The Creativity Levels of Preschool Teachers

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Abstract

This study examined the creativity levels of preschool instructors employed in Denizli's central districts' public schools and institutions throughout 2022–2023 academic year. The study used a scanning model and was quantitatively conducted. Data from 324 preschool teachers were gathered using a convenience sampling technique. Preschool teachers have medium levels of creativity in terms of academic creativity, artistic creativity, and artistic performance. They were discovered to have a high level of creativity in the originality area but a low level in the scientific/mechanical area. In preschool teachers' ratings of creativity, boys considerably outperformed girls on the dimension of scientific/mechanical inventiveness. In the area of artistic performance, creativity perceptions revealed a strong and significant difference in favor of women. Whether they were young, middle-aged, or old, teachers' assessments of creativity had comparable traits. There was a difference between preschool teachers with less seniority and those with more seniority when the artistic performance dimension of their judgments of creativity was explored, favoring those with less seniority. A difference was observed among the participants with 1–10 years of seniority and those with 11–20 years in terms of artistic inventiveness, favoring those with less seniority. When the preschool teachers' opinions of their own creativity were matched to their educational backgrounds, it was found that the graduate-degree holding teachers had greater perceptions of academic, scientific/mechanical, originality, and general creativity than the undergraduate teachers. It was determined that teachers with project experience have greater perceptions of creativity than those without project experience in the areas of academic, artistic performance, artistic inventiveness, and general creativity.

Keywords: Creativity, teacher, preschool, school.

Introduction

Creativity is defined as a "special power" peculiar to highly skilled people, although it was seen as a human competence (Özerbaş, 2011). The difficulty in understanding creativity's thought is a recurring theme in definitions of the term. The need for research to promote creativity as well as creativity itself, whose importance has lately increased, are still relevant today. Creativity is essential for individual and organisational development (Haşit, 2015). Creativity, also seen as a magic power, is derived from the words "creare" in Latin and "creativity" in English. The word for creativity means "to give birth, to bring forth, to create" (Balay, 2010). Creativity can also be defined as revealing things that exist and have not yet been revealed (Cengiz, Acuner, and Baki, 2006).

Knowing things, using analytical and critical thinking, being receptive to new ideas, asking insightful questions, and being creative are all important components in the development of creativity (Akçum, 2005; Kılınç, 2019). Accustoming the brain to these features and a systematic approach are seen as factors that increase and develop creativity (Şahin, 2017; Sipahioğlu, 2020).

It is possible to consider creativity as the process of giving existing knowledge in the mind new dimensions and differentiation. Every person is naturally creative, but discovering the various aspects of this information takes time and work. Many things have an impact on this process. Social structure, education, as well as cognitive, emotional, and psychomotor skills and personal traits, are some of these factors (Güleryüz, 2001; Özen, 2012; Sipahioğlu, 2020; Güven and Karasulu-Kavuncuoğlu, 2020,).

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The dimensions of creativity

Five dimensions of creativity have been studied in the literature: "individual", "social", "managerial", "educational" and "philosophical". *Individual Dimension in Creativity*: People differ from one another in many ways, including how creative they are. Creativity-skilled people can generate practical concepts and novel strategies. People with creative solid abilities can become free thinkers and adaptable in their actions. People with high creative abilities struggle to make decisions and adhere to societal norms. (Akat, Budak, and Budak,1997; Gök, 2019). This situation supports their features of being more accessible, flexible, risk-taking, courageous, open to innovation, and experienced in their perspectives on events. People fond of personal freedom and self-confidence are more creative (Altın, 2010). It is claimed that entrepreneurial people with sensitive, ,valuable and original ideas about solving the problems around them have creative personality traits (Genç, 2005). The fact that some people are satisfied with their actions, are willing and diligent in solving problems, and have easier and more internal motivation, makes these people's creativity characteristics stronger (Amabile, 1997; Fidan, 2018). Strong creative individuals are more sensitive in problem-solving. These individuals can define a problem, identify solutions, present various strategies and ideas, test solutions, and resolve it with practical and apparent results. (Sungur, 1992). If these individuals are given a chance to grow, it is predicted that they will make significant contributions to the organizations for which they work and contribute value to those organizations. These people will also have the chance to develop and enhance organizational innovation. (Chang and Chiang, 2008; Koşar and Ceylan, 2015; Dinç ve Göksoy (2020)). Because of this, the emergence of original ideas and opinions in the development of organizational creativity, and individual contributions to the quality of products and services have an extremely decisive effect.

According to Uurlu and Ceylan's (2014) study, instructors employed in primary schools exhibited organizational inventiveness that was above average. Additionally, it was shown that instructors' personal levels of creativity were higher than managers' personal levels of creativity. It is anticipated that this condition will enhance organizational creativity. *Social Dimension in Creativity*: The society in which one lives is among the most crucial environmental elements in the development of creativity. The social factor is very important in this regard (Kwasniewska and Necka, 2004; Koç, 2021; Karamustafaoğlu, 2018). Therefore, it is claimed that people's creative ideas are shaped by the environment they live in (Amabile, 1997). It has been revealed in the research that the social aspects of creative people are more in societies consisting of individuals who are open, self-confident, have developed research and questioning skills, have realized themselves, and have received social support in this regard (Genç, 2005).

The value of society, its norms, rules, and all kinds of material and spiritual values are the dominant factors in shaping people's thinking, character and creativity. Creativity characteristics of people living in societies with these life differences will also differ (Güleryüz, 2001; Koşar & Ceylan, 2015). *Managerial Dimension in Creativity*: It is crucial for the managers of the organization to foster the development of the members' creativity and to create an environment conducive to this within the organization (Genç, 2005). Organizational structure and member environment have both positive and negative effects in terms of creativity (Chang and Chiang, 2008) . The management of the organization's attitude has a big impact on how individual and organizational creativity develops within the organization. In terms of individual and organizational creativity, a situation will not progress past a debacle when innovative ideas are not recognized in the organization and are not managed correctly and efficiently. Therefore, for new ideas to be developed within enterprises and properly implemented, it is vital and essential to foster the growth of creativity. The sensitivity of the management power on this matter is intimately related to the functioning of creative ideas created in the managerial component of creativity and their application. (Şimşek, 1996). Employees are an important component in boosting organizational innovation, according to Eren and Gündüz's research from 2002. Managers of organizations should thoroughly assess this and assist their staff in this area in order to foster more innovation within the organization.

Educational Dimension in Creativity: Everyone is aware of education's importance in the promotion and growth of creativity. Even while some abilities are inherited at birth, education can help people increase and develop these abilities. It is clear how important education is when one considers that the formal and systematic education that begins in the first household is carried out in schools. (Torrance, 2002). It is obvious how crucial the family is to the development of creative traits when you consider that the brain's development is greatly influenced by the family's structure and parenting style during the 0–6 age range (San and Güleryüz, 2004). Overprotection, excessive regulation, mistrust, and prohibition among family members have a detrimental effect on creativity. Family members' freedom of expression, adaptable structures, and encouraging attitudes will encourage creativity. (Temizkalp, 2010).

Individuals' creativity is influenced by their surroundings at home, and the education that begins there continues in the classroom. People's creativity may be positively or badly impacted by the standard of

educational opportunities, programs, and procedures in schools. Overly organized programs are believed to have a negative effect on a person's creativity. (Güleryüz, 2001). The creativity features are negatively impacted if the curricula support a single level and the same concept. The teaching environment, the rules they adopt, the methods and techniques they employ, the strategies they choose, and the world of thought are all essential elements in the development of people's creativity.

Philosophical Dimension in Creativity: As the foundation of knowledge, discovering the principles of existence, and developing new things by utilizing them, creativity should not be based on a single philosophy. (San and Güleryüz, 2004). Since creativity encompasses fresh, unique, useful, qualified, and distinct ideas, creative and useful concepts from various philosophical strands may be advanced. Because of this, "philosophical reliability, ethical norms, and consistency" characteristics may be valued in creativity. In this way, utilizing "existence, naturalism, dialectical, realistic, pragmatic, and positive" concepts and methods will foster creativity. (Temizkalp, 2010).

The approaches related to creativity

Theories related to creativity can be examined as "humanistic theory, psychoanalytic theory, perceptual theory, Gestalt theory, and multiple intelligence theory".

***Psychoanalytic theory*:** Accordingly, it is the basis for preconscious creative thinking. Creativity is defined as ideas that originate in the deepest regions of the human mind and emerge through conflict or hostility. The proponents of psychoanalytic theory contend that creativity is the human mind's subconscious's external reflection. (Ülgen, 1995).

Humanistic theory: This theory holds that creativity is the idea that people with psychological security and freedom have for the good of others and to improve their quality of life. Creative people are open to innovations, prioritize human benefit and have a humanistic nature.

***Perceptual theory*:** Motivation and the need to connect to one's surroundings are two factors that inspire creativity. In this idea, it is crucial to consider how an individual interacts with his surroundings. Creativity is expressed as a perceptual openness that offers the opportunity to approach any event, phenomenon, or object from different perspectives (Sungur, 1997).

Cognitive-developmental approach: It is important for creativity to organize the existing information with synonymous and anonymous thought, to be original in the produced information and to do its job with great devotion. (Ülgen, 1995).

Gestalt theory: In this theory, the terms "productive thinking" and "problem-solving" are used synonymously with the term "creativity". Proponents of this theory see the current problem as a non-continuous whole that needs to be defined. This theory asserts that the creative idea should remake the problem (Sungur, 1997).

The factors affecting creativity

It is well known that every typical person is born with the ability or trait of creativity. In terms of traits like the emergence of creativity, development, degree, and sustainability, everyone is unique. (Tekin, 2008; Şahin and Danışman, 2017). According to several theories, the development of creative traits varies among people, which accounts for why each person's level of creativity is different (Yalçin, 2013). The following pages cover creativity-related topics within the categories of intelligence, personality, age, family, and education.

Intelligence: Whether there is a connection between creativity and intelligence is a subject of dispute. (Vural, 2008; Güven and Doğanay-Koç, 2020). Despite the fact that intelligence and creativity are two separate concepts, intelligence is one of the requirements for creativity. However, there is little evidence to support the idea that only intelligence directly promotes the growth of creativity. (Kara, 2007). There is no evidence that all creative people are talented or that creative people are also gifted. The relationship between general intelligence and creativity potential was examined in the study by Ahin (2014) with 330 gifted primary school pupils, and it was discovered that children's creativity traits did not improve in accordance with their intelligence level.

Personality: There has been a lot of discussion in the literature about the connection between creativity and personality qualities. In Artut's (2004) study, people with strong creativity were seen as having extraordinary thinking, responsible, using different methods and tools, and having differences in approach. Individuals with strong creativity are those who have their own unique ideas and views. They use new and different ways and stand out with their original and extraordinary approaches. Creative people exhibit different attitudes and behaviors from society; they are unique and original and do not compromise on this.

Age: According to the study's findings, there is an inverse correlation between creativity and age. It is widely acknowledged that creative traits decline with aging. It has been suggested that grip, adaptability, suppleness, and performance decline with advancing years.

Family: The first teacher is family. The family is very important in the development of creativity. Family support, guidance, and attitudes are very important for the family to display creative thoughts, attitudes and behaviors (Çakmak, 2005). In the study by Emir, Erdoan, and Kuyumcu (2006), it is claimed that the first kid has higher creativity traits and that the father has a weaker influence on the child's creativity. The socioeconomic status of families with kids that have high creative traits has been found to be middle and above, and families with low socio-economic status are insufficient to support their children

Education: One of the most crucial studies and elements that should be considered in the growth of creativity is education. (Ersoy, 2021). Creativity characteristics of individuals can be planned and implemented very well with well-structured education. Supporting new and original thoughts and views in education, encouraging children, and the atmosphere of development and creativity in educational institutions support creativity (Davaslıgil, 2005). The creativity-education relationship is directly related, and one affects the other positively. According to studies, families with high educational degrees encourage the growth of their kids' creative traits. Families who consider education important are closely interested in their children's education and support their children's creative characteristics. In today's contemporary education approach, policies to develop creativity are adopted, and hypothesis, theories, and practices are primarily applied in this direction. (Ersoy, 2021).

The stages of creativity

Graham Wallas's (1926) book "The Art of Thought" provides information about creativity. The author evaluated creativity as problem-solving. The widely accepted stages of creativity were as follows; "preparation, incubation, enlightenment and validation" (Akçum, 2005; Sadler-Smith, 2015). Preparation is the process of being aware of the problem, identifying the problem, focusing on the problem, examining the problem, and gathering information about the problem. Focusing on the problem will cause the person to complete the psychological and other preparations for the solution of the problem, acquire knowledge, and gain creative ideas (Yıldırım, 1998; Sipahioğlu, 2020).

Incubation is the unconscious maturation of the product. It is known as the phase in which an intense creativity effort continues with perception at the conscious level (Rıza, 1999; Sipahioğlu, 2020) develops suggestions for the solution of the problem of the enlightened individual. It is the period when a person uses his intuition (Okutan, 2012; Sipahioğlu, 2020; Yasavur, 2013). Aktamış and Ergin (2007) define enlightenment as "the moment a new idea emerges, an idea or solution suddenly flashes like lightning". By using trial and error, validation entails determining the suitability and validity of the problem-solving approach. In cases where the result is insufficient, the person applies to the third stage. Sometimes a solution that is deemed sufficient should be developed.(Rıza, 1999; Koç, 2021).

Creativity and its importance in preschool teachers

Everybody is born with the capacity for creativity; it is a trait that is passed down through the family and should be fostered through a structured program in conjunction with formal education. Pre-school is the age range of 3-6. Since brain development is provided to a large extent during this period and since this period is the foundation of development, the qualifications of the preschool teachers and the architects of this period are very important. Preschool teachers' capacity to foster children's creativity directly relates to how creative they are. Preschool teachers should, for this reason, first cultivate their own creativity before encouraging kids to do the same and designing their learning environments accordingly.It is necessary to provide enriched educational environments for the development of creative skills of students in this period, to support children in this regard, and to offer opportunities, thus it is important to begin this process early. Most child development theorists stress that creativity is a trait that all children are born with and that efforts should be made to foster it from an early age. In this period, children's tendency to make new discoveries, fantasize, dream, experiment, wonder, explore the close environment, and constantly question leads to creative thinking.

Ömeroğlu and Turla (2001) state in their research that children take the first people they observe as role models and imitate them in their first period. However creative thinking begins in the process of creating games with imitation. The game is known to support creativity. According to Kara's research (2007), playing appropriate games during playtime significantly aids in a child's development of creativity. In Turla's (2004) study, it is stated that children are willing and curious to learn, they constantly ask questions, and adults should give answers to improve their sense of curiosity in the early childhood stage. In order to assist

their children's development throughout this stage of development, parents should give them educational items including games, toys, stories, and experiments. During this time, it is crucial to play with kids, collaborate with them, and provide them with experiential opportunities to foster their creativity. (Aral, Gürsoy, and Köksal, 2001).

In order for youngsters to develop their creativity traits, just like every individual, it is vital to understand that person's features and nurture their creativity within this framework. Individual differences should be considered in the development of creativity because this circumstance affects creativity in terms of personal traits. Since the capacity for creative thought varies from person to person, its growth should be viewed as a skill that requires unique thought and planning. Since this ability is open to development in the preschool period, it is necessary for preschool teachers to be aware of the creativity characteristics, to develop it, and to be mobilized to develop the creativity of the students during pre-school education (Oğuzkan, Demiral, and Tür, 2001). In the games that children play during this period, an idea about their creativity can be obtained. It is possible to make judgments about the creative characteristics of children in the games they play with their parents and friends. In this process, the teacher's role is crucial. It is the responsibility of the instructor to foster students' creativity in the classroom setting through imaginative storytelling, fairy tales, art lessons, dramatic activities, and other creative pursuits. (Turla, 2004).

It is aimed to determine the perceptions of teachers working in the 2022-2023 academic year in five sub-factors regarding their creativity and to reveal the difference between these perceptions according to their personal characteristics: namely academic, scientific/mechanical, performance (art), originality and art subfields in this study. The study is significant because it fills a gap in the body of literature regarding research in this area that has not before been addressed. In addition, working with preschool teachers and the rapid development of children's brain at the age of 0-6 increase the importance of the research. “What is the creative level of preschool teachers in this context?” is the research problem statement. The following are the research's secondary issues:

1. What is the level of preschool teachers' perceptions of creativity?
2. Do preschool teachers' perceptions of creativity differ according to teachers' personal variables?

Method

The research is in quantitative and screening model. The research findings were revealed by analysing data collected from preschool teachers working in official schools and institutions in Merkezefendi and Pamukkale districts of Denizli province. The research's target population included about 778 preschool teachers. 324 preschool teachers were reached with the convenience sampling method. The “Kaufman Fields Creativity Scale (KAYÖ)” developed by Şahin (2016) was used in data collection. The reliability of the data obtained with the 5-point Likert-type scale was measured as ,959. The scale consisted of 41 questions and five dimensions. The dimensions are academic, scientific/mechanical, performance (art), originality, and art. Kurtosis and Skewness Analysis was used to analyze the data for normalcy, and the results are shown in Table 1.

Table 1. Kurtosis and skewness analysis of the Kaufman domains creativity scale (cws) and its sub-dimensions data

Scale and Sub-Dimensions	Kurtosis Value	Skewness Value
Academic creativity dimension	,859	-,213
Scientific/mechanical creativity dimension	-,521	,373
Creativity in the Field of Artistic Performance	-,370	,041
Originality creativity dimension	,723	-,343
Artistic creativity dimension	-,192	-,033
General perception of creativity	,619	-,137

When Table 1 is examined, it is seen that the values of "Kurtosis and Skewness" of the nomophobia scale and its sub-dimensions vary between -.370 and .859. According to Tabachnick and Fidell (2013), if the skewness and kurtosis values are between -1.50 and +1.50, it shows a normal distribution. In this framework, it is accepted that the data are normally distributed, and parametric tests are used in the analyses.

The intervals in the interpretations are determined as follows:

1-1.80 Very insufficient; 1.81-2.60 Insufficient; 2.61-3.40 Intermediate; 3.41-4.20 High; 4.21-5.00 Very high

Findings

The study included 324 preschool teachers as participants. Table 2 displays the distribution of teachers' traits.

Table 2. Distribution of personal traits of preschool teachers

		f	*Percentage (%)*
Gender	Female	262	80,9
	Male	92	19,1
Age	29-40	121	37,3
	41-45	58	17,9
	46-50	50	15,4
	51 and above	95	29,3
Seniority	1-10 years	57	17,6
	11-20 years	112	34,6
	21-30 years	86	26,5
	31 years and above	69	21,3
Education Level	Undergraduate	275	84,9
	Graduate	49	15,1
Project experience	No	182	56,2
	Yes	142	43,8

Table 2 shows that most preschool teachers are women (80.9%). It is seen that the age ranges of the participants are 29-40 with 37.3% and 51 and over with 29.3%. Among the participants, seniority is 11-20 years with a rate of 34.6%, 21-30 years with a rate of 26.5% and 31 years and above with a rate of 21.3%. 84.9% of the participants are undergraduates and 15.1% graduate. While 56.2% of the participants have no project experience, 43.8% have project experience.

The sub-dimensions of preschool teachers' perceptions of creativity levels and the general findings are given in Table 3.

Table 3. *Preschool teachers' perceptions of creativity levels*

	n	$\bar{X}$	*s*	Level
Academic creativity dimension	324	3,23	,66	Middle
Scientific/mechanical creativity dimension	324	2,31	,78	Insufficient
Creativity in the Field of Artistic Performance	324	2,66	,83	Middle
Originality creativity dimension	324	3,75	,70	High
Artistic creativity dimension	324	2,99	,82	Middle
General perception of creativity	324	3,03	,58	Middle

Table 3 shows preschool teachers' perceptions of creativity and its sub-dimensions. Teachers believe the Originality dimension has the highest levels of creativity($\bar{X}$=3,75). This is followed by academic creativity with an average of ($\bar{X}$=3,23), artistic creativity with an average of ($\bar{X}$=2,99), and artistic performance with an average of ($\bar{X}$=2,66), and these levels of creativity are at "Medium" levels. The general average of creativity is ($\bar{X}$=3,03), and it is at the “Average” level. Teachers consider their level of scientific/mechanical creativity to be "insufficient." While they see the teachers’ creativity at a medium level, they evaluate them at a high level in the originality/creativity dimension, and they see their scientific/mechanical creativity as insufficient.

Table 4 displays the findings of the analysis of the preschool teachers' perceptions of creativity according to their gender.

Table 4. Analysis results of preschool teachers' perceptions of creativity by gender

Scale and sub-dimensions	Gender	*n*	$\bar{X}$	*ss*	*sd*	*t*	*p*
Academic creativity dimension	Female	262	3,23	,66	322	,00	,99
	Male	62	3,23	,69			

Scientific/mechanical creativity dimension	Female	262	2,21	,73	322	-4,85	,00*
	Male	62	2,73	,84			
Creativity in the Field of Artistic Performance	Female	262	2,70	,80	322	2,10	,03*
	Male	62	2,46	,95			
Originality creativity dimension	Female	262	3,77	,70	322	1,09	,27
	Male	62	3,66	,67			
Artistic creativity dimension	Female	262	3,00	,82	322	,48	,63
	Male	62	2,94	,83			
General perception of creativity	Female	262	3,03	,56	322	-,04	,96
	Male	62	3,03	,65			

** p<0,05*

According to Table 4, there are no differences in preschool teachers' perceptions of academic creativity (t(322)= .00; p>0.05), originality creativity (t(322)= 1.09; p>0.05), artistic creativity (t(322)= .48; p>0.05), and general creativity perceptions (t(322)= -.04; p>0.05) according to their genders. However, the dimension of scientific/mechanical creativity differs significantly (t(322)= -4.85; p<0.05) and in the dimension of Creativity in the Field of Artistic Performance (t(322)= 2.10; p<0.05). According to averages, males outperform women in the category of scientific/mechanical creativity, while women outperform men in the category of artistic performance creativity. Accordingly, while men consider themselves superior in the scientific/mechanical dimension, it is thought that women have higher creativity in the Artistic Performance Field.

Table 5 presents the findings of the analysis of preschool teachers' perceptions of creativity in relation to their ages.

Table 5. Analysis results of preschool teachers' creativity perceptions by age

	Age	N	$\bar{X}$	ss	Source of Variance	Sum of Squares	Sd	Average of Squares	F	p	Difference
Academic creativity dimension	29-40	121	3,16	,61	Intergroup	1,791	3	,597	1,33	,26	No
	41-45	58	3,26	,57	In-group	142,892	320	,447			
	46-50	50	3,19	,78	Total	144,682	323				
	51 +	95	3,33	,71							
Scientific/mechanical creativity dimension	29-40	121	2,26	,69	Intergroup	3,890	3	1,297	2,12	,09	No
	41-45	58	2,28	,94	In-group	195,516	320	,611			
	46-50	50	2,16	,79	Total	199,406	323				
	51 +	95	2,47	,77							
Creativity in the Field of Artistic Performance	29-40	121	2,71	,82	Intergroup	2,472	3	,824	1,17	,31	No
	41-45	58	2,77	,86	In-group	223,900	320	,700			
	46-50	50	2,53	,85	Total	226,372	323				
	51 +	95	2,58	,82							
Originality creativity dimension	29-40	121	3,73	,76	Intergroup	,099	3	,033	,06	,97	No
	41-45	58	3,76	,50	In-group	158,886	320	,497			
	46-50	50	3,75	,80	Total	158,984	323				
	51 +	95	3,77	,66							

Artistic creativity dimension	29-40	121	2,93	,84	Intergroup	1,559	3	,520	,75	,51	No
	41-45	58	3,11	,76	In-group	219,093	320	,685			
	46-50	50	3,05	,88	Total	220,652	323				
	51 +	95	2,95	,81							
General perception of creativity	29-40	121	3,00	,54	Intergroup	,510	3	,170	,50	,68	No
	41-45	58	3,07	,53	In-group	108,855	320	,340			
	46-50	50	2,97	,66	Total	109,365	323				
	51 +	95	3,07	,60							

**p<0,05 1.29-40 2.41-45 3.46-50 4. 51+*

According to Table 4.5, which shows the results of the analysis of preschool teachers' judgments of creativity by age, there is no discernible variation in academic creativity (F(3-323) = 1.33; p>0.05), Scientific/mechanical creativity (F(3-323)= 2.12; p>0.05), Creativity in Artistic Performance (F(3-323)= 1.17; p>0.05), Originality and creativity (F(3-323)= .06; p>0.05), Artistic creativity (F(3-323)= .75; p>0.05) and general perceptions of creativity (F(3-323) = .50; p>0.05). This led to the conclusion that preschool instructors' opinions of creativity were consistent regardless of age, whether young, middle-aged, or old.

The results of the analysis of the preschool teachers' creativity perceptions according to the teachers' seniority are given in Table 6.

Table 6. Analysis results of preschool teachers' creativity perceptions by seniority

	Seniority	N	$\bar{X}$	ss	Source of Variance	Sum of Squares	Sd	Average of Squares	F	p	Difference
Academic creativity dimension	1-10	57	3,37	,76	Intergroup	3,264	3	1,088	2,46	,06	No
	11-20	112	3,15	,47	In-group	141,418	320	,442			
	21-30	86	3,16	,75	Total	144,682	323				
	31+	69	3,34	,71							
Scientific/mechanical creativity dimension	1-10	57	2,22	,76	Intergroup	2,410	3	,803	1,30	,27	No
	11-20	112	2,24	,80	In-group	196,995	320	,616			
	21-30	86	2,36	,81	Total	199,406	323				
	31+	69	2,44	,73							
Creativity in the Field of Artistic Performance	1-10	57	2,92	,99	Intergroup	6,533	3	2,178	3,17	,02*	1-4
	11-20	112	2,69	,79	In-group	219,838	320	,687			
	21-30	86	2,55	,79	Total	226,372	323				
	31+	69	2,50	,78							
Originality creativity dimension	1-10	57	3,84	,87	Intergroup	,875	3	,292	,59	,62	No
	11-20	112	3,70	,62	In-group	158,109	320	,494			
	21-30	86	3,77	,71	Total	158,984	323				
	31+	69	3,73	,63							
Artistic creativity dimension	1-10	57	3,28	,03	Intergroup	6,904	3	2,301	3,44	,01*	1-2
	11-20	112	2,86	,679	In-group	213,748	320	,668			
	21-30	86	2,99	,81	Total	220,652	323				
	31+	69	2,93	,82							
General perception of creativity	1-10	57	3,17	,67	Intergroup	1,435	3	,478	1,41	,23	No
	11-20	112	2,98	,47	In-group	107,930	320	,337			
	21-30	86	3,00	,62	Total	109,365	323				
	31+	69	3,04	,59							

**p<0,05 1.1-10 years 2.11-20 years 3.21-30 years 4. 31+*

As shown in Table 4.6, the investigation of preschool teachers' judgments of creativity according to their level of experience found no discernible differences in academic creativity (F(3-323)=2.46; p>0.05), Scientific/mechanical creativity (F(3-323)= 1.30; p>0.05), Originality creativity (F(3-323)= .59; p>0.05) and Creativity general perceptions (F(3) -323)= 1.41; p>0.05) However, it differs in creativity (F(3-323)= 3.17; p<0.05) and Artistic creativity (F(3-323)=3.44; p<0.05) in the Field of Artistic Performance. As a result

of the Post Hoc TUKEY analysis to determine the groups with differences there is a difference between those with a seniority of 1-10 years ($\bar{X}_{1\text{-}10\ years}$=2,92) and those with a seniority of 31 years or more ($\bar{X}_{31+}$=2,50) in favourof those with less seniority in terms of creativity in the Field of Artistic Performance. There is a distinction between people with1-10 years of experience in artistic creativity ($\bar{X}_{1\text{-}10\ years}$=3,28) and those with 11-20 years of seniority ($\bar{X}_{31+}$=2,86) in favour of those with 1-10 years of seniority. The results show that preschool teachers' creativity perceptions are not effected by their seniority in academic, scientific/mechanical, originality and general creativity perceptions. There is a difference in artistic performance perceptions between those with less seniority and those with more seniority and in favour of those with less seniority. On the other hand, artistic creativity perceptions differ between those with 1-10 years of seniority and those with 11-20 years in favour of those with less seniority.

Table 7 displays the findings of the investigation of the preschool teachers' perceptions of creativity according to their educational backgrounds.

Table 7. Analysis results of preschool teachers' creativity perceptions according to education levels

Scale and sub-dimensions	Education level	*n*	$\bar{X}$	*ss*	*sd*	*t*	*p*
Academic creativity dimension	Undergraduate	275	3,18	,67	322	-3,18	,00*
	Graduate	49	3,51	,57			
Scientific/mechanical creativity dimension	Undergraduate	275	2,24	,77	322	-4,20	,00*
	Graduate	49	2,74	,73			
Creativity in the Field of Artistic Performance	Undergraduate	275	2,62	,84	322	-1,76	,07
	Graduate	49	2,85	,74			
Originality creativity dimension	Undergraduate	275	3,71	,70	322	-2,53	,01*
	Graduate	49	3,98	,61			
Artistic creativity dimension	Undergraduate	275	2,96	,82	322	-1,43	,15
	Graduate	49	3,14	,80			
General perception of creativity	Undergraduate	275	2,99	,57	322	-3,44	,00*
	Graduate	49	3,29	,52			

** p<0,05*

Table 7 demonstrates that there is no difference in preschool teachers' perceptions of originality in the area of artistic performance (t(322)= -1.76; p>0.05) and creativity in the field of Artistic Performance (t(322)= -1.43; p>0.05) according to the education levels of the teachers. Creativity perceptions of preschool teachers in terms of creativity differ in terms of Academic creativity dimension (t(322)= -3.18; p<0.05), Scientific/mechanical creativity dimension (t(322)= -4.20; p<0.05), Originality creativity dimension (t(322)= -2.53; p<0.05), and general perception of creativity (t(322)= -3.44; p<0.05). When averages are compared to undergraduate graduates, it can be seen that teachers with graduate degrees in academic, scientific/mechanical, originality and general creativity perceptions had greater perceptions of creativity.

Table 8 presents the findings of the analysis of the preschool teachers' perceptions of creativity in relation to their project-related experience.

Table 8. Analysis results of preschool teachers' creativity perceptions according to project experiences

Scale and sub-dimensions	Project experience	*n*	$\bar{X}$	*ss*	*sd*	*t*	*p*
Academic creativity dimension	No	182	3,13	,66	322	-2,96	,00*
	Yes	142	3,35	,65			
Scientific/mechanical creativity dimension	No	182	2,28	,73	322	-,82	,41
	Yes	142	2,35	,85			
Creativity in the Field of Artistic Performance	No	182	2,49	,79	322	-4,13	,00*
	Yes	142	2,87	,84			
Originality creativity dimension	No	182	3,74	,66	322	-,24	,80
	Yes	142	3,76	,74			
Artistic creativity dimension	No	182	2,90	,82	322	-2,22	,02*
	Yes	142	3,10	,81			
General perception of creativity	No	182	2,95	,55	322	-2,84	,00*
	Yes	142	3,13	,60			

** p<0,05*

Table 8 demonstrates that there is no difference in the perceptions of creativity among preschool teachers and their project experiences in terms of scientific/mechanical creativity ($t(322)= -.82$ $p>0.05$) and Originality and creativity dimension ($t(322)= -.24$; $p>0.05$). However, it is observed that there is a significant difference between preschool teachers' creativity perceptions and their project experiences in terms of Academic creativity dimension ($t(322)= -2.96$; $p<0.05$), Creativity in Artistic Performance Field ($t(322)= -4.13$; $p<0.05$), Artistic creativity dimension ($t(322)= -2.22$; $p>0.05$) and Creativity general perceptions ($t(322)= -2.84$; $p<0.05$). When examining the averages, it can be seen that teachers with project experience in academic, Artistic Performance Area, artistic creativity, and general creativity perceptions have higher creativity perceptions than those without project experience.

Conclusion and Recommendations

Preschool instructors see the highest creativity features in the Originality dimension and at the "High" level regarding their perceptions of creativity and its sub-dimensions. Academic creativity, artistic creativity, and creative performance in the arts all follow at the "Medium" level. The lowest creative perceptions, at the "Insufficient" level, are in the field of Scientific/Mechanical creativity, despite the overall average of creativity being at the "Average" level. The majority of instructors' creativity, it has been found, is at a medium level. Regarding originality, teachers are viewed as highly sufficient but lacking in scientific/mechanical innovation.

Regarding the general conceptions of Academic creativity, Originality creativity, Artistic creativity, and Creativity among preschool teachers, there are no gender differences. Preschool instructors' perceptions of creativity reveal a stark and significant difference favoring men in the area of scientific and mechanical creativity and favouring women in the area of artistic performance creativity. Men believe they are superior in the scientific/mechanical realm, but in this case, women are believed to have greater inventiveness in artistic performance. Examining how preschool teachers perceive creativity leads to the conclusion that teachers' perceptions of creativity do not vary with age and show similar characteristics across age groups.

Preschool teachers' assessments of academic, scientific/mechanical, distinctiveness and general creativity are consistent regardless of their expertise. It has been found that there is a difference in how those with less seniority and those with greater seniority perceive artistic performance, favoring those with less seniority. According to the study, when it comes to artistic originality, there is a perception difference that favours people with less experience between those with 1–10 years of experience and those with 11–20 years of experience.

Preschool teachers' assessments of academic, scientific/mechanical, distinctiveness, and general creativity are consistent regardless of their expertise. It has been discovered that there is a difference in how people view artistic performance and people with greater seniority, favouring people with less seniority. According to the study, when it comes to artistic originality, there is a perception difference that favours people with less experience between those with 1–10 years of experience and those with 11–20 years of experience.

According to the teachers' project experiences, there are no differences between the preschool teachers' judgments of originality and creativity and scientific/mechanical inventiveness. It has been found that teachers with project experience have stronger perceptions of creativity than those without project experience in the academic, artistic performance, and general creative fields.

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