



School readiness of primary school students in mixed-age classrooms

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Abstract

The aim of this study is to determine school readiness of primary school students in mixed-age classrooms. The sample of this study, using embedded mixed method design, consists of 909 first grade students in primary school and 30 primary school teachers determined by stratified purposeful sampling method. In this study, "Primary School Readiness Scale" and "semi-structured interview form" were used for data collection. Descriptive and differential statistics were used for quantitative data analysis, and descriptive analysis technique was used for qualitative data analysis. As a result of the study, first grade students of 60-65 months old demonstrated a medium level of school readiness; while the students of 66-71 and 72-84 month old demonstrated a high level of school readiness. In interviews, teachers stated that students' school readiness increased with age. Considering the individual differences of the students, the appropriate age for students to start school should be determined with school readiness test.

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Keywords: School readiness; cognitive readiness; affective readiness; psychomotor readiness; primary school students

1. Introduction

From the time a child is born, learning begins literally. However, processing speed in children can be different due to the individual differences. One of the most important individual differences that may affect students' learning capabilities is their learning readiness. Learning readiness can be defined as learning efficiently without any psychological and physiological stressful situations (Oktay, 2007). According to Aydın (2001), learning readiness is the condition of being sufficient needed for learning to occur. School readiness can be defined as sufficient level of access to school facilities in order to be successful (Pianta, Cox and Snow, 2007). According to Edward (1999), school readiness is the condition of being able to achieve the goals for school. Raftery, Buchenauer, Crissman and Halko

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(2004) stated that school readiness is the child's learning capacity in achieving cognitive, affective and psychomotor learning in school.

Students, who are ready for school, have cognitive, affective, psychomotor and self-care skills in order to achieve the goals of school. As effective teaching is a continual learning process and the students should have prior knowledge as prerequisite to learn, those skills need to be developed during preschool education for students being ready in primary school. School readiness is not limited to the developmental characteristics of the child; it arises from a synthesis of many factors such as parental child-rearing characteristics, nutrition, genetics, social environment and life conditions of the child. Miclea and Mihalca (2007) stated that school readiness comprises the effect of the environment on children, the child's learning capacity, knowledge, skills and capacity of the school to support the child. School readiness includes not only the cognitive readiness of the child for school, but also affective, psychomotor and self-care skills (Carol, 2000; Kagan, Moore and Bredekamp, 1995). The literature concerning the skills covered by school readiness is discussed below.

1.1. School Readiness Concerning Cognitive Skills

Cognitive skills include all skills that allow the children to effectively deal with their environment. According to Akay (2017), cognitive development involves mental processes that allow the child to interact with the environment, perceive the events that occur in the environment, acquire, interpret, reorganize and evaluate the knowledge. The role of child's cognitive development is very important in interpreting the outside world and converting the environment stimuli into meaningful experience. Children can realize the events, maintain good relationships, be aware of the similarities or differences between objects, seek out logical solutions to problems by means of their cognitive skills (MoNE, 2007).

An important aspect of school goals expected from children requires the child to use cognitive skills. The success of the child in school is directly related to the cognitive readiness. Cognitive skills play an active role in reading, writing and basic mathematical skills of children in primary school (Maryland State Board of Education, 2009). Intellectually ready children have cognitive maturity and prerequisite knowledge required for new learning (Tuna and Kaçar, 2005).

1.2. School Readiness Concerning Social-Emotional Skills

One of the most important developmental domains that affect the interaction of the child with his/her environment after birth is the domain of social-emotional development. The ability of the child to develop positive relationships with his/her environment, socialize and be accepted by his/her environment depends on the domain of social-emotional development. The social-emotional development of the child begins with parental bonding to the child (Oktay, 1999; Kandır, 2003). The attitude, interaction and communication of the parents with the child affect the social-emotional development of the child. This developmental domain is then supported by school environment and education (Yapıcı, 2005).

Families and educators work together within and across school so that the child can adapt to the culture of the society. Therefore, families are equal partners in attaining educational goals for

students (MEB, 2007). However, the success of the child in school is directly related to the social-emotional readiness. Students, who are socially and emotionally ready for school, adapt to the school more easily. These children interact with their surroundings, friends and teachers. They are able to adapt to the school environment and be aware of what is expected from them at school. Therefore, students develop positive attitude towards school (Yenilmez and Kakmacı, 2008).

1.3. School Readiness Concerning Psychomotor Skills

The ability of the child to perform certain behaviors depends on the physical maturity. It is expected from primary school students to exhibit behaviors such as holding pen, painting, using scissors, writing, bouncing, playing with ball, and staying in balance (Arı, 2014; Başar, 2013; Gündüz and Çalışkan, 2013; Kılıç, 2004; Canbulat and Yıldızbaş, 2014; Zelyurt and Özel, 2015). However, these behaviors require the development of psychomotor skills. The students, who are ready in terms of psychomotor skills, can easily demonstrate the physical skills required for the school. For this reason, children should be ready for school in terms of psychomotor skills in order to be able to adapt easily to the school and be successful (Texas Early Learning Council, 2012).

The most basic skills expected from the students in the first year of primary school are reading and writing. To be successful in writing, painting, cutting and pasting activities, the students should have school readiness concerning psychomotor skills. In addition, students' being successful in play, physical activities, music lessons and performing self-care skills sufficiently are closely related to their psychomotor skills. Students, who are not ready for school concerning psychomotor skills, may experience problems such as fatigue, getting bored and lack of self-confidence (Özarlan, 2014).

1.4. School Readiness Concerning Self-Care Skills

The majority of children starting primary school are separated from their parents for the first time. Children meet most of their needs with the help of their parents until school age. However, children who are separated from their families in preschool education and primary school are expected to meet most of their needs on their own such as toilet, nutrition, personal cleaning, clothing and putting on shoes (Altıntaş, 2015; Başar, 2013; Cimem, 2017; Deniz and Erözkan, 2014; Konya, 2007; Megep, 2007; Sönmez, 2008). Therefore, parents should develop their children's sense of responsibility aligned with their developmental characteristics (Yavuzer, 2012). Children should be able to meet their needs such as cleaning their rooms, eating their own food, making his/her toilet, putting on their shoes under parental supervision. If parents raise their children in that way, children's self-care skills will be ready for the school (Batlaş, 2010; Varol, 2014).

The success of the children in primary school depends on their readiness to achieve school goals and it is quite important for the child to develop positive self-perception, self-confidence and self-efficacy because it affects their further education processes positively. School readiness is directly related to the child's age. The child is struggling with many problems at school. School readiness is of vital importance in the child's overcoming these problems. It is stated that the appropriate age for children to start school is about six. However, the appropriate age for children to start school will vary, depending on individual differences. Although developmental stages are the same for children in all

domains, some children may be slower or faster than other children. In this case, it would be wrong to take the age as the only criterion for starting school. For this reason, in many countries, various tests are carried out to determine children's maturity for school enrollment (Snow, 2006), different programs are applied that prepare the child for school and facilitate adaptation. The child's cognitive, affective, physical and social readiness for school are taken into consideration (Erkan and Kırca, 2010). It is considered that there is a need for determining school readiness of primary school students in mixed-age classrooms.

1.5. Aim and Importance of the Study

The aim of this study is to determine primary school students' school readiness in mixed-age (60-65 month old, 66-71 month old, 72-84 month old) classrooms. The following questions are addressed in this study:

1. What is level of primary school students' school readiness in mixed age classrooms?
2. Does primary school students' school readiness differ significantly according to age groups?
3. What are teachers' opinions concerning school readiness of primary school students in different age groups?

In pre-school period, children communicate intensively with their family and recognize the family as the safest castle. However, with starting to the school, the first step is taken out of this castle. Therefore, starting to school is a very important threshold for children. In such an environment, students should be able to develop cognitive, affective, psychomotor and self-care skills required for the school. However, as of 2012, the starting age for primary school was changed as five years old. With this change in Turkey's education system, various studies were conducted in the literature concerning the starting age for primary school or the problems experienced by children (Arı, 2014; Koçyiğit and Saban, 2014; Canbulat and Yıldızbaş, 2014; Özenç and Çekirdekçi 2013; Uzun and Alat, 2014), the problems experienced by teachers (Boz and Yıldırım, 2014; Külekçi, 2013) and the problems related to the physical infrastructure of the school (Ensar and Keskin, 2014; Işıkoğlu Erdoğan and Şimşek, 2014; Memişoğlu and İsmetoğlu, 2013). In these studies, only qualitative or quantitative methods were used and they were limited to a specific province/region. Therefore, it is thought that this study will contribute to the literature by using mixed method and collecting data from different provinces across Turkey. In addition, this study is important in terms of the comparative analysis of primary school students' school readiness in mixed-age classrooms.

2. Method

2.1. Research Model

In this study, mixed research method was used. Mixed research method, which includes at least one quantitative and one qualitative research method (Johnson and Christensen, 2008), provides the researchers the opportunity to minimize the limitations of qualitative-quantitative data and combine superior aspects of these methods (Johnson and Onwuegbuzie, 2004). The combination of both

quantitative and qualitative data provides a broader range of opportunities to understand the research problems. In other words, it is aimed to better understand the research problems by supporting the weak sides of a research method with the strengths of the other research method (Creswell, 2005; Creswell, 2014). In this study, it is aimed to provide a better understanding of the research problems by using the interview form which provides a more in-depth data and the scale that provides to collect data from a larger sample.

In this study, embedded mixed design was used. In embedded mixed design, quantitative and qualitative data are collected simultaneously. One of the data plays a supporting, explanatory and expanding role in the other data (Firat, Kabakçı Yurdakul and Ersoy, 2014). Since the quantitative and qualitative data were collected simultaneously and the qualitative data were used to support, explain and expand the quantitative data, the embedded mixed design is thought to be appropriate for the aim of this study.

2.2. Population and Sample

The study population consists of primary school students from different age groups (60-65 month old, 66-71 month old and 72-84 month old) who started school in Istanbul, Kayseri, Gaziantep and Van provinces within 2017-2018 academic year. According to the data received from the Ministry of National Education, Strategy Development Department (2018), there are a total of 313.433 first grade students in public schools (214.834 in İstanbul, 22.328 in Kayseri, 51.696 in Gaziantep and 24.575 in Van).

In this study, purposeful sampling method was used. Purposeful sampling provides in-depth analysis of the situations that can represent the population best and offer rich data (Büyüköztürk, Çakmak, Akgün, Karadeniz and Demirel, 2016). The researcher determines the sample of the study that serves best for the research questions (Fraenkel, Wallen, and Hyun, 2012). Accordingly, stratified purposeful sampling was used in this study. In stratified sampling method; the entire population are divided into homogenous groups called strata and the sample is then selected from each stratum. The main factor that differentiates this method from the random stratified sampling method is the non-consideration of the randomness in the unit selection for the sample (Büyüköztürk et al., 2016; Patton, 2002).

In this study, the sample was determined from the provinces with different socio-economic development levels because of the fact that the socio-economic development level of the provinces may affect the students' school readiness. In this respect, the results of "Survey of Socio-Economic Development Ranking of Provinces and Regions" published by Ministry of Development in 2013 were taken into consideration. In this report; 81 provinces are classified in four stratum: high, moderate-high, moderate-low and low socio-economic development level (Ministry of Development, 2013). Therefore, four provinces representing each stratum were determined: Istanbul in high socio-economic development level, Kayseri in moderate-high socio-economic development level, Gaziantep in moderate-low socio-economic development level and Van in low socio-economic development level. 909 first grade students in primary schools of these provinces were included in the sample. Table 1 shows the personal characteristics of primary school students in the sample.

Table 1. Personal Characteristics of Primary School Students in the Sample

| Characteristics | Category | Number (N) |
|-----------------|-------------|------------|
| Gender | Female | 474 |
| | Male | 435 |
| Province | Istanbul | 216 |
| | Kayseri | 206 |
| | Gaziantep | 235 |
| | Van | 252 |
| Age Group | 60-65 month | 248 |
| | 66-71 month | 364 |
| | 72-84 month | 297 |
| Total | | 909 |

As seen in Table 1, the sample shows a balanced distribution according to gender, province and age groups. In addition, 30 primary school teachers were interviewed determined by maximum diversity sampling method. In maximum diversity sampling method, different situations in the population are selected in accordance with the purpose of the study (Büyüköztürk et al., 2016). In determination of the teachers, diversity was ensured by taking into consideration their provinces from different socio-economic development levels, gender, the settlements and professional experiences. Of the teachers interviewed, 13 are female and 17 are male. Seven of the teachers are in Istanbul, eight in Kayseri, seven in Gaziantep and eight in Van. 11 of the teachers are in the provincial center, nine in the country town and 10 in the villages. Nine of the teachers have professional experience between one to four years, eight have between 5-10 years, and 13 have 11 years and more.

2.3. Data Collection Tools and Process

2.3.1. Primary School Readiness Scale

This scale, developed by Canbulut and Kırıktaş (2016), consists of 33 items in five-point Likert type. As a result of Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA), the scale's four sub-dimensions were found as cognitive skills, affective skills, self-care skills and psychomotor skills. The Cronbach Alpha internal consistency coefficient of the scale was determined for sub-dimensions as 0.98, 0.97, 0.96 and 0.96, respectively (Canbulut and Kırıktaş, 2016). In this study, Cronbach Alpha values were calculated as 0.98, 0.96, 0.94 and 0.96 for sub-dimensions, respectively. In this case, it can be said that the data obtained from the measurement tool is highly reliable (Büyüköztürk et al., 2016).

2.3.2. Semi-structured Interview Form

In this study, a semi-structured interview form was developed. During the development of the interview form, the draft form was sent to three experts from the departments of educational sciences and Turkish education for expert opinion. In line with the opinions and suggestions of the experts, revisions were made in terms of language and content. As a pilot study of the interview form, three primary school teachers were interviewed and it was checked whether the teachers properly understood the questions in the interview form and the form was appropriate for the aim of the study. In this

respect, it was found out that the questions in the interview form were clearly understood by the teachers and served the aim of the study.

The interviews were conducted with 30 teachers working in the provinces of Istanbul, Kayseri, Gaziantep and Van. The interviews were conducted face-to-face in a suitable environment during the second semester of 2017-2018 academic year with the teachers working in Van, while the interviews were conducted with the teachers working in Istanbul, Kayseri and Gaziantep via the Skype program. The interviews were recorded with a sound recording device by getting permission from the teachers and each interview lasted approximately 30-35 minutes.

2.4. Data Analysis

In this study, arithmetic mean and standard deviation values of the scale scores were analyzed to determine students' school readiness. These values were interpreted as very low level between "1-1.79", low level between "1.80-2.59", medium level between "2.60-3.39", high level between "3.40-4.19" and very high level between "4.20-5.00" (Büyüköztürk et al., 2016). Multivariate analysis of variance (MANOVA) test was used to determine whether school readiness of primary school students differed significantly according to age groups. According to Field (2009), one-way analysis of variance (ANOVA) can be performed if MANOVA results are significant (Cited in: Aypay, Çekiç and Seçkin, 2012). In this case, if there was a significant difference at .05 level in MANOVA, ANOVA test was performed and in the ANOVA tests Bonferroni correction was performed to prevent first type error. In Bonferroni correction, since the level of significance is divided by the number of dependent variables (Miller, 1991), the level of significance was determined as .01 (.05/5) (Büyüköztürk, 2012; Cohen, 1988). In addition, if there was a significant difference in ANOVA test, Scheffe test was used in order to determine between which groups the difference is.

Prior to analysis, the assumptions of the MANOVA test were examined. Accordingly; linearity, univariate and multivariate normality, homogeneity of variance-covariance matrix and multicollinearity problem were tested (Büyüköztürk, 2012; Pallant, 2005). For the univariate normality, the skewness and kurtosis values of the dependent variables were analyzed and the histogram graphs were examined. As a result, skewness values of the dependent variables in school readiness scale ranged between -0.566 and -0.985, and the kurtosis values ranged between -0.332 and -0.597. It was concluded that the skewness and kurtosis coefficients for the scores of the dependent variables were within the range " ± 1 " and the data showed normal distribution according to the histogram graphs (Büyüköztürk, 2012). For the homogeneity of the variances, the results of Boxes M for the distribution of Levene's Test and Covariance matrices were examined. Accordingly, it was concluded that the results were not statistically significant ($p > .05$) and thus the assumptions of homogeneity of variance-covariance matrices were achieved (Büyüköztürk, 2012). For multivariate normality, Mahalanobis distance values were calculated and extreme values were excluded from the data set prior to analysis. The linearity between the dependent variables was examined by scattering graphs and it was found that the linearity assumption for the sub-dimensions of the scales was achieved. In addition, it was found that the highest relationship between the dependent variables was -.762. In this case, it was concluded that multivariate normality and linearity were achieved and there was no multicollinearity problem between dependent variables.

In this study, descriptive analysis technique was used to analyze qualitative data. The data obtained by qualitative data collection techniques are presented and interpreted by descriptive analysis (Karataş 2015; Punch, 2014). Descriptive analysis consists of four steps that are creating a thematic framework for descriptive analysis, processing data according to themes, identifying and interpreting the results (Yıldırım and Şimşek, 2011). In this study, the data were classified by coding, then they were identified and interpreted. Data were supported by direct quotations in order to support the results and reflect the opinions of the teachers clearly. A code number (Ö1, Ö2, Ö3...) was given to the teachers in the presentation of direct quotations.

In this study, detailed information about the role of the researchers and the participants were presented in order to increase external reliability. In order to increase internal reliability, 20% of the data were coded separately by two different coders. The percentage of the consistence between the coders was found to be 91% by using the formula (reliability=consensus/(consensus+disagreement) proposed by Miles and Huberman (1994). Accordingly, it can be said that the coding is sufficiently reliable (Miles and Huberman, 1994). In order to increase the internal validity, the integrity and consistency of the data were constantly checked, and the processes such as preparation of the interview form, data collection and analysis were explained in detail.

3. Results

3.1. Quantitative Results

The arithmetic mean and standard deviation values concerning the scales are presented in Table 2.

Table 2. The Arithmetic Mean and Standard Deviation Values Concerning Primary School Students' School Readiness

| Sub-dimensions | 60-65 month | | 66-71 month | | 72-84 month | |
|--------------------|-------------|------|-------------|------|-------------|------|
| | X | SS | X | SS | X | SS |
| Cognitive Skills | 2.87 | 1.09 | 3.79 | 0.89 | 4.05 | 0.91 |
| Affective Skills | 2.96 | 1.11 | 3.85 | 0.88 | 4.09 | 0.88 |
| Psychomotor Skills | 2.80 | 1.24 | 3.83 | 0.99 | 4.21 | 1.18 |
| Self-care Skills | 3.42 | 1.05 | 4.09 | 0.84 | 4.36 | 0.75 |
| TOTAL | 2.97 | 1.04 | 3.85 | 0.83 | 4.12 | 0.81 |

According to the scores in Table 2, 60-65 month old students have a high level of readiness concerning self-care skills ($\bar{X} = 3.42$), but have a medium level of readiness concerning cognitive skills ($\bar{X} = 2.87$), affective skills ($\bar{X} = 2.96$), and psychomotor skills ($\bar{X} = 2.80$). The overall school readiness of the 60-65 month old students is at medium level ($\bar{X} = 2.97$). 66-71 month old students' school readiness in total scale ($\bar{X} = 3.85$) and all sub-dimensions is at high level. 72-84 month old students have a high level of readiness concerning cognitive ($\bar{X} = 4.05$) and affective skills ($\bar{X} = 4.09$), while they have a very high level of readiness concerning psychomotor ($\bar{X} = 4.21$) and self-care

skills ($\bar{X} = 4.36$). The overall school readiness of the 72-84 month old students is at high level ($\bar{X} = 4.12$).

The MANOVA results on whether school readiness of primary school students differs significantly according to age groups are presented in Table 3.

Table 3. MANOVA Results of Primary School Students' School Readiness According to Age Groups

| Wilks' Lambda | F | Hyhotesis sd | Error sd | p |
|---------------|--------|--------------|----------|------|
| .760 | 33.205 | 8 | 1806 | .000 |

According to Table 3, school readiness of primary school students varies significantly according to age groups (Wilks Lambda .760, $F_{(8, 1806)} = 33.205$, $p < .05$). ANOVA test was performed in order to find out whether there was a significant difference between the age groups and the results are presented in Table 4.

Table 4. ANOVA Results of Primary School Students' School Readiness According to Age Groups

| Scale and sub-dimensions | Source of variance | Sum of squares | df | Mean of squares | F | p | Significant Difference |
|--------------------------|--------------------|----------------|-----|-----------------|---------|------|------------------------|
| School readiness (total) | Between groups | 192.040 | 2 | 96.020 | 122.401 | .000 | 1<2 |
| | Within groups | 710.730 | 906 | .784 | | | 1<3 |
| | Total | 902.769 | 908 | | | | 2<3 |
| Cognitive skills | Between groups | 201.856 | 2 | 100.928 | 110.336 | .000 | 1<2 |
| | Within groups | 828.750 | 906 | .915 | | | 1<3 |
| | Total | 1030.606 | 908 | | | | 2<3 |
| Affective skills | Between groups | 187.027 | 2 | 93.514 | 104.024 | .000 | 1<2 |
| | Within groups | 814.456 | 906 | .899 | | | 1<3 |
| | Total | 1001.483 | 908 | | | | 2<3 |
| Psychomotor skills | Between groups | 284.419 | 2 | 142.210 | 32.194 | .000 | 1<2 |
| | Within groups | 974.643 | 906 | 1.076 | | | 1<3 |
| | Total | 1259.062 | 908 | | | | 2<3 |
| Self-care skills | Between groups | 125.306 | 2 | 64.653 | 81.124 | .000 | 1<2 |
| | Within groups | 699.709 | 906 | .772 | | | 1<3 |
| | Total | 825.015 | 908 | | | | 2<3 |

1- "60-65 month", 2- "66-71 month", 3- "72-84 month"

According to the data in Table 4, there is a significant difference in total scale and all sub-dimensions according to the age groups ($p < .01$). As a result of the Scheffe test, there is a significant difference between 60-65 month old students and students in other age groups in favor of the students in other age groups, between 66-71 month old and 72-84 month old students in favor of 72-84 month old students. Accordingly, it is seen that school readiness of primary school students increase as the average age of students increases.

3.2. Qualitative Results

In the interviews, most of the teachers stated that students' school readiness increased with age. In other words, 72-84 month old students have the highest level of school readiness while 60-65 month old students have lower. The opinions of some teachers are presented below.

“As the age progresses, I observe the readiness gets higher. Whether it is cognitive or psychomotor, they are more ready. 72-84 month old child seems to be more adapted both to the school and classroom environment comparing to the age range of 60-65 month old children in all aspects.” (Ö27)

“72-84 month old child is ready to learn anyway, ready to succeed. He/she comes to the school with enough readiness. She/he's willing to study by asking to the teacher questions like ‘what letter are we going to work on?’, ‘will you teach us a letter?’, ‘what will we read?’. However, 60-65 month old children can't even hold pencil. I was showing to hold a pencil with a rope. You're dealing with them. The child is not ready.” (Ö8)

“There is a human that stands firmly on the ground. The other one is so weak. This situation is just like it. 72-84 month old students are ready. 60-65 month old students are in the world of imagination, they don't even know about school, let alone the readiness.” (Ö10)

As understood from the opinions of the teachers above, teachers emphasized that there are significant differences in terms of school readiness, especially between 72-84 month and 60-65 month old children. It was stated that 60-65 month old children did not reach the required level of readiness for primary school, they want to play and therefore do not have the readiness to achieve school goals. Teachers' opinions concerning the theme of school readiness were grouped under four sub-themes which are “cognitive skills”, “affective skills”, “psychomotor skills” and “self-care skills”.

3.2.1. School Readiness Concerning Cognitive Skills

Most of the teachers stated that 60-65 month old children are not cognitively ready for school. Some of the teachers' opinions are presented below.

“School readiness for 60-65 month old children is extremely low. They're very suitable for kindergarten. They want to play. Their cognitive skills are lower due to their age, because they want to see the things that are appropriate for their age.” (Ö2)

“While 66-71 month old children and older gain cognitive skills more easily; 60-65 month old student is still a child, cognitive skills are a bit difficult for him/her, since he/she is in play period. There is a huge difference cognitively among children in different age groups.” (Ö3)

“The difference is completely cognitive. Once you tell the old children, they understand. Of course, individual differences exist, but in general, the younger children do not understand. They have difficulty in understanding. So I've had trouble in that sense.” (Ö24)

As mentioned above, 60-65 month old students are not cognitively ready for school and have difficulty in achieve goals in cognitive domain. It is stated that students in that age range have more limited skills and perceptions than other children. In addition, teachers stated that the students who started at an early age in primary school have difficulty in reading-writing and performing mathematical skills. Some of the teachers' opinions are presented below.

“I make combinations with older children, I do reading, you can go on like this in mathematics, but younger children are a bit behind. They are as if they have just learnt the letters. There are a few letters that they can't recognize or remember. When I say it, he/she merges and reads it. We have to work with them individually because they are inadequate in terms of cognition.” (Ö10)

“You are having problems with reading and writing with 60-65 month old children. 72-84 month old children's comprehension capacity increases, as they are more ready. There is no problem with them in this respect. 60-65 month children are often not ready enough to perform mathematical skills and literacy skills. When you teach a normal child in 1-1.5 months, you teach them in 2-3 months.” (Ö11)

“When I evaluate children by excluding individual differences, I can say that 60-65 month old children are generally more insufficient. 66-71 month old children are ready for primary school. Cognitively, I can say that 60-65 month old children have more difficulty in reading, writing and cognitive issues.” (Ö15)

As stated above, 60-65 month old students are not cognitively ready for school and have difficulty in reading-writing and performing mathematical skills. However, it was stated that this problem gradually decreases as the students' age progresses. It was stated that younger students have poor understanding skills and therefore teachers have to show interest and spend more time with these students individually.

3.2.2. School Readiness Concerning Affective Skills

Most of the teachers stated that 60-65 month old students are not ready both cognitively and affectively. Teachers stated that students who start school at an early age do not want to separate from their family members and they hesitate to be extrovert. Some of the teachers' opinions are presented below.

“The longing for the family is much higher for younger children than other children. They want parents with them especially in the first months.” (Ö5)

“Early beginners have difficulty in socializing. When young children start school, mother or father has to wait at the door in the first month. We are constantly calling for the parents.” (Ö6)

“60-65 month old students also have emotional problems. They are crying or going out. They want their mom. Their mother's waiting. Some of them enter the class with their mother. They don't leave their mother's skirt. They're not making friends. They're not talking to anybody. There are lots of troubles.” (Ö14)

“Since young children are separated from their family at an early age, they show crying behaviors for a long time. Parents are forced to spend a few months or several months in the classroom or at the door of the classroom or in the hallway. Children are afraid of the outside environment, they feel shy, and school seems to be something that separates them from their families. It causes them to have a bad perception towards the school.” (Ö30)

As emphasized above, teachers stated that the students who started school at an early age insisted on demanding family members and abstained from the school. The students are unwilling to communicate with other students and teachers, and asked for family members. Therefore, students have socialization

problems. 60-65 month old students showed crying reactions. Some of the teachers' opinions are presented below.

“For example, young children, especially 60-65 month old, can cry if they have the slightest distress. They are overreacting emotionally and it takes a long time to relax. They are crying as if they are kids.” (Ö18)

“Younger children cannot adapt very much affectively. They're crying very easily. For example, I tell others, sometimes you get angry, I tell them all: do this, the others are okay. They're doing it immediately. Younger children are starting to cry by saying I'm going to my mother.” (Ö26)

“I've never been angry. I say with a smiling face why you're late. The child starts crying, little ones. I say it without being angry, but the child thinks that the teacher is angry.” (Ö12)

As emphasized above, teachers stated that students who started school at an early age are emotionally sensitive, misinterpret the reactions from the outside world and display crying and fear reactions. In addition, teachers stated that they have no interest in classes and find the school as a boring environment. Some of the teachers' opinions are presented below.

“There are too many problems in 60-65 month old children. Because they are too small, they cannot concentrate during the lesson. They're not interested. The child does not want to learn.” (Ö1)

“60-65 month old students can't listen to you for a long time. He/she's listening to just a phrase when you're talking about a class rule on the board. Then he/she takes off a buckle, a balloon and begins to play with it. I'm taking it away. He/she is playing with other things.” (Ö2)

“60-65 month old child is in the world of dream. Somehow you have to get him/her out of there and motivate him/her. He/she's not interested in the lesson. He/she wants to play.” (Ö10)

“The interest of young children is lower. I tried to teach chess to my kids, little kids came a few weeks. You're telling them how the stone moves, they're not even paying attention to it, and they're not interested. Then they did not come.” (Ö16)

As emphasized above, especially 60-65 month old students show low interest to the school and classroom, they dream school as a playground, and they need the attention and help of the teacher. In summary, most of the teachers emphasized that the students who started primary school at an early age did not have enough school readiness in terms of affective skills and therefore they exhibited negative behaviors such as requesting family members alongside, abstaining or displaying shyness, making outrageous reactions to the outside world, unnecessarily crying and being indifference towards the school.

3.2.3. School Readiness Concerning Psychomotor Skills

The majority of the teachers stated that the students starting school at an early age have difficulties in performing the activities such as holding pencil, writing, painting, holding scissors etc. because of the fact that their small muscle skills have not developed enough. Some of the teachers' opinions are presented below.

“If I compare young children with others in terms of psychomotor skills, the older ones are better. I have worked with small children for 1 to 1.5 months. It's hard to get them to hold a pencil. In physical

education; for example, I throw them the ball to keep. You know, the ball hits the lap, it's coming back. The child is tiny.” (Ö26)

“In terms of psychomotor skills, these young children are left behind. They cannot hold a pencil. They pick up the pencil in school environment for the first time. So they cannot keep the scissors. But teaching older students things is easier. For example, in the dictation work, the older child writes immediately. The little boy always comes back. That's how it went until the end of the year.” (Ö29)

“Children, especially 60-65 month old, are not ready for school in terms of psychomotor skills. Children who start school early have problems in holding the pencil. For example, in teaching new letters, we want them to write two-three lines. When this child writes three lines, he/she says he/she's getting tired. The reason he/she's tired is that he/she doesn't have this readiness. He/she can't carry his/her bag. In painting, he/she paints very little on the page, because his/her hands get tired very quickly.” (Ö30)

As emphasized above, most of the teachers stated that the students starting school at an early age (60-65 month old) are not ready for school in terms of psychomotor skills, their small muscle skills are not developed enough, and therefore, they fail in the activities such as holding pencil, writing, etc. and feel tired early when participating in such activities. In addition to the teachers' remarkable views above, some teachers stated that the behaviors of falling down, failing in play and physical activities are observed more frequently in younger students.

3.2.4. School Readiness Concerning Self-Care Skills

Some of the teachers stated that there is no difference among the students of different age groups in terms of self-care skills, but some teachers stated that younger children's readiness in terms of self-care skills is very low. Teachers stated that they have difficulty in toilet training, especially those who started school at an early age. Some of the teachers' opinions are presented below.

“Young children are particularly problematic. They go to the bathroom, they cannot unzip their zipper. They cannot do toilet, especially those who are 60-65 month old cannot. I remember that I called the parent to school, and the kid went to the bathroom with his mother. This is embarrassing for the child.” (Ö6)

“As self-care skills, young children don't know how to go to the toilet. What to do? How to wash hands? and so on. They don't know them. They have nothing to do with cleanness.” (Ö8)

“In terms of self-care skills, most of 60-65 month old children do not know toilet training. For example, they can't do it, they don't know it.” (Ö18)

As mentioned above, some young students have problems in toilet training. Teachers stated that young children have difficulty in feeding themselves. Some of the teachers' opinions are presented below.

“These children cannot meet their needs. They cannot feed themselves. They cannot spread the cloth on the table. If he/she did, he/she would pour it out.” (Ö1)

“I had the opportunity to observe them mostly in feeding times. He would spill all his food, my little student. Compared to other students, self-care skills were also insufficient. There was a difference in nutrition.” (Ö2)

As mentioned above, the students who started school at an early age cannot behave sufficiently while performing their nutrition work. In addition, teachers stated that 60-65 month old students have difficulty in putting on their clothes and shoes. One of the teachers' opinions is presented below.

“My little students are always looking for help to tie their shoes and wear their coat. This situation gets the teacher tired. I want him/her to wear it. This time I've got to stay with him/her all the time. He/she cannot even wear the button of his/her coat in any way.” (Ö5)

As mentioned above, younger students have difficulty in dressing or putting off their clothes and tying their shoes. However, some teachers stated that there is no difference among the students of different age groups in terms of self-care skills. Some of the teachers' opinions are presented below.

“So we didn't have any problems due to the age. There was a problem with individual differences.” (Ö24)

“We have a problem for all ages. I think that self-care skills are not related to the age.” (Ö15)

“Already older children cannot do exactly. The children were not provided with a fine toilet training. This is due to the parents, not the age.” (Ö10)

In this case, some of the teachers stated that the difference among the students in terms of self-care skills is age-related, while others emphasize that this difference is caused by the environment or parents.

4. Discussion, Conclusions and Suggestions

This study concluded that 60-65 month old first grade students in primary school have a medium level of school readiness; while 66-71 month and 72-84 month old students have a high level of school readiness. In addition, according to the age groups, it was found that the school readiness of 60-65 month old students is lower than the other age groups. The results of interviews with the teachers supported the quantitative results. Accordingly, teachers stated that 60-65 month old students are more insufficient in terms of school readiness than other age groups. These results coincide with similar study results in the literature. In parallel with the results of this study, Gündüz and Çalışkan (2013) found that 60-66 month old students have a medium level of school maturity and their school maturity is lower than the other age groups. Similarly, Dirlik (2014) determined that 60-66 month old students are not sufficient in terms of school readiness. Esaspehlivan (2006) found that 78 month old children are more ready for school than 68 month old children. In some studies (Calp, 2014; Dağlı, 2012; Özarslan, 2014; Zelyurt and Özel, 2015), it was determined that older students in primary school are more successful than younger students. Aslan (2014) revealed that 60-72 month old children do not have enough maturity in cognitive, social, physical and affective aspects and therefore they are not appropriate to start primary school. In this respect, it emphasized that primary school starting age should be 72 month (Arı, 2014; Gümüş, 2013; Memişoğlu and İsmetoğlu, 2013). Similarly, in the interviews conducted with the teachers in this study, the teachers stated that 60-65 month old students are not appropriate to start primary school, these children want to play and they do not have the readiness to achieve the goals of school. Based on the results of this study and similar studies in the literature, it can be said that 60-65 month old students do

not have the required level of school readiness, and students' school readiness increases as students' average age increases. It can be said that children grow up very quickly in early childhood and therefore, even four or five months may cause many developmental differences among the students. The results and discussion concerning school readiness are presented below as cognitive skills, affective skills, psychomotor skills and self-care skills.

This study concluded that 60-65 month old students have a medium level of readiness concerning cognitive skills, while 66-71 and 72-84 month old students have a high level of readiness concerning cognitive skills. The results of the interviews with the teachers supported the quantitative results. The teachers stated that cognitive readiness of the students increases with age. Accordingly, 60-65 month old students have the lowest cognitive readiness, and their comprehension skills and perceptions are more limited. Teachers stated that 60-65 month old students have difficulty in reading, writing and mathematical skills because they are not ready for school. In addition, teachers stated that students' understanding skills increase with age, and therefore, younger students' success decreases and they need more attention. These results support similar study results in the literature. In parallel with the results of this study, Çiftçi (2017) determined that the academic achievement of 60-65 month old children is low. Furthermore, the academic achievement of 72 month and older students in Turkish and mathematics was found to be higher than 60-65 month old students. It is seen that 60-65 month old students are not ready for school cognitively. It can be said that these students have difficulty in performing reading, writing and mathematical skills. Similarly, Duman (2014) found that the literacy skills of the students increased with age. In the study conducted by Uzun and Alat (2014), teachers stated that children at an early age experience problems related to cognitive development such as not being able to concentrate, memorize, etc. Similarly, Stipek and Byler (2001) concluded that older students have higher levels of academic achievement in primary school. Boz and Yıldırım (2014) revealed that 60-65 month old students are not cognitively ready for school and therefore, are academically unsuccessful. Dağ (2017) found that 60-66 month old children show lower levels of academic achievement than children of other age groups. Turan (2018) determined that academic success of 60-66 month old children is lower than 67-72 month old children. In this case, it can be said that 60-65 month old students cannot achieve academically as they cannot reach the same readiness level with other students. Gündüz and Çalışkan (2013) determined that 60-66 month old children have difficulty in reading, writing skills compared to the other age groups, and they experienced problems such as difficulty in understanding and learning. Tural (2013) reached similar results in his study in which it was observed that 67-72 month old students' reading comprehension achievements were higher than 60-66 month old students. In the study of Cimem (2017), the reading speed and comprehension level of the 72-77 month old students were found to be higher than the other age groups. Öztürk and Uysal (2013) concluded that 60-66 month old children had some problems concerning comprehension skills compared to 72 month old children; and 60-66 month old children have insufficient cognitive readiness and motivation. It was found in many studies that primary school starting age has an effect on school readiness and school readiness has a positive effect on literacy skills (Çakıcı, 2015; Dağ, 2017; Durna, 2014; Fidan, Taşçı and Yılmaz, 2013; Gümüş, 2013; Kahramanoğlu,

Tiryaki and Canpolat, 2014; Özcan, 2014; Özenç and Çekirdekçi 2013; Sağ, Arslan and Karataş, 2015; Yüce, 2016; Zelyurt and Özel, 2015). Concerning the results of this study and similar studies in the literature; it can be concluded that the school readiness of 60-65 month old students concerning cognitive skills is not sufficient compared to 66-71 month and 72-84 month old students, they have difficulty in reading, writing, comprehension and mathematical skills, and this situation affects their success negatively.

This study concluded that 60-65 month old students have a medium level of school readiness concerning affective skills, while 66-71 month and 72-84 month old students have a high level of school readiness concerning affective skills. The results of the interviews with the teachers supported the quantitative results. Similarly, teachers stated that the age group with the least school readiness concerning affective skills is 60-65 month old students. Teachers emphasized that children who started primary school at an early age are insufficient in terms of school readiness concerning affective skills and therefore, young children exhibit negative behaviors such as not separating from their family members, abstaining or displaying shy behaviors, giving excessive emotional reactions to the outside world, unnecessarily crying and being indifference towards the school. These results coincide with similar study results in the literature. In parallel with the results of this study, in the study conducted by Dağ (2017), 60-66 month old students were found to be lower in social-emotional skills than the other age groups. Dirlik (2014) found that 60-66 month old students are not socially-emotionally ready for school. It was concluded that 60-65 month old students experienced emotional problems such as requesting family members with him/her, crying, fearing, behaving timidly, not communicating and socializing. In the study conducted by Uzun and Alat (2014), teachers stated that primary school students experience similar problems in the domain of social and emotional development such as not being able to attend school, take responsibility, communicate, etc. In the study conducted by Kahramanoğlu, Tiryaki and Canpolat (2014), teachers stated that 60-66 month old students are not emotionally ready for school. Many studies (Altıntaş, 2015; Çakıcı, 2015; Dağ, 2017; Özarlan, 2014; Zelyurt and Özel, 2015) concluded that 60-66 month old students experienced socio-affective problems such as not expressing their emotions and understanding others' feelings, being indifferent towards courses, not wanting to leave the family, behaving shy, not expressing himself/herself, not socializing, not communicating with others and peer bullying. Concerning the results of this study and similar studies in the literature, it can be said that 60-65 month old students are not affectively ready for school. Teachers also pointed out that these students experienced many problems in this respect. Since students' readiness concerning affective skills (taking responsibility, cooperation, sharing, etc.) is not sufficient, it is seen that they do not want to separate from their parents in the first weeks of the school and they hesitate to communicate with the environment. The students' not being ready for the school both cognitively and affectively plays an important role in the negative attitude of the child towards school. It can be said that 60-65 month old students face serious problems because they have not been away from their parents before and they have been in a school environment for the first time.

This study revealed that 60-65 month old students have a medium level of readiness concerning psychomotor skills, while 66-71 month old students have a high level and 72-84 month old students have a very high level of readiness concerning psychomotor skills. The results of the interviews with the teachers supported the quantitative results. Teachers stated that the students who start school at an early age (60-65 month old) are not ready for school in terms of psychomotor skills, their small muscle skills are not developed enough, and therefore they fail in the activities such as holding pencil, writing etc. and they get tired early when participating in such activities. These results coincide with similar study results in the literature. In parallel with the results of this study, Başar (2013) concluded that 60-65 month old students have difficulty in performing psychomotor skills such as holding pencil, painting and line drawing in the first weeks of the school. Similarly, Boz and Yıldırım (2014) determined that small muscle skills of 60-65 month old students are not ready for school. Uslu (2014) and Fidan, Taşçı and Yılmaz (2013) concluded that 60-65 month old students' small muscle skills are not developed enough; Gümüş (2013) determined that children under 72 month old have difficulty in performing psychomotor skills requiring small and large muscle skills. Similarly, Uzun and Alat (2014) found that young students have problems related to physical development such as holding pencil, sitting in rows, carrying bags, cutting paper with scissors, opening and closing the belt-button, climbing up and down the stairs. In addition, in many studies in the literature (Altıntaş, 2015; Çakıcı, 2015; Dağ, 2017; Gündüz and Çalışkan, 2013; Kahramanoğlu, Tiryaki and Canpolat, 2014; Özenç and Çekirdekçi, 2013; Öztürk and Uysal, 2013; Yüce, 2016; Zelyurt and Özel, 2015), it was concluded that 60-66 month old students' small muscle skills are not developed enough in terms of psychomotor readiness and they have difficulties in adapting to the physical environment of the class and school. In this study, teachers have expressed similar opinions in the interviews. Concerning the results of this study and similar studies in the literature, it can be said that 60-65 month old students are not ready for school in terms of psychomotor skills. It can be concluded that 60-65 month old students are not developed enough in terms of large muscle skills and therefore they have difficulty in holding pencil and in activities such as line drawing and writing. In this case, it can be thought that 60-65 month old students have difficulty in fulfilling the basic responsibilities required in the primary school since their psychomotor skills are not sufficiently developed, and they are not active enough in terms of physical activities and play compared to the other age groups. School adaptation is very difficult for 60-65 month old students.

This study determined that 60-65 and 66-71 month old students have a high level of school readiness concerning self-care skills, while 72-84 month old students have a very high level of school readiness concerning self-care skills. In the interviews with the teachers, different results concerning self-care skills were reached. Some teachers stated that children's readiness of self-care skills increased with age. Some teachers stated that they have problems in meeting their personal needs such as toilet training, feeding, wearing clothes and tying shoelaces. In parallel with the results of this study, Doğan and Kılınç (2013) concluded that 60-66 month old students may have problems in toilet training because they are physically small. Similarly, in the study conducted by Boz and Yıldırım (2014), teachers stated that 60-65 month old

students' self-care skills are not developed enough; Fidan, Taşçı and Yılmaz (2013) determined that 60-65 month old students have difficulty in fulfilling their own self-care responsibilities such as toileting, dressing and putting on clothes. In the study of Uzun and Alat (2014), teachers stated that 60-65 month old students experienced problems in self-care skills such as not being able to meet their toilet needs. In addition, in many studies (Altıntaş, 2015; Başar, 2013; Cimem, 2017; Çakıcı, 2015; Kahramanoğlu, Tiryaki and Canpolat, 2014; Kerimoğlu, 2014; Özenç and Çekirdekçi, 2013), it was concluded that 60-66 month old students have difficulty in meeting their personal needs, especially in gaining toilet habit. Concerning the results of this study and similar studies in the literature, it can be said that 60-65 month old students are not ready for school in terms of self-care skills and therefore have difficulty in meeting their personal needs (toilet training, nutrition, wearing clothes, tying shoelaces etc.). It can be thought that this is due to the characteristics of their developmental period depending on the age of the students. On the other hand, in the interviews with the teachers, some teachers stated that there is no difference in terms of self-care skills among the students due to the age and the difference is caused by the parents or environment. The student's age can be an important factor in the development of self-care skills. However, it can be said that many factors such as education level of the parents, environmental factors, and parental rearing styles are important in the development of self-care skills.

According to the results of this study, primary school starting age should be at least 66 month. In addition, considering the individual differences between the students, primary school starting age should be determined with school readiness test. Within the scope of this study, data related to school readiness of primary school students were obtained from classroom teachers. Similar studies can be conducted with parents. This study is limited to scale and interview form as data collection tools. In future studies, more in-depth studies can be conducted by providing long-term interaction with students and teachers using data collection tools such as diary, observation etc.

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