

Delving into Word and Print Awareness in 4-Year-Old Children

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ABSTRACT: *This research delves into the emergent literacy skills of preschool-aged children through a thorough examination using the Preschool Word and Print Awareness Examination (PWPA). A diverse sample of 45 typically developing children, aged between 3 years and 11 months to 5 years and 1 month, participated in the study. Rigorous screening criteria ensured a homogeneous and suitable sample for the emergent literacy enhancement program. The PWPA, aligned with Marie Clay's interactive literacy assessment paradigm, assessed children's word and print awareness through engaging exercises integrated into shared storybook reading routines. Results unveiled significant variability in individual and overall performance, providing nuanced insights into the developmental trajectories of emergent literacy skills. The study focused on two key components of the PWPA: Words in Print and Print Concepts, evaluated through carefully selected storybooks. Findings indicated challenges and strengths in children's ability to recognize written words and understand foundational print concepts, emphasizing the need for early intervention in addressing emerging literacy issues. The discussion highlighted potential applications of PWPA in literacy screening programs, individualized goal-setting, and intervention planning. This research contributes to the understanding of preschool children's emergent literacy skills, providing valuable insights for educators, speech-language pathologists, and researchers to foster proficient readers in early childhood.*

KEYWORDS: emergent literacy, preschool children, word awareness, print concepts, literacy assessment.

INTRODUCTION

The vast majority of children demonstrate high levels of emergent literacy comprehension by the time they reach the age of six. Fundamental prerequisites for reading are evident in the developing capabilities of preschoolers to recognize print within their surroundings,

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comprehend the structure and purpose of print, and grasp the correlation between spoken language and written text (Mason, 1980; Hiebert, 1981; Goodman, 1986; Dickinson & Snow, 1987). These abilities are essential for reading. When young children are getting ready to undertake conventional literacy education, the numerous emerging literacy abilities that they have acquired together form the framework for them.

According to the research that has been conducted (Mason, 1980; Snow, 1983; Teale & Sulzby, 1986; Dickinson & Snow, 1987; Adams, 1990; Chaney, 1992), the literature provides an overview of the essential emerging literacy abilities that serve as precursors for conventional literacy. The domains of print awareness, word awareness, and phonological awareness are among the most important.

According to Mason (1980), Hiebert (1981), and Goodman (1986), print awareness refers to the ability of youngsters to grasp the purpose and structure of print as well as the link between spoken and written language. According to Tunmer et al. (1983) and Bowey et al. (1984), individuals who have word awareness are able to recognize words as different aspects in both written and spoken language, as well as comprehend the link that exists between written and spoken words. The term "phonological awareness" refers to the capacity of young infants to recognize and manipulate the sounds that make up a language (Lundberg et al., 1988; Ball and Blachman, 1991; Ball, 1997). During the preschool years, it is common for children to acquire proficiency in all three dimensions in a manner that is both accidental and progressive.

Over the last several years, there has been a significant focus placed on the investigation of the development of phonological awareness in young infants. Word and print awareness, on the other hand, have received a relatively less amount of attention in the developmental literature. On the other hand, it is of the utmost importance to recognize the significance of these abilities, as longitudinal studies have shown that word and print awareness play critical roles in predicting later reading achievement and constitute essential components of the foundation of emergent literacy knowledge (Adams, 1990; Stuart, 1995).

Print Awareness and Print Concept

The development of print awareness or "print literacy" in preschoolers has been the subject of a number of studies (Mason, 1980; Hiebert, 1981; Snow, 1983; Goodman, 1986; van Kleeck and Schuele, 1987; Chaney, 1992). Print awareness serves as a comprehensive term encompassing children's early familiarity with print, much of which evolves well before formal reading instruction is introduced. Similar to the gradual acquisition of competencies in oral language, young children incrementally cultivate a more sophisticated comprehension of how print functions and its purpose (e.g., Adams, 1990; Goodman, 1984, 1986). While there is noticeable variability in the timing of these understandings among children, a significant number of youngsters enter kindergarten with a basic understanding of how print operates (Ferreiro & Teberosky, 1982; Goodman, 1986; Mason, 1980; Snow, Burns, & Griffin, 1998).

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Behaviors commonly observed in a child just entering kindergarten, indicative of achievements in print awareness, include: Reciting the alphabet, Naming several letters of the alphabet, Identifying letters in signs and logos in the environment, Distinguishing between uppercase and lowercase letters, Signing creative works with their own name, Identifying their own name from an array of words, Pretending to read favorite storybooks or their own writing, Using terms specific to print and writing (e.g., write, read, word, letter), Identifying the first letter in a word, Recognizing the space between two words, Tracking print from left to right and Showing interest in words in the environment.

This informal list draws inspiration from developmental expectations outlined by Snow et al. (1998) and various studies on children's development or performance in print-related tasks (e.g., Hiebert, 1981; Justice & Ezell, 2001; Lomax & McGee, 1987; Lonigan, Burgess, & Anthony, 2000; Mason, 1980). While not exhaustive, it represents a snapshot of behaviors reflecting young children's evolving print awareness. It remains unclear whether certain behaviors are more critical than others or if these achievements follow a specific developmental sequence. However, experts generally agree that one of the earliest print-awareness milestones is when children develop an interest in print and recognize its functional nature—its ability to convey meaning (Goodman, 1984; Justice & Ezell, 2004; Morrow, 1997). Building on this foundation, children gradually progress toward acquiring more specific, code-based knowledge about print, such as understanding the distinction between letters and words and learning the names of individual alphabet letters (Ferreiro & Teberosky, 1982; Goodman, 1984; Lomax & McGee, 1987; Mason, 1980). Thus, an interest in print, or print orientation, is considered a significant accomplishment in print awareness, signifying a child's recognition that print is a unique form of environmental stimulus carrying information distinct from others, such as photographs or illustrations.

Given the diverse range of accomplishments in print awareness, some researchers have attempted to categorize them into distinct domains of development:

(a) **learning the functions of print**, *Children's understanding of the function of print—acknowledging that print carries meaning—typically emerges early in life, particularly for children raised in homes rich in literacy experiences (e.g., Heath, 1983; Purcell-Gates, 1996; Sulzby, Teale, & Kamberelis, 1989; Teale, 1986; van Kleeck, 1990). This facet of print-awareness development entails children recognizing that print serves a specific purpose, primarily involving attributing meaning to print (e.g., understanding that a sign with print conveys information) at its most fundamental level (Justice & Ezell, 2004; Morrow, 1997).*

(b) **learning the conventions of print**, *that it is a systematic, rule-governed body of symbols (Chaney, 1994) and*

(c) **learning the forms of print** (Justice & Ezell, 2001; Morrow, 1997), *during the preschool years, many children achieve print-form accomplishments that involve distinguishing printed words from letters, differentiating between uppercase and lowercase letters, acquiring knowledge of some, if not all, alphabet letters by name, and even recognizing certain*

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punctuation units (e.g., Clay, 2005; Justice & Ezell, 2001; Snow et al., 1998; Treiman, Tincoff, & Richmond-Welty, 1997; Worden & Boettcher, 1990). These accomplishments unfold gradually, and even in the early elementary grades, students continue to learn more nuanced units of print, such as the use of quotation marks (Clay, 2005).

While these three domains are discussed separately, it is important to note a significant caveat—currently, it is unknown whether print awareness is a multidimensional construct encompassing various developmental domains or if it is a unidimensional construct where these diverse achievements represent facets of a single construct (Hiebert, 1981; Justice, Bowles, & Skibbe, 2006; Lomax & McGee, 1987; Lonigan, Bloomfield, Anthony, Bacon, Phillips, & Samuels, 1999). For the purposes of this discussion, we treat these three domains of achievement in print awareness as if they are distinct, although interconnected, constructs. It is essential to recognize that these distinctions are theoretically driven rather than empirically based at present.

METHOD

Research Purpose and Objectives

Purpose of the Study

The primary purpose of this study was to assess preschool children's word and print awareness using the Preschool Word and Print Awareness Examination (PWPA). The research aimed to investigate the emergent literacy skills of typically developing preschoolers, focusing on their ability to recognize and interpret written words (Words in Print) and their understanding of foundational print concepts such as letter-sound correspondence and print directionality (Print Concepts).

Research Objectives

1. To assess word awareness:
 - o Examine the ability of preschool children to recognize and interpret written words.
 - o Explore variations in performance across different word awareness tasks within the PWPA.
2. To evaluate print concepts:
 - o Assess preschoolers' understanding of foundational print concepts, including the front of the book, title identification, and left-to-right sequence of page reading.
 - o Investigate the variability in performance across different print awareness tasks within the PWPA.
3. To provide insights into developmental trajectories:
 - o Analyze and present comprehensive statistical information, including mean scores, standard deviations, and ranges, for each measure and task within the PWPA.
 - o Offer nuanced insights into the emergent literacy skills demonstrated by the participants, contributing to the understanding of their developmental trajectories.

Participants

A total of forty-five children participated in the Preschool Word and Print Awareness Examination (PWPA). The sample was diverse, comprising 27 female and 18 male children, ranging in age from 3 years and 11 months to 5 years and 1 month. On average, the children were 4 years and 6 months old, with a standard deviation of 4 months, reflecting a typical developmental range for their age group. These children were selected from four daycare institutions and kindergartens, representing a broad spectrum of backgrounds and experiences. Prior to their involvement in an emergent literacy enhancement program (Justice & Ezell, 2000, Justice & Ezell, 2001), each child underwent thorough assessment to ensure suitability for participation.

In order to qualify for participation, children underwent a rigorous screening process. This included a bilateral hearing screening, ensuring a minimum score of 25 dB at 500, 1000, 2000, and 4000 hertz to confirm auditory acuity. Additionally, fluency in Greek as their first language and primary language spoken at home was mandatory. Standard scores of 85 or higher on both the Peabody Picture Vocabulary Test (Dunn & Dunn, 1981) and the Expressive One-Word Picture Vocabulary Test (Gardner, 1990) were required to assess language proficiency. Moreover, children were required to have no documented history of speech-language, motor, or neurological dysfunction, as verified by parental questionnaires. The stringent criteria ensured a homogeneous and suitable sample for participation in the emergent literacy enhancement program. Detailed characteristics of the participants are presented in Table 1 for reference.

Study procedures

Assessments were conducted with careful consideration for the comfort and convenience of the participants and their families. Parents were given the option to choose the assessment venue, either in the familiar surroundings of their own homes or in a quiet section of the school. Following completion of eligibility procedures, the first author administered the PWPA to each child individually in sessions lasting approximately 25 minutes each. During the evaluation, children received no praise or comments but were permitted reinforcement for maintaining focus on the task as needed. To minimize potential interference, parents and educators were asked to remain in a separate room during evaluations. The assessment process spanned a duration of 8 weeks to accommodate all 45 participants, ensuring thorough and comprehensive evaluation of emergent literacy skills.

Table 1 Participant characteristics (n = 45)

Measure	Mean	SD	Range
Chronological age (months)	5 4	4	47–61
Receptive vocabulary	107	10.7	88–128
Expressive vocabulary	112	17.1	85–138

Note: Receptive vocabulary = standard score on Peabody Picture Vocabulary Test – Revised (Dunn & Dunn, 1981). Expressive vocabulary = standard score on Expressive One-Word Picture Vocabulary Test – Revised (Gardner, 1990).

The PWPA, aligned with Clay's (1985) interactive literacy assessment paradigm, prioritizes engagement between the examiner and the child. In this research, children participated in exercises integrated into a shared storybook reading routine. To initiate the PWPA activities, children were informed of the collaborative reading endeavor and their role in assisting with the reading process. Subsequently, each child completed a series of 26 tasks, with their performance meticulously assessed online. This approach not only encourages active participation but also fosters a sense of ownership and contribution to the reading experience. By incorporating interactive elements, the PWPA facilitates a dynamic assessment environment conducive to capturing emergent literacy skills effectively.

Materials

In addition to the recording apparatus, the assessment materials encompassed the Personalized Written Performance Assessment (PWPA), a meticulously crafted tool designed for the evaluation of emergent literacy skills. Utilizing a portable digital tape-recording system during evaluation sessions facilitated precise documentation of interactions and responses. This technological integration enabled a thorough analysis, ensuring the reliability of assessment data. The PWPA, tailored to each child's developmental level, presented standardized tasks for a personalized assessment experience. The amalgamation of audio-recording capabilities with the PWPA allowed researchers to capture both verbal and non-verbal cues, enriching the depth of assessment and bolstering the validity of findings.

Comprising two components, Words In Print and Print Concepts, the PWPA employs distinct tales to execute a sequence of actions for each measure. The assessment using *Spot Bakes a Cake* by Hill (1994) focuses on Words in Print, while *Our Good Granny Has Animals* by Tsekouras (2018) is used for the Print Concepts evaluation. The selection of these storybooks is grounded in several considerations. Both narratives exhibit a prominent narrative format, crucial for encouraging children to interact with and respond to written text. Additionally, they feature numerous examples of printed material integrated with visuals, allowing for the analysis of children's responsiveness to and engagement with contextualized written material. Moreover, the chosen novels boast expansive, vibrant graphics and captivating narratives, fostering children's active participation in the evaluation activities. Both components of the

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PWPA have found application in various studies (Ezell & Justice, 1998; Ezell & Justice, 2000; Ezell et al., 2000; Justice & Ezell, 2000, Justice & Ezell, 2001).

One of the authors conducted the PWPA assessments, and to ensure consistency in providing instructions, organizing activities, and delivering feedback throughout the task execution, the session recordings underwent scrutiny to evaluate adherence to established procedures. The second writer, acting as a research collaborator with proper training, randomly selected and evaluated twelve (26%) of the 45 tests to establish a fidelity score. Specifically, this collaborator examined the audio recordings of the assessment procedures and utilized a checklist to systematically assess the administrator's performance. The checklist focused on verifying that uniform instructions were given to all children, tasks were presented in the same sequence to every child, and that no child received any form of praise or feedback for their performance. The fidelity score was calculated by dividing the attained scores by the maximum possible points. The scores ranged from 96 to 100%, with an average score of 99%, indicating a high level of consistency in the administration of the examination to each child.

RESULTS

In this current review, forty-five typically developing preschoolers participated in the administration of the PWPA. The analysis of results commences with an initial examination of the children's performance on the Words in Print section of the PWPA, focusing on their ability to recognize and interpret written words. Subsequently, the performance of children in the Print Concepts section is delineated, elucidating their understanding of foundational print concepts such as letter-sound correspondence and print directionality. The study offers comprehensive statistical information, presenting mean scores, standard deviations, and ranges of results for each measure and task within the PWPA. This detailed analysis allows for a nuanced understanding of the emergent literacy skills demonstrated by the participants, providing valuable insights into their developmental trajectories and informing future educational interventions and assessments. By meticulously documenting and analyzing performance data, researchers can identify areas of strength and areas for improvement, ultimately enhancing the effectiveness of literacy instruction and support for preschool-aged children.

Words in print

The presented findings in Table 2 offer a detailed account of preschoolers' performance on the word awareness subtest of the Personalized Written Performance Assessment (PWPA). In this study involving 45 participants, the analysis reflects the children's responses to various tasks designed to assess their understanding of written words.

Across the spectrum of tasks, there is notable variability in the children's performance. When prompted to identify just one word on a page (Item 1), a mere 0.13% of the participants successfully accomplished this task, with only six children responding accurately. Similarly, tasks requiring the identification of specific words, such as the first (Item 4) and second (Item 5) words on a page, yielded success rates of 0.17% and 0.22%, respectively.

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In contrast, the children demonstrated a relatively higher level of proficiency in tasks involving the recognition of word sizes. Notably, 68% of the participants successfully identified 'little words' (Item 2), while 75% accurately pointed out 'big words' (Item 3) on a given page. However, when asked to identify the very last word on a page (Item 6), none of the participants successfully completed the task, resulting in a 0.00% success rate.

Tasks that involved counting the number of words in different contexts (Items 7, 8, and 9) demonstrated varying degrees of success, with percentages ranging from 0.22% to 0.33%. Notably, when asked to show the space between two words (Item 11), 35% of the children successfully completed the task. Additionally, when prompted to point to words as they were read (Item 12), 37% of the participants responded correctly, showcasing a moderate level of engagement and understanding during the reading process.

Table 2 Summary of children's performance on word awareness subtest of PWPA

(*n* = 45)

Item	(%)	Children responding correctly (<i>N</i>)
1) Show me just one word on this page.	0.13	6
2) Show me where the little words are on this page.	0.68	31
3) Show me where the big words are on this page.	0.75	34
4) Show me the first word on this page.	0.17	8
5) Show me the second word on this page.	0.22	10
6) Show me the very last word on this page.	0.00	0
7) How many words are on this sign? [there were 3 words]	0.22	10
8) How many words does the mouse say? [the mouse said 1 word]	0.33	15
9) How many words are on this page? [there were 5 words]	0.24	11
10) Show me the longest word.	0.40	18
11) Show me the space between two words.	0.35	16
12) Point to the words as I read.	0.37	17

The examination of children's performance in the Words in Print tests revealed significant challenges in differentiating between individual letters and words, as well as in identifying words within strings of text. The qualitative observations, when considered alongside quantitative measures, provided a comprehensive understanding of the children's grasp of written words. In the initial exercise, a mere six children successfully pinpointed a single word on the page through direct pointing. Conversely, a majority of children exhibited a tendency to either indicate a single letter or trace their fingers over all the words present on the paper, as observed qualitatively. Notably, on tasks that required determining the number of words within a group, fewer than half of the children answered correctly (tasks 7-9). Further observations revealed that those who answered inaccurately were often counting individual letters instead of recognizing and counting entire words. This pattern suggested a fundamental gap in the

Publication of the European Centre for Research Training and Development-UK children's comprehension regarding the distinction between the terms "letter" and "word." The observed difficulties in tasks involving word counting underscored a need for a more thorough conceptual understanding of written language, emphasizing the importance of targeted interventions to enhance this aspect of emergent literacy.

Print Concepts

The detailed examination of preschoolers' performance on the print awareness subtest of the Personalized Written Performance Assessment (PWPA), as presented in Table 3, provides valuable insights into their understanding of print concepts and the visual aspects of written language.

Remarkably, the participants demonstrated a high level of proficiency in tasks related to recognizing and understanding the front of the book (Item 1) and identifying the name of the book (Item 2), with success rates of 0.93% and 0.77%, respectively. This suggests a strong awareness of basic print conventions and the ability to associate printed elements with specific book features. When asked about the title of the book (Item 3), the participants displayed a moderate level of success, with 0.53% responding correctly. This task delves into a higher cognitive aspect of print awareness, requiring the children to interpret and associate the title with the visual representation, indicating a noteworthy level of conceptual understanding.

Tasks related to the directional aspects of reading, such as determining where to begin reading (Item 4) and the direction of reading (Item 5), showed varying degrees of success at 0.33% and 0.60%, respectively. While there is room for improvement, these findings suggest a foundational awareness of the left-to-right reading orientation, a crucial aspect of early literacy development. Items 6, 10, and 11c, which involved identifying characters, understanding the placement of words in relation to an object, and recognizing capital letters, respectively, demonstrated a lower level of success, indicating potential challenges in more complex print awareness tasks.

The participants exhibited proficiency in tasks related to page navigation, such as determining which page to read first (Item 7) and identifying the first and last lines on a page (Items 8 and 9). Success rates ranged from 0.55% to 0.77%, highlighting a general understanding of sequential reading and print organization. Notably, when prompted to identify specific letters or locate a word within the text (Items 11a, 11b, and 12), the children displayed a high level of success, with percentages ranging from 0.46% to 0.91%. These outcomes suggest a strong capacity for recognizing individual letters and specific words, contributing positively to their print awareness skills.

In summary, the findings from the print awareness subtest reveal a mix of strengths and areas for improvement. While the children demonstrated commendable proficiency in foundational print concepts, some challenges emerged in tasks requiring more advanced cognitive skills. These outcomes underscore the importance of targeted interventions to enhance specific

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 aspects of print awareness, fostering a well-rounded development of emergent literacy skills in
 preschool-aged children.

Table 3 Summary of children’s performance on print awareness subtest of PWPA (*n* = 45)

Item	(%)	Children responding correctly.
		(N)
1) Show me the front of the book.	0.93	42
2) Show me the name of the book.	0.77	35
3) What do you think it says [the title]?	0.53	24
4) Where do I begin to read?	0.33	15
5) Then which way do I read?	0.60	27
6) Show me where granny is talking.	0.26	12
7) Do I read this page (left) or this page (right) first?	0.77	35
8) Which line do I read first on this page?	0.71	32
9) Which line do I read last on this page?	0.55	25
10) Why are all these words in front of the sack?	0.26	12
11a) Show me just one letter on this page.	0.91	41
11b) Show me the first letter on this page.	0.46	21
11c) Show me a capital letter.	0.22	10
12) Where does it say “sugar”?	0.60	27

DISCUSSION

This article discussed an assessment on preschool children's word and print knowledge involving a group of 45 normally developing preschool children. The findings presented in this study shed light on the intricate landscape of preschoolers' word awareness and print concepts, revealing a nuanced understanding of early literacy development. The average accuracy in the Words in Print subtest of the Preschool Word and Print Awareness (PWPA) assessment indicates a notable challenge among the participating children, emphasizing the complexity of acquiring foundational literacy skills during the preschool years. This discussion aims to delve into the nuances of the observed variability, drawing implications for educational practices and future research.

Although these results provided valuable insights, they were essentially predictable due to the anticipated presence of substantial variation across children and tasks. Prior research has provided insight into crucial factors pertaining to young children in preschool and their acquisition of reading abilities. Individuals' comprehension of emergent literacy varies significantly, impacted by their experiences and developmental characteristics, as seen by Mason (1980), Goodman (1986), and Chaney (1994). Moreover, the progression of word and print understanding in young toddlers is well shown, as explained by Hiebert (1981) and Lomax & McGee (1987). According to Badian (2000), there is a certain order in which certain abilities should be learned. The capacity to recognize the size of words should be developed before being able to differentiate between upper-case and lower-case characters. Significantly, performance observations indicated that several young individuals easily developed elaborate,

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if inaccurate, metalinguistic assessments of the precise attributes of written language and the organization and intent of print.

The observed variability in preschoolers' word awareness and print concepts aligns with and extends the existing body of research on early literacy development. Numerous studies have explored the multifaceted nature of emergent literacy skills, emphasizing the diverse trajectories children follow as they navigate the complex landscape of written language acquisition.

The average accuracy rates and standard deviations in the Words in Print subtest highlight the considerable diversity in children's abilities, consistent with previous research that underscores individual differences in early literacy development. These findings echo studies emphasizing the impact of various factors such as socio-economic status, home literacy environment, and developmental traits on a child's emergent literacy skills (Mason, 1980; Goodman, 1986; Chaney, 1994).

The ability of preschoolers to differentiate between words of varying font sizes reflects a positive trend, consistent with research suggesting that children often first engage with the physical aspects of print before delving into more complex concepts (Badian, 2000). However, challenges in tasks requiring the identification of specific words or understanding spatial and sequential elements align with studies highlighting the gradual and uneven progression in children's comprehension of written language (Hiebert, 1981; Lomax & McGee, 1987).

The qualitative observations revealing difficulties in distinguishing between individual letters and words resonate with studies emphasizing the importance of developing a clear conceptual understanding of written language during early literacy experiences (Badian, 2000). Moreover, the confusion observed in tasks requiring the counting of words echoes previous research indicating that some children may struggle with fundamental distinctions between letters and words (Hiebert, 1981).

The Print Concepts subtest's findings further contribute to the broader discourse on emergent literacy. The observed proficiency in tasks related to recognizing the front of the book and the book's title aligns with studies emphasizing the role of visual cues and environmental print in early literacy development (Badian, 2000). However, challenges in tasks related to understanding the left-to-right sequence of page reading and differentiating capital letters highlight specific areas where preschoolers may require targeted support, consistent with prior research (Lomax & McGee, 1987).

Considering the implications of these findings in the context of broader research, it becomes evident that a holistic understanding of emergent literacy encompasses a range of skills that develop at varying rates among preschoolers. Acknowledging this variability and tailoring interventions to address specific challenges aligns with the recommendations of researchers advocating for individualized approaches to early literacy instruction (Badian, 2000).

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In conclusion, the present study's findings contribute to the ongoing dialogue surrounding early literacy development, emphasizing the importance of recognizing and addressing the diverse pathways children take in acquiring foundational skills. By contextualizing these results within the broader literature, we gain a deeper appreciation for the complexities inherent in the early stages of literacy acquisition and the need for nuanced educational strategies that accommodate the varied needs of young learners.

REFERENCES

- Adams, M. (1990). *Beginning To Read: Thinking and Learning about Print*. Cambridge, MA: MIT Press.
- Badian, N. (2000). Do preschool orthographic skills contribute to prevention of reading? In N. Badian, *Prediction and prevention of reading failure*. Timonium, MD: York Press.
- Ball, E. W., & Blachman, B. (1991). Does phoneme awareness training in kindergarten make a difference in early word recognition and developmental spelling? *Reading Research Quarterly*, 26(1), 49-66.
- Ball, E. W. (1997). Phonological awareness: Implications for whole language and emergent literacy programs. *Topics in Language Disorders*, 17(3), 14–26.
- Bowey, J. A., Tunmer, W. E. and Pratt, C. (1984). Development of children's understanding of the metalinguistic term 'word'. *Journal of Experimental Psychology* 76, 500-512.
- Chaney, C. (1992). Language development, metalinguistic awareness, and emergent literacy skills of 3-year-old children in relation to social class. *Applied Psycholinguistics*, 13(4), 485-514.
- Chaney, C. (1994). Language Development, Metalinguistic Awareness and Emergent Literacy Skills of 3 Years-Old Children in Relation to Social Class. *Applied Psycholinguistics*, 15, pp. 371-394. doi:<https://doi.org/10.1017/S0142716400004501>
- Clay, M. M. (1985). *The Early Detection of Reading Difficulties* (Third Edition ed.). Portsmouth: Heinemann Educational Books Inc.
- Clay, M. M. (2005). *Literacy Lessons Designed for Individuals: Part Two Teaching Procedures*. Heinemann.
- Dickinson, D. K., & Snow, C. E. (1987). Interrelationships among prereading and oral language skills in kindergartners from two social classes. *Early Childhood Research Quarterly*, 2(1), 1-25.
- Dunn, L., & Dunn, L. (1981). *Peabody Picture Vocabulary Test-Revised*. Circle Pines, MN: American Guidance Service, Inc.
- Ezell, H., & Justice, L. (1998, October 1). A pilot investigation of parents' questions about print and pictures to preschoolers with language delay. *Child Language Teaching and Therapy*(14), pp. 273-278.
- 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), pp. 36-47.
- Ezell, H. K., Justice, L. M., & Parsons, D. (2000). Enhancing the emergent literacy skills of pre-schoolers with communication disorders: a pilot investigation. *Child Language Teaching and Therapy*, 16, pp. 121-140.
- Ferreiro, E., & Teberosky, A. (1982). *Literacy Before Schooling*. Heinemann.

Publication of the European Centre for Research Training and Development-UK

- Flynn, J. (2000). Prediction and Prevention of Reading Failure. In Badian (Ed.), *Preschool Prediction and Prevention of Reading Failure* (pp. 133-153). York Press.
- Gardner, M. F. (1990). *EOWPVT-R : expressive one-word picture vocabulary test, revised*. Austin, Tex: Academic Therapy Publications.
- Goodman, K. S. (1984). Reading: A psycholinguistic guessing game. *Journal of the Reading Specialist*, 23(6), 393-403.
- Goodman, Y. (1986). Children coming to know literacy. In W. Teale, & E. Sulzby, *Emergent literacy*. Norwood, NJ: Ablex.
- Heath, S. B. (1983). *Ways with Words: Language, Life, and Work in Communities and Classrooms*. Cambridge University Press.
- Hiebert, E. H. (1981). An examination of the relationship between word naming and text comprehension. *Reading Research Quarterly*, 16(4), 509-529.
- Hiebert, E. H. (1981). Developmental Patterns and Interrelationships of Preschool Children's Print Awareness. *Reading Research Quarterly*, 16, pp. 236-260.
- Hill, E. (1994). *Spot Bakes a Cake*. Penguin Random House Children's UK.
- Justice, L. M., & Ezell, H. K. (2000, August). Enhancing Children's Print and Word Awareness Through Home-Based Parent Intervention. *American Journal of Speech-Language Pathology*, 9(3), pp. 257-269.
- Justice, L. M., & Ezell, H. K. (2001). Word and print awareness in 4-year-old children. *Child Language Teaching and Therapy*, 17(3), 207-225.
- Justice, L. M., & Ezell, H. K. (2004). Print referencing: An emergent literacy enhancement strategy and its clinical applications. *Language, Speech, and Hearing Services in Schools*, 35(2), 185-193.
- Justice, L. M., Bowles, R. P., & Skibbe, L. E. (2006). Measuring preschool attainment of print-concept knowledge: A study of typical and at-risk 3-to 5-year-old children. *Communication Disorders Quarterly*, 27(3), 177-188.
- Lomax, R. G., & McGee, L. M. (1987, September). Young Children's Concepts about Print and Reading: Toward a Model of Word Reading Acquisition. *Reading Research Quarterly*, 22(2), pp. 237-256.
- Lonigan, C. J., Bloomfield, B. G., Anthony, J. L., Bacon, K. D., Phillips, B. M., & Samuels, S. J. (1999). Relations among emergent literacy skills, behavior problems, and social competence in preschool children from low-and middle-income backgrounds. *Topics in Early Childhood Special Education*, 19(1), 40-53.
- Lonigan, C. J., Burgess, S. R., & Anthony, J. L. (2000). Development of emergent literacy and early reading skills in preschool children: Evidence from a latent-variable longitudinal study. *Developmental Psychology*, 36(5), 596-613.
- Lundberg, I., Frost, J., & Petersen, O. P. (1988). Effects of an extensive program for stimulating phonological awareness in preschool children. *Reading Research Quarterly*, 23(3), 263-284.
- Mason, J. M. (1980). When Do Children Begin to Read: An Exploration of Four Year Old Children's Letter and Word Reading Competencies. *Reading Research Quarterly*, 15(2), pp. 203-227.
- Morrow, L. M. (1997). *Literacy development in the early years: Helping children read and write*. Allyn & Bacon.

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- Purcell-Gates, V. (1996). Stories, coupons, and the TV guide: Relationships between home literacy experiences and emergent literacy knowledge. *Reading Research Quarterly*, 31(4), 406-428.
- Snow, C. E. (1983). Literacy and language: Relationships during the preschool years. *Harvard Educational Review*, 53(2), 165-189.
- Snow, C., Burns, M., & Griffin, P. (1998). Preventing reading difficulties in young children. Washington, DC: National Academy Press.
- Stuart, M. (1995). Phonological Awareness: Knowledge and Skills. In M. Snowling & C. Hulme (Eds.), *The Science of Reading: A Handbook* (pp. 153-169). Blackwell.
- Sulzby, E., Teale, W. H., & Kamberelis, G. (1989). Emergent writing in the classroom: Home and school connections. In D. Strickland & L. Morrow (Eds.), *Emerging literacy: Young children learn to read and write* (pp. 63-79). Newark, DE: International Reading Association
- Teale, W. H., & Sulzby, E. (1986). Emergent literacy as a perspective for examining how young children become readers and writers. In W. H. Teale & E. Sulzby (Eds.), *Emergent literacy: Writing and reading* (pp.vii-xxv). Norwood, NJ:Ablex Publishing.
- Teale, W. H. (1986). Home background and young children's literacy development. In W. H. Teale & E. Sulzby (Eds.), *Emergent Literacy: Writing and Reading* (pp. 173-206). Ablex.
- Treiman, R., Tincoff, R., & Richmond-Welty, E. D. (1997). Letter names and the beginnings of literacy. *Journal of Experimental Child Psychology*, 64(2), 150-174.
- Tsekouras, T. (2018). *Our good granny has animals*. Key Books.
- van Kleeck, A., & Schuele, M. (1987). Precursors to literacy: Normal development. *Topics in Language Disorders*, 7(2), 13–31
- van Kleeck, A. (1990). Emergent literacy: Learning about print before learning to read. *Topics in Language Disorders*, 10(2), 25–45.
- Worden, P. E., & Boettcher, W. (1990). Young children's acquisition of alphabet knowledge. *Journal of Reading. Behavior*, 22, 277-295.