Creativity and Their Educational Implication*. R.R. San Diago: Knapp Publishers.
- Güven, Y. (1999). "Erken Çocuklukta Yaratıcılık Yeteneğini Tanıma ve Geliştirme". R. Zembat (Edit.), *Okul Öncesi eğitimde Temel Kavramlar*, İstanbul: Yapa Yayınları.
- İpşiroğlu, Z. (1993). *Eğitimde Yaratıcılık*, Ankara: TED yayıncılık.
- Johnson, M. 1987. *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason*. Chicago: University of Chicago Press.
- Jenkins, L. (1998). *Deming'in İlkelerini uygulayarak Sınıflarda Öğrenmenin İyileştirilmesi*, Kalder yayınları.
- Lakoff, G., and M. Johnson. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.
- Mamur, E. 2002. "M.E.B' nin yürürlükteki sanat öğretimi programı ile kaynaştırılmış sanat öğretimi programının ilköğretim çocuğunun yaratıcılığına etkisi". Yayınlanmamış Yüksek Lisans Tezi. İzmir: Dokuz Eylül Üniversitesi.
- Milli Eğitim Bakanlığı [MEB]. (2006). *Okul Öncesi Eğitim Programı (36-72 Aylık Çocuklar İçin)* (Ed. T. Gürkan ve G Haktanır) Ankara.
- Miles, M. B. and Huberman, A. M. (1994). *An Expanded Sourcebook: Qualitative Data Analysis*. (2nd Ed.), California: Sage Publications.
- Ministry of National Education, General Directorate of Teacher Training and Education. (2010). Teaching Profession General Competencies. Retrieved from <http://otmg.meb.gov.tr>.
- Morgan, G. (1980). "Paradigms, Metaphors, and Puzzle Solving in Organizational Analysis" *Administrative Science Quarterly*.
- National Association for the Education of Young Children. (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8*. [Position statement]. Washington, DC: NAEYC.
- Neuman, W. L. (2009). *Toplumsal Araştırma Yöntemleri, Nitel ve Nicel Yaklaşımlar*. Cilt I, (çev: Sedef Özge), İstanbul: Yayıncılık.

- Noyanalpan, N. (1993). Eğitimde Yaratıcılığa Genel Bakış, *Yaratıcılık ve Eğitim*, Ankara: TED yayınları.
- Özden, Y. (1993). *Yaratıcılığı Geliştirme Düşünmeyi Öğrenme Öğretme Biçimleri*. Ankara: Pegem Yayınları.
- Patton, M. Q. (1987). *How to use qualitative methods in evaluation*. Newbury Park, CA: Sage
- Patton, M. Q. (2002). *Qualitative methods and evaluation methods*. London: Sage Publications.
- Robinson, K. (2003). *Yaratıcılık, aklın sınırlarını aşmak*, İstanbul: Kitap Yayınevi.
- Rouquette, M. L. (1992). *Yaratıcılık*. İstanbul: Şefik Matbaası.
- San, İ. (1995). *Sanatsal yaratma ve çocukta yaratıcılık*. Ankara: Türkiye İş Bankası Yayınları.
- Solso, R.L., Maclin, M.K. ve Maclin, O.H. (2007). *Bilişsel Psikoloji* (Çev: Ayçiçeği-Dinn, A.), Kitabevi, İstanbul.
- Taylor, J.W. (1983). *Planning Profitable New Product Strategies*. Modern Business Report.
- Torrance, E.P. (1965). *Rewarding Creative Behaviour*. New Jersey, Hall Inc.
- Torrance, E. P. ve Goff, K. (1989) "A Quiet Revolution" *Journal of Creative Behavior* 23, 2: 136-145.
- Torrance, E.P. (2002). *The Manifesto: A Guide to Developing A Creative Career*, United States of America: Ablex Publishing Corporation.
- Ülgen, G. Ve Fidan, N. (2000). *Çocuk gelişimi*. 8. Baskı, Ankara: Devlet Kitapları, ABC Matbaacılık.
- Vadebocoeur, J. A.ve Myriam N. T. (2003). "Constructing and Reconstructing Teaching Roles: A Focus On Generative Metaphors and Dichotomies", *Discourse: Studies in the Cultural Politics of Education*, Carfax Publishing, Vol: 24, No: 1.
- Varol, F. (2012). "What they believe and what they do". *European Early Childhood Education Research Journal*, 1–12.
- Williams, F. (1980). *Creativity Assessment Packet, Examiner's Manual*. Pro. Ed. Texas.
- Yıldırım A., ve Şimşek H. (2006). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri*. Seçkin Yayınları, 6. Baskı, Ankara.
- Yin, R. K. (2003). *Case study research. design and methods*. Third Edition. Thousand Oaks, CA.: Sage Publications.
- Yob, I. M. (2003). "Thinking Constructively With Metaphors" *Studies in Philosophy and Education*, 22, pp. 127-138.