Van Yüzüncü Yıl University Journal of Education, 2026; 23(1), p. 117-146. DOI: 10.33711/yyuefd.1815180

The Contribution of the Story-Enriched Cognitive Enhancement Training (SE-COGENT) to Early Literacy Skills

Fatma KOÇ[1], Belma TUĞRUL[2]

Abstract: Although early literacy interventions have been widely implemented in preschool education, many existing programs primarily focus on isolated language skills or cognitive processes and are often designed for atypically developing children or older age groups. Consequently, few comprehensive interventions integrate cognitive enhancement with story-based, dialogic practices for typically developing preschool children. The present study aimed to examine the effects of the Story-Enriched Cognitive Enhancement Training (SE-COGENT), a program that integrates PASS theory–based cognitive modules with Dialogic Reading applications, on preschool children's early literacy skills. A quasi-experimental research design was employed with 44 children attending a kindergarten in Mardin, Türkiye. The intervention lasted 12 weeks. Data were collected using the Test of Early Literacy, the Print Awareness Test, the Pre-Writing Skills Assessment Test, and parent and teacher information forms. Non-parametric statistical analyses were conducted using SPSS 26. The findings indicated that children who participated in the SE-COGENT program demonstrated statistically significant improvements in vocabulary, phonological awareness, letter knowledge, listening comprehension, writing awareness, and pre-writing skills compared to the control group. Taken together, the results suggest that SE-COGENT addresses an important gap in the literature by offering a holistic, story-enriched cognitive intervention and provides empirical evidence for its effectiveness among typically developing preschool children.

Keywords: SE-COGENT, PASS, interactive storybook reading, early literacy skills, preschool.

Erken Okuryazarlık Becerilerine Hikâye ile Zenginleştirilmiş Bilişsel Müdahale Programının (HZ-COGENT) Katkısı

Öz: Okul öncesi eğitimde erken okuryazarlık müdahaleleri yaygın olarak uygulanmakla birlikte, mevcut programların önemli bir bölümü dil becerilerini ya da bilişsel süreçleri birbirinden bağımsız biçimde ele almakta ve çoğunlukla atipik gelişim gösteren çocuklar veya daha ileri yaş grupları için tasarlanmaktadır. Bu durum, tipik gelişim gösteren okul öncesi çocuklara yönelik olarak bilişsel gelişimi hikâye temelli ve etkileşimli uygulamalarla bütünleştiren kapsamlı müdahale programlarının sınırlı sayıda kalmasına yol açmaktadır. Bu çalışmanın amacı, PASS kuramına dayalı bilişsel modüller ile etkileşimli okuma uygulamalarını bütünleştiren Hikâye Temelli Bilişsel Gelişim Destek Programı'nın (HZ-COGENT), okul öncesi çocukların erken okuryazarlık becerileri üzerindeki etkilerini incelemektir. Araştırma, Mardin ilinde bir anaokuluna devam eden 44 çocukla yürütülmüş ve yarı deneysel araştırma deseni kullanılmıştır. Müdahale programı 12 hafta süreyle uygulanmıştır. Veriler; Erken Okuryazarlık Testi, Yazı Farkındalığı

Geliş tarihi/Received: 01.11.2025 Kabul Tarihi/Accepted: 19.02.2026 Makale Türü: **Araştırma Makalesi**

* This study was conducted as part of the first author's doctoral research under the supervision of the second author.

[1] PhD Student, Istanbul Aydin University, Department of Preschool Education, fatmakoc1@stu.aydin.edu.tr, 0000-0003-4254-253X

[2] Prof. Dr., Istanbul Aydin University, Department of Basic Education, belmatugrul@aydin.edu.tr, 0000-0002-4487-4514

Atıf için (To cite): Koç, F., & Tuğrul, B. (2026). The contribution of the story-enriched cognitive enhancement training (SE-COGENT) to early literacy skills. *Van Yüzüncü Yıl University Journal of Education*, *23*(1), 117-146. https://doi.org/10.33711/yyuefd.1815180

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Testi, Yazı Öncesi Beceriler Değerlendirme Aracı ile veli ve öğretmen bilgi formları aracılığıyla toplanmıştır. Verilerin analizinde SPSS 26 programı kullanılarak parametrik olmayan istatistiksel yöntemlerden yararlanılmıştır. Elde edilen bulgular, HZ-COGENT programına katılan deney grubu çocuklarının kelime dağarcığı, fonolojik farkındalık, harf bilgisi, dinlediğini anlama, yazı farkındalığı ve yazı öncesi beceriler açısından kontrol grubuna kıyasla istatistiksel olarak anlamlı düzeyde gelişim gösterdiğini ortaya koymuştur. Sonuçlar bir bütün olarak değerlendirildiğinde, HZ-COGENT'in tipik gelişim gösteren okul öncesi çocuklara yönelik bütüncül ve hikâye temelli bilişsel bir müdahale sunarak alanyazındaki önemli bir boşluğu doldurduğu ve etkililiğine ilişkin ampirik kanıtlar sağladığı söylenebilir.

Anahtar kelimeler: HZ-COGENT, PASS, etkileşimli okuma, erken okuryazarlık becerileri, okul öncesi

Introduction

Learning to read and write is an important milestone in children's lives (Whitehurst & Lonigan, 2003). Reading and writing are complex cognitive processes that involve the use of symbols in spoken language (Ayaş-Köksal, 2017; Koçyiğit, 2021). This process is affected by many factors. These factors can be summarized as follows: the first is the family's circumstances. The second factor is the child's cognitive development, intelligence, and personal attitudes. The third factor is the country's economic situation, education policy, culture, beliefs, teachers' personal and professional experiences, and the quality of the preschool education children receive (Demirel, 2012; Efe, 2018; Erginer & Erginer, 2023; Gengeç et al., 2023; Haywood, 1998; Oruç, 2024; Parpucu, 2020; Phillips & Lonigan, 2009; Strang & Piasta, 2016). The quality of preschool education is enhanced when children develop early literacy skills (Ergül et al., 2015). These skills are considered essential for children to acquire prior to entering compulsory education. These skills begin with language acquisition and can be developed through rich and dialogic reading, comprehension, print awareness, phonological awareness, and pre-writing skills (Ergül et al., 2015; Ergül et al., 2017; Koçyiğit, 2021; Whitehurst & Lonigan, 1998). Many studies in the literature provide evidence of the importance of preschool children possessing these skills (Çelik & Yiğit, 2024; Miller et al., 2006). The findings of these studies have identified important areas for parents, preschool teachers, and scientists and have laid the groundwork for the development of intervention programs (Ayaş-Köksal, 2017; Gengeç, 2021). In this regard, the Ministry of National Education emphasizes the development of early literacy skills within the Preschool Education Program (MoNE, 2024).

Various scientific investigations are focusing on intervention programs designed to enhance early literacy skills, taking into account multiple variables such as teachers' qualifications, knowledge levels, classroom applications, parents' education, and the enrichment of home environments. Among these studies, Yalçıntaş-Sezgin et al. (2019) conducted a study with 255 preschool teachers to examine how classroom practices related to early literacy varied by demographic factors. The results indicated that teachers' demographic characteristics and classroom practices regarding early literacy significantly influenced children's early literacy competencies. Whitehurst and Lonigan (1998) emphasized the need to implement comprehensive, intensive intervention programs that foster both cognitive and linguistic development in early childhood to promote early literacy. In this context, the outcomes of two separate longitudinal studies conducted in the United States (Durkin, 1966; Valdez-Menchaca & Whitehurst, 1992) are also noteworthy. Durkin (1966) reported that there was no evidence suggesting that early literacy skills delayed reading development in preschool children. He further noted that the families of children who acquired reading skills earlier than their peers were more motivated and dedicated to this process. The researcher also stated that preschool programs

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

should support children's early literacy skills. Another study (Valdez-Menchaca & Whitehurst, 1992) found that one-third of children entered school unprepared for literacy (lacking the necessary vocabulary, sentence structure, and other basic skills). Furthermore, these children often fell behind academically, experienced school anxiety, or dropped out of school (Ergül et al., 2022; Stanovich et al., 1984; Stanovich, 2009).

Numerous longitudinal studies have revealed that providing children with an environment rich in stimuli that supports their cognitive growth, early literacy development, and dialogic reading experiences is the most effective approach to reducing their academic underachievement (Ayaş-Köksal, 2017; Blatchford & Plewis, 1990; Clay, 1990; Doyle, 2018; Ergül, 2015; Ergül, 2017; Ergül et al., 2019; Gengeç et al., 2023; Haywood, 1998; Özcan, 2024; Whitehurst & Lonigan, 2003). For this purpose, many intervention programs have been developed to identify and promote the aforementioned early childhood skills. Among these, the internationally licensed Cognitive Enhancement Training (COGENT) is a cognitive-based intervention program that supports the cognitive development of typical and atypical children (Das et al., 2005). This program was developed based on the four fundamental dimensions of the PASS theory (Planning, Attention, Successive, and Simultaneous) (Das et al., 1979) to develop children's attention and mental planning skills and to support their ability to retain, analyze, and apply information (Das et al., 2007).

The literature includes studies examining the effects of the COGENT program on children's early literacy skills (Mayoral-Rodríguez et al., 2015; Yurdabakan & Demirtaş-Yıldız, 2024) and its effects on reading and writing skills (Atmaca, 2020; Das, et al., 2005; Ergin, 2022; Göger, 2022; Gürbüz, 2018; Hayward et al., 2007; Mahapatra, 2015). However, these studies have primarily focused on atypically developing children, concentrated on the primary school period, and examined only the cognitive dimension of the program (COGENT).

Within the PASS theoretical framework, each cognitive process assumes complementary yet distinct roles in the development of early literacy subskills. Attention and planning processes lie at the core of children’s ability to regulate learning-related behaviors, sustain goal-directed focus, and organize cognitive strategies; in this respect, they provide strong support for early literacy development (Dunn et al., 2018; Naglieri & Otero, 2018). Attention enables children to consciously focus on relevant linguistic stimuli, thereby constituting a prerequisite for listening comprehension and supporting the development of phonological awareness, letter knowledge, vocabulary, print awareness, and emergent writing skills (Enerem, 2018; Keat & Ismail, 2010). Planning, in turn, facilitates the selection and organization of strategies that support learning processes and regulate emerging literacy behaviors (Keat & Ismail, 2010).

Beyond attention and planning, the PASS model also emphasizes information-processing mechanisms directly associated with reading. Simultaneous processing supports the holistic integration of letters and phonemes, thereby contributing to reading fluency, word recognition, and reading comprehension (Das, et al., 2005; Wang et al., 2012), and is regarded as a strong predictor of reading and reading comprehension achievement (Enerem, 2018; Wang et al., 2012). Successive processing, on the other hand, enables the sequential analysis and retention of phonemes and syllables, providing a cognitive foundation for phonological awareness, decoding, syntactic processing, and speech articulation (Naglieri & Otero, 2018). Taken together, these PASS-based cognitive processes offer a comprehensive framework for understanding the acquisition and integration of early literacy skills.

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

In this context, the cognitive intervention modules employed in the present study were systematically designed to activate attention, planning, and processing of simultaneous and successive information, in alignment with early literacy demands. Within this holistic framework, the study aims to integrate the PASS-based cognitive intervention program (COGENT), which targets four core cognitive processes, with dialogic reading practices that mediate early literacy skills, conceptualizing this integration both as an instructional method and as a pedagogical mechanism. Through structured and interactionally rich implementations, the SE-COGENT program coordinates attention, planning, and information-processing mechanisms to transform cognitive operations into measurable early literacy outcomes (Das et al., 1979; Das et al., 2007; Haywood, 1998; Whitehurst & Lonigan, 1998).

Another application that supports early literacy in children is the Dialogic Reading (DR) method. This approach relies on effective interaction between the child and the adult and is structured into three stages: pre-reading, during reading, and post-reading. The first step (pre-reading) consists of the preparation stages before reading to children. In this stage, quality books appropriate to the children's interests and age group are selected. Then, the target words and phonemes to be emphasized during reading are determined, and the practice environment is arranged. The second step (reading) involves expanding the reading by asking specific WH questions, sentence completions, reminders, associations, and open-ended questions related to the story. The third step (post-reading) includes activities that involve adult-child interaction, such as completing the story, summarizing it, or creating a new ending (Ergül et al., 2016). DR is an evidence-based application that develops cognitive and early literacy skills (Aslan, 2024). In the literature, studies are showing that DR has positive effects on all or some dimensions of early literacy skills (Armbruster & Fran-Lehr, 2003; Akça, 2021; Bircan, 2019; Çelik, 2021; Çelik & Yiğit, 2024; Doğan & Enerem, 2022; Ergül et al., 2016; Ergül et al., 2017; Efe, 2018; Enerem, 2018; Erten-Yaşa, 2024; Gengeç, 2021; Gökkuş, 2016; Gözüoğlu, 2023; Hart & Risley, 2003; Huebner & Payne, 2010; Parpucu, 2020; Şimşek, 2021; Robbins & Ehri, 1994; Schickedanz & McGee, 2010; Taş & Koçyiğit, 2023; Türkyılmaz, 2023; Whitehurst et al., 1994a; Whitehurst & Lonigan, 1998; Whitehurst & Lonigan, 2003; Yalman, 2020; Yalavaç, 2020; Yumuş, 2018).

There is an interactive relationship between children's cognitive development and early literacy (Aslan, 2024; Haywood, 1998). Children coming from adverse conditions can catch up with their peers through scientifically grounded cognitive intervention programs implemented during early childhood (Aslan, 2021; Doyle, 2018; Haywood, 1998; Snow et al., 1998; Uz-Hasırcı, 2021). To date, no holistic study has examined the COGENT program for typically developing preschool children regarding its enrichment across all dimensions of early literacy skills. The findings of this study are expected to provide valuable insights for preschool education practitioners, educational researchers, developmental specialists, and early literacy programs. Additionally, the study will help determine the effectiveness of the cognitive intervention program on preschool children's early literacy skills. As an internationally applicable program, the results, particularly concerning typically developing preschool children, are anticipated to contribute to the global literature.

Purpose of the Study

No research has been identified in the literature that investigates the impact of the Story-Enriched Cognitive Development Program (SE-COGENT) on all aspects of early literacy skills among typically developing preschool children. Therefore, the present study sought to determine

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

whether significant differences existed between the pretest and posttest scores of preschool children in the experimental group who participated in the SE-COGENT program with respect to their vocabulary and letter knowledge, phonological awareness, listening comprehension, writing awareness, and pre-writing abilities.

Method

Research Design

This research adopted a quantitative methodology and applied a quasi-experimental design, one of the experimental research models, to explore the causal relationship between the independent variable, the Story-Enriched Cognitive Enhancement Training Program (SE-COGENT), and the dependent variable, preschool children's early literacy skills (Creswell, 2020). In the study, both the experimental and control groups received pretests and posttests; however, the SE-COGENT program was delivered solely to the experimental group. During the intervention period, the control group did not receive the SE-COGENT program or any additional intervention implemented by the researcher. The children in the control group continued to participate in their regular preschool education program.

Participants were recruited from an independent kindergarten affiliated with the Ministry of National Education. The school was selected through purposive sampling based on accessibility and its alignment with the study criteria. Following participant recruitment, children were assigned to the experimental and control groups through simple randomization (lottery method) at the classroom level. Thus, while purposive sampling was used to identify the research setting, group assignment was conducted randomly, consistent with the principles of quasi-experimental research designs (Büyüköztürk, 2014; Creswell, 2020).

Story-Enriched Cognitive Enhancement Training Program (SE-COGENT)

The COGENT program, known as Cognitive Enhancement Training, was developed by Das et al., (2005) as a cognitive intervention model. SE-COGENT (Story-Enriched Cognitive Enhancement Training), on the other hand, was developed by the researcher by integrating story-based activities into the original COGENT framework to enhance preschool children's early literacy abilities. COGENT is an evidence-based cognitive enhancement program developed by Das and colleagues, inspired by PASS theory, for typically and atypically developing children aged 4–7 (Hayward et al., 2007). COGENT consists of two parts, each containing 173 activities organized into five modules. The program was translated into Turkish by Atmaca (2020).

The researcher received training and implementation permission for the COGENT program and carried out the SE-COGENT program development stages. The program was developed in accordance with children's developmental levels. In this context, appropriate modules were selected from the original COGENT program, and early literacy outcomes designed for children aged 60–72 months were aligned with the 2024 Ministry of National Education's Türkiye Century Maarif Model. This national curriculum framework defines developmental domains, learning outcomes, and competency-based objectives for early childhood education in Türkiye. It was determined that the COGENT program and the 2024 MoNE Preschool Education Program (Türkiye Century Maarif Model) overlap in early literacy outcomes. Accordingly, the SE-COGENT program was developed eclectically by examining the 2024 MoNE Preschool Education Program.

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Furthermore, an analysis of this program indicated that it includes a broader range of early literacy components than previous curricula and, for the first time, addresses all related sub-skills under a single heading (Temur & Dayan, 2025). The outcomes related to phonological awareness skills in the COGENT program were identified through a needs analysis. The developed program covers all phonological awareness activities from Modules 2 through 4 in Parts 1 and 2 of the original COGENT program. Additionally, activities for letter awareness, pre-writing skills, and Dialogic Reading (DR) applications were also included in these modules.

The literature identifies two types of early literacy programs: (1) those targeting one or more aspects of early literacy skills, and (2) those designed according to the age group in which they are implemented (Uz-Hasırcı, 2021). In this context, the SE-COGENT program focuses on increasing children's vocabulary and developing cognitive skills that support all aspects of early literacy and improve future reading comprehension. For this purpose, Dialogic Reading applications were included in the program (Aslan, 2021; Ergül et al., 2016; Stanley et al., 2018; Whitehurst & Lonigan, 1998).

For the Dialogic Reading (Dialogic Book Reading) applications, storybooks were selected based on specific criteria. The selection process involved reviewing the literature and interviewing preschool teachers to determine the necessary criteria. These criteria included rich and extensive illustrations appropriate for the age group 60 months and older, a plot with introductory, developmental, and concluding sections, stories suitable for initiating conversational practices, the name of the illustrator and author and the publisher's logo on the cover, grammatically accurate writing, and a strong text-picture relationship (Ergül, et al., 2016; Efe, 2018; İlhan, 2019; Karadoğan, 2020).

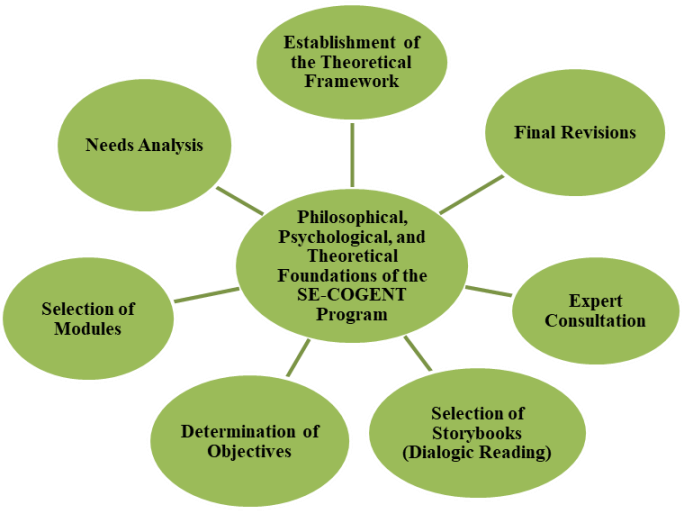
A training flow for DR applications was prepared using 24 selected books. The one-day training flow included activities before, during, and after the book reading activity, as well as a pre-writing skills activity compatible with DR applications. During the program development phase, the created book pool and the learning outcomes and skills pools were presented to seven child development and preschool education experts from various universities who have researched early literacy skills. Additionally, opinions were obtained from four preschool teachers with ten years of experience in the field. Based on the feedback provided by the experts, three storybooks were removed from the program, and new stories were incorporated according to their recommendations. The daily learning sequence, learning objectives, and skills inventory were presented to the experts, and the program was refined based on their input.

The finalized SE-COGENT program was administered exclusively to the experimental group and consisted of two sessions per week (Mondays and Tuesdays) over a 12-week implementation period. The development process of the SE-COGENT program, including the identification of needs, selection of modules and storybooks, incorporation of Dialogic Reading applications, expert consultation, and final revisions, is presented schematically in Figure 1. The figure provides an integrated visual summary of the philosophical, psychological, and theoretical foundations underlying the program development process.

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Figure 1.

Philosophical, Psychological, and Theoretical Framework of The SE-COGENT Program Development Process.



*The diagram summarizes the structuring of the program based on needs analysis, module and storybook selection, expert consultation, and final revisions.

Data Collection Tools

Test of Early Literacy (TEL)

The TEL was used in this study to assess children's early literacy abilities. Developed by Kargın et al. (2015), this instrument is intended for children aged 60-72 months. The assessment is composed of four separate booklets. Each booklet contains a different picture, question instructions, and a registration form. The first booklet explains the test's development, application, measurement, and evaluation procedures. The other booklets contain test administration instructions, question items, and pictures related to the questions.

Based on the results of the validity and reliability analyses (Exploratory Factor Analysis) conducted for the TEL, the assessment comprises seven subscales: 15 items for receptive language, 15 for expressive language, 10 for general naming, 10 for functional knowledge, 14 for letter knowledge, 32 for phonological awareness, and 6 for listening comprehension, making a total of 102 items distributed across 15 subtests. Moreover, the Kaiser–Meyer–Olkin (KMO) coefficient was above 0.60, confirming that the sample size was sufficient for conducting a factor analysis. The reliability of the test was also high, with a Cronbach's alpha value calculated at .94. In addition, when split-half reliability was calculated using the Spearman-Brown formula, the overall test yielded a coefficient of .79. These findings indicate that the test has high reliability.

The scoring of the TEL is as follows: (0 points) are given for each incorrect answer, and (1 point) is given for each correct answer provided by the child. The test is evaluated using the cut-off score determined for the seven sub-dimensions.

Early Literacy Skills Assessment Tool Sub-Dimension (ELSAT)

Print Awareness Test (*ELSAT*-PA) and Pre-Writing Skills Assessment Test (ELSAT-PWS).

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

The ELSAT, developed by Karaman (2013), was used in this study to evaluate children's performance on two subtests: the Print Awareness Test (ELSAT-PA) and the Pre-Writing Skills Assessment Test (ELSAT-PWS). ELSAT-PA consists of five subdimensions and 96 items. However, instead of administering all subtests of the ELSAT, only two subtests aimed at measuring children's print awareness (ELSAT-PA) and pre-writing skills (ELSAT-PWS) were applied in this study. Among the tests administered, the ELSAT-PA subtest includes 16 items, whereas the ELSAT-PWS subtest comprises 9 items.

Findings from the validity and reliability analyses of these two subtests are summarized as follows: the ELSAT-PA subtest accounted for 40.01% of the total variance. In contrast, the ELSAT-PWS subtest accounted for 56.70% of the total variance. Reliability values for both subtests were also calculated, with the KR-20 reliability coefficient (G) for the ELSAT-PA subtest being 0.75 and the test-retest reliability (T) being 0.72. For the ELSAT-PWS subtest, G was 0.77, and T was 0.86.

Parent Information Form

The Parent Information Form was developed and administered by the researcher to collect information about the children and their parents who voluntarily participated in the study. The form was created based on a comprehensive review of the relevant literature. It includes items designed to gather data on various dimensions such as demographic and physical characteristics, parental knowledge, and family attributes that could influence children's early literacy development. The form consists of three sections and contains 30 questions.

Teacher Information Form

The Teacher Information Form was created and administered by the researcher to collect data on the teachers and children who voluntarily participated in the study. Its structure was developed following a detailed review of the relevant literature associated with the research scope. The form is designed to obtain data on teachers' personal attributes, knowledge levels, classroom practices, and the physical characteristics of their learning environments, all factors that may influence children's early literacy skills. It is divided into four sections and includes 21 questions.

Experimental Procedure

The experimental procedure was conducted as follows: the participating children were selected, and the experimental and control groups were randomly assigned through a lottery method. Before (pretest) and after (posttest) the intervention, the TEL, along with the ELSAT-PA and ELSAT-PWS subtests of the ELSAT, were administered. The Story-Enriched Cognitive Enhancement Training (SE-COGENT) was implemented hierarchically and spirally over 12 weeks, twice a week, with 2 class hours per session, between January 10, 2025, and May 5, 2025. Activities were carried out using question-and-answer, exploration, Dialogic Reading practice (DR), and show-and-do techniques. The experimental procedure was carried out as presented in Table 1.

Table 1

Weekly Implementation Schedule of the SE-COGENT Program

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Week	Date	Session I	Session II
Week 1 – Part 1	January 10, 2025	Dialogic Reading Practice (DRP)	Module 1: Squeeze and Say & Module 2: Module 2: Squeeze and Listen
Week 2 – Part 1	February 12, 2025	Dialogic Reading Practice (DRP)	Module 2: Module 2: Squeeze and Listen & Module 4: Name Game
Week 3 – Part 1	February 18, 2025	Dialogic Reading Practice (DRP)	Module 4: The Name Game
Week 4 – Part 1 & 2	February 24, 2025	Dialogic Reading Practice (DRP)	Module 4 (Part 1): Name Game & Module 1 (Part 2): Squeeze and Listen
Week 5 – Part 2	March 3, 2025	Dialogic Reading Practice (DRP)	Module 1: Squeeze and Say & Module 2: Squeeze and Listen
Week 6 – Part 2	March 10, 2025	Dialogic Reading Practice (DRP)	Module 2: Squeeze and Listen & Module 3: Funny Connections
Week 7 – Part 2	March 17, 2025	Dialogic Reading Practice (DRP)	Module 4: The Name Game
Week 8 – Part 2	March 24, 2025	Dialogic Reading Practice (DRP)	Module 4: Name Game & Module 5: Colors-Shapes-Letters
Week 9 – Part 2	April 7, 2025	Dialogic Reading Practice (DRP)	Module 5: Colors-Shapes-Letters
Week 10 – Part 2	April 14, 2025	Dialogic Reading Practice (DRP)	Module 4: The Name Game & Module 2: Squeeze and Listen
Week 11 – Part 1	April 28, 2025	Dialogic Reading Practice (DRP)	Module 4: The Name Game
Week 12 – Part 2	May 5, 2025	Dialogic Reading Practice (DRP)	Module 1: Squeeze and Say & Module 5: Colors-Shapes-Letters

Working Group

The study group was drawn from an independent kindergarten in the Artuklu District of Mardin Province, affiliated with the Ministry of National Education (MoNE). This institution was selected by the researcher using a purposive sampling technique. The research was carried out during the spring semester of the 2024–2025 academic year. Participants were randomly assigned to the experimental and control groups through simple randomization. Group assignment was conducted using a lottery method. The study included 44 children (24 girls and 20 boys) aged 60 months and older (mean = 60.6 months) (Table 2). The study groups were formed according to the following criteria:

1. The children were aged 60 months or older,
2. The children had no intellectual disabilities,
3. The children had no genetic or chronic illnesses,
4. The children had no language or speech problems.

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Table 2

Age and Gender Distributions of Participating Children

Gender	Experimental group (n)	%	Control group (n)	%
Female	14	63.60	10	45.50
Male	8	36.40	12	54.50
Total	22	100	22	100
5 Years	16	72.70	18	81.40
6 Years	6	27.30	4	18.60
Total	22	100	22	100
Maximum values	2	2	2	2
Minimum values	1	1	1	1

As presented in Table 2, 63.6% of the children in the experimental group were female, while 36.4% were male. In the control group, 45.5% were female, and 54.5% were male. Regarding age, 72.7% of the experimental group were 5 years old and 27.3% were 6 years old, whereas in the control group, 81.4% were 5 years old and 18.6% were 6 years old.

Table 3

Information on the Quality of Participating Teachers and Their Classes

Questions	Experimental Group	Control Group
The teacher's level of education	Bachelor's Degree	Bachelor's Degree
The teacher's field of study	Preschool Teaching	Preschool teaching
The age group the teacher teaches	Ages 5-6	Ages 5-6
The period the teacher teaches	Afternoon	Morning
The teacher's professional experience	15-20 years	15-20 years
The teacher's gender	Female	Female
Has the teacher received ELS training?	No	No
Class size	22	22
The number of books read per week in the classroom	A few days a week	A few days a week
Is there an ELS-related center in the classroom?	Yes	Yes
What are the types of ELS activities implemented in the classroom?	1: Story reading activity 2: Print awareness activity 3: Letter awareness activity	1: Story reading activity 2: Print awareness activity 3: Letter awareness activity
What is the frequency of ELS activities in the classroom?	Three times a week	Three times a week

*ELS: Early Literacy Skills

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Table 3 provides details regarding the characteristics of the participating teachers and their classrooms. It was observed that both the experimental and control groups shared similar features in terms of teacher and classroom attributes. Furthermore, face-to-face interviews with the teachers indicated that instructors in both groups implemented the 60–70-month Preschool Education Program in accordance with the Ministry of National Education's 2024 Early Childhood Education Program.

Ethical Permission

This research received unanimous approval from the Scientific Research and Publication Ethics Committee of Mardin Artuklu University during its 12th meeting on November 14, 2024. Furthermore, for the study to be implemented in kindergartens affiliated with the MoNE in XXX, an application was submitted through the Ministry's Research and Application Permits Application and Evaluation System, known as the "MEB AYSE" module (December 9, 2024, application number: MEB.TT.2024.010675), and ethical approval was obtained.

Data Analysis

Before analyzing the data from this study, extreme-value analyses based on z-scores were conducted to identify potential outliers; it was determined that the ±3 z-score limit was not exceeded (Tabachnick & Fidell, 2013). Subsequently, descriptive statistics were calculated. The Shapiro–Wilk test was used to assess the dataset's normality, and the results indicated that the data were not normally distributed. Accordingly, nonparametric statistical techniques were used for subsequent analyses. Each subdimension was examined separately for both the experimental and control groups. All data analyses were conducted using SPSS statistical software.

To compare pretest and posttest scores within the groups, the Wilcoxon Signed-Rank Test was used to assess differences between the experimental and control groups. Through these analyses, it was evaluated whether statistically significant differences existed between the pre- and post-intervention results for each group. The significance level for all tests was set at .05 ($p < .05$). Two-tailed hypotheses were analyzed using Wilcoxon tests, and negative, positive, and tied ranks were examined in detail (Büyüköztürk, 2014; Creswell, 2020).

Additionally, a post hoc power analysis was performed with G*Power 3.1 (Faul et al., 2009) to assess the statistical adequacy of the sample size. Assuming a significance level of .05 and a large effect size (Cohen's $d = 0.80$), the analysis conducted with 22 participants per group yielded a statistical power ($1–\beta$) of .736. This ratio demonstrates that the study had sufficient sensitivity to test the hypotheses at the statistically significant level and that the results can be interpreted reliably (Creswell, 2020).

Findings

This section presents the study's results, including descriptive statistics and the outcomes of the Wilcoxon Signed-Rank Test for the pretest and posttest scores of the experimental group.

Table 4

Descriptive Analysis Results Regarding Participants' Posttest Scores

Groups		Vocabulary awareness	Phonemic awareness	Letter knowledge	Listening comprehension	ELSAT-PA	*ELSAT -PWS
	n	22	22	22	22	22	22

Control group	Mean	31.36	9.36	3.00	3.31	9.27	4.86
	Std. deviation	7.33	3.03	2.90	1.39	2.05	1.61
	Min. value	21.00	4.00	.00	.00	4.00	1.00
	Max. value	50.00	14.00	10.00	6.00	12.00	7.00
Experimental group	n	22	22	22	22	22	22
	Mean	43.45	29.05	7.55	5.09	14.18	6.73
	Std. deviation	2.88	1.96	1.97	.53	1.59	.77
	Min. value	38.00	24.00	4.00	4.00	11.00	5.00
	Max. value	48.00	32.00	12.00	6.00	16.00	8.00

* ELSAT -PWS*: Early Literacy Skills Assessment Tool-Pre-Writing Skills*

Table 4 presents descriptive statistics for the posttest scores of the experimental and control groups. The means of the experimental group were higher in all dimensions compared to the control group: Vocabulary awareness (31.36 ± 7.33; 43.45 ± 2.88), Phonemic awareness (9.36 ± 3.03; 29.05 ± 1.96), Letter knowledge (3.00 ± 2.90; 7.55 ± 1.97), Listening comprehension (3.31 ± 1.39; 5.09 ± 0.53), ELSAT-PA (9.27 ± 2.05; 14.18 ± 1.59), and ELSAT-PWS (4.86 ± 1.61; 6.73 ± 0.77), respectively. The differences observed between the experimental and control groups, ranked from the largest to the smallest, were as follows: Phonemic Awareness (210.4%), Letter Knowledge (151.7%), Listening Comprehension (53.7%), ELSAT-PA (52.9%), Vocabulary (38.6%), and ELSAT-PWS (38.5%).

Table 5

Crosstab Table Regarding Participating Parents' Education Level and Frequency of Reading Books at Home

Parent Education Level (PEL)			Frequency of Reading at Home (FRH)				
			Every day	Once a week	Rarely	Never	Total
Control group	Literate	Frequency (n)	0	0	1	0	1
		Expected value	.2	.5	.2	.0	1.0
		PEL (%)	0.0	0.0	100.0	0.0	100.0
		FRH (%)	0.0	0.0	20.0	0.0	4.5
	Primary School	Frequency (n)	0	1	3	0	4
		Expected value	.7	2.2	.9	.2	4.0
		PEL (%)	0.0	25.0	75.0	0.0	100.0
		FRH (%)	0.0	8.3	60.0	0.0	18.2
	Secondary School	Frequency (n)	0	3	0	1	4
		Expected value	.7	2.2	.9	.2	4.0
		PEL (%)	0.0	75.0	0.0	25.0	100.0
		FRH (%)	0.0	25.0	0.0	100.0	18.2
	High School	Frequency (n)	0	4	1	0	5
		Expected value	.9	2.7	1.1	.2	5.0
		PEL (%)	0.0	80.0	20.0	0.0	100.0
		FRH (%)	0.0	33.3	20.0	0.0	22.7
	Associate Degree	Frequency (n)	1	1	0	0	2
		Expected value	.4	1.1	.5	.1	2.0
		PEL (%)	50.0	50.0	0.0	0.0	100.0

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

		FRH (%)	25.0	8.3	0.0	0.0	9.1
	Bachelor's Degree	Frequency (n)	3	2	0	0	5
		Expected value	.9	2.7	1.1	.2	5.0
		PEL (%)	60.0	40.0	0.0	0.0	100.0
		FRH (%)	75.0	16.7	0.0	0.0	22.7
	Postgraduate	Frequency (n)	0	1	0	0	1
		Expected value	.2	.5	.2	.0	1.0
		PEL (%)	0.0	100.0	0.0	0.0	100.0
		FRH (%)	0.0	8.3	0.0	0.0	4.5
	Total	Frequency (n)	4	12	5	1	22
		Expected value	4.0	12.0	5.0	1.0	22.0
		PEL (%)	18.2	54.5	22.7	4.5	100.0
		FRH (%)	100.0	100.0	100.0	100.0	100.0
Experimental group	Literate	Frequency (n)	0	0	0	0	0
		Expected value	0	0	0	0	0
		PEL (%)	0	0	0	0	0
		FRH (%)	0	0	0	0	0
	Primary School	Frequency (n)	-	-	2	-	2
		Expected value	.9	.8	.2	.1	2.0
		PEL (%)	0.0	0.0	100.0	0.0	100.0
		FRH (%)	0.0	0.0	100.0	0.0	9.1
	Secondary School	Frequency (n)	-	1	-	-	1
		Expected value	.5	.4	.1	.0	1.0
		PEL (%)	0.0	100.0	0.0	0.0	100.0
		FRH (%)	0.0	11.1	0.0	0.0	4.5
	High School	Frequency (n)	3	6	0	0	9
		Expected value	4.1	3.7	.8	.4	9.0
		PEL (%)	33.3	66.7	0.0	0.0	100.0
		FRH (%)	30.0	66.7	0.0	0.0	40.9
	Associate Degree	Frequency (n)	2	1	-	1	4
		Expected value	1.8	1.6	.4	.2	4.0
		PEL (%)	50.0	25.0	0.0	25.0	100.0
		FRH (%)	20.0	11.1	0.0	100.0	18.2
	Bachelor's Degree	Frequency (n)	5	1	-	-	6
		Expected value	2.7	2.5	.5	.3	6.0
		PEL (%)	83.3	16.7	0.0	00	100.0
		FRH (%)	50.0	11.1	0.0	0.0	27.3
	Postgraduate	Frequency (n)	0	0	0	0	0
		Expected value	0	0	0	0	0
		PEL (%)	0	0	0	0	0
		FRH (%)	0	0	0	0	0
	Total	Frequency (n)	10	9	2	1	22
		Expected value	10.0	9.0	2.0	1.0	22.0
		PEL (%)	45.5	40.9	9.1	4.5	100.0

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

FRH (%)	100.0	100.0	100.0	100.0	100.0

Note: 20 cells (100%) have expected values below 0.5. The smallest expected value is 0.5.

Table 5 presents a crosstab analysis of parental education level and frequency of reading at home in the experimental and control groups. In the control group, there were no illiterate parents, and literate parents (n = 1) were represented only in the "Rarely" category. The majority of primary school graduates (n = 4) reported reading "Rarely," while most secondary school graduates (n = 4) and high school graduates (n = 5) reported reading "Once a Week." Parents with an associate degree (n = 2) were evenly distributed between the "Every Day" and "Once a Week" categories, whereas most parents with a bachelor's degree (n = 5) reported reading "Every Day." The single parent with a postgraduate degree reported reading "Once a Week." In the experimental group, no parents were literate or illiterate. All primary school graduates (n = 2) reported reading "Rarely," and the single secondary school graduate reported reading "Once a Week." Among high school graduates (n = 9), most reported reading "Once a Week," while for associate degree graduates (n = 2), one reported reading "Every Day," one "Once a Week," and one "Never." The majority of bachelor's degree graduates (n = 6) reported reading "Every Day," and there were no postgraduate graduates in this group. Overall, the highest reading frequency at home was observed in the "Once a Week" category for the control group and in the "Every Day" category for the experimental group.

Table 6

Chi-Square Test Results for Crosstab Analysis

Test	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	32.307[a]	12	.001	.006		
Likelihood Ratio	22.450	12	.033	.009		
Fisher's Exact Test	20.027			.010		
Linear-by-Linear Association	5.616[b]	1	.018	.019	.012	.006
N	22					

[a] *20 cells (100%) have expected values below 5. The minimum expected value is 0.05.*
[b] *Standardized statistic = -2.370.*

According to the results of the chi-square analyses, statistically significant differences were observed between the groups (Pearson $\chi^2(12) = 32.307$, $p = 0.001$; Likelihood Ratio $\chi^2(12) = 22.450$, $p = 0.033$; Fisher's Exact Test, $p = 0.010$). The Pearson chi-square test yielded a significant result ($\chi^2 = 32.307$, df = 12, $p = .001$). Furthermore, the Linear-by-Linear Association test indicated a significant linear association between the variables ($\chi^2(1) = 5.616$, $p = 0.018$; standardized statistic = –2.370). Because some expected cell frequencies were below 5, Fisher's Exact Test results were regarded as exceptionally reliable. Overall, the analyses confirmed a significant, linear association between the two variables (Table 6).

Table 7

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Results of the Wilcoxon Signed Rank Test for the Experimental Group's Pretest and Posttest Scores (n = 22)

Variable	Negative Ranks (n)	Positive Ranks (n)	Ties (n)	Z Value	*p* Value	Hypothesis	Decision
Vocabulary	0	22	0	-4.112	.000**	H_7	Accepted
Phonological Awareness	0	22	0	-4.119	.000**	H_8	Accepted
Letter Knowledge	1	20	1	-3.960	.000**	H_9	Accepted
Listening Comprehension	3	16	3	-3.174	.002**	H_{10}	Accepted
ELSAT-PA	0	22	0	-4.124	.000**	H_{11}	Accepted
ELSAT-PWS	1	17	4	-2.943	.003**	H_{12}	Accepted

Note: The Wilcoxon Signed Rank Test was applied. $p < .05$ was considered statistically significant.

As shown in Table 7, the Wilcoxon Signed Rank Test was applied to analyze the differences between the pretest and posttest scores of the experimental group that received the SE-COGENT program. The results revealed significant improvements across all evaluated dimensions. Specifically, vocabulary scores increased significantly ($Z = -4.112$, $p < .001$), as did phonological awareness ($Z = -4.119$, $p < .001$), letter knowledge ($Z = -3.960$, $p < .001$), and listening comprehension ($Z = -3.174$, $p = .002$). Additionally, the ELSAT-PA scores demonstrated a significant gain ($Z = -4.124$, $p < .001$), with all posttest scores exceeding pretest scores, indicating a strong effect of the intervention. ELSAT-PWS scores also improved significantly ($Z = -2.943$, $p = .003$). Overall, no negative ranks were observed except in the ELSAT-PWS subscale, suggesting that nearly all participants showed progress.

These findings demonstrate that the SE-COGENT program effectively improved early literacy skills, including phonological awareness, vocabulary, and print awareness. The significant gains observed across multiple subscales provide evidence for the effectiveness of structured, story-based cognitive enhancement training in early childhood education, underscoring its potential to strengthen literacy competencies during the preschool period.

Results and Discussion

In this study, teachers were deliberately included because they were similar in terms of personal, professional, and classroom characteristics (Table 2). Previous studies have shown that classroom practices, particularly those related to teachers' characteristics and early literacy instruction, significantly influence children's early literacy development (Bircan, 2019; Çümlek, 2023; Deniz, 2023; Ergül et al., 2014; Eser, 2023; Feyman-Gök, 2013).

In the present study, the highest parental education levels in the control group were high school graduates (n = 5) and university graduates (n = 5). In contrast, in the experimental group, the highest parental education levels were high school graduates (n = 9) and university graduates (n = 6). The relationship between parental education level and the frequency of shared book reading at home was also examined. In both groups, higher parental education was associated with a higher frequency of shared book reading at home. These findings are consistent with previous studies reporting similar relationships (Briggs & Elkind, 1973; Burgess, 2006; Chaimay et al., 2006; Erduran, 1999; Özbek-Ayaz, 2015; Whitehurst et al., 1994b).

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

No statistically significant differences were found between the pretest scores of children in the experimental and control groups across all early literacy domains, including vocabulary, phonological awareness, letter knowledge, listening comprehension, print awareness, and pre-writing skills. This finding indicates that the two groups were equivalent in terms of early literacy levels prior to the intervention.

Furthermore, the results of the Wilcoxon Signed-Rank Test revealed statistically significant increases ($p < .05$) in vocabulary, phonological awareness, letter knowledge, listening comprehension, ELSAT-PA, and ELSAT-PWS from pretest to posttest for children in the experimental group (n = 22). Based on these results, the SE-COGENT program was found to be effective across all dimensions of early literacy skills in preschool children.

Notably, in the vocabulary ($Z = -4.112$, $p = .000$) and phonological awareness ($Z = -4.119$, $p = .000$) dimensions, the number of negative ranks was zero while the number of positive ranks was 22, indicating that all children achieved higher posttest scores compared to pretest scores. The higher absolute Z values in these domains suggest that the magnitude of improvement was stronger than in other dimensions.

In the letter knowledge dimension, the Z value was −3.960 ($p = .000$), with a high number of positive ranks (20); however, one child showed a decrease and one child showed no change, suggesting that the effect in this domain was slightly more limited compared to the dimensions with the strongest impact. Nevertheless, letter knowledge demonstrated a moderate level of effectiveness relative to other domains. One possible explanation for why letter knowledge did not reach the same level of improvement as vocabulary and phonological awareness may relate to the implementation context, which was limited to a specific time frame within the school setting. The reinforcement of letter knowledge through family support at home or repeated classroom practice on other school days facilitates retention. Additionally, the experimental group teacher reported teaching only letter names during regular instruction, whereas the SE-COGENT program emphasized both letter names and letter sounds, which may have influenced learning outcomes.

In the listening comprehension dimension ($Z = -3.174$, $p = .002$) and the ELSAT-PWS (pre-writing skills) dimension ($Z = -2.943$, $p = .003$), the number of positive ranks was lower and the number of negative ranks was higher compared to other dimensions; however, both still demonstrated statistically significant improvements relative to pretest scores. Although the effect was evident, it was not as pronounced as in phonological awareness and vocabulary. One explanation for this finding is that listening comprehension is a higher-order cognitive-linguistic skill that tends to develop more gradually in short-term interventions. Although environmental factors such as socioeconomic background, classroom noise, teacher effects, individual cognitive development, attention span differences, and working memory capacity were minimized as much as possible, children's psychological states and age-related factors may also have influenced their responses.

The relatively lower effect observed in the pre-writing skills dimension may be attributed to the timing of the intervention, which was implemented during the second semester rather than at the beginning of the academic year. As a result, many children had already partially or fully acquired skills such as drawing lines, holding a pencil, cutting, and pasting, or had reached a certain level of psychomotor maturation. Consequently, the program's incremental contribution to pre-writing skills may have been less pronounced.

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Despite being implemented only two days per week for two hours over a three-month period during the second semester, the SE-COGENT program produced substantial pretest-to-posttest gains in early literacy skills. This finding suggests that the program effectively supports foundational literacy subskills within a relatively short time frame, whereas comprehension-based and more complex cognitive processes may require longer and more intensive interventions.

Consistent with the present findings, Atmaca (2020) examined the effectiveness of the COGENT program in a 12-week intervention involving third- and fourth-grade students diagnosed with specific learning disabilities and reported significant and lasting improvements in reading speed, reading errors, and reading comprehension in the experimental group. However, the program did not significantly affect dictation and written expression skills, possibly due to the neuromotor nature of writing skills or the limited duration of the intervention.

Similarly, Yurdabakan (2025) applied the COGENT program over ten weeks to preschool children at risk of learning disabilities (n = 24) and typically developing children (n = 24). The study found significant and lasting posttest effects in receptive language, expressive language, general naming, functional knowledge, phonological awareness, and listening comprehension compared to the control group. However, no significant pretest-to-posttest differences were observed in typically developing children across most domains, except for rapid naming, which showed a positive lasting effect. The relatively limited impact on typically developing children compared to children with learning difficulties may explain discrepancies between these findings and the results of the present study. These differences may be attributed to factors such as shorter intervention duration and the selective use of program modules.

Another important factor may be the inclusion of dialogic reading activities in the SE-COGENT program, which are not part of the original COGENT program. The integration of dialogic reading is considered an advantage in enhancing listening comprehension and vocabulary development. Differences in participants' cognitive characteristics and the content of the national curriculum implemented during the study period may also have influenced the observed outcomes.

Previous studies further support the effectiveness of PASS-based and COGENT-based interventions (Atmaca & Yıldız-Demirtaş, 2023; Gürbüz, 2018; Göger, 2022; Yurdabakan & Yıldız-Demirtaş, 2024). Gürbüz (2018) conducted a quasi-experimental study based on PASS theory with fifth-grade students and reported significant improvements in academic achievement in the experimental group. Similarly, Atmaca (2020) demonstrated improvements in reading speed, reading comprehension, and reduced reading errors among students with learning disabilities, with effects maintained after two weeks. Atmaca and Yıldız-Demirtaş (2023) also reported improvements in reading speed, reading comprehension, and dictation skills, although no significant changes were observed in text copying performance. Yurdabakan (2025) reported that while the COGENT program did not produce measurable effects in typically developing children, it yielded lasting benefits for children at risk of learning disabilities. Göger (2022) found increased reading comprehension scores among third-grade students following intervention. International studies have similarlyInternational studies have likewise demonstrated the effectiveness of COGENT and PASS-based programs (Das et al., 2005; Das et al., 2007; Keat et al., 2010; Mayoral-Rodrígueza et al., 2015; Papadopoulos et al., 2004; Wang et al., 2012). Das et al. (2007) compared COGENT and PREP models in a quasi-experimental study involving third-grade students in Canada and reported positive effects on phonological awareness, rapid

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

naming, reading, and cognitive skills. In another study, Das et al. (2007) examined 84 third- and fourth-grade poor readers and found deficits in sequential processing and reading performance, with rapid naming and sequential processing strongly predicting word recognition and nonword reading skills. Keat et al. (2010) identified significant relationships between PASS cognitive processes and word reading skills, although no relationship was found with writing skills. Mayoral-Rodrígueza et al. (2015) adapted the COGENT program into Spanish (COGEST) and reported significant improvements in simultaneous and sequential processing among preschool children aged 4–5 years following a six-month intervention.

Taken together, these findings indicate that the core structure of the COGENT program and its story-based adaptation, SE-COGENT, provide a comprehensive contribution to early literacy development in preschool children. Moreover, the present study demonstrated that dialogic reading practices led to significant differences in receptive and expressive vocabulary and functional knowledge compared to the control group.

Previous studies have highlighted the effectiveness of dialogic reading in improving early literacy outcomes (Altinkaynak, 2019; Akça & Aslışen, 2022; Akyol, 2024; Bülbül & Çuhadar, 2023; Çetinkaya et al., 2018; Çetin, 2022; Çiçek, 2024; Ergül et al., 2015; Efe & Temel, 2018; Gerde et al., 2012; Ün, 2023; Yalavaç, 2020). These studies consistently show that dialogic reading enhances receptive and expressive language, phonological awareness, letter knowledge, listening comprehension, print awareness, pre-writing skills, and vocabulary development in children aged 48–72 months. The findings of the present study are particularly consistent with previous research in listening comprehension, phonological awareness, print awareness, and pre-writing skills. Similarly, a meta-analysis conducted by Altun et al. (2016) on print awareness reported findings consistent with the present results. International research has also extensively documented the role of dialogic reading in early literacy development (Bowey, 1995; Bowles et al., 2005; Ezell & Justice, 2000; Gerde et al., 2012; Gettinger & Stoiber, 2018; Justice et al., 2005; Lonigan et al., 1999; Mol et al., 2009; Sénéchal et al., 1996; Stanley et al., 2018; Valdez-Menchaca & Whitehurst, 1992; Whitehurst et al., 1994a, 1994b; Whitehurst & Lonigan, 1998; Ziolkowski & Goldstein, 2008). Studies focusing specifically on listening comprehension have also been highlighted (Florit et al., 2009; Lever & Sénéchal, 2011; Kargın et al., 2017; Piasta et al., 2018), along with recent Türkiye-based research that aligns with the present findings (Ekiz & Tuncer, 2024).

When considered as a whole, the findings suggest that the SE-COGENT program represents an effective intervention model for supporting cognitive and linguistic development in the preschool period; however, the magnitude and pace of its effects vary across subskills. While strong effects were observed in structured domains such as phonological awareness and vocabulary, more limited effects in higher-order, multi-component processes such as listening comprehension and pre-writing skills indicate the need for longer and more intensive implementations. This pattern underscores the theoretical strength of SE-COGENT in integrating PASS cognitive processes with dialogic reading practices, while also highlighting the potential moderating roles of intervention duration, family involvement, and psychomotor maturation. Accordingly, future studies employing longer intervention periods, diverse socio-cultural samples, and follow-up assessments are recommended to further elucidate the long-term impacts of SE-COGENT on early literacy development.

Recommendations

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

This research demonstrated that the Story-Enriched Cognitive Enhancement Training (SE-COGENT), implemented to support early literacy development in preschool children aged 60 months and older, was effective in enhancing phonological awareness, vocabulary, print awareness, pre-writing, and listening comprehension. In light of these findings, the following recommendations are proposed:

- The SE-COGENT program may be integrated into preschool education curricula.
- Professional development programs and seminars may be organized to provide SE-COGENT training for preschool teachers.
- The SE-COGENT program may be implemented for children who exhibit delays in cognitive or early literacy development.
- The SE-COGENT approach may be included as an elective course in undergraduate and graduate teacher education programs.
- Parent-focused training sessions on the SE-COGENT program may be offered further to support children's early literacy development at home.

Ethics Committee Approval Information: This study was conducted with the ethical approval of the Scientific Research and Publication Ethics Committee of Mardin Artuklu University (Decision No: E-79906804-020-170646, dated 14 November 2024) and the permission obtained from the Ministry of National Education's Research Application Permissions Evaluation (MEB AYSE, Application No: MEB.TT.2024.010675, dated 9 December 2024).

Author Conflict of Interest Information: The authors declare no conflicts of interest. No financial support was received for this study.

Author Contribution: The authors declare that they contributed equally to the preparation of this manuscript.

References

Akça, A. (2021). *Etkileşimli kitap okuma programının 48-66 aylık suriyeli çocukların alıcı dil gelişimine etkisi* [Yayımlanmamış yüksek lisans tezi]. Hasan Kalyoncu Üniversitesi.

Akça, A., & Aslışen, E. H. T. (2022). Etkileşimli kitap okuma programı ve suriyeli çocuklar: gaziantep ili nizip ilçesinde pilot bir çalışma. *Elektronik Sosyal Bilimler Dergisi, 21*(84), 1529-1545. https://doi.org/10.17755/esosder.1101340

Akyol, G., (2024). *Etkileşimli kitap okumanın 48-72 aylık normal gelişim gösteren çocukların dil gelişimlerine ve zihin kuramı becerilerine etkisi* [Yayınlanmamış Yüksek Lisans Tezi]. İstanbul Medipol Üniversitesi.

Altinkaynak, S. Ö. (2019). The effect of interactive book reading activities on children's print and phonemic awareness skills. *International Journal of Progressive Education, 15*(1), 88-99. Bowles & Grimm, 2005;https://doi.org10.29329/ijpe.2019.184.6

Altun, D., Erden, F., & Snow, C. E. (2016, Nisan 21-24). *Filizlenen okuryazarlık okul öncesi dönem ses ve yazı farkındalığı becerilerini besleyen ev içi kaynakların incelenmesi.* 5. Ulusal Eğitim Bilimleri Kongresi (UEBK 2016) https://open.metu.edu.tr/handle/11511/82871

Armbruster, B. B. & Fran-Lehr, M. A. (2003). *A child becomes a reader: Kindergarten through grade 3.* National ınstitute for literacy.

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Aslan, D. (2021). Erkenokuryazarlık becerileri ve desteklenmesi. F. Erbay (Eds.), *Erken Okuryazarlık Becerilerinin Desteklenmesi.* (ss. 361-372). Eğiten Kitap Yayıncılık.

Aslan, D. (2024). Türkiye'deki etkileşimli kitap okuma müdahaleleri: sistematik bir gözden geçirme. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, *24*(2), 1165-1200. https://doi.org/10.17240/aibuefd.2024..-1341931

Atmaca, F. (2020). *Bilişsel gelişim programının (cogent) özel öğrenme güçlüğü olan öğrencilerin okuma ve yazma becerilerine etkisi* [Yayımlanmamış yüksek lisans tezi]. Ege Üniversitesi.

Atmaca, F., & Yıldız-Demirtaş, V. (2023). Does cognitive training affect reading and writing skills of students with specific learning disabilities? *Learning Disability Quarterly*, *46*(2), 106-119. https://doi.org/10.1177/07319487221085994

Ayaş-Köksal, S. A. (2017). Okuma ve okuyamamanın nörolojik hikâyesi. *Studies in Psychology, 37*(1), 73-81. https://izlik.org/JA68ER39NG

Bircan, E. (2019). *Okul öncesi öğretmenlerinin okuma-yazma becerisinin gelişimine yönelik rolleri ve uygulamalarının incelenmesi* [Yayımlanmamış yüksek lisans tezi]. Başkent Üniversitesi.

Blatchford, P., & Plewis, I. (1990). Pre-school reading-related skills and later reading achievement: further evidence. *British Educational Research Journal*, *16*(4), 425-428. https://doi.org/10.1080/0141192900160409

Bowey, J. A. (1995). Socioeconomic status differences in preschool phonological sensitivity and first-grade reading achievement. *Journal of Educational Psychology, 87*(3), 476–487. https://psycnet.apa.org/doi/10.1037/0022-0663.87.3.476

Bowles, R. P., Grimm, K. J., & McArdle, J. J. (2005). A structural factor analysis of vocabulary knowledge and relations to age. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *60*(5), 234-241. https://doi.org/10.1093/geronb/60.5.P234

Briggs, C., & Elkind, D. (1973). Cognitive development in early readers. *Developmental Psychology, 9*(2), 279-280. https://psycnet.apa.org/doi/10.1037/h0035060

Burgess, S. R. (2006). The development of phonological sensitivity. S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of Early Literacy Research* (pp. 90-112). New York: Guilford Press.

Bülbül, N. E., & Çuhadar, S. (2023). Etkileşimli kitap okuma yönteminin anasınıfına devam çocukların sesbilgisel farkındalıkları üzerindeki etkililiğinin incelenmesi. *Trakya Eğitim Dergisi*, *13*(3), 1992-2005. https: // Doi: 10.24315/tred.1311398

Büyüköztürk, Ş. (2014). *Sosyal bilimler için veri analizi el kitabı* (19. Baskı). Pegem Akademi.

Chaimay, B., Thinkhamrop, B., & Thinkhamrop, J. (2006). Risk factors associated with language development problems in childhood-a literature review. *Journal-Medical Association of Thailand*, *89*(7), 1080-1086.

Clay, M. M. (1990). Research currents: What is and what might be in evaluation. *Language Arts*, *67*(3), 288-298. https://doi.org/10.58680/la199025376

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Creswell, J. W. (2020). *Eğitim araştırmaları nicel ve nitel araştırmanın planlanması, yürütülmesi ve değerlendirilmesi* (3. baskı). EDAM.

Çetinkaya, F. Ç., Öksüz, H. İ., & Öztürk, M. (2018). Etkileşimli okuma ve kelime hazinesi. *Journal of International Social Research, 11*(60), 705-715. http://dx.doi.org/10.17719/jisr.2018.2825

Çelik, E. S. (2021). *Aile katılımlı etkileşimli kitap okuma programının 5-6 yaş çocukların erken okuryazarlık becerilerine ve ev erken okuryazarlık ortamına etkisinin incelenmesi* [Yayımlanmamış yüksek lisans tezi]. Selçuk Üniversitesi.

Çelik, M. & Yiğit, N. B. (2024). Erken çocukluk eğitiminde erken okuryazarlık üzerinde küresel araştırma eğilimleri. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, (72), 96-130. https://doi.org/10.21764/maeuefd.1364331

Çetin, İ. N. (2022). *Okul öncesi dönemde etkileşimli ve geleneksel kitap okuma yöntemlerinin etkisinin karşılaştırılması* [Yayımlanmamış yüksek lisans tezi]. Ankara Universitesi.

Çiçek, E. N. (2024). *Etkileşimli kitap okumanın 48-72 aylık çocukların erken okuryazarlık becerileri ve yürütücü işlevleri üzerindeki etkisi* [Yayınlanmamış Yüksek Lisans Tezi]. Bartın Üniversitesi.

Çümlek, A. B. (2023). *Okul öncesi öğretmenlerinin erken okuryazarlık ile ilgili görüşlerinin ve uygulamalarının incelenmesi* [Yayınlanmamış Yüksek Lisans Tezi]. Ondokuz Mayıs Üniversitesi.

Das, J. P., Cummins, J., Kirby, J. R., & Jarman, R. F. (1979). Simultaneous and successive processes, language and mental abilities. *Canadian Psychological Review/Psychologie Canadienne*, *20*(1), 1-11. https://psycnet.apa.org/doi/10.1037/h0081488

Das, J. P., & Denise, H. (2004). The Cognitive Enhancement Training Program (COGENT). Edmonton, Canada: Developmental Disabilities Centre, University of Alberta.

Das, J. P., Hayward, D., Samantaray, S., & Panda, J. J. (2005). Cognitive enhancement training (COGENT©): What is it? How does it work with a group of disadvantaged children?. *Journal of Cognitive Education & Psychology, 5*(3), 328-335. https://doi.org/10.1891/194589506787382440

Das, J. P., Hayward, V., Georgiou, G. K., Janzen, T., & Boora, N. (2006). Comparing the Effectiveness of Two Reading Intervention Programs for Children With Reading Disabilities. *Journal of Cognitive Education & Psychology*, *7*(1), https://doi.org/10.1891/194589508787381836

Das, J. P., Janzen, T., & Georgiou, G. K. (2007). Correlates of Canadian native children's reading performance: From cognitive styles to cognitive processes. *Journal of School Psychology*, *45*(6), 589-602. https://doi.org/10.1016/j.jsp.2007.06.004

Demirel, Ö. (2012). *Öğretim ilke ve yöntemleri öğretme sanatı* (19. baskı). Pegem Akademi Yayınları.

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Deniz, S. (2023). *Okul öncesi dönemde çocuğun evdeki dil ortamının ve ebeveynlerin etkileşimli kitap okuma uygulamalarına ilişkin farkındalıklarının incelenmesi* [Yüksek Lisans Tezi]. Bursa Uludağ Üniversitesi.

Doğan, H., & Enerem, D. (2022). 60-72 ay arası çocuklarda erken okuryazarlık becerileri ile bilişsel değerlendirme sistemi arasındaki ilişkinin incelenmesi. *Erken Çocukluk Çalışmaları Dergisi*, *6*(2), 337-363. https://doi.org/10.24130/eccdjecs.1967202262350

Doyle, M. A. (2018). Theoretical models and processes of literacy. M. Sailors & D. E. Alvermann (Eds.), *Marie M. Clay's Theoretical Perspective: A literacy Processing Theory. In Theoretical Models and Processes af Literacy* (pp. 4-17). Routledge.

Dunn, K., Georgiou, G. K., & Das, J. P. (2018). The PASS to superior reading performance. *High Ability Studies. 29*(2), 135-148. https://doi.org/10.1080/13598139.2018.1507900

Durkin, D. (1966). The achievement of pre-school readers: Two longitudinal studies. *Reading Research Quarterly, 1*(4), 5-36. https://doi.org/10.2307/747220

Efe, M. (2018). *Düşük sosyo-kültürel özellikteki okulöncesi dönem 48-66 ay çocuklarına etkileşimli kitap okuma programının yazı farkındalığına etkisinin incelenmesi* [Yayınlanmamış yüksek lisans tezi]. Gazi Üniversitesi.

Efe, M., & Temel, Z. F. (2018). Okul öncesi dönem 48-66 ay çocuklarına etkileşimli kitap okuma programı'nın yazı farkındalığına etkisinin incelenmesi. *Erken Çocukluk Çalışmaları Dergisi, 2*(2), 257-283. https://doi.org/10.24130/eccd-jecs.196720182257

Ekiz, N., & Tuncer, N. (2024). Geleneksel ve etkileşimli kitap okuma yöntemlerinin 60-72 aylk çocukların hikâyeyi hatırlama becerilerine etkisi. *International Journal of Education & Well-Being, 2*(2), 136-160. https://doi.org/10.62416/ijwb-52

Enerem, D. (2018). *60-72 ay arası çocuklarda erken okuryazarlık becerilerinin çeşitli değişkenler açısından incelenmesi* [Yayınlanmamış yüksek lisans tezi]. Maltepe Üniversitesi.

Erduran, E. (1999). *Okul öncesi eğitimde okuma-yazmaya hazırlık programları ve bilişsel yetenek özelliklerinin okuma sürecine etkileri* [Yayımlanmamış yüksek lisans tezi]. Marmara Üniversitesi.

Erginer, E., & Erginer, A. (2023). Cumhuriyet'in 100. yılında dünya ölçeğinde Türk çocuklarının okuma becerileri: PISA ve üzerinde düşünmemiz gerekenler. *Balıkesir Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 26*(49-1), 49-62. https://doi.org/10.31795/baunsobed.1351412

Ergin, T. (2022). YBT-PASS bilişsel müdahale programı'nın özgül öğrenme güçlüğü olan öğrencilerin bilişsel işlem alanları düzeylerine etkisi. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, *22*(1), 356-376. https://doi.org/10.17240/aibuefd.2022..-928265

Ergül, C., Karaman, G., Akoğlu, G., Tufan, M., Dolunay Sarıca, A., & Bahap Kudret, Z. (2014). Okul öncesi öğretmenlerinin erken okuryazarlık kavramına ilişkin bilgi düzeyleri ve sınıf uygulamaları. *Ilkogretim Online*, *13*(4), 1449-1472. https://doi.org/10.17051/io.2014.71858

Ergül, C., Akoğlu, G., Sarıca, A., Tufan, M., & Karaman, G. (2015). Ana sınıflarında gerçekleştirilen birlikte kitap okuma etkinliklerinin "etkileşimli kitap okuma" bağlamında

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

incelenmesi. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, *11*(3), 603-619. https://doi.org/10.17860/efd.88429

Ergül, C., Sarıca, A. D., & Akoğlu, G. (2016). Etkileşimli kitap okuma: dil ve erken okuryazarlık becerilerinin geliştirilmesinde etkili bir yöntem. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Özel Eğitim Dergisi, 17*(02), 193-206. https://doi.org/10.21565/ozelegitimdergisi.246307

Ergül, C., Akoğlu, G., Karaman, G., & Sarıca, A. D. (2017). Effects of dialogic reading program on later reading skills: Follow-up study. *Journal of Theoretical Educational Science*, *10*(2), 191-219. http://dx.doi.org/10.5578/keg.27611

Ergül, C., Akoğlu, G., Demir, E., Akçamuş -Ökçün, M. Ç., & Kudret, Z. B. (2019). 5 yaş grupu çocukların dil, erken okuryazarlık ve bilişsel becerilerinin gelişimsel profili ve okuma becerilerini yordama gücü: 3 yıllık boylamsal bir çalışma. TÜBİTAK 1001 projesi. (Erişim tarihi: 4.08.2025, https://search.trdizin.gov.tr/tr/yayin/detay/618599/5-yas-grubu-cocuklarin-dil-erken-okuryazarlik-ve-bilissel-becerilerinin-gelisimsel-profili-ve-okuma-becerilerini-yordama-gucu-3-yillik-boylamsal-bir-calisma)

Ergül, C., Kudret, Z. B., Akoğlu, G., Akçamuş, M. Ç. Ö., Tülü, B. K., & Demir, E. (2022). Birinci ve ikinci sınıfta okuma becerilerinin gelişimi ve matthew etkisi: boylamsal bir çalışmanın sonuçları. *Milli Eğitim Dergisi, 51*(234), 939-966. https://doi.org/10.37669/milliegitim.875859

Erten-Yaşa, M. (2024). *Etkileşimli kitap okuma süreçlerinin çocukların dil gelişimine olan etkisi: bir meta-analiz çalışması* [Yayınlanmamış yüksek lisans tezi]. Üsküdar Üniversitesi.

Eser, D. (2023). *Okul öncesi öğretmenlerinin erken okuryazarlık uygulamalarına yönelik görüşlerinin incelenmesi* [Yayınlanmamış Yüksek Lisans Tezi]. Fatih Sultan Mehmet Vakıf Üniversitesi.

Ezell, H. K., & Justice, L. M. (2000). Increasing the print focus of adult-child shared book reading through observational learning. *American Journal of Speech-Language Pathology, 9*(1), 36-47. https://doi.org/10.1044/1058-0360.0901.36

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using GPower 3.1: Tests for correlation and regression analyses*. *Behavior Research Methods, 41*(4), 1149–1160. https://doi.org/10.3758/BRM.41.4.1149

Feyman-Gök, N. (2013). *Anaokullarında erken okuryazarlık çevresinin değerlendirilmesi ve sınıf ortamının çocukların erken okuryazarlık davranışlarına etkisi* [Yayınlanmamış Doktora Tezi]. Gazi Üniversitesi.

Florit, E., Roch, M., Altoè, G., & Levorato, M. C. (2009). Listening comprehension in preschoolers: The role of memory. *British Journal of Developmental Psychology, 27*(4), 935-951. https://doi.org/10.1348/026151008X397189

Gengeç, H. (2021). *Risk grupunda olan ve olmayan 60-72 aylık çocukların erken okuryazarlık becerilerinin çeşitli değişkenler açısından incelenmesi* [Yayınlanmamış doctoral dissertation]. Ankara Universitesi.

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Gengeç, H., Güldenoğlu, B., & Kargın, T. (2023). Erken okuryazarlık becerileri üzerinde etkili olan değişkenler: SED ve ev okuryazarlığı. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi,* (57), 252-280. https://doi.org/10.9779/pauefd.1064101

Gerde, H. K., Bingham, G. E., & Wasik, B. A. (2012). Writing in early childhood classrooms: Guidance for best practices. *Early Childhood Education Journal, 40*(6), 351-359. https://doi.org/10.1007/s10643-012-0531-z

Gettinger, M., & Stoiber, K. C. (2018). Effects of shared book reading focusing on letters and sounds versus vocabulary for low–income prekindergarten children. *Preventing School Failure: Alternative Education for Children and Youth, 62*(3), 149-160. https://doi.org/10.1080/1045988X.2017.1408053

Göger, E. (2022). *PASS teorisi - bilişsel işlem temelli etkinliklerin ilkokul 3. sınıf öğrencilerinin okuduğunu anlama başarı düzeylerine etkisi* [Yayınlanmamış yüksek lisans tezi]. Bahçeşehir Üniversitesi.

Gökkuş, İ. (2016). *Erken okuryazarlık becerilerinin gelişiminde ses bilgisi farkındalık programının etkisi* [Yayınlanmamış doktora tezi]. Gazi Üniversitesi.

Gözüoğlu, S. G. (2023). *Okul öncesi dönemde öykü temelli etkinliklerin erken okuryazarlık becerilerine etkisi* [Yayınlanmamış yüksek lisans tezi]. İnönü Üniversitesi.

Gürbüz, G. (2018). *PASS teorisine dayalı bilişsel müdahale programının öğrenme performansına etkisinin incelenmesi* [Yayınlanmamış yüksek lisans tezi]. İstanbul Üniversitesi.

Hart, B., & Risley, T. R. (2003). The early catastrophe: The 30 million word gap by age 3. *American Educator, 27*(1), 4-9.

Hayward, D., Das, J. P., & Janzen, T. (2007). Innovative Programs for Improvement in Reading Through Cognitive Enhancement: A remediation study of canadian first nations children: A remediation study of canadian first nations children. *Journal of Learning Disabilities, 40*(5), 443-457. https://doi.org/10.1177/00222194070400050801

Haywood, H. C. (1998). On the transactional relation of cognitive and affective development. In J. M. Martinez, J. Lebeer, & R. Garbo (Eds.), *Is Intelligence Modifiable? Madrid: Bruño.*

Huebner, C. E., & Payne, K. (2010). Home support for emergent literacy: Follow-up of a community-based implementation of dialogic reading. *Journal of Applied Developmental Psychology, 31*(3), 195-201. https://doi.org/10.1016/j.appdev.2010.02.002

İlhan, E. (2019). *Etkileşimli kitap okuma programının ilkokul birinci sınıf öğrencilerinin temel dil becerilerine etkisi* [Yayınlanmamış Yüksek Lisans Tezi]. Dokuz Eylül Üniversitesi.

Justice, L. M., Meier, J., & Walpole, S. (2005). Learning new words from storybooks: An efficacy study with at-risk kindergartners. *Language, Speech, and Hearing Services in Schools. 36*(1), (17-32). https://doi.org/10.1044/0161-1461(2005/003)

Karadoğan, Z. (2020). *Etkileşimli kitap okuma uygulamalarının okuduğunu anlama becerisi ve tutuma etkisi* [Yayınlanmamış yüksek lisans tezi]. Balıkesir Üniversitesi.

Karaman, G. (2013). *Erken okuryazarlık becerilerini değerlendirme aracı'nın geliştirilmesi, geçerlik ve güvenirlik çalışması* [Yayınlanmamış doktora tezi]. Gazi Üniversitesi,

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Kargın, T., Ergül, C., Büyüköztürk, Ş., & Güldenoğlu, B. (2015). Anasınıfı çocuklarına yönelik erken okuryazarlık testi (EROT) geliştirme çalışması. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Özel Eğitim Dergisi*, *16*(03), 237-270. https://doi.org/10.1501/Ozlegt_0000000231

Kargın, T., Güldenoğlu, B., & Ergül, C. (2017). Dinlediğini anlama becerisinin okuduğunu anlama üzerindeki yordayıcılığının incelenmesi. *Kastamonu Eğitim Dergisi, 25*(6), 2369-2384.

Keat, O. B., & Ismail, K. B. H. (2010). The PASS cognitive functions of children with reading difficulties: A Malaysian study. *Procedia-Social and Behavioral Sciences, 5*, 2182-2193. https://doi.org/10.1016/j.sbspro.2010.07.434

Koçyiğit, S. (2021). Erkenokuryazarlık becerileri ve desteklenmesi. F. Erbay (Eds.), *Okuryazarlık, Erken Okuryazarlık ve Okula Hazıroluş İçinde* (ss.1-8). Eğiten Kitap Yayıncılık.

Koçyiğit, S. (2023). Ebeveyn destekli etkileşimli kitap okuma programının okul öncesi çocuklarının erken okuryazarlık becerilerine etkisinin incelenmesi. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi. 12*(5), 2537-2558. https://doi.org/10.15869/itobiad.1278375

Lever, R., & Sénéchal, M. (2011). Discussing stories: On how a dialogic reading intervention improves kindergartners' oral narrative construction. *Journal of Experimental Child Psychology, 108*(1), 1-24. https://doi.org/10.1016/j.jecp.2010.07.002

Lonigan, C. J., Anthony, J. L., Bloomfield, B. G., Dyer, S. M., & Samwel, C. S. (1999). Effects of two shared-reading interventions on emergent literacy skills of at-risk preschoolers. *Journal of Early Intervention*, *22*(4), 306-322. https://doi.org/10.1177/105381519902200406

Mahapatra, S. (2015). Cognitive training and reading remediation. *Journal of Education and Practice, 6*(19), 57-63.

Mayoral-Rodríguez, S., Timoneda-Gallart, C., Pérez-Álvarez, F., & Das, J. P. (2015). Improving cognitive processes in preschool children: The COGEST programme. *European Early Childhood Education Research Journal, 23*(2), 150-163. https://doi.org/10.1080/1350293X.2015.1016802

Miller, J. F., Heilmann, J., Nockerts, A., Iglesias, A., & Francis, D. (2006). Oral language and reading in bilingual children. *Learning Disabilities Research & Practice, 21*(1), 30–43. https://doi.org/10.1111/j.1540-5826.2006.00205.x

Ministry of National Education (MoNE) (2024). Okul öncesi eğitim programı. (Erişim tarihi: 02.07.2025, https://tegm.meb.gov.tr /dosya/okuloncesi/guncellenenokuloncesiegitimprogrami.pdf)

Mol, S. E., Bus, A. G., & De Jong, M. T. (2009). Interactive book reading in early education: A tool to stimulate print knowledge as well as oral language. *Review of Educational Research, 79*(2), 979-1007. https://doi.org/10.3102/0034654309332561

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Naglieri, J. A., & Otero, T. M. (2018). Redefining intelligence with the planning, attention, simultaneous, and successive theory of neurocognitive processes. *Contemporary intellectual assessment: Theories,* tests, and, (4th), 195-218.

Oruç, E. (2024). *Sosyoekonomik açıdan dezavantajlı bölgede yaşayan çocukların matematiksel akıl yürütme ve erken okuryazarlık becerilerinin incelenmesi* [Yayınlanmamış yüksek lisans tezi]. Ege Üniversitesi.

Özbek-Ayaz, C. (2015). *Ailelerin, okul öncesi dönemdeki çocuklarının okuryazarlık becerilerini desteklemek için kullandıkları okuryazarlık uygulamalarının incelenmesi Tekirdağ ili örneği* [Yayınlanmamış yükek lisans tezi]. Çanakkale Onsekiz Mart Üniversitesi.

Özcan, A. (2024). Sınıf öğretmenlerinin ilk okuma yazma öğretiminde karşılaştığı sorunları belirlemeye yönelik yüksek lisans tezlerinin incelenmesi. *Selçuk Üniversitesi Sosyal ve Teknik Araştırmalar Dergisi*, 24, 14-33. https://ror.org/00jga9g46

Papadopoulos, T. C., Charalambous, A., Kanari, A., & Loizou, M. (2004). Kindergarten cognitive intervention for reading difficulties: The PREP remediation in Greek. *European Journal of Psychology of Education, 19*(1), 79-105.

Parpucu, N. (2020). *Sesbilgisel farkındalık mesleki gelişim programı'nın okul öncesi öğretmenleri ve çocukları üzerindeki etkisi* [Yayınlanmamış doktora tezi]. Hacettepe Üniversitesi.

Phillips, B. M., & Lonigan, C. J. (2009). Variations in the home literacy environment of preschool children: a cluster analytic approach. *Scientific Studies of Reading, 13*(2), 146–174. https://doi.org/10.1080/10888430902769533

Piasta, S. B., Groom, L. J., Khan, K. S., Skibbe, L. E., & Bowles, R. P. (2018). Young children's narrative skill: Concurrent and predictive associations with emergent literacy and early word reading skills. *Reading and Writing*, *31*(7), 1479-1498. https://doi.org/10.1007/s11145-018-9844-7

Piasta, S. B. (2016). Current understandings of what works to support the development of emergent literacy in early childhood classrooms. *Child Development Perspectives, 10*(4), 234-239. https://doi.org/10.1111/cdep.12188

Robbins, C., & Ehri, L. C. (1994). Reading storybooks to kindergartners helps them learn new vocabulary words. *Journal of Educational Psychology, 86*(1), 54-64. https://psycnet.apa.org/doi/10.1037/0022-0663.86.1.54

Schickedanz, J. A., & McGee, L. M. (2010). The NELP report on shared story reading interventions (Chapter 4) extending the story. *Educational Researcher, 39*(4), 323-329. https://doi.org/10.3102/0013189X10370206

Sénéchal, M., Le Fevre, J. A., Hudson, E., & Lawson, E. P. (1996). Knowledge of storybooks as a predictor of young children's vocabulary. *Journal of Educational Psychology*, *88*(3), 520. https://psycnet.apa.org/doi/10.1037/0022-0663.88.3.520

Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children.* Washington, DC: National Academy Press.

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Stanovich, K. E., Cunningham, A. E., & Feeman, D. J. (1984). Relation between early reading acquisition and word decoding with and without context: A longitudinal study of first-grade children. *Journal of Educational Psychology, 76*(4), 668-677. https://psycnet.apa.org/doi/10.1037/0022-0663.76.4.668

Stanovich, K. E. (2009). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Journal of Education,* 189, 23-55. https://doi.org/10.1177/0022057409189001-204

Stanley, C. T., Petscher, Y., & Catts, H. (2018). A longitudinal investigation of direct and indirect links between reading skills in kindergarten and reading comprehension in tenth grade. *Reading and Writing, 31*(1), 133-153. https://doi.org/10.1007/s11145-017-9777-6

Strang, T. M., & Piasta, S. B. (2016). Socioeconomic differences in code-focused emergent literacy skills. *Reading and Writing, 29*(7), 1337-1362. https://doi.org/10.1007/s11145-016-9639-7

Şimşek, R. G. (2021). *Sınıf dışı okuma yazmaya hazırlık programının okul öncesi dönem çocuklarının erken okuryazarlık becerilerine etkisi* [Yayınlanmamış yüksek lisans tezi]. İnönü Üniversitesi.

Tabachnick, B. G., & Fidell, L. S. (2013). Using multivariate statistics (6th ed.). MA: Pearson.

Taş, E. A., & Koçyiğit, S. (2023). Examining the effect of parent-supported ınteractive book reading program on early literacy skills of pre-school children. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, *12*(5), 2537-2558. https://doi.org/10.15869/itobiad.1278375

Temur, M. & Dayan, G. (2025). Okul öncesi eğitim programlarının erken okuryazarlık becerileri açısından karşılaştırılması. *Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 11*(2), 510-526. https://doi.org/10.31592/aeusbed.1657668

Türkyılmaz, T. H. (2023). *Okul öncesi dönemde etkileşimli kitap okuma etkinliklerine katılan öğrencilerle okul öncesi eğitime katılamayan öğrencilerin okumayı öğrenme süreci* [Yayınlanmamış yüksek lisans tezi]. Ordu Üniversitesi.

Uz-Hasırcı, S. (2021). Erken okuryazarlık becerileri ve desteklenmesi. F. Erbay (Eds.), *Erken Okuryazarlık Becerilerini Destekleyici Müdahale Programları* (ss. 383-388). Eğiten Kitap Yayıncılık.

Ün, Ş. I. (2023). *Okul öncesi dönemde ebeveyn-çocuk etkileşimi kitap okuma etkinlikleri ile çocukların erken okuryazarlık becerileri arasındaki ilişki* [Yayınlanmamış yüksek lisans tezi]. Dokuz Eylül Üniversitesi.

Valdez-Menchaca, M. C., & Whitehurst, G. J. (1992). Accelerating language development through picture book reading: A systematic extension to Mexican day care. *Developmental Psychology, 28*(6), 1106-1114. https://psycnet.apa.org/doi/10.1037/0012-1649.28.6.1106

Wang, X., Georgiou, G. K., & Das, J. P. (2012). Examining the effects of PASS cognitive processes on Chinese reading accuracy and fluency. *Learning and individual Differences*, *22*(1), 139-143. https://doi.org/10.1016/j.lindif.2011.11.006

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Whitehurst, G. J., Arnold, D. S., Epstein, J. N., Angell, A. L., Smith, M., & Fischel, J. E. (1994a). A picture book reading intervention in day care and home for children from low-income families. *Developmental Psychology, 30*(5), 679-689.

Whitehurst, G. J., Epstein, J. N., Angell, A. L., Payne, A. C., Crone, D. A., & Fischel, J. E. (1994b). Outcomes of an emergent literacy intervention in Head Start. *Journal of educational psychology, 86*(4), 542–555. https://doi.org/10.1037/0022-0663.86.4.542

Whitehurst, G. J., & Lonigan, C. J. (1998). Child development and emergent literacy. *Child Development. 69*(3), 848-872. https://doi.org/10.1111/j.1467-8624.1998.tb06247.x

Whitehurst, G. J., & Lonigan, C. J. (2003). Handbook of early literacy research. S. B. Neuman. & D. K. Dickinson (Eds.), *Emergent Literacy Development from Prereaders to Readers* (pp. 11-24). The Guilford Press.

Yalavaç, N. (2020). *Etkileşimli kitap okumanın erken okuryazarlık becerilerine etkisi* [Yayınlanmamış yüksek lisans tezi]. İnönü Üniversitesi.

Yalman, F. (2020). *Kütüphanede verilen 'kitapların eğlenceli dünyası'eğitim programının çocukların erken okuryazarlık becerilerine etkisinin incelenmesi* [Yayınlanmamış yüksek lisans tezi]. Karabük Üniversitesi.

Yalçıntaş-Sezgin, E. Y., Ulus, L., & Aksoy, A. B. (2019). Okul öncesi eğitim öğretmenlerinin erken okuryazarlıkla ilgili sınıf içi uygulamalarının incelenmesi. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, *19*(3), 1128-1146. https://doi.org/10.17240/aibuefd.2019.19.47159-470780

Yumuş, M. (2018). *Paylaşımlı kitap okuma müdahale programının ebeveynlerin deneyimlerine bebeklerin dil gelişimine ve erken okuryazarlık becerilerine etkisi* [Yayınlanmamış doktora tezi]. Hacettepe Üniversitesi.

Yurdabakan, İ., & Demirtaş-Yıldız V. (2024). Özel öğrenme güçlüğü riskine sahip okul öncesi öğrencilerine uygulanan bilişsel müdahale programının (cogent) dikkat ve hızlı isimlendirme becerilerine etkisi. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, (72), 553-570. https://doi.org/10.21764/maeuefd.1492854

Yurdabakan, İ. (2025). *Bilişsel gelişim programının (cogent) özel öğrenme güçlüğü riski taşıyan okul öncesi çocukların erken okuryazarlık becerilerine etkisi* [Yayınlanmamış doktora tezi]. Dokuz Eylül Üniversitesi.

Ziolkowski, R. A., & Goldstein, H. (2008). Effects of an embedded phonological awareness intervention during repeated book reading on preschool children with language delays. *Journal of Early Intervention, 31*(1), 67-90. https://doi.org/10.1177/1053815108324808

Geniş Özet

Giriş

Okuma ve yazma, sembolik anlamaya dayanan ve çok sayıda faktörden etkilenen karmaşık bilişsel süreçlerdir (Ayaş-Köksal, 2017; Koçyiğit, 2021; Whitehurst & Lonigan, 2003). Bu belirleyiciler arasında aile ortamı, çocukların bilişsel gelişimi ve ulusal eğitim politikaları belirleyici roller oynamaktadır (Demirel, 2012; Efe, 2018; Erginer & Erginer, 2023; Haywood,

1998; Oruç, 2024; Phillips & Lonigan, 2009; Parpucu, 2020; Strang & Piasta, 2016). Okul öncesi eğitimin kalitesi, yazı farkındalığı, sesbilgisel farkındalık ve yazmaya hazırlık becerileri yoluyla gelişen erken okuryazarlık becerilerinin güçlendirilmesi için bir temel oluşturmaktadır (Ergül, 2015; Koçyiğit, 2021; Whitehurst & Lonigan, 1998). Ampirik bulgular, bu temel becerilerin çocukların ileriki akademik başarıları açısından belirleyici olduğunu ve bu becerileri hedefleyen müdahale programlarının önemini vurgulamaktadır (Ayaş-Köksal, 2017; Çelik & Yiğit, 2024; Gengeç, 2021; Miller ve ark., 2006). Bu çerçevede Millî Eğitim Bakanlığı (MEB, 2024), okul öncesi eğitim programında erken okuryazarlığa özel bir vurgu yapmaktadır. Önceki araştırmalar, hem öğretmenlerin öğretim uygulamalarının hem de aile katılımının çocukların erken okuryazarlık yeterliklerinin gelişimine önemli ölçüde katkı sağladığını göstermektedir (Valdez-Menchaca & Whitehurst, 1992; Yalçıntaş-Sezgin ve ark., 2019;). Erken yaşta yeterli okuryazarlık temellerinden yoksun çocukların akademik açıdan geri kalma olasılığı daha yüksektir (Clay, 1990; Valdez-Menchaca & Whitehurst, 1992). PASS kuramına dayalı olarak geliştirilen COGENT gibi müdahale modelleri, çocukların dikkat, planlama ve bilişsel işlemleme becerilerini geliştirmeyi amaçlamaktadır (Das & Denise, 2004; Das ve ark., 2007). Ancak, önceki araştırmaların büyük çoğunluğu atipik öğrenenler veya ilkokul düzeyindeki öğrenciler üzerine odaklanmıştır (Mayoral-Rodríguez ve ark., 2015; Yurdabakan & Demirtaş-Yıldız, 2024). Diğer önemli bir yaklaşım olan Diyalojik Okuma (DR), yapılandırılmış okuma öncesi, sırası ve sonrası etkinlikler aracılığıyla dil ve bilişsel gelişimi desteklemekte ve erken okuryazarlık üzerinde olumlu etkiler göstermektedir (Whitehurst ve ark., 1994; Ergül ve ark., 2016; Aslan, 2024). Bununla birlikte, COGENT modeli ile DR tekniğinin birlikte, tipik gelişim gösteren okul öncesi çocuklar üzerindeki birleşik etkisini aynı anda inceleyen kapsamlı bir araştırma bulunmamaktadır. Bu nedenle, bu çalışmanın sonuçlarının hem ulusal hem de uluslararası alanyazına anlamlı katkılar sağlaması beklenmektedir.

Yöntem

Araştırmada, müdahalenin etkilerini incelemek amacıyla yarı deneysel bir ön test–son test kontrol gruplu desen kullanılmıştır (Creswell, 2020). Deney grubundaki çocuklar Hikâye ile Zenginleştirilmiş Bilişsel Gelişim (HZ-COGENT) programına katılırken, kontrol grubu standart okul öncesi eğitim programını sürdürmüştür. Çalışma, Mardin ili Artuklu ilçesinde yer alan bağımsız bir anaokulunda, amaçlı örnekleme yöntemiyle seçilen 60 ay ve üzeri toplam 44 çocuk (24 kız, 20 erkek) ile yürütülmüştür. HZ-COGENT programı, özgün COGENT çerçevesinin (Das ve ark., 2006) hikâye temelli unsurlar ve Diyalojik Okuma (DR) etkinlikleriyle zenginleştirilmiş bir uyarlamasını temsil etmektedir. Müdahale, sesbilgisel farkındalık ve yazı farkındalığına ilişkin görevleri içermekte olup, 12 hafta boyunca haftada iki oturum şeklinde uygulanmıştır. Kitap seçimi yapılırken resimleme kalitesi, dilsel yapı, yaş uygunluğu ve anlatı tutarlılığı gibi ölçütler dikkate alınmış; nihai seçim uzman görüşleri doğrultusunda belirlenmiştir (Ergül ve ark., 2016). Veri toplama araçları arasında Erken Okuryazarlık Testi (EROT) (Kargın ve ark., 2015), Erken Okuryazarlık Becerileri Değerlendirme Aracı'nın Yazı Farkındalığı (EOBDA-YF) ve Yazmaya Hazırlık Becerileri (EOBDA-YÖB) alt testleri (Karaman, 2013) ile araştırmacılar tarafından geliştirilen veli–öğretmen bilgi formları yer almaktadır. Uç değerler z-puanlarıyla değerlendirilmiş, verilerin normal dağılmaması nedeniyle parametrik olmayan istatistiksel teknikler uygulanmıştır. Gruplar içindeki ön test ve son test farklarını karşılaştırmak için Wilcoxon İşaretli Sıralar Testi kullanılmış ve anlamlılık düzeyi $p < .05$ olarak alınmıştır. G*Power yazılımı ile gerçekleştirilen güç analizi, örneklem büyüklüğünün yeterli olduğunu doğrulamıştır (Faul ve ark., 2009).

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)

Bulgular

Bulgular, deney ve kontrol gruplarının demografik olarak benzer özelliklere sahip olduğunu göstermiştir. Deney grubunda katılımcıların %63.6'sı kız, %36.4'ü erkek iken; kontrol grubunda %45.5'i kız, %54.5'i erkektir. Her iki gruptaki çocukların çoğunluğunu beş yaşındaki bireyler oluşturmaktadır. Her iki gruptaki öğretmenlerin mesleki deneyim düzeyleri birbirine benzer olup, erken okuryazarlık etkinlikleri haftada iki kez yürütülmüştür. Ebeveyn eğitim düzeyi ile evde okuma sıklığı arasında anlamlı bir ilişki belirlenmiştir ($\chi^2(12) = 32.307$, $p = 0.001$); eğitim düzeyi arttıkça evde okuma etkinliklerinin de arttığı gözlemlenmiştir. Son test karşılaştırmaları, deney grubunun tüm ölçülen alanlarda kontrol grubuna göre daha yüksek performans gösterdiğini ortaya koymuştur. Özellikle deney grubundaki çocuklar, kelime bilgisi, sesbilgisel farkındalık, harf bilgisi, dinlediğini anlama, EOBDA-YF ve EOBDA-YÖB alt testlerinde daha yüksek puanlar elde etmiştir. Wilcoxon İşaretli Sıralar Testi sonuçları, tüm alt boyutlarda anlamlı düzeyde gelişme olduğunu doğrulamıştır ($p < .05$). Bu sonuçlar, HZ-COGENT programının erken okuryazarlık gelişimini etkili biçimde desteklediğini ve özellikle sesbilgisel farkındalık, yazı farkındalığı ve kelime kazanımı becerilerini geliştirdiğini göstermektedir. Elde edilen veriler, yapılandırılmış ve hikâye temelli bilişsel gelişim müdahalelerinin okul öncesi eğitimdeki etkililiğini de doğrulamaktadır.

Sonuç ve Tartışma

Çalışmada, her iki gruptaki öğretmenlerin kişisel, mesleki ve sınıf özellikleri bakımından karşılaştırılabilir olması sağlanmıştır. Analizler ayrıca, ebeveynlerin eğitim düzeyi ile evde okuma etkinliklerinin sıklığı arasında pozitif bir ilişki bulunduğunu göstermiş; buna göre, eğitim düzeyi arttıkça evde okuryazarlık etkinliklerine katılımın da daha düzenli hâle geldiği belirlenmiştir. Wilcoxon İşaretli Sıralar Testi bulguları, deney grubundaki çocukların kelime bilgisi, sesbilgisel farkındalık, harf bilgisi, dinlediğini anlama, EOBDA-YF ve EOBDA-YÖB alt testlerinde istatistiksel olarak anlamlı düzeyde gelişme gösterdiğini ortaya koymuştur. Bu sonuç, HZ-COGENT programının okul öncesi çocukların erken okuryazarlık yeterliklerini geliştirmede etkili bir bilişsel müdahale aracı olduğunu doğrulamaktadır. Türkiye'deki araştırmaların büyük bir bölümü COGENT modelini belirli öğrenme güçlükleri yaşayan gruplarda uygulamışken, bu çalışma modelin tipik gelişim gösteren çocuklar üzerindeki etkililiğini de ortaya koymuştur. Uluslararası bulgular da benzer şekilde COGENT temelli programların sesbilgisel farkındalık, okuma akıcılığı ve anlama becerilerinde gelişim sağladığını göstermektedir. HZ-COGENT'in hikâye temelli bütünleşik yapısı, çocukların bilişsel işlemleme mekanizmalarını güçlendirerek erken okuryazarlığı bütüncül bir biçimde desteklemektedir. Ayrıca program kapsamında uygulanan Diyalojik Okuma (DR) etkinliklerinin kelime bilgisi, dinlediğini anlama ve yazı farkındalığı becerilerinde belirgin ilerlemeler sağladığı, bu yönüyle hem alıcı hem de ifade edici dil gelişimi açısından değerli katkılar sunduğu görülmüştür. Genel olarak, araştırma bulguları ulusal ve uluslararası literatürle örtüşmekte ve HZ-COGENT gibi hikâye temelli bilişsel eğitim programlarının okul öncesi dönemde erken okuryazarlık gelişimini desteklemede önemini vurgulamaktadır.

This study is licensed under Creative Commons Attribution-NonCommercial-NonDerivative (CC BY NC ND)