Buca Eğitim Fakültesi Dergisi, 2022, sayı 53, s. 212-223

Araştırma Makalesi

The Journal of Buca Faculty of Education, 2022, issue 53, p. 212-223

Research Article

Okul Öncesi Dönemdeki Özel Yetenekli Çocuk Erken Okuryazarlik Becerileri*

Early Literacy Skills of Gifted Children in Preschool

Filiz KARADAĞ[1], Vesile YILDIZ DEMİRTAŞ[2]

[1]Sorumlu Yazar, Arş. Gör. Dr., Özel Eğitim Bölümü, Özel Yetenekliler Eğitimi Anabilim Dalı, Dokuz Eylül Üniversitesi, Türkiye, filiz.karadag@deu.edu.tr, (https://orcid.org/0000-0003-4024-7852)

[2]Prof. Dr., Özel Eğitim Bölümü, Özel Yetenekliler Eğitimi Anabilim Dalı, Dokuz Eylül Üniversitesi, Türkiye, vesile.yildiz@deu.edu.tr, (https://orcid.org/0000-0002-4202-7733)

Geliş Tarihi: *09.11.2021* ***Kabul Tarihi:*** *14.03.2022*

Abstract

In the preschool period gifted children are defined as children with the potential to perform at high levels due to their advanced or rapid development. The aim of this study is to examine the level of early literacy skills of gifted children in the preschool period and how this level differs from their peers with typical development. The comparison screening method from quantitative research was used in the study. The study group consists of 67 children, 34 are identified as gifted and 33 are with typical development. The data collection tools consisted of two groups: scales for determining gifted and typically developing children, and a scale for measuring early literacy skills. While Candidate Notification Scale for Preschool Gifted Children and Raven's Color Progressive Matrices Test were used to determine children who are gifted and typical development, the Early Literacy Scale was used to evaluate this skill. According to the results, it was observed that gifted children performed higher than their peers with typical development in the category naming, phonological awareness, letter knowledge, listening comprehension skills and total score of early literacy.

Key Words: gifted, preschool, early literacy, phonological awareness, letter knowledge, listening comprehension.

Öz

Okul öncesi dönemdeki özel yetenekli çocuklar, ileri veya hızlı gelişmeleri nedeniyle yüksek seviyelerde performans gösterme potansiyeli olan çocuklar olarak tanımlanır. Bu çalışmanın amacı özel yetenekli çocukların okul öncesi dönemde erken okuryazarlık becerilerinin ne düzeyde olduğunu ve bu düzeyin tipik gelişim gösteren akranlarından ne şekilde farklılık gösterdiğini incelemektir. Araştırmanın yönteminde, nicel araştırmalardan tarama yöntemi kullanılmıştır. Genel tarama yöntemlerinden ise ilişkisel tarama yönteminde karşılaştırma türü modeli kullanılmıştır. Araştırmanın çalışma grubu, özel yetenekli olarak belirlenen 34, tipik gelişim gösteren 33 olmak üzere toplam 67 çocuktan oluşmaktadır. Araştırmada kullanılan veri toplama araçları, özel yetenekli ve tipik gelişim gösteren çocukları belirleme ölçekleri ile erken okuryazarlık becerilerini ölçmeye yönelik ölçekler olmak üzere iki gruptan oluşmuştur. Okul Öncesi Dönem Üstün Yetenekli Çocuklar İçin Aday Bildirim Ölçeği (Bildiren & Bıkmaz Bilgen, 2018) ve Raven'ın Renkli Prograsif Matrisler Testi (Bildiren, 2016) özel yetenekli olan ve tipik gelişim gösteren çocukları belirlemek amacıyla kullanılırken, Erken Okur Yazarlık Ölçeği (Kargın ve ark., 2015) bu becerinin değerlendirilmesi için kullanılmıştır. Elde edilen sonuçlara göre erken okuryazarlığın alt ölçekleri olan sözcük bilgisi, ses bilgisel farkındalık, harf bilgisi, dinlediğini anlama becerisi ve erken

* Bu çalışma Dr. Filiz KARADAĞ'ın Prof. Dr. Vesile YILDIZ DEMİRTAŞ danışmanlığında yürütülen doktora tezinden üretilmiştir.

okuryazarlığın toplam puanında özel yetenekli çocukların tipik gelişim gösteren akranlarına göre daha yüksek performans gösterdiği görülmüştür.

Anahtar Sözcükler: Özel yetenek, üstün yetenek, erken okuryazarlık, fonolojik farkındalık, harf bilgisi, dinlediğini anlama.

INTRODUCTION

In early childhood gifted children are ahead of their peers in certain characteristics. In some research on this subject, the early childhood characteristics of well-known people were examined retrospectively and the characteristics of gifted children were put forward based on these evidences (Walsh, 2014)., Based on the studies of researchers such as Gardner, Guilford, Thurstone on intelligence, it has been reported that the concepts of special abilities in early childhood expand to include skills specific to the field (Robinson, 2000). This has paved the way for research on identifying gifted children at an early age. However, as in the definition of giftedness, early indicators of special ability (Roedell et al., 1980; Roedell, 1989; Tannenbaum, 1992) are frequently listed and discussions continue on this topic (Ehrlich, 1985; Hall & Skinner, 1980, p.57; Harrison, 1999; Porter, 1999). In the literature, it is stated that gifted children exhibit some symptoms to their families in the first years of their lives. These symptoms generally manifest themselves as using verbal expressions in the early period, extraordinary curiosity, extraordinary permanent memory, abstract reasoning capacity, high level of questioning, intense curiosity, desire to learn, and an unusually developed humor (Chamrad & Robinson, 1986; Creel & Karnes, 1988).

According to recent research, gifted children in the preschool period have characteristics that distinguish them from their peers. Cognitive features such as rapid learning, enhanced memory, ability to understand complex concepts and high observation ability become evident in the early years (Clark, 2002, p.48; Harrison, 2003; Robinson, 2008; Sutherland, 2008, p.11). Similarly, socio-emotional characteristics such as an advanced level of humor, sensitivity, social maturity, empathy and advanced play patterns are frequently seen in young gifted children (Clark, 2013, p.126; Harrison, 2003). However, they can show high performance in language skills, motor skills, academic ability, music and art, personal or interpersonal skills (Olszewski-Kubilius et al., 2003, p.6).

Although there is relatively little information in the literature about gifted children in the preschool period, they are defined as children with high performance potential due to their advanced or rapid development (Clark, 2002, p.48; Cukierkorn et al., 2008; Harrison 2004; Morelock et al., 2003; Smutny, 1998, p.25). Similarly, different researchers have been identified as different thinkers who concentrate on young gifted children, are curious, persistent, and who can make abstract connections in learning (Louis & Lewis, 1992; Roedell, 1989; Tuttle, Becker & Sousa, 1988; Webb et al.,1982).

Cukierkorn et al. (2008) summarized the characteristics of gifted children in the preschool period, their interpretations of these features and sample situations in their study. According to this information, the general characteristics of gifted children in the preschool period include language skills that include advanced vocabulary according to their age and the ability to use language in an original and meaningful way, asynchronous development, emotional sensitivity, early awareness of differences, cooperative play, using unusual objects in their games, leadership, advanced humor, sensitivity to problems, curiosity, cognitive skills, metacognitive control, gifted children and early literacy. As can be seen here, early literacy is defined as one of the characteristics of gifted children in early childhood. Children can read texts both aloud and silently at an early stage compared to their peers, as it facilitates understanding. (Cukierkorn et al., 2008).

Early literacy is all of the prerequisite knowledge, skills and attitudes towards reading and writing before starting literacy instruction (Kargın et al., 2015; Sulzby & Teale, 1991; Whitehurst & Lonigan, 1998). Studies have revealed that phonological awareness, print awareness, letter knowledge, vocabulary, writing and listening comprehension skills are important for individuals' reading performance during school period (Kargın et al., 2015). Language skill, which is an important indicator of early literacy skill, is directly related to category naming. The child with good vocabulary

knowledge will analyze words more easily and read more fluently during the reading task (Hirsch, 2003; Fowler, 1991; Metsala, 1999; Zhang et al., 1995). Phonological awareness, which is at the center of the reading skill, is the conscious use of phonemes by children and their awareness of the ordering and qualities of phonemes during daily conversations or while reading a text. In other words, phonological awareness is the ability to notice the sounds in the words used during speech (Turan & Gül, 2008). Children read sounds and words owing to letter knowledge, which is one of the prerequisite skills in the development of phonological awareness (Johnson et al., 1996). Print awareness is the knowledge that a written text is basically read with the rules, that this article has meaning and words are transferred to the text with some symbols (Justice & Ezell, 2001; Pullen & Justice, 2003). In order for children to be successful in language performance, they must have acquired the semantic and syntactic structure of the language. The skill of listening comprehension is closely related to these gains. This skill is measured in early literacy skills as answering context-related questions and narrating. Writing skill includes expressing language with meaningful doodles, signs, and letters. The awareness that writing has a communicative function in children develops gradually from the age of 6 months to the age of 5-6 (Riley, 2006; Zhang & Bingham, 2019).

The literature on intellectual giftedness shows that one of the strongest indicators of exceptional giftedness is early reading. Both Terman (1926) and Hollingworth (1926) reported in their studies that early reading was the most obvious distinguishing between middle and high ability children. Studies have shown that children with early speech and early movement development develop reading skills significantly earlier than their peers (Gross, 1993, p.119). In fact, it has been observed that this skill usually develops spontaneously without the support of parents or caregivers. However, this does not mean that every child who talks or reads early is particularly gifted. The remarkable early development in speaking, movement and reading has two important consequences for the gifted. First, the unusually early mobility allows gifted children to move and explore their surroundings independently for a few months before their average gifted peers, while their very early conversation allows them to express their thoughts, seek out information about their surroundings, and interact with their parents verbally. Both early movement and early speech contribute significantly to the capacity of these children to acquire and process information and strengthen their cognitive development. On the other hand early reading, allows children to reach a level of knowledge that is usually not available until a few years after starting school. Secondly, it can be determined that these children have special talents by being significantly different from their peers on these issues (Gross, 1999). Sankar - DeLeeuw (1999) revealed that early reading is an important feature in his study, in which he examined the characteristics of giftedness in early childhood from the perspective of parents and teachers. Burns et al. (1984) emphasize that approximately 50% of gifted children learn to read in kindergarten according to intelligence tests. Studies show that half of the gifted children who start first grade are early readers and have an academic performance ahead of their peers (VanTassel-Baska et al., 1996). Brown and Rogan (2010) stated that gifted generally already know how to read when they start primary school and there is no need to allocate time for this skill, so it is appropriate to give these children more active reading tasks. Although there is a great deal of place in the literature on the early reading and language skills of gifted children, it has been observed that there is no up-to-date screening study in which this situation is statistically demonstrated. In this direction, the aim of this study is to examine the level of early literacy skills of gifted children in the preschool period and how this level differs from their typically developing peers.

METHOD

The comparison screening method from quantitative research was used in the study. Screening method is an approach that aims to describe an existing situation as it exists. Relational screeening is used in studies aiming to determine the presence and degree of the situation between two or more variables. In the comparison type, groups are formed according to the variable whose difference is wanted to be tested and the difference is examined (Büyüköztürk et al., 2017; Creswell & Poth, 2016). In this study, it was examined whether early literacy skills differ on individuals with and without giftedness.

2.1. Participants

The study group consists of 67 children, 34 are identified as gifted and 33 are with typical development.

Table 1. Demographic Characteristics of the Working Group

Group	Female	Male	Mean Age (month)
E (TD)	11	5	65.90
E (G)	6	11	66.46
C (TD)	9	8	65.72
C (G)	7	10	66.40

E (TD): Experimental group consisting of children who are given working memory training and showing typical development.

E (G): Experiment group consisting of gifted children who are given working memory training.

C (TD): Control group consisting of children with typical development.

C (G): Control group consisting of gifted children.

2.1.1. Determination of the Participants

Due to the individual differences on the intelligence variable of the children in the working group, a series of procedures were carried out to identify gifted and typical developing children for experimental and control groups. This procedure is:

(1) Independent kindergartens providing preschool education have been determined in İzmir Province. Interviews were made with the directors and teachers of the determined kindergartens.

(2) Teachers evaluated "gifted" and "typically developing" children in their classrooms with the "Candidate Notification Scale for Preschool Gifted Children". As a result, 46 gifted and 50 typically developing children were nominated by their teachers.

(3) "Raven's Color Progressive Matrices Test" was applied individually by the researcher to the children who were nominated.

(4) The scores obtained from Raven's Progressive Matrices Test were evaluated according to the norms of the test and gifted children and typical development were determined. Table 1 shows the minimum and maximum values of the scores of the working group from this test, as well as the average and standard deviation values.

Table 2. Raven Progressive Matrices Test Descriptive Statistics of Participants

Grup	**N**	**Min.**	**Max.**	**Ort.**	**S.S.**
Gifted Children	34	21	32	26.5588	2.5015
Typical Developing Children	33	15	20	18.0662	1.8555

2.2. Data Collection Tools

The data collection tools used in the study consisted of two groups: scales for determining giftedness and typically developing children, and scales for measuring early literacy skills.

2.2.1. Tools to be Used to Identify Gifted and Typically Developing Children

1. **Candidate Notification Scale for Preschool Gifted Children:** The scale developed by Bildiren and Bıkmaz Bilgen (2018) is a scale used to identify gifted children in pre-school period and filled in by teachers. The scale consists of 13 items in 5-point likert type and three

factors (general intelligence, creativity, commitment to work). The highest score that can be obtained from the whole scale is 65; the lowest score is 13. It was seen that the fit indices of the scale were between well-adjusted and acceptable values, and the structure of the scale with three factors and 13 items was confirmed as a model. It was determined that the scale showed a moderate correlation between the Color Progressive Matrices Test and the CogAT tests. The reliability of the scale, calculated using the cronbach alpha internal consistency coefficient, was found to be .95.

2. **Raven's Color Progressive Matrices Test:** The scale has been developed to evaluate cognitive development and intellectual maturity. The scale consists of 36 items in total, 3 sets of 12 items each. Validity and reliability studies for children aged 4-6 and 3-9 in a Turkish sample were conducted by Bildiren (2016), Bildiren, Kargın-Korkmaz (2017), Bildiren (2017). For this study, data were collected from 640 children attending 15 kindergartens. Test-retest and parallel form reliability were used for reliability studies. It is seen that there is a moderate, positive and significant relationship between the AB Set of the test and the Test-Retest results ($r = 0.436$; $p < .01$). It is seen that there is a moderate, positive and significant relationship between Set B and Test-Retest results ($r = 0.350$; $p < .01$). It is seen that there is a moderate, positive and significant relationship between total test and Test-Retest results ($r = 0.551$; $p < .01$). For validity analysis, the relationship between the Bender-Gestalt Visual Motor Perception Test, WISC-R and TONI-3 tests was examined. In line with the findings obtained, it was concluded that the scale was valid and reliable for children in the 4-6 age group.

2.2.2. Tool to be Used to Assess Early Literacy Skills

1. Early Literacy Scale: This scale was used to evaluate the upper language skills of children in the study. Developed by Kargın et al. (2015), the scale is a measurement tool that aims to determine the early literacy skills of children in the age group of 5 in a valid and reliable manner. The scale consists of 7 subtests (Receptive Language, Expressive Language, Category Naming, Function Knowledge, Letter Knowledge, Phonological Awareness, and Listening Comprehension), which include reading and writing skills. The validity and reliability study of the scale was carried out with 403 children studying in classrooms of 5-year-olds in independent kindergartens and primary schools affiliated to the Ministry of National Education in seven central districts in Ankara/Turkey. Findings obtained from the study showed that the scale was a valid and reliable measurement tool in measuring early literacy skills in 7 sub-dimensions. The factor load values of the items in the subtests of the ELS, which consists of 102 items, are between .33 and .93, with KR20 reliability coefficients .65. Test-retest reliability coefficients ranged between .56 and .89, and criterion validity calculations calculated with TEDİL in receptive and expressive language subtests ranged between .37 and .54.

2.3. Data Collection

The data collection process of the study was carried out in two stages, namely the identification of gifted and typically developing children, and the assessment of early literacy skills. The first of the data collection tools used in the process of determining children, which is the first stage, is a measurement tool filled in by teachers. The other provides measurement by making a one-to-one application. The data collection process for the first stage proceeded as follows.

1. Institutions from which data will be collected have been determined.
2. Teachers nominated "gifted" and "typically developing" children with the measurement tool.
3. "Raven's Color Progressive Matrices Test" was applied individually by the researcher to the children determined as potentially gifted.

In the second data collection phase, after the children with special abilities and typical development were determined, the "Early Literacy Scale" was applied by the researcher to the whole study group.

2.4. Data Analysis

Since the study is a quantitative research, the data obtained were analyzed in the SPSS 24.00 package program. Before starting the analysis of the data, in order to examine the normal distribution of the dependent variables on the independent variable, the skewness kurtosis values were examined and found suitable for parametric testing.

RESULTS

The findings obtained from the research as a result of the analysis are presented in tables and explained below.

Table 2 shows the descriptive statistics of the category naming, phonological awareness, letter knowledge, listening comprehension and early literacy total scores of gifted and typical developing children in the working group.

Table 3. Category Naming, Phonological Awareness, Letter Knowledge, Listening Comprehension and Early Literacy Total Score Descriptive Statistics of the Working Group

Early Literacy Subtests and Total Score	Diagnostic Group	N	Mean	Std. Dev.	Std. Errors Mean
Category naming	GC	33	45,97	2,338	,407
	TDC	34	36,68	6,094	1,045
Phonological Awareness	GC	33	21,30	3,828	,666
	TDC	34	16,94	3,256	,558
Letter Knowledge	GC	33	7,76	4,724	,822
	TDC	34	4,18	2,634	,452
Listening Comprehension	GC	33	5,36	,822	,143
	TDC	34	4,29	1,292	,222
Total	GC	33	80,39	8,617	1,500
	TDC	34	62,09	11,490	1,971

*Note:*GC: Gifted Children, TDC: Typical Developing Children

According the data, the mean, standard deviation and standard error mean of the scores obtained by all children in the study group were given. When the findings were examined, in the subtests of category naming (m = 45.97), phonological awareness (m = 21.30), letter knowledge (m = 7.76), listening comprehension (m = 5.36) and total score (m = 80,39), scores of gifted children are higher than their peers with typical development.

Table 4. Working Group's Category naming, Phonological Awareness, Letter Knowledge, Listening Comprehension and Early Literacy Total Score Independent Samples t-Test Analysis

		Levene's Test for Equality of Variances				
		F	**q**	**t**	**df**	**q**
Category naming	Equal Variances assumed	25,567	,000	8,193	65	,000
	Equal Variances not assumed			8,286	42,757	,000
Phonological Awareness	Equal Variances assumed	,565	,455	5,029	65	,000
	Equal Variances not assumed			5,017	62,727	,000
Letter Knowledge	Equal Variances assumed	16,770	,000	3,847	65	,000
	Equal Variances not assumed			3,817	49,827	,000
Listening	Equal Variances assumed	8,258	,005	4,029	65	,000

Comprehension	Equal Variances not assumed			4,055	56,205	,000
Total	Equal Variances assumed	1,046	,310	7,361	65	,000
	Equal Variances not assumed			7,392	61,150	,000

p<. 0

When the obtained analysis results are examined, it is seen that the variances of the data in the category naming subscale are not homogeneous (p = .000 <.05), the difference between the groups is significant (t = 8.286, p = .000 <.05) and this significance is in favor of gifted children. In the phonological awareness subscale, it is seen that the variances of the data are homogeneous (p = .455> .05), the difference between the groups is significant (t = 5.029, p = .000 <.05) and this significance is in favor of gifted children. In the letter knowledge subscale, it is seen that the variances of the data are not homogeneous (p = .000 <.05), the difference between groups is significant (t = 3.817, p = .000 <.05) and this significance is in favor of gifted children. In the listening comprehension subscale, it is seen that the variances of the data are not homogeneous (p = .005 <.05), the difference between the groups is significant (t = 4.055, p = .000 <.05) and this significance is in favor of gifted children. In the early literacy total score, it is seen that the variances of the data are homogeneous (p = .310> .05), the difference between the groups is significant (t = 7.361, p = .000 <.05) and this significance is in favor of the gifted children.

DISCUSSION

In this study, it is aimed to determine the early literacy skill level of gifted children and how this level differs compared to their peers with typical development. According to the results obtained, it was observed that gifted children performed higher than their peers with typical development in category naming, phonological awareness, letter knowledge, listening comprehension skills and the total score of early literacy. The literature on giftedness shows that one of the main indicators in early childhood is early reading. Important studies have reported that early reading is the clearest distinction between middle and high ability children (Gross, 1993).

Although the literature on early literacy skills of gifted children is scarce, studies based on parent and teacher views on this subject also support the results of the study. For example, Karadağ and Yıldız Demirtaş (2017) interviewed 67 preschool teachers, and it was stated that the children, whom the majority of teachers thought were gifted, were literate in their classrooms. In a study conducted by Bildiren (2017) by interviewing the parents of 117 gifted children, the parents of 7 children between the ages of 2-4 and 31 children between the ages of 4-6 stated that their children started reading early. In the study, Sankar - DeLeeuw (1999) examined the characteristics of gifted people in early childhood from the perspective of parents and teachers and revealed that early reading is an important feature. Burns et al. (1984) emphasize that approximately 50% of gifted children learn to read in kindergarten according to intelligence tests. Other similar studies show that half of the gifted children starting the first grade are early readers and have an academic performance ahead of their peers (VanTassel-Baska et al., 1996).

When the teacher rating scales aimed at determining the gifted individuals in the pre-school period were examined, it was seen that reading and writing or just reading were shown as a criterion in these measurement tools. It was observed that items such as applies previously learned literary concepts to new reading experiences", "shows interest in reading other types of interest-based reading materials" were included in the reading characteristics subtest of the Scales for Rating The Behavioral Characteristics of Superior Students scale developed by Renzulli et al., (2002) and revised in 2012. Similarly, in the Gifted Rating Scale-Preschool Kindergarden Form developed by Pfeiffer & Jarosewich, 2008, it was observed that items related to both reading and writing skills such as "reads unfamiliar words by uttering them", "understands written material." and "demonstrates writing skills such as using invented spelling" were included in the subtest of academic ability.

When we examine the subcomponents of reading and writing, we see that there is a parallelism between phonological awareness and intelligence score. In a study conducted by Akoğlu and Acarlar (2014), it was found that measurements such as chronological age, non-verbal intelligence age,

average word length are related to verbal working memory and complex syntax comprehension skills. We see that the ability to understand what is listening and the intelligence score, which is another subcomponent, show parallelism again. In a study conducted by Gross (1993), it was stated that 36 out of 40 children started reading before the age of 5 and showed that the reading, comprehension and fluent reading levels of these children were at least 3 years older than them. It is thought that this advanced development in the other two subcomponents, category naming and letter knowledge, is due to the fact that children's curiosity is more advanced than their peers and they are more curious to learn about these written symbols found in many parts of their lives. Cukierkorn et al. (2007; 2008) and Moore (2005) revealed that one of the important indicators of giftedness in early childhood is curiosity.

Considering the characteristics of early literacy and its subcomponents, cognitive development, curiosity, early awareness, advanced verbal skills and metacognitive control, which are among the early signs of giftedness, it is thought that the early development of literacy in gifted individuals is a natural result of the development in the mentioned characteristics. Because, before starting early literacy education, the prerequisite for reading and writing is all knowledge, skills and attitudes. Language skill, which is an important indicator of this skill, is directly related to vocabulary (Fowler, 1991; Hirsch, 2003; Kargın et al. 2015; Metsala, 1999; Sulzby & Teale, 1991; Whitehurst & Lonigan, 1998; Zhang et al., 1995).

The characteristics of gifted children summarized in the preschool period, their interpretations of these features and sample situations in their study. According to this information, the general characteristics of gifted children in the preschool period include language skills that include advanced vocabulary according to their age and the ability to use language in an original and meaningful way. As can be seen here, early literacy is defined as one of the characteristics of gifted children in early childhood. Children can read texts both aloud and silently at an early stage compared to their peers, as it facilitates understanding (Gross, 1999). From this point of view, it is seen that the evaluation of early literacy skills is important in determining gifted children, and when evaluated from this point of view, this study contributes to the literature.

CONCLUSION AND RECOMMENDATIONS

In line with the findings and results obtained from the study, the following studies are recommended to be carried out: Conducting more advanced literacy studies for gifted children in early childhood, informing preschool teachers and parents that early literacy skills can be a predictor of giftedness, examining the subcomponents of early literacy. More studies should be done and more studies should be done to reveal the relationship between the subcomponents of early literacy, especially phonological awareness and cognitive skills.

REFERENCES

Akoğlu, G., & Acarlar, F. (2014). Examining the relationship between syntax comprehension and verbal working memory in developmental language disorders. *Türk Psikoloji Dergisi*, *29*(73), 89.

Bildiren, A. (2018). Developmental characteristics of gifted children aged 0–6 years: parental observations. *Early Child Development and Care*, *188*(8), 997-1011.

Bildiren, A., & Bıkmaz Bilgen, Ö. (2018). Candidate notification scale for gifted children in pre-school period: validity and reliability studies. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Özel Eğitim Dergisi*, 1-21.

Bildiren, A. (2016). *The effects of project based approach in early ıntervention program on the problem solving ability of gifted children.* Doctoral Thesis, Ankara Üniversitesi, Eğitim Bilimleri Enstitüsü, Ankara.

Bildiren, A. (2017). Reliability and validity study for the coloured progressive matrices test between the ages of 3-9 for determining gifted children in the pre-school period. *Journal of Education and Training Studies*, *5*(11), 13-20.

Bildiren, A., Kargın, T., & Korkmaz, M. (2017). Reliability and validity of colored progressive matrices for 4-6 age children. *Türk Üstün Zekâ ve Egitim Dergisi*, *7*(1), 19.

Brown, W., & Rogan, J. (1983). Reading and young gifted children. *Roeper Review*, *5*(3), 6-9.

Burns, A., Roe, J., & Ross, P. (1984). *Teaching in Today's Elementary School*. New York: Longman

Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2017). Scientific research methods. *Pegem Atıf İndeksi*, 1-360.

Chamrad, D. L., & Robinson, N. M. (1986). Parenting the intellectually gifted preschool child. *Topics in Early Childhood Special Education*, *6*(1), 74-87.

Clark, B. (2002). *Growing up gifted* (6. Baskı). Merrill: Upper Saddle River, NJ.

Clark, B. (2013). *Growing up gifted: Developing the potential of children at school and at home* (8th ed.). Boston, MA: Pearson.

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Cukierkorn, J. R., Karnes, F. A., Manning, S. J., Houston, H., & Besnoy, K. (2007). Serving the preschool gifted child: Programming and resources. *Roeper Review*, *29*(4), 271-276.

Cukierkorn, J. R., Karnes, F. A., Manning, S. J., Houston, H., & Besnoy, K. (2008). Recognizing giftedness: Defining high ability in young children. *Dimensions of early childhood*, 36(2), 3-13.

Creel, C. S., & Karnes, F. A. (1988). Parental expectancies and young gifted children. *Roeper Review*, *11*(1), 48-50.

Ehrlich, V. Z. (1985). *Gifted children: A guide for parents and teachers*. New York: Trillium Press.

Fowler, A. E. (1991). How early phonological development might set the stage for phoneme awareness. *Phonological processes in literacy: A tribute to Isabelle Y. Liberman*, *106*, 97-117.

Gross, M.U.M. (1993). *Exceptionally gifted children.* Routledge*:* New York.

Gross, M.U.M. (1999). Small poppies: Highly gifted children in the early years. *Roeper Review*, *21*(3), 207-215.

Hall, E. G., & Skinner, N. (1980). *Somewhere to turn: Strategies for parents of gifted and talented children*. Teachers College Press: New York.

Harrison, C. (1999). *Giftedness in early childhood.* Gifted Education Research Resource and Information Centre: Sydney, Australia.

Harrison, C. (2003*). Giftedness in early childhood (3rd ed.).* GERRIC: Sydney.

Harrison, C. (2004). Giftedness in early childhood: The search for complexity and connection. *Roeper Review*, *26*(2), 78-84.

Hirsch, E. D. (2003). Reading comprehension requires knowledge of words and the world. *American Educator*, *27*(1), 10-13.

Johnston, R. S., Anderson, M., & Holligan, C. (1996). Knowledge of the alphabet and explicit awareness of phonemes in pre-readers: The nature of the relationship. *Reading and writing*, *8*(3), 217-234.

Justice, L. M., & Ezell, H. K. (2001). Word and print awareness in 4-year-old children. *Child Language Teaching and Therapy*, *17*(3), 207-225.

Karadağ, F., & Demirtaş, V. Y. (2017). Pre-school perıod and gıftedness. *Journal of International Social Research*, *10*(51).

Kargın, T., Ergül, C., Büyüköztürk, Ş., & Güldenoğlu, B. (2015). A study for developing the test of early literacy for turkish kindergarten children. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Özel Eğitim Dergisi*, *16*(03), 237-270.

Louis, B., & Lewis, M. (1992). Parental beliefs about giftedness in young children and their relation to actual ability level. *Gifted Child Quarterly*, *36*(1), 27-31.

Lynch, J., Anderson, J., Anderson, A., & Shapiro, J. (2006). Parents' beliefs about young children's literacy development and parents' literacy behaviors. *Reading Psychology*, *27*(1), 1-20.

Metsala, J. L. (1999). Young children's phonological awareness and nonword repetition as a function of vocabulary development. *Journal of educational psychology*, *91*(1), 3.

Moore, M. (2005). Meeting the educational needs of young gifted readers in the regular classroom. *Gifted Child Today*, *28*(4), 40-65.

Morelock, M.J., Brown, P.M., & Morrissey, A.M. (2003). Pretend play and maternal scaffolding: Comparisons of toddlers with advanced development, typical development, and hearing impairment. *Roeper Review*, 26(1), 41-51.

Olszewski-Kubilius, P., Limburg-Weber, L., & Pfeiffer, S. (2003). *Early gifts: Recognizing and nurturing children's talent*. Prufrock Press: Waco, TX.

Pfeiffer, S. I., & Petscher, Y. (2008). Identifying young gifted children using the gifted rating scales—Preschool/kindergarten form. *Gifted Child Quarterly*, *52*(1), 19-29.

Porter, L. (1999). *Gifted young children*. Allen and Unwin, St Leonards, Australia.

Pullen, P. C., & Justice, L. M. (2003). Enhancing phonological awareness, print awareness, and oral language skills in preschool children. *Intervention in school and clinic*, *39*(2), 87-98.

Renzulli, J. S., Smith, L. H., White, A. J., Callahan, C. M., Hartman, R. K., & Westberg, K. L. (2002). *Scales for rating the behavioral characteristics of superior students. Technical and administration manual*. Creative Learning Press: Mansfield.

Riley, J. (2006). *Writing fast programs: A practical guide for scientists and engineers*. Cambridge Int Science Publishing.

Robinson, N. M. (2000). Giftedness in very young children: How seriously should it be taken? In R. C.
Friedman & B. M. Shore (Eds.), *Talents unfolding: Cognition and development* (pp. 7-6). American Psychological Association: Washington, DC:.

Robinson, N. M. (2008). Early childhood. In J. A. Plucker & C. M. Callahan (Eds.), *Critical issues and*
practices in gifted education: What the research says (pp. 179–194). Prufrock Press: Waco, TX.

Roedell, W. C. (1989). Early development of gifted children. In J. VanTassel-Baska & P. Olszewski-Kubilius (Eds.), *Patterns of influence on gifted learners: The home, the self, the school* (pp. 13–28). Teachers College Press: New York.

Roedell, W. C., Jackson, N. E., & Robinson, H. B. (1980). *Gifted young children*. Teachers College Press: New York.

Sankar-DeLeeuw, N. (1999). Gifted preschoolers: Parent and teacher views on identification, early admission and programming. *Roeper Review*, *21*(3), 174-179.Smutny J.F. (1998). *The young gifted child: Potential and promise, an anthology*. Creskill, NJ: Hampton Press.

Sulzby, E., & Teale, W. (1991). Emergent literacy. *Handbook of reading research*, *2*, 727-757.

Sutherland, M. J. (2008). *Developing the gifted and talented young learner*. Sage: London.

Tannenbaum, A. (1992). Early signs of giftedness: Research and commentary. *Journal for the Education of the Gifted*, *15*(2), 104-133.

Turan, F., & Guel, G. (2008). Early Precursor of Reading: Acquisition of Phonological Awareness Skills. *Educational Sciences: Theory & Practice*, 8(1).

Tuttle, F. B., Becker, L. A., & Sousa, J. A. (1988). *Characteristics and identification of gifted and talented students* (3rd ed.). National Education Association of the United States: Washington, DC.

VanTassel-Baska, J., Schuler, A., & Lipschutz, J. (1982). An experimental program for gifted four year olds. *Journal for the Education of the Gifted, 5*, 45-55.

Walsh, R. L. (2014). *Catering for the needs of intellectually gifted children in early childhood: Development and evaluation of questioning strategies to elicit higher order thinking*. Doctoral Thesis, Macquarie University, Institute of Early Childhood, Australia.

Webb, J. T., Meckstroth, E. A., & Tolan, S. S. (1982). *Guiding the gifted child: A practical guide for parents and teachers. Columbus*, OH: Ohio Psychology.

Whitehurst, G. J., & Lonigan, C. J. (1998). Child development and emergent literacy. *Child development*, *69*(3), 848-872.

Zhang, H., Alex, N. K., & Kortner, N. (1995). *Oral language development across the curriculum, K-12*. ERIC Clearinghouse on Reading, English, and Communication, Indiana University.

Zhang, C., & Bingham, G. E. (2019). Promoting high-leverage writing instruction through an early childhood classroom daily routine (WPI): A professional development model of early writing skills. *Early Childhood Research Quarterly*, *49*, 138-151.

GENİŞLETİLMİŞ ÖZET

Erken çocukluk dönemindeki özel yetenekli çocuklar belli özellikler bakımından akranlarından ileridedir. Bu konuda yapılan çalışmalarda, tanınmış kişilerin erken çocukluk özellikleri geriye dönük olarak incelenmiş ve özel yetenekli çocukların özellikleri, bu kanıtlardan yola çıkılarak ileri sürülmüştür (Walsh, 2014). Robinson (2000), Gardner, Guilford, Thurstone gibi araştırmacıların zekâ üzerine yaptıkları çalışmalardan yola çıkılarak erken çocukluk döneminde özel yetenek kavramlarının alana özgü yetenekleri içerecek şekilde genişlediği bildirilmiştir. Bu durum, erken yaşta özel yetenekli çocukların belirlenmesi konusunda araştırma yapmanın yolunu açmıştır. Ancak bununla birlikte özel yetenekliliğin tanımında olduğu gibi özel yetenekliliğin erken dönem göstergeleri (Roedell, Jackson ve Robinson, 1980; Roedell, 1989; Tannenbaum, 1992) sıkça listelenmiş olup bunun üzerine tartışmalar devam etmektedir (Ehrlich, 1985; Hall ve Skinner, 1980; Harrison, 1999; Porter, 1999).

Son yıllarda yapılan araştırmalara göre, okul öncesi dönemdeki özel yetenekli çocuklar, onları yaşıtlarından ayıran özelliklere sahiptir. Hızlı öğrenme, gelişmiş hafıza, karmaşık kavramları anlama yeteneği ve yüksek gözlemleme yeteneği gibi bilişsel özellikler, ilk yıllarda belirgin hâle gelmektedir (Clark, 2002; Harrison, 2003; Robinson, 2008; Sutherland, 2008). Benzer şekilde, ileri düzey bir mizah yeteneği, duyarlılık, sosyal olgunluk, empati kurabilme ve gelişmiş oyun kalıpları gibi sosyo-duygusal özellikler de özel yetenekli küçük çocuklarda sıkça görülmektedir (Clark, 2013; Harrison, 2003).

Erken okuryazarlık, çocukların okuma yazama öğretimine başlamadan önce okuma yazmaya yönelik önkoşul bilgi, beceri ve tutumlarının tamamıdır (Kargın, Ergül, Büyüköztürk ve Güldenoğlu, 2015; Sulzby ve Teale, 1991; Whitehurst ve Lonigan, 1998). Araştırmalar, ses bilgisel farkındalık, yazı farkındalığı, harf bilgisi, sözcük bilgisi, yazı yazma ve dinlediğini anlama becerilerinin bireylerin okul dönemindeki okuma performansları için önemli olduğunu ortaya koymuştur (Kargın, Ergül, Büyüköztürk ve Güldenoğlu, 2015).

Entelektüel üstün yeteneklilikle ilgili alanyazın, istisnai özel yetenekliliğin en güçlü göstergelerinden birinin erken okuma olduğunu göstermektedir. Hem Terman (1926) hem de Hollingworth (1926), çalışmalarında orta ve yüksek yetenekli çocukları en açık şekilde ayırt etmenin erken okuma olduğunu bildirmiştir. Araştırmalar, erken konuşma ve erken hareket gelişimi gösteren

çocukların okuma becerilerinin akranlarından önemli ölçüde daha erken geliştiğini göstermiştir (Gross, 1993).

Alanyazından elde edilen bu bilgiler ışığında, bu çalışmanın amacı özel yetenekli çocukların okul öncesi dönemde erken okuryazarlık becerilerinin ne düzeyde olduğunu ve bu düzeyin tipik gelişim gösteren akranlarından ne şekilde farklılık gösterdiğini incelemektir.

Araştırmanın yönteminde, nicel araştırmalardan tarama yöntemi kullanılmıştır.

Araştırmanın çalışma grubu, okul öncesi eğitime devam eden ve özel yetenekli olarak belirlenen 34, tipik gelişim gösteren 33 olmak üzere toplam 67 çocuktan oluşmaktadır.

Çalışma grubunda yer alan çocukların zekâ değişkeni üzerindeki bireysel farklılıkları nedeniyle, özel yetenekli ve tipik gelişim gösteren çocukları belirlemek ve deney ve kontrol gruplarını oluşturmak üzere bir dizi işlem yapılmıştır. Bu işlemler:

1. İzmir ilinde okulöncesi eğitim veren bağımsız anaokulları belirlenmiştir. Belirlenen anaokullarının yöneticileri ve öğretmenleri ile görüşülmüştür.
2. Öğretmenler, sınıflarındaki "özel yetenekli" ve "tipik gelişim gösteren" çocukları "Okul Öncesi Dönem Üstün Yetenekli Çocuklar İçin Aday Bildirim Ölçeği" (Bildiren & Bıkmaz Bilgen, 2018) ile değerlendirmiştir. Bunun sonucunda özel yetenekli ve tipik gelişim gösteren 96 çocuk öğretmenleri tarafından aday gösterilmiştir.
3. Özel yetenekli ve tipik gelişim gösterdiği şeklinde aday gösterilen çocuklara "Raven'ın Renkli Prograsif Matrisler Testi" (Bildiren, 2016) araştırmacı tarafından bireysel olarak uygulanmıştır.
4. Raven'ın Prograsif Matrisler Testinden alınan puanlar testin normlarına göre değerlendirilerek özel yetenekli ve tipik gelişim gösteren çocuklar belirlenmiştir. Tablo 1'de çalışma grubunun bu testten aldığı puanların minimum maksimum değerleri ile ortalama ve standart sapma değerleri verilmiştir.

Araştırmada kullanılan veri toplama araçları, özel yetenekli ve tipik gelişim gösteren çocukları belirleme ölçekleri ile erken okuryazarlık becerilerini ölçmeye yönelik ölçekler olmak üzere iki gruptan oluşmuştur.

Araştırmanın nicel bir araştırma olması nedeniyle elde edilen veriler SPSS 24.00 paket programında analiz edilmiştir. Verilerin analizine başlanmadan önce bağımlı değişkenlerin bağımsız değişken üzerinde normal dağılımını incelemek amacıyla çarpıklık basıklık değerleri incelenmiş ve parametrik test yapmaya uygun bulunmuştur.

Bu araştırmada özel yetenekli çocukların erken okuryazarlık beceri düzeyi ve bu düzeyin tipik gelişim gösteren akranlarına kıyasla nasıl farklılık gösterdiğinin belirlenmesi amaçlanmıştır. Elde edilen sonuçlara göre erken okuryazarlığın alt ölçekleri olan sözcük bilgisi, ses bilgisel farkındalık, harf bilgisi, dinlediğini anlama becerisi ve erken okuryazarlığın toplam puanında özel yetenekli çocukların tipik gelişim gösteren akranlarına göre daha yüksek performans gösterdiği görülmüştür. Özel yetenek ile ilgili alanyazın erken çocukluk dönemindeki öneli göstergelerden birinin erken okuma olduğunu göstermektedir. Yapılan önemli çalışmalar orta ve yüksek yetenekli çocukları en açık şekilde ayırt etmenin erken okuma olduğunu bildirmiştir (Gross, 1993).