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Research Article

Preservice Preschool Teachers' Views on the Characteristics of Gifted Children [1]

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Abstract

This study aims to investigate preservice preschool teachers' views on gifted children. Mixed method was conducted in the study. "The Scale for Rating the Behavioral Characteristics of Gifted and Talented Students", developed by Şahin (2012), and semi-structured interview forms were used. The findings indicate that preservice preschool teachers associate giftedness with cognitive characteristics in general. Therefore, they usually focus on cognitive skills when the basic characteristics of gifted children are in question. Their responses to the scale show that they believe that these children are gifted in problem solving skills and general cognitive skills, but hesitant in communicative and social skills.

Keywords

gifted students, preservice preschool teacher, communicative and social skills, general cognitive characteristics, problem-solving

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Introduction

When the concept and definitions of intellectually gifted are considered historically, it is possible to observe a transition from conservative definitions to the liberal ones. Conservative definitions place intellectually gifted within certain limits and base the concept on numbers. For instance, Lewis Terman defines intellectually gifted as an IQ of 140 or over. Though liberal definitions have limitations as in the case of conservative definitions, the concept of intellectually gifted needs to be viewed from a broader perspective. For instance, in the Marland Report, it is stated that a person can have intellectually gifted in general mental skills, specific academic skills, creative and productive thinking, leadership skills, arts, and psychomotor skills, totaling in six fields (Sak, 2011).

The Colombus Group focuses on the interaction of emotional and cognitive sides of gifted people. They define the gifted people "asynchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm. According to the official definition of the concept in Turkey, a gifted person is "someone demonstrating high-level performance compared to her or peers in terms of intelligence, creativity, arts, sports, leadership, or specific academic fields" (MEB, 2009).

Considering theoretical approaches that aim to define giftedness, the common emphasis is on the fact that gifted people differ from normal people in terms of distribution, frequency, timing, and composition of physical, mental, and social characteristics and personality traits (Akarsu, 2004; as cited in Şahin, 2012). Teachers are under great responsibility for recognizing and identifying these children and then creating an efficient curriculum for them. Teachers' knowing basic characteristics of these children plays an efficient role in early identification of these children and making plans and regulations in curricula regarding their characteristics. According to Connecticut Association for the Gifted (2013), the points given below should be paid attention while making plans for gifted people.

- Multiple opportunities should be offered; projects should be conducted; and creative products should be presented to support the child's creativity.
- By going beyond the curriculum, the children should be allowed to conduct in-depth studies on the subjects and fields they are interested in.
- Gifted children should work together for a certain period of time every day.
- Gifted students should not be punished with more assignments or lower grades, but they can be given more challenging tasks.

- Gifted children should encounter qualified activities that lead to multiple, creative, and critical thinking.
- Gifted children should be allowed to explore their interests and passions and engage in various disciplines.
- Multiple sources and original texts should be presented to children so as to support their research skills and independent working.
- Courses, studies, activities, and assignments should be reduced.
- The education given to gifted children should be boosted and enriched.

There are many studies on gifted children in literature. While some of them are literature reviews about gifted children(Güçin, 2014; Özenç and Özenç, 2013; Schreglmann, 2016), some others focus on gifted children's curricula (Afat, 2013; Sak, 2011; Şahin, 2012; Şahin, 2013; Uysaler, 2015), on the views and attitudes of teachers and preservice teachers on the education of gifted students (Daştan, 2016; Kunt, 2012; Levent, 2011; Şenol, 2011; Tezcan, 2012; Tortop, 2014; Tütüncü, 2013), on science and arts centers (BİLSEM) (Aktepe and Aktepe, 2009; Bildiren and Türkkanı, 2013; Gökdere and Çepni, 2004; Kaya, 2013; Kontaş and Yağcı, 2016; Sarı, 2013; Yıldız, 2010; Yılmaz and Çaylak, 2009), on developmental characteristics of gifted children (Çakmak Teloğlu, 2016; Kara, 2016; Koçak and İçmenoğlu, 2012; Levent, 2012; Özbay and Palancı, 2011), on metaphors about gifted children (Eraslan Çağan, 2010; Mertol, Doğdu, and Yılar, 2013; Özsoy, 2014), on parents of gifted children(Ataman, 2012; Karakuş, 2010), on compilations about gifted children(Ataman, 2012; Bilgili, 2000; Oğurlu and Yaman, 2010), and on definitions of gifted children (Dağlıoğlu and Metin, 2004; Karadağ, 2015; Şahin, 2012; Yakmacı Güzel, 2002)). However, there are few studies focusing on preservice preschool teachers' views of behavioral characteristics of gifted children. Taking into account the importance of early identification of gifted children and the implementation of appropriate curricula, it is important that preservice preschool teachers know behavioral characteristics of these children. Hence, the present study aims to investigate the views of preservice preschool teachers regarding gifted children's characteristics. For this purpose, the following questions were asked:

- How do preservice preschool teachers define the concept of giftedness?
- What are the basic characteristics of gifted children according to preservice preschool teachers?
- What are the views of preservice preschool teachers regarding gifted children's problem-solving skills?
- What are the views of preservice preschool teachers regarding gifted children's communicative and social skills?
- What are the views of preservice preschool teachers regarding general cognitive characteristics?

Method

Mixed research method, combining integrating qualitative and quantitative methods, was employedis used in this study. Johnson, Onwuegbuzie, and Turner (2007) made a definition based on 19 different definitions by 21 different researchers. According to this definition, mixed method is "a type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches for the broad purposes of breadth and depth of understanding and corroboration" (as cited in Dede & Demir, 2014). Tashokkori and Creswell (2007) define mixed method as "research in which the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a program of inquiry". Of the six design types including convergent parallel, sequential explanatory, sequential exploratory, concurrent nested, transformative, and multiphase designs, this study employs convergent parallel design. In this design, the researcher simultaneously collects the qualitative and quantitative data and attributes equal priority to each method. She or he analyzes the data separately in the analysis stage. She or he then combines the results in the general interpretation process (Delice, 2014).

Participants

The criterion sampling method was employed in the quantitative section of the study. Accordingly, the participants to be included in the sample were required to have taken and successfully completed the Development in the Early Childhood Period I-II courses as a criterion. To this end, the population of the study includes the third and fourth year preservice teacher studying in the department of preschool education of two state universities. The sample consisted of 195 voluntary students, 32 of whom were excluded due to their failure in the Development in the Early Childhood Period I-II courses. The final sample consists of 163 preservice preschool teachers. Table 1 presents demographic information regarding the participant preservice teachers.

Table 1.

Demographic Information Regarding the Participants of the Quantitative Section of the Study

Gender	*f*	%
Female	134	82.2
Male	29	17.8
Total	163	100
University	*f*	%
University A	39	23.9
University B	124	76.1
Total	163	100
Year	*f*	%
3	75	46
4	88	54
Total	163	100

The qualitative section of the study includes 20 voluntary preservice teachers who also took part in the quantitative section. The information regarding the preservice teachers included in the qualitative section is given in Snowball sampling was used in the selection of the study group for purposeful sampling methods.

Table 2.
Demographic Information Regarding the Participants Included in the Qualitative Section of the Study

Gender	*f*	%
Female	16	80
Male	4	20
Total	20	100
University	*f*	%
University B	20	100
Total	20	100
Year	*f*	%
3	9	45
4	11	55
Total	20	100

Data Tools

In the quantitative section of this study, "The Scale for Rating the Behavioral Characteristics of Gifted and Talented Students" developed by Şahin (2012) was used. The scale is composed of 34 items and 3 factors. The first sub-factor is "Problem-Solving Characteristics". There are 18 items under this factor. The second sub-factor is "Communicative and Social Skills", including 10 items. The third sub-factor is "General Cognitive Characteristics", including 6 items. The overall internal reliability coefficient of the scale was found to be .86, while reliability coefficients for the sub-factors were .92, .82, and .71 respectively. In the present study, the overall internal reliability coefficient of the scale was found to be .81, whereas reliability coefficients for the sub-factors were determined to be .76, .88, and .83 respectively.

In the qualitative section of the study, semi-structured interview questions, developed by the researchers and finalized based on expert view, were used. In accordance with expert view, one of the questions was divided into two, and the final form included 6 questions.

Data Analysis

SPSS 16 was used to analyze the data. The preservice teachers' responses were determined by use of percentage and frequency, which are two of the descriptive statistical methods.

Being one of the most popular data collection methods in social sciences, interview has strengths such as flexibility, response rate, non-verbal behavior, control over the setting, order of questions, instantaneous response, verification of the data source, completeness, and in-depth information (Bailey, 1982). The interviews were recorded via an audio recorder following the approval of the participants. Prior to data collection, the purpose of the study was explained to the participants. It was verbally stated that their personal data would be kept confidential, and they were free to leave the interview any time they wanted. After the completion of the interviews, each interview was transferred to computer in written document format. Four of the documents (20% of the data) were verified by a non-transcribing researcher. Then, content analysis was employed to analyze the data. Content analysis refers to "any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings" (Çekiç and Bakla, 2014, pp. 453). For internal validity or credibility of the study, triangulation method was employed. Therefore, more than one researcher participated in the study. For external validity, direct quotations were made from the preservice teachers' responses. For reliability, the intercoder agreement method was used. After the completion of transcription, the researchers encoded the data independently from one another and divided them into themes. Then, the researchers gathered and examined the codes and themes. They arrived at a consensus through discussions on the issues involving different opinions. After arriving at the consensus, the codes and themes were arranged, and the findings were defined and interpreted. Finally, five of the participant preservice teachers (25%) were made to read the findings and state whether the results reflected their opinions. The participants stated that the results totally reflected their opinions.

Results

The Preservice Preschool Teachers' Definitions of Giftedness

Table 3 shows the preservice preschool teachers' definitions of giftedness.

Table 3.
The Preservice Preschool Teachers' Definitions of Giftedness

Responses	*f*
Gifted in Cognitive Skills	
A person comprehending more easily than her or his peers	3
A person with a higher level of comprehension than her or his peers	3
A person building connections between incidents	2
A person with a high-level of problem-solving skills	2
A creative person	1
A person who is capable of abstract thinking	1
Total	12
Gifted in Motor Skills	

A person with a talent for making physical movements	1
Total	1
Gifted in Social Skills	
A person demonstrating better behaviors than her or his peers	3
Total	3
Others	
A person with skills above average	11
A person with higher skills than other people	2
A person exploring and improving the potential in herself/himself	1
Total	14

Based on the definitions of "giftedness" by the preservice teachers, the responses are categorized as gifted in cognitive skills, gifted in motor skills, gifted in social skills, and others. The most frequent definition for giftedness by the preservice teachers (f=14) is "a person with skills above average", which is followed by the definitions, "a person comprehending more easily than her or his peers" (f=3), "a person with a higher level of comprehension than her or his peers" (f=3), and "a person demonstrating better behaviors than her or his peers" (f=3). P.T.3 and P.T.12 made the following comments on this issue:

> "*They are people comprehending more easily than their peers. They are more creative people with abstract thinking skills. They can make connections between incidents. They have higher comprehension skills than their peers*" (P.T.3)

> "*Gifted people are different from their peers in that they have an understanding for certain incidents and phenomena, and they have problem-solving skills as well as making physical movements.*" (P.T.12)

Table 4 shows the responses by the preservice preschool teachers to the question "Do giftedness and intellectually gifted refer to the same thing?".

Table 4.

The Table Showing the Responses to the Question "Do giftedness and intellectually gifted refer to the same thing?"

Responses	*F*
They are the same because …	4
Gifted people have intellectually gifted	3
Both are superior in one certain thing	1
They are not the same because …	24
Giftedness refers to superior cognitive skills	8
Giftedness and intelligence are not the same	6
Giftedness is based on performance	6
Gifted people have superior fine and gross motor developments	2
Gifted people have developed comprehension skills	2
Total	28

The responses given by the preschool teachers to the question "Do giftedness and intellectually gifted refer to the same thing?" indicate that four teachers believe they are the same because gifted people have intellectually gifted, and

both are superior in one certain thing, whereas sixteen teachers believe they are not the same because giftedness refers to cognitive superiority; giftedness and intelligence are not the same; giftedness is based on performance; gifted people are superior in motor development; and gifted people have developed comprehension skills. P.T.1 and P.T.18 made the following comments on this issue:

> "*While giftedness refers to being superior in some areas besides rational-mathematical intelligence, intellectually gifted rather involves rational-mathematical skills.*" (P.T.1)

> "*Yes, because a gifted person is also intelligent.*" (P.T.18)

The Preservice Preschool Teachers' Views on the Basic Characteristics of Gifted Children

Table 5 shows the preservice preschool teachers' views on the basic characteristics of gifted children.

Table 5.
The Views on the Basic Characteristics of Gifted Children

Responses	***f***
Characteristics Regarding Cognitive Skills	19
High-level creativity	5
High-level problem-solving skills	4
Strong memory	3
Longer attention span	3
More knowledge	2
Developed comprehension skills	2
Characteristics Regarding Social Skills	4
Being antisocial	3
Not wanting to be in the same educational environment as their peers	1
Characteristics Regarding Physical Skills	4
More developed physical skills	4
Characteristics Regarding Personal Traits	11
Developed perceptions	5
Curiosity	2
Research	2
Exploration	1
Talkative	1
Others	6
Skills above the average	5
Getting bored during lecture	1
Total	44

It is seen that the preservice preschool teachers' responses regarding the basic characteristics of gifted children are categorized as characteristics regarding cognitive skills, characteristics regarding social skills, characteristics regarding physical skills, characteristics regarding personality traits, and others. It is obvious that the most frequent responses given by the preservice teachers regarding the

basic characteristics of gifted children are high-level creativity, high-level problem-solving skills, and skills above the average. P.T.8 and P.T.13 made the following comments on this issue:

> "*They do not want to be in the same class as their peers. They may get bored while being lectured. The same goes for the activities in the preschool period. Their levels of knowledge and skills are beyond their ages.*" (P.T.8)

> "*They are talkative and questioning children with curiosity. They manifest themselves in the fields they are curious or have talent about.*" (P.T.13)

The Preservice Preschool Teachers' Views on the Problem-Solving Skills of Gifted Children

Table 6 shows the quantitative findings regarding the problem-solving skills of gifted children according to the preservice preschool teachers.

Table 6.
The Quantitative Findings Regarding the Problem-solving Skills of Gifted Children according to the Preservice Preschool Teachers

	Questions		Never	Rarely	Some times	Often	Always
1.	They produce many solutions to questions and problems.	*f*	0	3	21	99	40
		%	0	1.8	12.9	60.7	24.5
2.	They have high mental energy constantly.	*f*	0	0	21	83	59
		%	0	0	12.9	50.9	36.2
3.	They foresee the influence and results of the actions they perform.	*f*	2	8	32	81	39
		%	1.2	4.9	19.6	49.7	23.9
4.	They see mathematical schemes hidden in organized data and sets of numbers.	*f*	2	3	24	87	47
		%	1.2	1.8	14.7	53.4	28.8
5.	They have a strong memory.	*f*	1	6	20	70	65
		%	0.6	3.7	12.3	42.9	39.9
6.	They are willing to solve difficult mathematical problems.	*f*	1	4	34	70	54
		%	0.6	2.5	20.9	42.9	33.1
7.	They can interpret data clearly.	*f*	1	8	38	83	32
		%	0.6	4.9	23.3	50.9	19.6
8.	They have a high-level of mental energy.	*f*	2	4	16	77	60
		%	1.2	2.5	9.8	52.2	36.8
9.	They ask questions to learn the reasons, clues, and results of the events.	*f*	0	3	26	73	61
		%	0	1.8	16	44.8	37.4
10.	They come up with extraordinary and smart	*f*	2	3	23	79	56
		%	1.2	1.8	14.1	48.5	34.4

	responses to questions and problems.						
11.	They are attentive and curious observers.	*f*	0	6	23	63	71
		%	0	3.7	14.1	38.7	43.6
12.	They like taking risks.	*f*	3	17	59	53	30
		%	1.8	10.4	36.2	32.5	18.4
13.	They can make connections between incidents and phenomena which seem unrelated.	*f*	0	4	39	91	29
		%	0	2.5	23.9	55.8	17.8
14.	They have in-depth knowledge on many various issues.	*f*	3	19	46	63	32
		%	1.8	11.7	28.2	38.7	19.6
15.	They are witty.	*f*	1	14	29	73	44
		%	0.6	8.6	17.8	44.8	27
16.	They insist on achievement in case of failure.	*f*	1	12	41	73	34
		%	0.6	7.4	25.2	44.8	20.9
17.	They can learn a new computer program on their own without training.	*f*	6	22	56	50	29
		%	3.7	13.5	34.4	30.7	17.8
18.	They have their own ways of studying.	*f*	1	9	33	67	53
		%	0.6	5.5	20.2	41.1	32.5

Table 6 shows that the preservice preschool teachers generally chose the options of "often" and "always" regarding the problem-solving skills of gifted children. Hence, it is possible to say that the preservice preschool teachers define gifted children as children with high problem-solving skills.

Table 7 shows the findings obtained at the end of the interviews conducted with the preservice teachers on this issue.

Table 7.

The Qualitative Findings Regarding Gifted Children's Problem-solving Skills according to the Preservice Preschool Children

Responses	***f***
Being more talented in problem-solving	11
Finding alternative solutions	7
Developed problem-solving skills as a result of developed skills of establishing relations	5
Solving problems in a short period of time	5
Solving problems using their creativity	2
Foreseeing a problem	2
Total	32

Table 7 shows that in their qualitative statements, the preservice preschool teachers did not mention the items they agreed at a high rate in the quantitative part such as asking questions to learn the reasons, clues, and results of the events,

foreseeing the influence and results of the actions they perform, making connections between incidents and phenomena which seem unrelated, and having high mental energy in relation to the problem-solving skills of gifted children, but only focused on problem situations. P.T.11 and P.T.20 made the following comments on this issue:

> "*They alternatively come up with unusual ways to solve problems. Also, they solve the problems in a short period of time.*" (P.T. 11)

> "*As these children have skills to make connections between two or more things, they have developed problem-solving skills as well.*" (P.T.20)

The Preservice Preschool Teachers' Views on the Communicative and Social Skills of Gifted Children

Table 8 shows the preservice preschool teachers' views on gifted children's communicative and social skills.

Table 8.
The Quantitative Findings Regarding the Preservice Preschool Teachers' Views on Gifted Children's Communicative and Social Skills

	Questions		Never	Rarely	Some times	Often	Always	Never
19.	They are sharing.	*f*	1	23	65	51	21	
		%	0.6	14.1	39.9	31.3	12.9	
20.	Their friends love them.	*f*	2	36	56	54	15	
		%	1.2	22.1	34.4	33.1	9.2	
21.	They are emotionally cheerful, controlled, and optimistic.	*f*	5	24	59	53	22	
		%	2.1	14.7	36.2	32.5	13.5	
22.	They prefer working together.	*f*	15	56	56	24	10	
		%	9.2	34.4	34.4	14.7	6.1	
23.	They prefer playing with others rather than playing alone.	*f*	12	58	54	25	13	
		%	7.4	35.6	33.1	15.3	8	
24.	They are flexible in their thoughts and actions.	*f*	2	15	41	74	29	
		%						
25.	They speak fluently and nicely.	*f*	1	22	52	67	20	
		%	0.6	13.5	31.9	41.1	12.3	
26.	They have less problems about school discipline, crime, and aggressive behaviors than their peers.	*f*	9	28	50	48	28	
		%	5.5	17.2	30.7	29.4	17.2	
27.	They like jokes.	*f*	2	17	52	62	29	
		%	1.2	10.4	31.9	38	17.8	
28.	They use body language (gestures, mimics, body movements, etc.) effectively.	*f*	2	15	49	67	30	
		%	1.2	9.2	30.1	41.1	18.4	

Table shows that the preservice preschool teachers gave the response of "sometimes" at a rate of 30-40% regarding the communicative and social skills of gifted children. Thus, it is possible to say that the preservice preschool teachers do not have definite ideas with regard to gifted children's communicative and social skills.

Table 9 shows the findings obtained at the end of the interviews with the preservice teachers on this issue.

Table 9.
The Qualitative Findings Regarding Gifted Children's Communicative and Social Skills according to the Preservice Preschool Teachers

Responses	*f*
Positive Responses	
Being social	9
Communicating easily	7
Being sympathetic	3
Being sociable	3
Making friends easily	3
High-levels of leadership characteristics	3
High-levels of empathy skills	1
Total	26
Negative Responses	
Being lonely because of not making friends	5
Failing in social skills	3
Not spending time with their peers	2
Total	10

Table 9 shows that the preservice preschool teachers' responses regarding gifted children's communicative and social skills are categorized as positive and negative. Nearly a quarter of the responses are negative. P.T.3 and P.T. 17 made the following comments on this issue:

> "*They are social and do not have difficulty in communicating. They are sympathetic.*" (P.T.3)

> "*They fail in social skills. They are lonely because they cannot find friends at their own levels. Generally, they do not spend time with their peers.*" (P.T.17)

The Preservice Preschool Teachers' Views on General Cognitive Characteristics of Gifted Children

Table 10 shows the quantitative findings regarding the preservice preschool teachers' views on gifted children's general cognitive characteristics.

Table 10.
The Quantitative Findings Regarding the Preservice Preschool Teachers' Views on Gifted Children's General Cognitive Characteristics

29.	Their reading performance is to their peers in reading activities.	*f*	15	36	40	47	25
		%	9.2	22.1	24.5	28.8	15.3
30.	They learn at a pace close to their peers.	*f*	30	43	37	35	18
		%	18.4	26.4	22.7	21.5	11
31.	They have difficulty in adapting to new situations.	*f*	21	44	51	36	10
		%	12.9	27	31.3	22.1	6.1
32.	They have difficulty in transferring the things they learn in a field to another field.	*f*	26	72	36	20	8
		%	16	44.2	22.1	13.2	4.9
33.	They react at a speed close to their peers for the tasks that require force, speed, and coordination.	*f*	20	52	35	43	13
		%	12.3	31.9	21.5	26.4	8
34.	Their attention span is close to their peers.	*f*	26	6.1	25	31	19
		%	16	37.4	15.3	19	11.7

Based on the table above, it is possible to say that the preservice preschool teachers mostly gave the responses of "often" and "always" with regard to the gifted children's general cognitive characteristics. Thus, it can be stated that the preservice preschool teachers define gifted children as children with high-levels of general cognitive characteristics.

Table 11 shows the findings obtained at the end of the interviews with the preservice teachers on this issue.

Table 11.
The Qualitative Findings Regarding Gifted Children's General Cognitive Characteristics according to the Preservice Preschool Teachers

Responses	*f*
Having high-levels of cognitive characteristics	12
Analyzing	4
Quick thinking	4
High-levels of perception	3
Having a strong memory	3
Questioning	2
Successful language users	2
Being critical	1
Fast learning	1
Having the same cognitive skills as their peers	1
Total	33

Table 11 shows that the preservice preschool teachers gave responses such as analyzing, quick thinking, and having a strong memory in addition to the items in the scale. P.T.4 and P.T.6 made the following comments on this issue:

"*Their cognitive skills are high-level. They have high-levels of perception. They can think and analyze quickly.*" (P.T.4)

"*I believe that they have the same cognitive skills as their peers.*" (P.T.6)

Discussion and Conclusion

The first step for gifted people to receive education suitable for their speed of progress is their identification. Teachers play a vital role in this matter. They evaluate the potential gifted individuals in their classes based on their behavioral characteristics and direct them to the relevant centers for their recognition. The efficiency and effectiveness of this process depends on teacher qualifications (as cited in in Şahin and Kargın, 2013). Therefore, the present study focused on the preservice preschool teachers' definitions of giftedness and views on their basic characteristics and tried to reveal and analyze their views regarding gifted children's behavioral characteristics.

The preservice preschool teachers' responses involving their definitions of giftedness were seen to be categorized as gifted in cognitive skills, gifted in motor skills, gifted in social skills, and others. According to their responses, the preservice preschool teachers generally associate gifted people with cognitive skills such as being "a person comprehending more easily than her or his peers", "a person with a higher level of comprehension than her or his peers", and "a person building connections between incidents". As mentioned in the Introduction, giftedness is a process starting from the concept of intellectually gifted. It was initially defined to refer to people with a high-level of intelligence. However, the current definition of giftedness covers not only people with high-levels of cognitive skills but also people ahead of their peers in terms of physical growth and development, movement development, understanding and expressing a language, social development, emotional development, and aesthetics (Baykoç Dönmez, 2010). In Turkey, giftedness is officially defined as "demonstrating high-level performance compared to one's peers in terms of intelligence, creativity, arts, sports, leadership, or specific academic fields". Most of the preservice teachers participating in the study gave responses about cognitive development and kept the physical and social development and other domains behind. They seemed to be not considering giftedness and intellectually gifted as the same thing or parts of one another. This maybe because these students had not studied the topic of giftedness in the Special Education course. In a study conducted by Eraslan Çapan (2010), the preservice teachers' metaphors regarding giftedness were analyzed. It was revealed that the preservice teachers associate giftedness with metaphors highlighting the cognitive characteristics of gifted children such as being wise, prodigy, philosopher, dervish, robots, and precocious. Gökdere and Ayvacı (2004) conducted a study in which they asked primary school teachers to define giftedness. They found out that the teachers defined gifted people as fast learners and students with higher levels of behaviors than their peers. Kıldan (2011) conducted a study which arrived at similar results by revealing that preschool teachers defined giftedness as being superior and more creative than one's peers. Neumeister, Adams,

Pierce, Cassady, and Dixon (2007) determined that fourth grade teachers associated giftedness with fast learning, comprehension, and creativity.

The preservice preschool teachers' responses involving their views regarding gifted children's basic characteristics were seen to be categorized as characteristics regarding cognitive skills, characteristics regarding social skills, characteristics regarding physical skills, characteristics regarding personal traits, and others. This is in line with the findings concerning the previous research question. As the preservice preschool teachers considered giftedness and intellectually gifted as equal concepts and kept other domains behind, they generally associated gifted children's basic characteristics with cognitive characteristics. Akar and Şengil Akar (2012) detected that teachers working in primary schools associated gifted students' characteristics with positive qualities such as curiosity, creativity, and success and negative qualities such as being antisocial. Gökdere and Ayvacı (2004) administered an achievement test regarding gifted students to primary school teachers and determined that the teachers were better at cognitive characteristics. This may be indicative of the fact that teachers and preservice teachers consider giftedness in cognitive terms and keep other domains behind.

The preservice preschool teachers' quantitative responses involving their views regarding gifted children's problem-solving skills indicate that they define gifted students as children offering many solutions in cases of problems, having a high-level of mental energy and a strong memory, and standing as attentive and curious observers. In the study conducted by Şahin (2012), in line with the findings of the present study, primary school teachers generally responded "often" and "always" to "Problem-Solving Skills", the first factor of the scale. However, in response to the 12th item "They like taking risks", the preservice teachers responded "sometimes" at a rate of 36.2% in the present study. Similarly, Chen (2000) revealed that teachers and parents think that gifted children rarely demonstrate risk-taking behaviors. In a similar vein, the same study reported responsibility, self-learning, and abstract thinking as the most frequently observed behaviors. In the qualitative section of the study, the preservice teachers stated that gifted children have more problem-solving skills, find alternative solutions, and solve the problems in a short period of time.

The preservice teachers gave the response "sometimes" more frequently in the "Communicative and Social Skills" section than in other factors. This may stem from the fact that "giftedness" is often directly associated with cognitive skills. In line with the findings of the present study, Guskin, Peng and Simon (1992) conducting a study with 95 preservice teachers and 63 teachers determined that the participants named students who were gifted in verbal and analytical domains whereas they did not mention social and motor skills. However, in Şahin's (2012) study, the teachers mostly responded "often" and "always". This may be because the participants in Şahin's (2012) study considered the definition of giftedness in different terms and they had a certain level of professional experience. On the other hand, this difference may also be resulting from that 46% of the preservice teachers had not taken the Special Education course when the data were collected. The qualitative section of the study yielded both positive responses (being social, communicating easily, being sympathetic and sociable…)

and negative responses (being lonely as they cannot make friends, failing in social skills…) with regard to gifted children. Based on the findings, it is possible to say that some of the preservice preschool teachers think that gifted children have positive aspects in social skills, while some others think they have negative aspects.

The preservice preschool teachers' responses regarding the third sub-factor "General Cognitive Characteristics" point out that they believe these children are different than their peers. However, in Şahin's (2012) study, primary school teachers generally responded "often" and "always", which implies that they have similar characteristics to their peers. This may be because the teachers participating in the study conducted by Şahin (2012) considered giftedness in different terms and they had a certain level of professional experience. On the other hand, this difference may also be because 46% of the preservice teachers had not taken the Special Education course yet when the data were collected. The qualitative responses demonstrate that, in addition to what is suggested by the scale items, the preservice teachers consider gifted children as children with high-levels of cognitive characteristics, capable of analyzing and quick thinking, and having a strong perception and memory.

Consequently, it was found out that the preservice teachers;

- Consider gifted children as children with high-levels of cognitive skills,
- Highlight cognitive characteristics among the characteristics of gifted children,
- Believe that gifted children use problem-solving skills often or always,
- Mostly responded "sometimes" with regard to gifted children's communicative and social skills,
- Think that gifted children have different general cognitive skills from their peers.

Based on the research findings, the recommendations below can be put forward:

- A similar study may be conducted with the students who have taken and passed the Special Education course.
- The literature review shows that training programs are offered to teachers and preservice teachers for the identification of gifted children. These programs may be given to undergraduate students in online format.
- A similar study may be designed to cover all the universities in Turkey.
- A similar study may be conducted on in-service teachers.

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