

Effect of Family Supported Pre-Reading Training Program Given to Children in Preschool Education Period on Reading Success in Primary School

Sema BÜYÜKTAŞKAPU^a

Mevlana University

Abstract

In this study, the effect of Family Supported Pre-Reading Program developed for 6 year olds attending nursery school on children's reading success in the future was examined. In order to fulfill this aim, reading skills of 25 primary school first-grade pupils who participated Family Supported Pre-Reading Program were compared with another 25 primary school first grade pupils who attended nursery class. In the study, Basic Reading Writing Skills Scale, Reading Comprehension Scales, Mechanic Reading Skills Observation Form and Writing Skill Scales were used to determine pupils reading success at primary school. The scales were administrated to primary school first graders both in the middle of the first term (December) and in the middle of second term (April). As a result of the study, it was determined that children attending Family Supported Pre-Reading Program had higher reading success.

Key Words

Family Supported Pre-Reading Program, Literacy Skills, Reading Success.

The term "literacy" which is used interchangeably with literacy skills is an important tool for oral and verbal communication systems to be used effectively. Although it considered that literacy skill which is thought to be acquired by learning to read and write is started in the beginning of primary school, current studies support the idea that in learning to read developmental process which emerges in the first years of life continues.

Pre-school reading and writing experiences which are gained in early childhood period and which lay the foundation for first-time learning of reading and writing in primary school are expressed with

the concept "Emergent Literacy". Based on pupils' "Emergent literacy" skills, their reading success throughout primary school can be predicted (Lonigan, Burgess, & Anthony, 2000; Snow, Burns, & Griffin, 1998; Whitehurst & Lonigan, 1998; Lonigan et al., 2000; Lonigan, Schatschneider, & Westberg, 2008; Spira & Fischel, 2005; Storch & Whitehurst, 2002).

In many studies in literature, four important principles in early literacy period are emphasized: (i) Early literacy is a part of developmental part of a path towards traditional literacy (Snow et al., 1998); (ii) Early literacy skills are influenced by the environment the child lives and educated (Smith, Brooks-Gunn, & Klebanov, 1997); (iii) Early literacy skills are indicators of reading skills in the future (Scarborough, 2002) and (iiii) Phonological awareness is of the upmost critical prominence among early literacy skills (National Early Literacy Panel, 2004).

Studies on the development of these skills indicate that pre-school language development, letter knowledge, writing consciousness and phonologi-

^a Sema BÜYÜKTAŞKAPU, Ph.D., is currently an Assistant Professor at the Department of Preschool Education. Her research interests include science education in preschool, environmental education and literacy education. Correspondence: Assist. Prof. Sema BÜYÜKTAŞKAPU, Mevlana University, Faculty of Education, Department of Preschool Education, Konya/Turkey. E-mail: sbuyuktaskapu@mevlana.edu.tr Phone: +90 332 444 42 43/1333

cal awareness are basic skills for reading success in primary school (Adams, 1990; Blachman, 1994; Casalis & Louis-Alexandre, 2000; Daly, Wright, Kelly, & Martens, 1997; Ehri & Roberts, 2006; Ehri et al., 2001; Höien, Lundberg, Stanovich, & Bjaalid, 1995; National Reading Panel [NRP], 2000; Schatschneider, Fletcher, Francis, Carlson, & Foorman, 2004; Share, Jorm, MacLean, & Matthews, 1984; Whitehurst & Lonigan, 1998).

The development of phonological awareness starts with babyhood. A nine-month old child can identify new phonological arrangements rapidly (Safraan & Thiessen, 2003). Results of empirical studies demonstrate that phonological awareness is strongly related to subsequent reading success (Wagner, Torgeson, & Rashotte, 1994) and that phonological awareness can be developed before formal education and writing skill develops. Even when intelligence variable is controlled, lexical knowledge, memory and phonological awareness have strong relation in reading skill (Wagner & Torgeson, 1987; Wagner et al., 1994).

However, some studies indicate that phonological awareness alone does not predict reading skill. In these studies, it is emphasized that phonological awareness is not sufficient for reading. They also underscore that besides phonological awareness, letter naming skill is necessary (Lonigan et al., 2000). In some studies, although phonological awareness training in which letter-sound relation is not given lead to improvement in phonological awareness, it does not cause a significant improvement in reading skill (Castles & Coltheart, 2004). Nevertheless, individual differences in phonological processes are stabilized after pre-school period (Lonigan et al., 2000).

Children's writing consciousness is developed via written materials which will enable them to see and use written language. When children are exposed to written materials frequently in their surroundings, they start to establish connection between spoken and written language (Eliason & Jenkins, 2003). Besides, skills like holding book properly, using the correct reading direction (from left to right), identifying the upper and lower part of the page and the first and last words to be read, what to do when the page is finished, the fact that words have meanings, showing the first and last letters of words and the beginning and end of a story are gained thanks to written materials (Sawyer, 2004).

For children to acquire letter knowledge which is one of the basic skills necessary for reading success, they are to be engaged with materials that

help letter recognition. What is meant by letter recognition is not teaching children to read letters but enable them to understand what these letters mean. Letters are symbols which help transferring sounds in spoken language to written language (Sevinç, 2003).

Many theoretical and empirical studies in the literature have shown that programs that promote reading which enables early acquisition of these skills have positive effects on literacy competencies children will have in the future (Cairney & Munsie, 1995; Girolametto, Lefebvre, & Greenberg, 2007; Jordan, Snow, & Porche, 2000).

Some of these studies show that direct intervention of the families that can create environments which can encourage early reading is related to academic success in the future (Epstein, 2002; Fantuzzo, McWayne, Perry, & Childs, 2004; Henderson & Mapp, 2002). Besides, it is seen that the contribution of household in poor families which have limited sources to provide children at home to early literacy skill development is inadequate (Rush, 1999; Zill et al., 2003).

In the pre-school period, leading life in poor environments with inadequate stimulators has negative effects on cognitive development, academic success and social and emotional life of children in the long run (Allhusen et al., 2005; Brooks-Gunn & Duncan, 1997). The commonest view in studies investigating the relation between cognitive development and the effect of environment in early childhood is that educational-behavioral or social-environmental risks are related to cognitive development. These studies have shown that risky family as an independent factor structure affects cognitive functions negatively (Leventhal & Brooks-Gunn, 2000; Wachs, 1996).

As a result of these studies, many researchers have developed education program to develop children's literacy skills. In pre-school period, these programs generally aim for a special area (Catts, Gillispie, Leonard, Kail, & Miller, 2002; Erduran, 1999; Gardiner, 2006; Pierce, 2003; Torgesen, Morgan, & Davis, 1992). These are phonological awareness, letter recognition and various activities to develop these (Sindelar, Lane, Pullen, & Hudson 2002).

Under the light of the explanations made, the aim of this study is to investigate impact of Family Supported Pre-Reading Program developed for 6 year olds attending pre-school as supplementary activities to pre-school education program on first-graders reading success.

Method

The Model of the Study

The main aim of this longitudinal study (Karasar, 2004) is to determine the impact of Family Supported Pre-Reading Program on 6 year old children's reading success in the future.

Study Group

In the study, the experimental group includes 25 children who participated in Family Supported Pre-Reading Program in 2009-2010 as they were attending nursery class in Cemile Erkunt Primary School in Konya and who were attending first-grade primary school in 2010-2011 education year. The control group is composed of 25 children who attended pre-school education in 2009-2010 education year and who were attending first-grade primary school in 2010-2011 education year.

Means of Data Collection

Basic Reading-Writing Skills Scale: The reliability of the scale developed by Yangın in 2007 is 0.87. The scale is composed of two. In the first section, students are required to read and write twenty-nine letters in our alphabet one by one. In the second part, students are required to read and write ten words of two letters and one-syllable and two sentences of five words. In the scale, each correct answer the participants give is 1 point and wrong answer is 0 point. The scale, which determines basic literacy skills, has a total of 108 questions, 54 for reading and 54 for writing. The highest score on the scale is 108 (as cited in Erdoğan, 2009, 2011).

Reading Comprehension Scales: The scale developed by Erdoğan (2009; 2011) includes sentences which include the letters learnt till the middle of first-term and three pictures under each sentence. Students are asked to mark the picture which tells the sentence. For content validity, it was presented to 7 experts for their views. The draft form arranged according to expert views was applied to primary school first-graders. Reliability of the scale is 0, 80. This scale is called as Reading Comprehension Scale-1.

In the scale to be applied in the middle of second term, the students are asked to read a reading passage and answer 10 multiple-choice questions. They are given one point for each correct answer and zero point for each wrong answer. As the scale is consisted of 10 questions, the highest score to be obtained is 10. For content validity, it was presented to 7 experts for their

views. The draft form arranged according to expert views was applied to primary school first-graders. The reliability of the scale is 0, 82dir. This scale is called as Reading Comprehension Scale-2.

Mechanic Reading Skill Observation Form: Observation form developed by Acat (1996) and rearranged by Erdoğan (2009; 2011) is composed of 11 criteria to assess students' mechanic reading skills. In the form, students mechanic reading skills are graded in terms of students performance as "Yes", "sometimes" and "No". For a criteria to be marked as "NO" the student is not to make any mistakes, for "sometimes" level, the student is to make 1-3 mistakes, for "yes" s/he is to make more than 3 mistakes. In the form, for "yes" level 0, for "sometimes" 1, for "no" 2 points are given. The highest score to be obtained in observation form is 20. In the study, the scale which is applied in the middle of the first term, students are asked to read 5 sentences. Students' sentences are assessed according to the criteria in reading skills observation form. This scale which is applied in the middle of the first-term is called Reading-1 scale.

In the second scale which is applied in the middle of the second term includes 5 sentences different form Reading-1 scale. This scale is called as Reading-2. For content validity, it was presented to 7 experts for their views. The draft form arranged according to expert views was applied to primary school first-graders. The reliability of the Reading-1 scale is 0,82, and that of Reading-2 scale is 0,83.

Writing Skill Scales: The scale developed by Erdoğan (2009; 2011) requires students to write 5 sentences which include the letters they have learnt till the middle of the first terms. In the study, the scale administrated in the middle of the first-term, the students are asked to write 5 sentences which they read in the Reading-1 scale. This scale applied in the middle of the first term is called as Writing-1. The reliability of Writing-1 scale was found to be KR- 20 = .90. For construct validity, the scale was applied to the study group.

The scale administrated in the middle of the second term requires students to write 5 sentences which they read in Reading-2 scale. This scale was called as Writing-2. In the second scale, students were given 1 point for each sentence they write correctly and zero point for each sentence written wrongly. The highest score to be obtained in this scale is 19. For content validity, it was presented to 7 experts for their views. The draft form arranged according to expert views was applied to primary school first-graders. The reliability of the Writing-2 scale was found to be KR-20= .80.

Process

Family Supported Pre-Reading Program was developed by the researchers based on the review relevant literature. The education program includes 13 workbooks of 20 pages. Each workbook includes 18 activities to be performed by mothers with their children. The workbooks include phonological awareness activities (27 letters), letter recognition, story creation, reading concepts, predicting events' chronology activities. This program was applied with nursery school children's families. Before the program started and during the program, meetings with families were held on a regular basis and when required families were supported via telephone. In the meeting held at the end of 13-week education program, students were trained on the subjects they may need during their literacy education in primary school and recommendations were made. In this period, students who took part in training were observed in the middle of the first-term and second term in terms of their reading skills when they started primary school. Therefore, the scales were applied in the first week of December which is the middle of the first term and in the second week of April which is the middle of the second term and data were collected. Basic Reading-Writing (Literacy) Skills Scale was applied once in December. Reading Comprehension Skills, Mechanic Reading Skill Observation Form, Writing Skill Scales were applied twice. Primary school reading success of the children who did not take part in Family Supported Pre-Reading Program but who attended nursery class at the same time as the children in the experiment group was evaluated.

Results

The pre-test mean scores of the experimental and control groups are compared using Mann Whitney U Test to see whether they are from the same universe, that is to say, whether their pre-test basic literacy (reading comprehension, mechanic reading and writing skills) mean scores are statistically similar and results are given in Table 1.

When Table 2 is examined, it is seen that basic literacy skills mean score of the children in the experimental group who attended Family Supported Pre-Reading Program as they attended nursery class in 2009/2010 education period is $\bar{x}=92,85$; 2009/2010 and that of the children in the control group who attended nursery school but not participated in the supplementary program is $\bar{x}=74,25$. The z (-2,08) value obtained as a result of comparison is significant at 0.05 level.

When Table 3 is examined, it is seen that the means scores of the experimental group in reading comprehension skills measured in December is $\bar{x}= 7,50$, the mean score of the control group is $\bar{x}=5,00$. Z value (-2,11) obtained as a result of comparison is significant at 0.05 level. Besides, when Table 4 is examined, it is seen that reading comprehension skills mean scores of the children in the experimental group is $\bar{x}=7,65$ in measurements in April and mean score of the control group is $\bar{x}=5,50$. The z value (-3,10) obtained as a result of comparison is significant at 0.05 level.

When Table 5 is examined, it is seen that reading skills of the children in the experimental group is $\bar{x}=14,25$ in measurements in December, and mean

Table 1.
Mann Whitney U Test Results with Regard to the Comparison of Basic Literacy Skill Pre-Test Scores of the Groups

Scales	Groups	n	\bar{x}	Ss	ST	SO	U	Z	p
Basic Literacy Skill	Experimental	25	62,30	12,15	440,00	22,00	170,00	-0,814	0,416
	Control	25	60,05	11,09	380,00	19,00			
Reading Comprehension	Experimental	25	3,95	1,84	424,50	21,22	185,50	-0,475	0,635
	Control	25	3,55	2,18	395,50	19,78			
Mechanical Reading	Experimental	25	3,85	2,53	436,00	21,80	174,00	-0,724	0,469
	Control	25	3,25	2,57	384,00	19,20			
Writing Skill	Experimental	25	4,80	2,54	432,50	21,62	177,50	-0,623	0,533
	Control	25	4,30	2,77	387,50	19,38			

p < 0.05

Table 2.
Mann Whitney U Test Results with Regard to the Comparison of Basic Literacy Skill Scores of the Students in the Experimental and Control Groups

Groups	n	\bar{x}	Ss	ST	SO	U	Z	p
Experimental	25	92,85	13,53	486,00	24,30	124,00	-2,08	0,03
Control	25	74,25	29,39	334,00	16,70			

p < 0.05

score of the control group is $\bar{x}= 5,70$. The z value (-2,81) obtained as a result of comparison is significant at 0.05 level. Besides, when Table 6 is examined, it is seen that reading skills of the children in the experimental group is $\bar{x}= 19,40$ in measurements in April, and mean score of the control group is $\bar{x}=16,65$. The z value (-2,70) obtained as a result of comparison is significant at 0.05 level.

When Table 7 is examined, it is seen that writing skills of the children in the experimental group

is $\bar{x}=17,65$ in measurements in December, and mean score of the control group is $\bar{x}=15,45$. The z value (-2,59) obtained as a result of comparison is significant at 0.05 level. Besides, when Table 8 is examined, it is seen that reading skills of the children in the experimental group is $\bar{x}=19,00$ in measurements in April, and mean score of the control group is $\bar{x}=17,85$. The z value (-1,43) obtained as a result of comparison is not significant at 0.05 level.

Table 3.

Mann Whitney U Test Results with Regard to the Comparison of Reading Comprehension-1 Scores of the Students in the Experimental and Control Groups

Groups	n	\bar{x}	Ss	ST	SO	U	Z	p
Experimental	25	7,50	4,44	477,50	23,88			
Control	25	5,00	5,12	342,50	17,12	132,5	-2,11	0,03

$p < 0.05$

Table 4.

Mann Whitney U Test Results with Regard to the Comparison of Reading Comprehension-2 Scores of the Students in the Experimental and Control Groups

Groups	n	\bar{x}	Ss	ST	SO	U	Z	p
Experimental	25	7,65	2,03	523,00	25,15			
Control	25	5,50	2,13	297,00	14,85	87,00	-3,10	0,002

$p < 0.05$

Table 5.

Mann Whitney U Test Results with Regard to the Comparison of Mechanic Reading-1 Skill Scores of the Students in the Experimental and Control Groups

Groups	n	\bar{x}	Ss	ST	SO	U	Z	p
Experimental	25	14,25	8,44	500,00	25,00			
Control	25	5,70	8,93	320,00	16,00	110,00	-2,81	0,005

$p < 0.05$

Table 6.

Mann Whitney U Test Results with Regard to the Comparison of Mechanic Reading-2 Skill Scores of the Students in the Experimental and Control Groups

Groups	n	\bar{x}	Ss	ST	SO	U	Z	p
Experimental	25	19,40	1,04	503,50	25,18			
Control	25	16,65	4,55	316,50	15,82	106,50	-2,70	0,007

$p < 0.05$

Table 7.

Mann Whitney U Test Results with Regard to the Comparison of Writing-1 Skill Scores of the Students in the Experimental and Control Groups

Groups	n	\bar{x}	Ss	ST	SO	U	Z	p
Experimental	25	17,65	4,22	500,00	25,00			
Control	25	15,45	5,90	320,00	16,00	110,00	-2,59	0,009

$p < 0.05$

Table 8.

Mann Whitney U Test Results with Regard to the Comparison of Writing2 Skill Scores of the Students in the Experimental and Control Groups

Groups	n	\bar{x}	Ss	ST	SO	U	Z	p
Experimental	25	19,00	0,00	430,00	21,50			
Control	25	17,85	4,29	390,00	19,50	390,00	-1,43	0,15

$p < 0.05$

Discussion

According to the results of the study, primary school reading success of the children who attended family supported education program which was developed to improve children's early reading skills (phonologic awareness, letter knowledge, writing consciousness) in pre-school education process is higher compared to children who received nursery class but not attended the program.

The results of the studies which reveals the necessity for the teaching of early reading skills at early ages and the studies in which family supported pre-reading program supports the results of this study.

Missall et al. (2007); Hindson, Byrne, Fielding-Barnesley, Newman, and Hine (2005); Gallagher, Firth, and Snowling (2000); Snow et al. (1998); Wagner et al. (1994) in their study examined the relation between phonological awareness acquired in pre-school period and reading success in primary school. They determined that there was a positive relation between pre-school phonological awareness and reading success in first year of primary school.

Badian (1982; 1994; 1998); Hindson et al. (2005); Scarborough (1998); Stevenson and Newman (1986); Schellinger, Beer, and Beer (1992); Simpson and Everatt (2005) in their study examined the relation between letter recognition and naming skill and primary school first-grade reading success. All studies determined a positive relation between reading success and letter recognition and naming skill acquired between ages 3 and 5.

Samuelsson et al. (2005) in study conducted in Australia, Scandinavia (Norway, Sweden) and the US, it was found out that because of inadequacy of family-child literacy activities, Scandinavian children had less writing consciousness compared to the children in other countries. In all countries, it was determined that verbal skill and writing consciousness were related to literacy activities at home. In this study and in other studies like it, it was argued that failures in early reading skill development could be prevented if reading skills of the children who were genetically or environmentally under risk was reinforced.

In a study by Au (2000), it was concluded that the environment provided at home was more influential in reflecting children's literacy success compared to socio-cultural factors.

In another study by Petrill, Deater-Deckard, Schatschneider, and Davis (2005), the relation between reading and genetic factors was investigated.

In this study, they studied adopted children and adoptive families following from the assumption that beyond a genetic factor reading success was also influenced by being exposed to the same environmental factor which came about as a result of family members living together. Based on the results of their study, the researchers argued that there was a relation between children's reading skills and family environment.

Lonigan et al. (2000) studied the predictive role of literacy skills developed in pre-school period for reading competence in the future. As a result of this study, it was demonstrated that reading skills of children in play age and first-grade developed in pre-school period and skills that developed in pre-school period (for example, phonologic awareness, letter knowledge etc.) predicted reading skills in the later period.

Therefore, besides in-class activities to develop early literacy skills of children, pre-school teachers are to give place family supported activities as well. Thus, it is important that teacher trainees receiving education in relevant departments of universities and/or teachers graduated from these departments be informed about programs for encouraging and increasing family participation to develop literacy both in pre-school period and primary school period and later.

References/Kaynakça

- Acat, B. (1996) *Okuma güçlükleri ile okuduğunu anlama becerisi arasındaki ilişki düzeyi*. Yayınlanmamış yüksek lisans tezi, Hacettepe Üniversitesi, Ankara.
- Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Allhusen, V., Belsky, J., Booth-LaForce, C., Bradley, R., Brownell, C. A., Burchinal, M. et al. (2005). Duration and developmental timing of poverty and children's cognitive and social development from birth through third grade. *Child Development*, 76 (4), 795-810.
- Au, K. H. A. (2000). *Multicultural perspective on policies for improving literacy achievement*. Handbook of Reading Research. NJ: Erlbaum: Mahway.
- Badian, N. A. (1982). The prediction of good and poor reading before kindergarten entry: A 4-year follow-up. *Journal of Special Education*, 16, 309-18.
- Badian, N. A. (1994). Preschool prediction: Orthographic and phonological skills, and reading. *Annals of Dyslexia*, 44, 3-25.
- Badian, N. A. (1998). A validation of the role of preschool phonological and orthographic skills in the prediction of reading. *Journal of Learning Disabilities*, 31, 472-8.

- Blachman, B. A. (1994). Early literacy acquisition: The role of phonological awareness. In G. P. Wallach & K. G. Butler (Eds.), *Language learning disabilities in school-aged children and adolescents* (pp. 253-274). New York: Merrill.
- Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. *Future of Children*, 7 (2), 55-71.
- Cairney, T. H., & Munsie, L. (1995). Parent participation in literacy learning. *The Reading Teacher*, 48 (5), 392-403.
- Casalis S., & Louis-Alexandre, M. F. (2000). Morphological analysis, phonological analysis and learning to read French: A longitudinal study. *Reading and Writing: An Interdisciplinary Journal*, 12, 305-335.
- Castles, A., & Coltheart, M. (2004). Is there a causal link from phonological awareness to success in learning to read? *Cognition*, 91, 77-111.
- Catts, H. W., Gillispie, M., Leonard, L. B., Kail, R. V., & Miller C. A. (2002). The role of speed of processing rapid naming and phonological awareness in reading achievement [Electronic Version]. *Journal of Learning Disabilities*, 35 (6), 509-524.
- Daly, E. J., Wright, J. A., Kelly, S. Q., & Martens, B. K. (1997). Measures of early academic skills: Reliability and validity with a first grade sample. *School Psychology Quarterly*, 12, 268-280.
- Ehri, L. C., & Roberts, T. (2006). The roots of learning to read and write: Acquisition of letters and phonemic awareness. In D. K. Dickinson & S. B. Neuman (Eds.), *Handbook of early literacy research* (pp. 113-131). New York, NY: Guilford Press.
- Ehri, L. C., Nunes, S. R., Willows, D. M., Schuster, B. V., Yaghoub-Zadeh, Z., Shanahan, T. (2001). Phonemic awareness instruction helps children learn to read: Evidence from the National Reading Panel's meta-analysis. *Reading Research Quarterly*, 36 (3), 250-287.
- Eliason, C., & Jenkins, L. (2003). *A practical guide to early childhood curriculum*. Ohio: Merrill Prentice Hall.
- Epstein, J. L. (2002). School, family, and community partnerships: Caring for the children we share. In J. L. Epstein, M. G. Sanders, B. S. Simon, K. C. Salinas, N. R. Jansorn, F. L. VanVoorhis (Eds.), *School, family, and community partnerships: Your handbook for action* (pp.7-29). Thousand Oaks, CA: Corwin Press.
- Erdoğan, Ö. (2009). *İlköğretim birinci sınıf öğrencilerinin fonolojik farkındalık becerileri ile okuma ve yazma becerileri arasındaki ilişki*. Yayınlanmamış yüksek lisans tezi, Hacettepe Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.
- Erdoğan, Ö. (2011). İlköğretim birinci sınıf öğrencilerinin fonolojik farkındalık becerileri ile yazma becerileri arasındaki ilişki. *Kuram ve Uygulamada Eğitim Bilimleri*, 11, 1499-1510.
- Erduran, E. (1999). *Okul öncesi eğitimde okuma yazmaya hazırlık programları ve bilişsel yetenek özelliklerinin okuma sürecine etkileri*. Yayınlanmamış yüksek lisans tezi, Marmara Üniversitesi, Eğitim Bilimleri Enstitüsü, İstanbul.
- Fantuzzo, J., McWayne, C., Perry, M. A., & Childs, S. (2004). Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children. *School Psychology Review*, 33 (4), 467-480.
- Gallagher, A., Firth, U., & Snowling, M. J. (2000). Precursors of literacy delay among children at genetic risk of dyslexia. *Journal of Child Psychology, Psychiatry, Allied Disciplines*, 41, 203-13.
- Gardiner, E. M. (2006). Assessing dynamic indicators of basic early literacy skills as a predictor of reading success for beginning readers. Unpublished doctoral dissertation, Capella University [UMI Number: 3239060].
- Girolametto, L., Lefebvre, E. P., & Greenberg, J. (2007). The effects of in-service education to promote emergent literacy in child care Centers: A feasibility study. *Language, Speech, Hearing Services in Schools*, 38 (1), 72-83.
- Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Austin, TX: Southwest Educational Development Laboratory.
- Hindson, B., Byrne, B., Fielding-Barnsley, R., Newman, C., & Hine, D. W. (2005). Assessment and early instruction of preschool children at risk for reading disability. *Journal of Educational Psychology*, 97, 687-704.
- Höien T., Lundberg I., Stanovich K. E., & Bjaalid, I. K. (1995). Components of phonological awareness. *Reading and Writing*, 7 (2), 171-188.
- Jordan, G. E., Snow, C. E., & Porche, M. V. (2000). Project EASE. The effect of a family literacy project on kindergarten students' early literacy skills. *Reading Research Quarterly*, 35 (4), 524-546.
- Karasar, N. (2004) *Bilimsel araştırma yöntemi* (13. bs). Ankara: Nobel Yayın Dağıtım.
- Leventhal, T., & Brooks-Gunn, J. (2000). The neighborhoods they live in: The effects of neighborhood residence on child and adolescent outcomes. *Psychological Bulletin*, 26 (2), 309-337.
- Lonigan, C. J., Burgess, S. R., & Anthony, J. L. (2000). Development of emergent literacy and early reading skills in preschool children: Evidence from a latent-variable longitudinal study. *Developmental Psychology*, 36 (5), 596-613.
- Lonigan, C. J., Schatschneider, C., & Westberg, L. (2008). Identification of children's skills and abilities linked to later outcomes in reading, writing, and spelling. In *Developing early literacy: Report of the national early literacy panel* (pp. 55-106). Washington, DC: National Institute for Literacy.
- Missall, K., Reschly, A., Betts, J., McConnell, S., Heistad, D., Pickart, M., et al. (2007). Examination of the predictive validity of preschool early literacy skills. *School Psychology Review*, 36, 433-452.
- National Early Literacy Panel. (2004). *National early literacy panel report*. Washington, DC: National Institute for Literacy, National Family Literacy Association.
- National Reading Panel (NRP). (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Retrieved July 29, 2008 from <http://www.nationalreadingpanel.org/Publications/publications.htm>
- Petrill S. A., Deater-Deckard K., Schatschneider C., & Davis C. (2005). Measured environmental influences on early reading: Evidence from an adoption study. *Scientific Studies of Reading*, 9 (3), 237-259.
- Pierce, L. B. (2003). The great debate continued: Does daily writing in kindergarten lead to invented spelling and reading? Unpublished master's thesis, University of North Texas [Dissertation Abstracts International, 64/06, 1967].
- Rush, K. L. (1999). Caregiver-child interactions and early literacy development of preschool children from low-income environments. *Topics in Early Childhood Special Education*, 19 (1), 3-14.
- Saffran, J. R., & Thiessen, E. D. (2003). Pattern induction by infant language learners. *Developmental Psychology*, 39 (3), 484-494.
- Samuelsson S., Byrne B., Quain P., Wadsworth S., Corley R., DeFries J. C. et al. (2005) Environmental and genetic influences on prereading skills in Australia, Scandinavia, and the United States. *Journal of Educational Psychology*, 97 (4), 705-722.

- Sawyer, E. W. (2004) *Growing up with literature* (4th ed.). NY: Hodge Podge Books, Albany.
- Scarborough, H. S. (1998). Predicting the future achievement of second graders with reading disabilities: Contributions of phonemic awareness, verbal memory, rapid naming, and IQ. *Annals of Dyslexia*, 48, 115-136.
- Scarborough, H. S. (2002). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (pp. 97-110). New York: Guilford.
- Schatschneider, C., Fletcher, J. M., Francis, D. J., Carlson, C. D., & Foorman, B. R. (2004). Kindergarten prediction of reading skills: A longitudinal comparative analysis. *Journal of Educational Psychology*, 96, 265-282.
- Schellinger, T., Beer, J., & Beer, J. (1992). Relationships between scores on the DIAL-R concepts scale and SRA scores. *Psychological Reports*, 70, 271-274.
- Sevinç, M. (2003). *Dil gelişimi ve ilköğretime hazırlık. Erken çocuklukta gelişim ve eğitimde yeni yaklaşımlar*. İstanbul: Morpa Kültür Yayınları.
- Share, D., Jorm, A., MacLean, R., & Matthews, R. (1984). Sources of individual differences in reading achievement. *Journal of Educational Psychology*, 76, 1309-1324.
- Simpson, J., & Everatt, J. (2005). Reception class predictors of literacy skills. *British Journal of Educational Psychology*, 75, 171-188.
- Sindelar, P. T., Lane, H. B., Pullen, P. C., & Hudson, R. F. (2002). Remedial interventions for students with reading decoding problems. In M. R. Shinn, H. M. Walker & G. Stoner (Eds.), *Interventions for academic and behavior problems II: Preventive and remedial approaches* (pp. 703-727). Bethesda, MD: NASP Publications.
- Smith, J., Brooks-Gunn, J., & Klebanov, P. (1997). Consequences of living in poverty for young children's cognitive and verbal ability and early school achievement. In G. J. Duncan & J. Brooks-Gunn (Eds.), *Consequences of growing up poor* (pp. 132-89). New York: Russell Sage.
- Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Research Council.
- Spira, E. G., & Fischel, J. E. (2005). The impact of preschool inattention, hyperactivity, and impulsivity on social and academic development: A review. *Journal of Child Psychology and Psychiatry*, 46, 755-773.
- Stevenson, H. W., & Newman, R. S. (1986). Long-term prediction of achievement and attitudes in mathematics and reading. *Child Development*, 57, 646-659.
- Storch, S. A., & Whitehurst, G. J. (2002). Oral language and code-related precursors to reading: Evidence from a longitudinal structural model. *Developmental Psychology*, 38, 934-947.
- Torgesen, J. K., Morgan, S. T., & Davis, C. (1992). Effects of two types of phonological awareness training on word learning in kindergarten children. *Journal of Educational Psychology*, 84, 364-70.
- Wachs, T. D. (1996). Known and potential processes underlying developmental trajectories in childhood and adolescence. *Developmental Psychology*, 32, 796-801.
- Wagner, R. K., & Torgesen, J. K. (1987). The nature of phonological processing and its causal role to the acquisition of reading skills. *Psychological Bulletin*, 101, 192-212.
- Wagner, R. K., Torgeson, J. K., & Rashotte, C. A. (1994). Development of reading-related phonological processing abilities: New evidence of bi-directional causality from a latent variable longitudinal study. *Developmental Psychology*, 30, 73-87.
- Whitehurst, G. J., & Lonigan, C. (1998). Child development and emergent literacy. *Child Development*, 69, 848-872.
- Zill, N., Resnick, G., Kim, K., O'Donnell, K., Sorongon, A., McKey, R. H. et al. (2003). *Head Start FACES 2000: A whole-child perspective on program performance: Fourth progress report*. Washington, DC: U.S. Department of Health and Human Services, Administration on Children, Youth and Families, Commissioner's Office of Research and Evaluation and the Head Start Bureau.