

St. Cloud State University

The Repository at St. Cloud State

Culminating Projects in Child and Family
Studies

Department of Child and Family Studies

5-2023

THE IMPACT OF READING TO CHILDREN BIRTH THROUGH FIVE AND THE EFFECTS ON COGNITIVE AND LANGUAGE DEVELOPMENT

Brittney Sundberg

Follow this and additional works at: https://repository.stcloudstate.edu/cfs_etds

Recommended Citation

Sundberg, Brittney, "THE IMPACT OF READING TO CHILDREN BIRTH THROUGH FIVE AND THE EFFECTS ON COGNITIVE AND LANGUAGE DEVELOPMENT" (2023). *Culminating Projects in Child and Family Studies*. 47.

https://repository.stcloudstate.edu/cfs_etds/47

This Starred Paper is brought to you for free and open access by the Department of Child and Family Studies at The Repository at St. Cloud State. It has been accepted for inclusion in Culminating Projects in Child and Family Studies by an authorized administrator of The Repository at St. Cloud State. For more information, please contact tdsteman@stcloudstate.edu.

**The Impact of Reading to Children Birth through Five And The Effects On Cognitive And
Language Development**

By

Brittney Sundberg

A Starred Paper

Submitted to the Graduate Faculty

of

St. Cloud State University

In Partial Fulfillment

of the Requirements for the Degree

Master's in

Early Childhood Special Education

May 2023

Starred Paper Committee:
Frances Kayona, Chairperson
Ana Welu
Brittney Sullivan

Table of Contents

| Chapter | Page |
|--|------|
| 1. Introduction..... | 4 |
| Background Information..... | 5 |
| Importance of this Study..... | 6 |
| Research Questions..... | 7 |
| Literature Description..... | 8 |
| Definitions..... | 8 |
| 2. Literature Review..... | 11 |
| Cognitive Development..... | 11 |
| Literacy Development..... | 12 |
| Language Development..... | 12 |
| Phonological Awareness..... | 14 |
| Expressive and Receptive Language..... | 15 |
| Strategies and Interventions in Early Childhood Reading..... | 16 |
| Strategies in Early Childhood Reading..... | 16 |
| Interventions in Early Childhood Reading..... | 19 |
| Parent Involvement in Early Childhood Reading at Home..... | 21 |
| Challenges Parents Face When Reading to Children..... | 23 |
| Negative Child-feedback..... | 23 |
| Socio-economic Status..... | 24 |
| Availability of Books..... | 25 |
| Level of Education Parents Completed..... | 25 |

| Chapter | Page |
|---|------|
| Lasting Impact | 26 |
| Literature Review Summary | 27 |
| 3. Results..... | 28 |
| Conclusion | 28 |
| Discussion and Reflection..... | 32 |
| Recommendations for Further Research..... | 32 |
| Recommendations for Practice | 34 |
| References..... | 35 |

Chapter 1: Introduction

According to the Department of Education and Early Childhood Development and the Melbourne Institute of Applied Economic and Social Research, regardless of the family background and home setting, the frequency of reading to children at an early age has a direct effect on their academic performance (Kalb & van Ours, 2022). One of the most crucial activities for helping a child acquire the knowledge necessary for success in reading, according to research, is reading to them (Kalb & van Ours, 2013). Children who are read to more frequently at an early age enter school with larger vocabularies and more advanced comprehension skills (Mol & Bus, 2011). If youngsters are read to regularly as they grow, their communication and reading abilities will improve (Collier, 2019). In a 2004 study conducted by Kuo et al. (2004), 2,000 children aged between four and thirty-five months in the United States, only seventy percent of infants aged four to nine months were read to regularly, twenty-one percent were read to one or two times a week and nine percent were never read to.

Children's attention span gradually lengthens as they force themselves to listen a little bit longer when they become engrossed in the specifics of a story (Mcilroy, 2022). Young children whose caregivers read them five books a day enter kindergarten having heard approximately 1.4 million more words than children who had never been read to (Grabmeier, 2019). Research has found that children growing up in homes with many books receive three years more schooling than children from bookless homes (Evans et al., 2010). As cited in Torgeson (2014), children who are poor readers at the end of first grade almost never acquire average level reading skills by the end of elementary school.

Research has found that reading books to children is one of the most important activities for developing the knowledge required for ultimate success in language growth, emergent

literacy and reading achievement (Bus & Van Ijzendoorn, 1995). The American Academy of Pediatrics (2021), stated that speech and language development is at its peak throughout the first three years of life. Regularly engaging in conversation, singing, and reading with young children from birth improves brain growth. Reading aloud to children can encourage their interest in books and give caregivers a natural setting to teach children about books, print, and reading (Lewis et al., 2015). Reading one book a day to a child will increase the words they hear by 290,000 by age five compared to children who do not regularly read books with a parent or caregiver (Grabmeier, 2019). In addition, reading to children stimulates cognitive skills and encourages the child to read for themselves (Canoy et al., 2006). Shared reading with young children has a positive impact, from the development of language and literacy skills to the emotional relationship between parent and child (Bus & Van Ijzendoorn, 1995).

As Hart and Risley (1995) documented in their book, *Meaningful Differences in the Everyday Experience of Young American Children*, from birth to age three, there is a difference in the number of words and language that less advantaged children hear compared to their peers from a higher socioeconomic background. The discrepancy can lead to developmental delays and be a predictor to a more challenging path to literacy. Regular reading time with young children promotes healthy brain development patterns and develops parent-child bonds at a crucial stage in a child's development, which in turn helps children develop lifelong language, literacy, and social-emotional skills (American Academy of Pediatrics, 2021).

Background Information

Every child develops at a different pace. When it comes to child development, there are stages or milestones that children go through as they grow. According to the Centers for Disease Control and Prevention (CDC), milestones cover four areas of a child's development: cognitive,

communication and language, social emotional, and motor. Milestones assist families in understanding what is age-appropriate for their developing child. The timing of which children reach these developmental milestones may be influenced by genetics, gender, preterm birth, and environmental factors (Matsubara et al., 2022).

In this research project, the focus is on reading to children and the effects on two of the four areas of development, cognitive and language development. Cognitive development describes how a child's brain develops, and includes skills such as thinking, learning, exploring and problem solving (Help Me Grow MN, 2022). The *Encyclopedia of Children's Health* defines language development as the process by which children come to understand and communicate language during early childhood. Reading to children has benefits to language and cognitive development from an early age. Reading assists in the child's school readiness and later academic success. It has been found that children who struggle with reading in fourth grade struggled with essential phonological skills in kindergarten and first grade (Torgesen, 2014).

Importance of this study

Educators understand it is important to read to children. Parents and caregivers do not always realize the impact reading has on a child's cognitive development and if children are not being read to at home, they are missing out on important language skills that are key to development. Reading to children has many benefits including an increase in literacy skills, language development, social and cognitive development, ability to focus, imagination, a child's well-being, mental health, and child-parent relationships (Collier, 2019; Kalb & van Ours, 2013). This research summarizes the importance of reading to children and the impact on their language and cognitive development. Therefore, the overarching purpose of this study was to research the

effects reading to children, birth to age five, has on children's language and cognitive development.

The main goal of this project was to research, gather information, and share the importance of reading to children. Approximately one-fourth of children in a national sample were never read to and another fourth were seldom read to weekly (Grabmeier, 2019). This underlines a need to better understand the strategies and interventions available to early childhood educators and families that facilitate a home culture where parents actively and frequently read to children. When reading is not being shared in the home there are strategies on training caregivers to promote reading to children (Cardenas, 2022).

This project entailed reading scientific research articles and papers that discuss the various cognitive and language benefits of reading with children between the ages of birth to age five. The most discussed benefits to reading to children include the increase in vocabulary (language development), parent-child bonding (parent involvement), literacy boosts, and an increase in overall academic success (Crosby et al., 2014; Towell et al., 2019). Students who are not reaching grade level proficiency by third grade often falter in the later grades and drop out before earning a high school diploma (Hernandez, 2011). Research suggests that there are other less well known benefits such as the increase in a child's imagination, a child's attention span, and the child's ability to focus (Preece & Levy, 2018).

Research Questions

1. What are the effects of reading to children birth to age five on their cognitive and their communication and language development?
2. What are the interventions and strategies available to educators and families to support an environment that encourages parents to read to their young children birth to age five?

3. What is the lasting impact of the effects from reading to children from an early age through early middle school?

Literature Description

This review of literature has been heavily cited with numerous journals, authors, and universities that have conducted research based on the importance of reading to children. The Victorian Department of Education and Early Childhood Development (DEECD), the University of Melbourne (Australia), and the Longitudinal Study of Australian Children (LSAC) is a nationally representative longitudinal study on children developing in Australia. The impact of reading to children impacts child development and these journals, authors, and universities that focus on child development are most significant to this topic.

Peer-reviewed academic journals that cover research in the field of child literacy, including the history, development and teaching of literacy that were used in this review of literature include the Journal of Early Childhood Literacy, Early Childhood Education Journal, the Journal of Developmental and Behavioral Pediatrics, and the Journal of Applied Developmental Psychology. The American Educational Research Association (AERA) is a professional organization representing education researchers in the United States and around the world. AERA's mission is to advance knowledge about education and promote the use of research in educational practice. Some significant authors and researchers that repeatedly appeared in articles during this research project includes: Adriana G. Bus, Marinus H. van Ijzendoorn and Anthony D. Pellegrini.

Definitions

In the context of this review of literature, the terms *parents* and *caregivers* are used interchangeably. An individual who cares for a child daily and who serves as the child's "parent,"

regardless of whether they are the child's biological parents, is referred to as a caregiver (*Parents and caregivers: Better Care Network*, n.d.)

Parent involvement: the involvement of a parent in an activity with their child that focuses on improving academic achievement outside of the school day (Nye et al., 2006)

Literacy skills: the process of learning words, sounds, and language (*Maryville University*, 2022)

Early literacy: the understanding of reading and writing that a child has prior to actually learning those skills (Dennis & Horn, 2011)

Emergent literacy skills: knowledge that children develop before receiving formal instruction in reading and writing in school (Duursma et al., 2008)

Language skills: the ability to communicate in English vocally or in writing (HarperCollins, November 22, 2022)

Receptive language: ability to understand spoken words that have been either heard or read, is the "input" of language (Vollmer, 2020)

Expressive language: the "output" of language, expressive language refers to the capacity to communicate needs and wishes either verbally or nonverbally. It is the capacity to translate ideas into clear, grammatically accurate words and sentences (Vollmer, 2020)

Unvoiced: "Unvoiced or voiceless sounds are weak, and the vocal cords do not vibrate" (Garforth Education, p. 3)

Voiced: "a voiced sound is a strong sound in which the vocal cords vibrate" (Garforth Education, p. 2)

Decontextualized language: the use of language where there is an assumption of no shared background knowledge (Duursma et al., 2008)

Non-immediate talk: particularly beneficial in that it encourages children to draw conclusions and predictions from relevant world knowledge (Baker et al., 2001)

Shared book reading: encompasses practices that adults can use when reading with young children to enhance language and literacy skills (*Shared book reading early childhood education*, n.d.)

Typical development: children tend to acquire skills in an orderly fashion and within certain age ranges meaning the child is a typical developing child (*Child development*, n.d.)

Phonemic awareness: the ability to deliberately control speech sounds, including the specific speech sounds contained within spoken syllables (Moats & Tolman, 2019)

Phonological awareness: the ability to identify, count, and manipulate the parts of words, including syllabus, onsets and rimes, and phonemes (Moats & Tolman, 2019)

Cognitive Development: refers to the ways thinking develops as a child grows (Taylor, 2005)

Chapter 2: Literature Review

This Starred Paper review focuses on the effects of reading to children birth to age five and their language and cognitive development. This paper also explores a question around the lasting impacts or effects of reading to infants and toddlers on their elementary grade school academic achievement. Children need the proper guidance and support when it comes to reading. Children rely on caregivers or educators to assist with story time. Educators and caregivers play major roles in the educational success of their students. To succeed in school, students need a support, motivation, and need to receive quality instruction (Đurišić & Bunijevac, 2017). Getting students off to a successful start in reading is important for later academic development (Crosby et al., 2014). The outcomes from this paper will present the importance of reading to children and the impact reading has on a child's language and cognitive development.

Cognitive Development

Cognitive development refers to the ways thinking develops with age (Taylor, 2005). From birth to age five, Help Me Grow Minnesota (n.d.) and other organizations provide resources on developmental milestones for each month related to where a child should be cognitively as they grow. For example, at one month of age, a child should be able to watch objects and faces briefly and follow a moving object or objects with eyes. At six months of age, a child should be able to use hands and mouth to explore the world, transfer objects from hand to hand, attempts to get objects that are out of reach, and look around at objects.

Reading to children between ages four to five every day has a significant increase on their reading skills and cognitive skills later in life (Crosby et al., 2014). According to Kalb and van Ours (2013), reading three to five days per week to four- and five-year olds increases their literacy skills by six months. Reading to children six to seven days per week increases their

literacy skills by approximately twelve months. Children who were read to more frequently at ages four and five achieved higher scores on standardized tests for both reading and math at age eight to nine (Crosby et al., 2014).

Literacy Development

The process of learning words, sounds, and language is known as literacy development (Maryville University, 2022). Building linguistic abilities in young children, such as vocabulary, verbal expression, and reading comprehension, is a crucial part of literacy development. Children learn to read at their own pace as it is a difficult skill to acquire (Maryville University, 2022). A young child's developing literacy abilities improve through exposure (Mendelsohn & Klass, 2018). Reading to a child is a perfect opportunity to expose a child to the sounds, words, and language. Children are learning to recognize the letters and recognize that print is a representation of spoken words during shared reading times (Duursma et al., 2008). When a child is read to, he or she is exposed to the way a book is held, the directionality of reading, turning pages, and understanding that there is a beginning, middle, and end of books (Duursma et al., 2008). Whether in a doctor's waiting room, on a bench at the playground, during story hour at the local library, or while doing laundry at the local laundromat, reading aloud is a simple and effective way for caregivers to support their children's literacy development (Towell et al., 2019). All moments of book sharing count towards a child's emergent literacy and reading achievements (Bus et al., 1995).

Language Development

A significant amount of research has been conducted on language development, and the connections between early exposure to adult language and children's linguistic abilities up until the beginning of elementary school (Cardenas et al., 2020; Gilkerson et al., 2018; Mendelsohn &

Klass, 2018). Shared book reading with children benefits language development (Cárdenas, 2020). Interacting with adults, peers, caregivers and others in proximity, children begin to form their own ideas of word meaning and language (Heroman & Jones, 2010). Shared book reading also demonstrates that hearing literature read aloud can affect a child's interest in reading and the quality of a child's language development and ability to converse (McCormick, 1976). Children learn how to express their intentions, interpret the intentions of others, and take turns as they accumulate new information through conversations (Chouinard & Clark, 2003). Reading is a time to guide children through conversation skills and language skills.

The Word Gap Study (Logan et al., 2019) found that if children are not being read to prior to the start of school, they are missing out on nearly one million words. Children that are not being read to are missing out on an opportunity of word exposure and a significant gain in their vocabulary development. Success in reading is a steppingstone to success in other academic areas as well (Jordan et al., 2000).

Evidence points to the likelihood that children with delayed or poor language skills will also have trouble reading and writing (Catts et al., 2006). The more a child is presented with the opportunity to communicate using their language the more the child will make sense of words. Paul and Russo (n.d.) provided a tip to their readers: react if a child makes a noise, even if it doesn't make sense, communication is happening. This provides a child with a positive interaction and encourages children to communicate. When looking at the home environment, the amount of communication that is happening is crucial because the exposure to adult words between the ages of ten and thirty-six months has a strong predictor of a child's intelligence quotient (IQ) at the age of three (Hart & Risley, 1992).

Reading aloud has been shown to increase the amount and content of children's conversations, increase their vocabulary, and their reading comprehension skills (McCormick, 1976; Cárdenas, 2020). Reading exposes a child to a language distinct from conversational speech. A child is accustomed to the language of literature if raised in a positive reading environment from a young age (Moats & Tolman, 2019). Reading aloud to children develops crucial communication skills including phonological awareness, speech fluency, and links to prior information, which combined are the foundation for language understanding and vocabulary expansion (Suarez et al., 2018).

The pauses between pages and after the book is closed is an opportunity in language development (Duursma et al., 2008). These are moments where decontextualized language and non-immediate talk has been beneficial in the enhancement of a child's language skills. By establishing connections to the outside environment, non-immediate communication has been shown to be highly helpful for language development.

When parents engage their children in book discussions it provides children an opportunity to understand and use more challenging words needed to make predictions, describe characters, and talk about the characters' feelings. Children's early language and early literacy benefit more from engaging the child in an active manner during book reading than by just reading the text. (Duursma et al., 2008, p. 5)

Phonological Awareness

Book reading exposes children to the written language, story structure, syntax, grammar, phonemes, which all promote a child's phonological awareness (Duursma et al., 2008).

Phonemes are squished together in words almost as if the sounds blend into one another making it difficult for children to separate. A phoneme can be voiced, or spoken with the voice box

turned on, or a phoneme can be unvoiced. Unvoiced are spoken with the voice box shut off (Moats, 2019). When speaking to a child, speech needs to be clear and spoken slowly. Instead of asking a child to repeat the word, model the words back emphasizing the sound in error correctly (e.g., a child says, “I want the big tar”, respond with, “You want the big car?”)

Expressive and Receptive Language

In a recent meta-analysis, Dowdall et al. (2020) indicated that book-sharing interventions have a minor but beneficial impact on how well children develop their expressive and receptive languages. The capacity to request items, make decisions, pose questions, get answers, and describe occurrences is known as expressive language (Wallace, 2020). “Receptive language is the understanding of information provided in a variety of ways such as sounds and words, movement and gestures, and signs and symbols” (Wallace, p. 3). When a child is being read to, both expressive and receptive language are being exposed.

A recent study explored classrooms with shared book-reading with infants up to eighteen months old by focusing on changes in their development.

Children become able to communicate with their teacher very early through shared reading interactions with books, even when they are still in a developmental stage at which language is only just beginning to emerge. Communication occurs based on several sign systems such as gestures and uses of the book, as well as smiles and gazes that strengthen the connection between the child and adult. (Cárdenas, 2020, p. 16)

When language is just beginning to emerge, reading also broadens children's vocabularies and later extends the number of sentences a child can construct (Hammett et al., 2003). Shared reading opportunities benefits a child’s vocabulary, communication skills, language

development, and cognitive development but this next section provides guidance on ways to be creative to keep children interested and invested in their reading.

Strategies and Interventions in Early Childhood Reading

According to *Strategy vs. Intervention* (2014), the term strategy can be used interchangeably with the word intervention however these two terms are not the same. Strategies are successful informal educational techniques that educators informally present to children. For example, there are some tools that work for some learners but not for others, therefore educators select from a variety of options. Interventions are somewhat different. Interventions are a formalized systematic collection of well-researched or evidence-based procedures that are aimed at a known need (Kochar, 2021), and entails a formal process for monitoring (*Strategy vs. Intervention*, 2014). Since shared book reading seems to be an effective intervention for improving cognitive and language development, specific shared book reading interventions and strategies have been used to train parents on how to promote reading with children (Mcilroy, 2022).

Strategies in Early Childhood Reading

Strategies are important tools that caregivers and educator can reference when reading to children. These strategies include reader's changing their voice, using gestures and prompts, questioning, print referencing, dialogic reading, rhyming, allowing affective interactions to take place while reading, and the ability to be patient with a child (Zimmer, 2022; Cárdenas et al., 2020; Mcilroy, 2022; Dennis and Horn, 2011). Some of these seem to be common knowledge but educators are educating parents about these strategies daily.

One strategy that is useful to help children stay involved or interested in the story is to change or maintain the highs and lows of the reader's voice at the same parts of the story every

time, doing so can assist in the child beginning to memorize the words (Zimmer, 2022). While reading stories to children, caregivers can engage children by using a variety of communication signs including gestures and affective interactions (Cárdenas et al., 2020). Create the gestures with the children and coordinate the gestures to be repetitive during the story helps the child stays attentive. Children are thinking while listening to stories, these moments provide an ideal opportunity to question children and sharpen their cognitive abilities (Mcilroy, 2022). If a child is trying to eat the book or running around the room while a caregiver is reading aloud the benefits of reading aloud continue to be the same (Marcin, 2020). Caregivers and educators can continue to read the story, even when it seems like a child may not be attending.

Maryville University (2022), stated rhyming is an excellent approach to capture and hold a young child's attention, whether it be through the recitation of nursery rhymes or the creation of original rhymes in casual discussions. Repeat the sounds that the child makes or ask children to repeat the sounds they hear. Narrating walks or car trips and asking the child to repeat the sounds of the objects seen are a few strategies to use that stimulates reading comprehension. When reading, pause occasionally and ask the child what will happen next. Invite the youngster to play out the story and relate the action to experiences in their own lives.

Dennis and Horn (2011), encourage using specific prompts while book reading to transform a typical book reading session into a conversation between adults and children. Completion prompts are used after a child has been exposed to a book more than one time and opportunities for repetition of words or phrases are available. Recall prompts involve asking the children to remember specific pieces of the story. Open-ended prompts are questions that allow the children to respond with their own ideas, challenging children to go beyond just a simple yes or no to a more complex, detailed thought. Distancing prompts require making a connection to

children's background experiences. These strategies allow children to practice active listening and then responding to what he or she says, exposing the child to a variety of vocabulary words (McPherson, 2019).

Print referencing is a strategy that highlights the presence of print inside a story (Justice et al., 2003). This strategy would encourage the reader to point out the words and print on the page while reading. The premise behind print reference is that more focus on print will result in children noticing and understanding text more rapidly (Dennis & Horn, 2011). Often, children do not notice the differences in the print unless it is directly pointed out to them (Justice et al., 2003).

A strategy to assist with reading to children is called dialogic reading which is a method of reading that involves including the young reader in the story. Dialogic book reading interventions that have been developed are to follow the child's lead and interest (Vygotsky et al., 1978). All children, including those with disabilities and those from linguistically and culturally diverse backgrounds, can participate in and feel included in a book reading session by being encouraged to communicate (Dennis et al., 2011). Strategies that involve interactive shared reading (such as dialogic reading) encourage the adult to respond to the child and expose the child to language that is slightly more advanced than their current language proficiency (Noble et al., 2020).

In a study by Colmar (2013), the caregivers' capacity to learn and successfully use a set of simple new strategies of pausing, listening, and interacting confirms the importance of direct involvement in child learning. During these times, a caregiver encourages child initiations and child-led conversations. Open-ended questions give the child more chances to react verbally and to start a conversation about a subject of their choice. Implementing the pausing and open

questioning in everyday conversation provided for more conversations, as well as engaging regularly in book reading. Colmar also recommended making book reading a child-centered activity rather than an activity that adults regulate. Caregivers and educators presenting positive book reading attitudes influence a child's perception on literacy (Marcin, 2020).

According to Justice and Pullen (2003), books should be chosen with the specific needs of each child in mind and reading sessions should have minimal distractions with a few reminders for children. Beyond just listening to a story, the interactions that take place during story time are an excellent opportunity for all children, regardless of ability or background, to learn language. The pauses between pages and after the book is closed is an opportunity to expose children to vocabulary which increases language development (Duursma et al., 2008).

Strategies are important tools that are easily accessible that caregivers and educators can reference when reading to children. However, practices that entail formal evaluation, data collection, and systemic processes will be addressed in the following section.

Interventions in Early Childhood Reading

As mentioned, interventions are research-based practices that consist of formal data collection and progress monitoring (Kochar, 2021; *Broward County Public Schools*, 2014). This section goes through interventions that are research-based and proven to be beneficial for children's success in reading.

Hargrave and Sénéchal (2000), revealed that children with limited vocabularies learned new vocabulary from a shared book reading intervention. Children in the dialogic-reading condition made significantly larger gains in vocabulary introduced in the books, as well as gains on a standardized expressive vocabulary test, than did the children in a regular book reading situation. Most importantly, given the results of this study, if an intervention is presented early,

intensively, and appropriately, educators can prevent almost all children from ever entering the nasty downward spiral in reading skill deficiencies (Torgesen, 2014).

Chicago Child-Parent Center (CPC) program gave interventions to low-income families to help combat a negative correlation between *Head Start* classroom quality and parent involvement on children's academic development over time (Wen et al., 2012). Wen et al. (2012) used two groups of *Head Start* children that were three and four years old for a study that focused on caregivers completing home learning activities with their children. The *Head Starts* were from all over the country in urban and rural areas. Through a parent survey, information was gathered on the students' cognitive, social-emotional, and physical growth as well as parental engagement. The research discovered that a child's future academic success was most influenced by their learning activities at home.

AmeriCorps is another intervention that is used in the field of early childhood education. A major program in the nation is *Minnesota Reading Corps*. By the end of the third grade, this program aims to assist every Minnesotan child in becoming a proficient reader. To accomplish this, the Minnesota Reading Corps and host organization, Serve Minnesota Action Network, work with a diverse group of *AmeriCorps* members to offer evidence-based literacy interventions and tutoring services to preschoolers and at-risk elementary school students in kindergarten through third grade (Markovitz et al., 2015).

In this framework, data plays a key role in screening students' eligibility for services and then monitoring students' progress towards achieving academic goals. The Minnesota Reading Corps uses two sets of measures that have performance benchmarks that are grade-level specific to assess students for program eligibility three times a year (fall, winter, spring).

Program staff use scores from these general outcome measures to categorize students into one of three possible tiers of intervention.

As Markovitz et al. (2015) states, preschoolers who participated in *Minnesota Reading Corps* PreK classrooms ended the school year with significantly higher emergent literacy assessment scores than did students who did not attend. The *Minnesota Reading Corps* PreK program had significant results across all five intervention outcome measures, letter sound fluency, rhyming fluency, letter name fluency, picture name fluency, and alliteration fluency, for four- and five-year-old students between Fall benchmark (September 2013) and Spring benchmark (May 2014). With this intervention in place and available to educators, four- and five-year old's make gains in reading when guided through this intervention (Markovitz et al., 2015).

Parent Involvement in Early Childhood Reading at Home

Children who grow up with a positive perspective of literacy as a form of entertainment are more likely to have an intrinsic motivation to read (Baker et al., 1997). Early reading experiences with caregivers prepare children for the formal reading instruction children will receive when they enter school (Clark, 2007). Introducing books early on provides children with an opportunity for a head start in school, approximately two years ahead, providing an advantage over their peers through age eleven (Hardman & Jones, 1999). Reading to children at ages three to five years has a greater impact on their language and cognitive development than at a later age (Hardman & Jones, 1999). Young children who read aloud to their caregivers develop a love of reading and deepen their relationship with their caregiver (Towell et al., 2019).

Parental involvement in a child's education and learning positively affects the child's performance at school (Fan & Chen, 2001). Involvement with reading activities at home has

significant positive influences not only on reading achievement, language comprehension and expressive language skills but also on children's interest to read, attitudes towards reading and attentiveness in the classroom (Gest et al., 2004; Rowe, 1991). A child's reading habits are more strongly influenced by parental participation than by other family background elements including social economic status (SES), family size, and parental education (Flouri & Buchanan, 2004).

Book reading is often something caregivers and young children do together. However, less than fifty percent of parents in the U.S. reported reading daily to their children ages birth to five (Duursma et al., 2008). Parent involvement and the amount of time spent reading at home are major indicators of student success in reading, literacy development, and overall development (Crosby et al., 2014). Caregivers have an important role in the development and educational performance of their children. Reading aloud to children by caregivers improves their reading and other cognitive skills in children up until the ages of ten and eleven (Kalb & van Ours, 2022). This is an early-life skill that seems to be beneficial for the rest of their lives (Kalb & van Ours, 2013).

Also stated by Đurišić and Bunijevac (2017), parental involvement in the education of students begins at home with the parents providing a safe and healthy environment, appropriate learning experiences, support, and a positive attitude about school. When students have involved parents, they have more success in school (Epstein et al., 2002). Crosby et al. (2011), conducted a study over a three-year period and found the more parents were engaged the more the student's made gains in reading.

Caregivers often need guidance to contribute to their child's literacy development (Brand et al., 2013). There are two successful methods of bridging the home-school gap. These two methods consisted of home literacy bags and family literature circles. Brand et al. (2013)

conducted a year-long project called Reading Partners. Reading Partners consisted of twenty children ages three years old to five years old, attending preschool in a suburban area. The literacy bag contained a book, stuffed animal that correlated with the book, literacy game or activity, crayons, journal, instructions, and a survey. Activities for the children to complete in the literacy bag included: a recreation of a story, make a drawing of the story, and a beginning sound activity. Literacy bags were sent home with each child for one week in the fall and spring. According to the authors, after all families completed the literacy bag, they were invited to the classroom for the family literature circle festival. The festival consisted of families sharing their thoughts of the home literacy bags and items that their children created when doing the activities. After analyzing results from a parent evaluation, the authors concluded that the home literacy bags had increased family engagement in the home resulting in increased student achievement.

Challenges Parents Face When Reading to Children

There are many obstacles and challenges that parents face when reading to their child from birth to age three. This section discusses topics related to challenges include negative child-feedback, socio economic status (SES), availability of books, and level of education of the parents.

Negative Child-feedback

One study showed that parental perceptions of ‘negative’ child-feedback can be a barrier to shared reading (Preece & Levy, 2018). When reading to a child and there are signs of disengagement during the story, it is recommended to quickly switch to a new topic or to move on, rather than persisting with the story (Cárdenas, 2020). It is not necessary to always read every word on the page, especially if a child is losing interest in the story. Negative responses are common during a storybook, parents should be encouraged to facilitate their child’s lead in other

literacy-related activities (Scarborough et al., 1994). For example, playing a simple game of I spy, singing a song, nursery rhymes, alphabet exposure with playdough, are a few suggestions for parents.

Socio-economic Status

Family background factors that can affect a child's reading development include social status, family size, and level of parental education (Flouri et al., 2004). Regardless of parental income, educational attainment, or cultural background, research suggests that reading to young children has an impact on their future outcomes in school (Kalb et al., 2013). A typical developing middle-class child enters first grade with 1,000 to 1,700 hours of picture book reading, as opposed to a child from a low-income home who has, on average, just 25 hours (The Campaign for Grade-Level Reading, 2014). Waldfogel and Washbrook (2010) reported that children from low-income households are, on average, sixteen months behind their peers from high-income households in terms of vocabulary size at school entry.

Hemmerechts et al. (2017) completed a study using a survey given to 43,870 people over ten Western European regions. The goal of the survey was to determine if there was a correlation between parent involvement at home and literacy success of their child. Hemmerechts et al. (2017) took note of parents' socio-economic status and education level to identify correlation to the literacy success of young children. The study determined that a parents' education level significantly determined their parent involvement in literacy activities with their child. Parents who had lower levels of education and socio-economic status had a lack of involvement with literacy activities at home. A lack of involvement in literacy activities and reading materials at home negatively impacts cognitive and language development.

Availability of Books

The availability of books can be a frustration for some families. Families may not have the resources to access books for their children. Many minority and low-income parents do not think they have the resources to support their children (Baker et al., 1997). Heppt et al. (2022) discovered that, even after monitoring parental education and employment level, the volume of books and children's books in a student's home considerably enhanced the amount of explained variance in student's academic language understanding.

The findings completed by Bergen (2016), found that children's reading levels are influenced by the size of the home library. This may be a result of the benefit of having a large collection of books, or it may reflect how much the family values reading. According to Evans et al. (2010), the quantity of books is correlated with the frequency with which parents read to their pre reading children, which is correlated with the children's emerging reading abilities. The number of books also has a greater impact on children from the least educated families, not on children of the university educated parents (Evans et al., 2010).

Level of Education Parents Completed

On average, parents with higher levels of education have more books at home than parents with lower levels of education. In addition, they make reading aloud to their children a priority by using their knowledge of books and written language (Myrberg & Rosén, 2009). How frequent a parent reads, and their level of education are correlated with children's reading outcome (Bergen et al., 2016). The frequency of reading parents participates in and their degree of education are related to how well their children read (Evans et al., 2010).

Some other factors play a role in the challenges caregivers face when trying to read aloud to children: the child is read to less often as they get older, there are more televisions in the

house, more television is viewed during the week, and there are more siblings. When there are more books in the house and either caregiver has a higher education level, the child received read aloud time more often (Kalb & Van Ours, 2022). The more caregivers encourage learning at home the greater the success of the children later in school (Wen et al., 2012).

The Lasting Impact Reading has on Early Elementary Children

Reading to children has proven to contribute to later success (Lonigan, 1994). Children with a head start in literacy tend to stay ahead over the first two years of school, and parent-child reading has been shown to make the start of school easier (Wells, 1987; Bus et al., 1995) and retaining this advantage at age eleven (Blatchford et al., 1990). Children who were identified as poor readers in first grade were more likely than their peers to be poor readers in fourth grade (Juel, 1988), and children who were classified as poor readers in fourth grade continued to struggle in ninth grade (Francis et al., 1996). Research has proven the fact that, for reading difficulties, early intervention appears to be more effective than remediation at a later age (Sylva and Hurry, 1996).

The Simple View, a study conducted by Connie Juel (1988), focused on literacy development in a Texas elementary school in grades first through fourth grade. Juel followed the students that were in the lowest quartile on an end-of-year reading test in first grade that had a 90% probability of being in the lower quartile at the end of fourth grade. The probability that a good reader in first grade would become a poor reader in fourth grade was 12% which is very low. The results also showed that the students that were poor readers entered first grade with little phonemic awareness.

Currie and Thomas (1999) found that reading and math test scores at age seven were significant predictors of test scores at age sixteen and educational attainment, employment, and

earnings at ages twenty-three and thirty-three. Hernandez (2011) highlighted that students are four times less likely to graduate from high school on time than those who are reading effectively by the third grade.

Literature Review Summary

There are multiple benefits to reading to children from birth to age five. Shared book reading effects a child's language and cognitive development. The more strategies and interventions caregivers can provide benefit a child's development. Both inside and outside of school, interventions, and strategies, can be used to increase motivation, attentiveness, vocabulary development, and cognitive development. The benefits to reading books to children have a lasting impact on academic outcomes.

Chapter 3: Results

This starred paper topic is essential because reading to children has major benefits that assist children in preparation for school and through life. This paper explores the question around the strategies and interventions available to educators and caregivers to support and encourage reading to children. This review highlights reading to children birth to age five has a major impact on their cognitive development and language (Bus & Van Ijzendoorn, 1995; Collier, 2019; Mol & Bus, 2011). Furthermore, evidence points to a lasting impact of reading to infants and toddlers on their elementary grade school academic achievement (Torgeson, 2014; Kalb & Van Ours, 2022). Results from this review point to children's need of proper guidance and support from a diverse community of educators and caregivers to achieve adequate and appropriate reading ability at grade level (Noble et al., 2020; Colmar 2013; Marcin 2020).

Conclusions

In this section of the study, the research questions will be restated and formally addressed using information from the literature review in chapter two.

1. What are the effects of reading to children birth to age five on their **cognitive and language development**?

Book sharing with children birth to age five has an impact on their development. One of the most crucial activities for helping children acquire the knowledge necessary for success in reading, according to research, is reading to the child (Kalb & van Ours, 2013). Reading to children is beneficial to their language development and cognitive development. Findings supports that reading does improve language and cognitive growth (Bus & Van Ijzendoorn, 2015; Bus et al., 1995; Kalb & van Ours, 2013).

Evidence shows if a three- to four-year-old child is being read to three to five days per week the effect on that child's reading skills are achieving as he or she is six months older (Kalb & van Ours, 2013). Up until at least the age of ten to eleven, reading aloud to children by parents improves their reading and other cognitive skills (Kalb & van Ours, 2013). Also, children who are read to have larger vocabularies (Towell et al., 2019). This gives children a significant intellectual advantage and will enable children to function better in the classroom (Mcilroy, 2022).

Reading to youngsters six to seven days a week has the same impact as being nearly a year older (Kalb & van Ours, 2013). It has been demonstrated that reading aloud to children of all ages increases vocabulary, language growth, encourages a love of reading, promotes independent reading, and fosters critical thinking (Bus et al., 1995; Towell et al., 2019). Regularly engaging in conversation, singing, and reading with young children from birth improves brain growth (*American Academy of Pediatrics*, 2021). In addition to reading and the positive effects on cognitive and language outcomes, reading knowledge also increases overall success in schools (*Maryville University Online*, 2022). If a child is struggling to read there are interventions and strategies available to increase reading development (Cardenas, 2022).

2. What are the **interventions and strategies** available to early intervention educators and families to support an environment that encourages caregivers to read to their young children from birth to age five?

Research completed in this project describes an ideal number of strategies for caregivers and educators to incorporate into reading aloud sessions with children birth to five. Strategies to assist reader's while reading to children birth to five include:

1. caregiver or educator changes voice

2. using gestures and prompts
3. questioning the child (depending on age)
4. print referencing
5. dialogic reading
6. rhyming
7. allowing affective interactions to take place while reading
8. being patient with the child.

(Cárdenas et al., 2020; Dennis & Horn, 2011; Mcilroy, 2022; Zimmer, 2022)

Interventions are helpful and are used to improve a child's ability to read. Book reading is used as an intervention to assist with vocabulary and communication growth (Hargrave & Sénéchal, 2000). When interventions are presented early, intensively, and appropriately, educators can provide struggling children with early reading skills that can prevent children from ever entering the nasty downward spiral in reading skill deficiencies (Torgesen, 2014).

3. What is the **lasting impact** of the effects from reading to children from an early through early middle school?

Early literacy gains tend to carry over to the first two years of school, and studies have shown that shared book reading makes the shift to school smoother (Wells, 1987; Bus et al., 1995). According to Hernandez (2011), "one in six children who are not reading proficiently in third grade fail to graduate from high school on time, four times the rate for children with proficient third grade reading skills" (p. 5). Students who are not reaching grade level proficiency by third grade often falter in the later grades and drop out before earning a high school diploma (Hernandez, 2011). That statistic of high school dropout rates would be lessened if children were being read to more frequently. Reading and math test results at age seven have been found

to be significant predictors of test results at age sixteen as well as educational attainment, employment, & wages at ages twenty-three and thirty-three (Currie & Thomas, 1999). Children who are exposed to books and reading from their earliest months onward are prepared to succeed in school, which also strengthens family ties and benefits children's health and wellbeing for the rest of their lives (*Maryville University Online, 2022*).

Discussion and Reflections

The author's perspective on the topic is presented in this section of the article. These concepts were developed using the data from the literature analysis in chapter two along with my own experiences of reading with my students and my child.

As a professional in the field of special education, I think reading to children offers a deep understanding about the world and supplies a child's brain with new ideas and background knowledge. Reading seems to increase a child's vocabulary, language skills, and cognitive intelligence. A child develops new knowledge, and a child begins to form connections with the world around them through books. As a mother, I can relate to this with my own child, he would make connections with the world around us and connect it with a book. He also picked up on emotions on the faces of the illustrations in the book. Children seem to use this acquired background knowledge to make sense of what they see, hear, and read, which supports their cognitive and language development over time. If a caregiver or educator reads with a child on a regular basis that provides a child with an opportunity to build a stronger relationship with that caregiver or educator. Reading gives educators and caregivers a chance to have a regular and shared activity that both the caregiver and the child may look forward to.

Currently on my caseload of sixteen students, twelve of them qualified in communication and cognitive which indicates something is missing during important stages of development that is causing this delay. Children qualify for early intervention services because they have a delay in two of five areas (adaptive, cognitive, communication, motor, and social emotional). The most common I see as an educator when I am evaluating students are communication and cognitive. What is causing these children to have such a significant delay? Is it technology? Lack of book reading?

Additionally, reading to children gives them positive attention, love, and reassurance they need to feel nurtured and secure. Hearing words vocalized aloud exposes children to a selection of new vocabulary and phrases that they may not have heard otherwise. As research stated previously in chapter two, a child develops new vocabulary and ideas through read aloud, I lived that with my son. For example, on my son's second birthday we were at a park. A mother asked me the age of my son. She shockingly responded because she could not believe how well he could articulate his needs and then she went on to ask if I read to him. The answer was yes, my son is read to every night before bed and that started when he was roughly six months old. In that moment, I realized that reading has allowed my son to be advanced in the area of language and communication. His skills are noticeably different compared to other littles his age. Around that same time, my son's pediatrician noticed his communication skills and his ability to resight the alphabet and count (cognitive skills) while we were at a well-child appointment. The pediatrician then went on to say he could tell that he is a child that is being read to at home. This research topic specifically interested me since I lived these experiences with my son. He has been raised in a reading environment (started around six months old) and strangers and pediatricians have noticed that my son communicates better than other children his same age.

As a mother and special education teacher in the field, I have learned the importance of reading to children. My son is currently almost four and his communication is fluent and understandable. I believe, I supported him with the background knowledge and exposure to new words through reading daily to him. I have also noticed that he has started to develop a love for reading himself. For example, we will visit the public library and he will bring home the books and sit down and look at all of them, he looks forward to going to the library, his ability to sit and focus on a story with little to no illustrations is noticeably longer than the five and six year

old's that I work with in my classroom. A child's ability to focus can be enhanced by reading frequently and consistently which will help when children are school age (Kalb & van Ours, 2013).

Recommendations for Further Research

Many of these studies cited in this study focused on the importance of reading to children at home which leaves reading a responsibility on caregivers or parents. There were fewer articles pertaining to reason's why children are not being read to. More research is needed on:

1. Level of education of the caregivers (mother/father)
2. Practices for the field of education to enhance read aloud
3. Long-term research on the effects of reading to children birth to elementary school age
4. Technology influences on reading
5. Impacts of reading to children on social-emotional learning
6. Effectiveness of interventions and strategies and compare among groups

Recommendations for Practice

As educators, we need to know the benefits of reading to young children's cognitive and language development from birth to age five and the importance of reading on a child's later academic success. Some recommendations for administrators and teachers are:

1. Including read aloud times in daily schedules.
2. Provide teachers and caregivers tips and tricks on reading to babies and toddlers.
3. Provide teachers with techniques and education on ways to make read aloud times more beneficial in the classroom.
4. Provide caregivers materials to encourage reading at home.
5. Provide families with the information about Dolly Parton's Imagination Library

References

- American Academy of Pediatrics. (2021, December 21). *Early Literacy*. Early literacy. Retrieved February 21, 2023, from <https://www.aap.org/en/patient-care/early-childhood/early-childhood-health-and-development/early-literacy/>
- Baker, L., Scher, D., & Mackler, K. (1997). Home and family influences on motivations for reading. *Educational Psychologist*, 32(2), 69–82.
https://doi.org/10.1207/s15326985ep3202_2
- Brand, S. T., Marchand, J., Lilly, E., & Child, M. (2013). Home-school literacy bags for twenty-first century preschoolers. *Early Childhood Education Journal*, 42(3), 163-170.
[doi:10.1007/s10643-013-0603-8](https://doi.org/10.1007/s10643-013-0603-8)
- Broward County Public Schools (2014). *Strategy vs. Intervention* [Brochure]
<https://www.browardschools.com/cms/lib/FL01803656/Centricity/Domain/13726/Strategy-vs.-InterventionGuide.pdf>
- 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>
- Bus, A. G., & van Ijzendoorn, M. H. (1995). Mothers Reading to Their 3-Year-Olds: The Role of Mother-Child Attachment Security in Becoming Literate. *Reading Research Quarterly*, 30(4), 998–1015. <https://doi.org/10.2307/748207>
- Bus, A. G., van Ijzendoorn, M. H., and Pellegrini, A. D. (1995). Joint book reading makes for success in learning to read: A meta-analysis on intergenerational transmission of literacy. *Review of Educational Research*, 65, 1–21.
- The Campaign for Grade-Level Reading (2014, January 11). *The 30 million word gap*. The Annie

- E. Casey Foundation. Retrieved February 9, 2023, from <https://www.aecf.org/resources/the-30-million-word-gap>
- Canoy, M., van Ours, J., & van der Ploeg, F. (2006). The economics of books. In Victor A. Ginsburgh and David Throsby (Eds.), *Handbook of the Economics of Art and Culture Amsterdam*, (pp. 721-761). Elsevier.
- Cárdenas, K., Moreno-Núñez, A., & Miranda-Zapata, E. (2020). Shared book-reading in early childhood education: Teachers' mediation in children's communicative development. *Frontiers in Psychology, 11*. <https://doi.org/10.3389/fpsyg.2020.02030>
- Catts, H. W., Adlof, S. M., & Weismer, S. E. (2006). Language Deficits in Poor Comprehenders: A Case for the Simple View of Reading. *Journal of Speech, Language, and Hearing Research, 49*(2), 278–293. [https://doi.org/10.1044/1092-4388\(2006/023\)](https://doi.org/10.1044/1092-4388(2006/023))
- Centers for Disease Control and Prevention. (n.d.). *Child Development*. Retrieved November 15, 2022, from <https://www.cdc.gov/childdevelopment>
- Child development*. Physiopedia. (n.d.). Retrieved February 10, 2023, from https://www.physio-pedia.com/Child_Development
- Chouinard, M. M., & Clark, E. V. (2003). Adult reformulations of child errors as negative evidence. *Journal of child language, 30*(3),
- Clark, Christina (2007) *Why it is important to involve parents in their children's literacy development*. National Literacy Trust. <https://files.eric.ed.gov/fulltext/ED496346.pdf>
- Crosby, S. A., Rasinski, T., Padak, N., & Yildirim, K. (2014). A 3-year study of a school-based parental involvement program in early literacy. *The Journal of Educational Research, 108*(2), 165-172. doi:10.1080/00220671.2013.867472

- Collier, E. (2022). *Why is reading important for children?: Developmental effects*. The Hub High Speed Training. Retrieved February 26, 2023, from <https://www.highspeedtraining.co.uk/hub/why-is-reading-important-for-children/>
- Colmar, S. H. (2014). A parent-based book-reading intervention for disadvantaged children with language difficulties. *Child Language Teaching and Therapy*, 30(1), 79–90. <https://doi.org/10.1177/0265659013507296>
- Currie, J., & Thomas, D. (1999). *Early test scores, socioeconomic status and future outcomes*. National Bureau of Economic Research.
- Department of Education and Child Development. (n.d.). *Humanitarian Aid Organization for Children*. Save the children. Retrieved November 23, 2022, from <https://www.savethechildren.org/content/dam/global/reports/education-and-child-protection/edu-elm-13.pdf>
- Dennis, L. R., & Horn, E. (2011). Strategies for supporting Early Literacy Development. *Young Exceptional Children*, 14(3), 29–40. <https://doi.org/10.1177/1096250611420553>
- Dowdall, N., Melendez-Torres, G. J., Murray, L., Gardner, F., Hartford, L., & Cooper, P. J. (2020). Shared Picture Book Reading Interventions for Child Language Development: A Systematic Review and Meta-Analysis. *Child Development*, 91(2), e383–e399. <https://doi.org/10.1111/cdev.13225>
- Đurišić, M., & Bunijevac, M. (2017). Parental involvement as an important factor for successful education. *Center for Educational Policy Studies Journal*, 7(3), 137–153. <https://doi.org/10.26529/cepsj.291>
- Duursma, E., Augustyn, M., & Zuckerman, B. (2008). Reading aloud to children: The evidence. *Archives of Disease in Childhood*, 93(7), 554–557.

- Epstein, J., Van Voorhis F., Jansorn, N., Salinas, K. C., Simon, B. S., & Sanders, M. G. (2002). *School, family, and community partnerships: Your handbook for action. second edition.* Corwin Press, Inc.
- Evans, M. D. R., Kelley, J., Sikora, J., & Treiman, D. J. (2010). Family scholarly culture and educational success: Books and schooling in 27 nations. *Research in Social Stratification and Mobility*, 28(2), 171–197. <https://doi.org/10.1016/j.rssm.2010.01.002>
- Francis, D. J., Shaywitz, S. E., Stuebing, K. K., Shaywitz, B. A., & Fletcher, J. M. (1996). Developmental lag versus deficit models of reading disability: A longitudinal, individual growth curves analysis. *Journal of Educational Psychology*, 88(1), 3–17. <https://doi.org/10.1037/0022-0663.88.1.3>
- Garforth Education. (n.d.). *Phonological Friday: Voiced and unvoiced sounds.* Retrieved February 26, 2023, from <https://www.garfortheducation.com/voiced-and-unvoiced/>
- Gest, S. D., Freeman, N. R., Domitrovich, C. E., & Welsh, J. A. (2004). Shared book reading and children’s language comprehension skills: The moderating role of parental discipline practices. *Early Childhood Research Quarterly*, 19(2), 319–336. <https://doi.org/10.1016/j.ecresq.2004.04.007>
- Gilkerson, J., Richards, J. A., Warren, S. F., Oller, D. K., Russo, R., & Vohr, B. (2018). Language experience in the second year of life and Language Outcomes in late childhood. *Pediatrics*, 142(4). <https://doi.org/10.1542/peds.2017-4276>
- Grabmeier, J. (2019, April 9). *The importance of Reading to Kids Daily.* College of Education and Human Ecology. Retrieved October 28, 2022, from <https://ehe.osu.edu/news/listing/importance-reading-kids-daily-0>

- Hammett, L.A., Van Kleeck, A., & Huberty, C. J. (2003). Patterns of parents' extratextual interactions during book sharing with preschool children: A cluster analysis study. *Reading Research Quarterly, 38*(4), 442–468. <https://doi.org/10.1598/RRQ.38.4.2>
- Hart, B., & Risley, T. R. (1992). American parenting of language-learning children: Persisting differences in family-child interactions observed in natural home environments. *Developmental Psychology, 28*(6), 1096–1105. <https://doi.org/10.1037/0012-1649.28.6.1096>
- Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Paul H. Brookes Publishing.
- Hardman, & Jones, L. (1999). Sharing Books with Babies: Evaluation of an early literacy intervention. *Educational Review (Birmingham), 51*(3), 221–229. <https://doi.org/10.1080/00131919997461>
- Hargrave, A. C., & Sénéchal, M. (2000). A book reading intervention with preschool children who have limited vocabularies: The benefits of regular reading and Dialogic reading. *Early Childhood Research Quarterly, 15*(1), 75–90. [https://doi.org/10.1016/s0885-2006\(99\)00038-1](https://doi.org/10.1016/s0885-2006(99)00038-1)
- HarperCollins Publishers Ltd. (n.d.). *Language skills definition and meaning*. Collins English Dictionary. Retrieved November 22, 2022, from <https://www.collinsdictionary.com/us/dictionary/english/language-skills>
- Hargrave, A. C., & Sénéchal, M. (2000). A book reading intervention with preschool children who have limited vocabularies: The benefits of regular reading and Dialogic reading. *Early Childhood Research Quarterly, 15*(1), 75–90. [https://doi.org/10.1016/s0885-2006\(99\)00038-1](https://doi.org/10.1016/s0885-2006(99)00038-1)

- Help Me Grow MN. (n.d.). *Cognitive milestones*. Retrieved November 15, 2022, from <https://helpmegrowmn.org/HMG/DevelopMilestone/CognitiveMilestones/index.html>
- Hemmerechts, K., Agirdag, O., & Kavadias, D. (2017). The relationship between parental literacy involvement, socio-economic status and reading literacy. *Educational Review*, 69(1), 85-101. doi:10.1080/00131911.2016.1164667
- Heppt, B., Olczyk, M., & Volodina, A. (2022). Number of books at home as an indicator of socioeconomic status: Examining its extensions and their incremental validity for academic achievement. *Social Psychology of Education*, 25(4), 903–928. <https://doi.org/10.1007/s11218-022-09704-8>
- Hernandez, D. J. (2011, March 31). *Double jeopardy: How third-grade reading skills and poverty influence high school graduation*. Annie E. Casey Foundation. Retrieved February 9, 2023, from <https://eric.ed.gov/?id=ED518818>
- Jordan, G.E., Snow, C.E. & Porsche, M.V. (2000). Project EASE: The effect of a family literacy project on kindergarten students' early literacy skills. *Reading Research Quarterly*, 35, 524-546.
- Juel, C. (1988). Learning to read and write: A longitudinal study of 54 children from first through fourth grades. *Journal of Educational Psychology*, 80(4), 437–447. <https://doi.org/10.1037/00220663.80.4.437>
- Justice, L. M., & Pullen, P. C. (2003). Promising interventions for promoting emergent literacy skills. *Topics in Early Childhood Special Education*, 23(3), 99–113. <https://doi.org/10.1177/02711214030230030101>
- Kalb, Guyonne, & Van Ours, Jan (2022, October 16) *Reading to young children: A*

- head-start in life*. The Department Education and Early Childhood Development and The University of Melbourne, Australia.
- <https://www.education.vic.gov.au/documents/about/research/readtoyoungchild.pdf>
- Kalb, G. R. J., & van Ours, J. C. (2013). Reading to young children: A head-start in life? *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2267795>
- Kochar, M. (2021, November 29). *Strategies and interventions*. LinkedIn. Retrieved February 21, 2023, from <https://www.linkedin.com/pulse/strategies-interventionsmonicakochar>
- Kuo, A. A., Franke, T. M., Regalado, M., & Halfon, N. (2004). Parent report of reading to young children. *Pediatrics*, *113*(Supplement_5), 1944–1951.
- <https://doi.org/10.1542/peds.113.s5.1944>
- Maryville University Online. (2022, April 6). *Literacy Development in Children*. Retrieved March 2, 2023, from <https://online.maryville.edu/blog/literacy-development-in-children>
- Lewis, K., Sandilos, L. E., Hammer, C. S., Sawyer, B. E., & Méndez, L. I. (2015). Relations among the home language and literacy environment and children’s language abilities: A study of head start dual language learners and their mothers. *Early Education and Development*, *27*(4), 478–494. <https://doi.org/10.1080/10409289.2016.1082820>
- Logan, J. A., Justice, L. M., Yumuş, M., & Chaparro-Moreno, L. J. (2019). When children are not read to at home: The million word gap. *Journal of Developmental and Behavioral Pediatrics*, *40*(5), 383–386. <https://doi.org/10.1097/dbp.0000000000000657>
- Lonigan, C. J. (1994). Reading to Preschoolers Exposed: Is the Emperor Really Naked? *Developmental Review*, *14*(3), 303–323. <https://doi.org/10.1006/drev.1994.1011>

- Marcin, A. (2020, October 14). *Reading to children: Why it's so important and how to start*. Healthline. Retrieved March 2, 2023, from <https://www.healthline.com/health/childrens-health/reading-to-children>
- Markovitz, C., Hernandez, M., Hedberg, E., & Silbergitt, B. (2015, February). *Outcome Evaluation Minnesota Reading Corps PreK*. americorps.gov. Retrieved March 9, 2023, from https://americorps.gov/sites/default/files/evidenceexchange/FR_ServeMinnesota_ServeMinnesotaActionNetwork_MRCPreK_1.pdf
- Matsubara, K., Hattori, T., & Narumi, S. (2022). Achievement of Developmental Milestones Recorded in Real Time: A Mobile App-Based Study. *The Journal of Pediatrics*.
- McIlroy, T. (2022, November 4). *The huge benefits of reading to children*. Empowered Parents. Retrieved February 21, 2023, from <https://empoweredparents.co/10-huge-benefits-reading-children-every-day/>
- McCormick, S. (1976, November 30). *Should you read aloud to your children?*. Language Arts. Retrieved October 28, 2022, from <https://eric.ed.gov/?id=EJ158545>
- McPherson, K. (2019, November 11). *Should I be correcting my toddler's language? the answer might surprise you*. Children's Health of Orange County. Retrieved February 7, 2023, from <https://www.choc.org/news/should-i-be-correcting-my-toddlers-language-the-answer-might-surprise-you/>
- Mendelsohn, A. L., & Klass, P. (2018). Early language exposure and middle school language and IQ: Implications for primary prevention. *Pediatrics*, 142(4). <https://doi.org/10.1542/peds.2018-2234>

- Moats, L. C. (2019). The Speech Sounds of English. In C. A. Tolman (Ed.), *LETRS 3rd Edition* (Vol. 1, pp. 83–156). essay, Voyager Sopris Learning.
- Mol, S. and Bus, A. (2011). To Read or Not to Read: A Meta-Analysis of Print Exposure From Infancy to Early Adulthood, *Psychological Bulletin*, 137, 267–296.
- Myrberg, E. and Rosén, M. (2009), Direct and indirect effects of parents' education on reading achievement among third graders in Sweden. *British Journal of Educational Psychology*, 79: 695-711. <https://doi.org/10.1348/000709909X453031>
- Noble, C. ., Cameron-Faulkner, T., Jessop, A., Coates, A., Sawyer, H., Taylor-Ims, R., & Rowland, C. . (2020). The impact of interactive shared book reading on children’s language skills: A randomized controlled trial. *Journal of Speech, Language, and Hearing Research*, 63(6), 1878–1897. https://doi.org/10.1044/2020_JSLHR-19-00288
- Nye, C., Turner, H. and Schwartz, J. (2006), Approaches to Parent Involvement for Improving the Academic Performance of Elementary School Age Children. *Campbell Systematic Reviews*, 2: 1-49. <https://doi.org/10.4073/csr.2006.4>
- Parents and caregivers: Better Care Network*. Parents and Caregivers | Better Care Network. (n.d.). Retrieved February 10, 2023, from <https://bettercarenetwork.org/practitioner-library/human-resources/parents-and-caregiver#:~:text=A%20caregiver%20is%20a%20broader,a%20grandparent%20or%20older%20bling.>
- Preece, J., & Levy, R. (2018). Understanding the barriers and motivations to shared reading with young children: The role of enjoyment and feedback. *Journal of Early Childhood Literacy*, 20(4), 631–654. <https://doi.org/10.1177/1468798418779216>
- Rowe, K. (1991). The influence of reading activity at home on students’ attitudes towards

- reading, classroom attentiveness and reading achievement: An application of structural equation modeling. *British Journal of Educational Psychology*, 61, 19-35.
- Scarborough, H. S., & Dobrich, W. (1994). On the Efficacy of Reading to Preschoolers. *Developmental Review*, 14(3), 245–302. <https://doi.org/10.1006/drev.1994.1010>
- Shared book reading early childhood education*. (n.d.). WWC. Retrieved November 19, 2022, from <https://ies.ed.gov/ncee/wwc/EvidenceSnapshot/458>
- Strategy vs. Intervention* . (2014, June). Broward County Public Schools. Retrieved February 21, 2023, from <https://www.browardschools.com/cms/lib/FL01803656/Centricity/Domain/13726/Strategy-vs.-InterventionGuide.pdf>
- Suárez, N., Sánchez, C. R., Jiménez, J. E., & Anguera, M. T. (2018). Is reading instruction evidence-based? Analyzing teaching practices using T-Patterns. *Frontiers in Psychology*, 9, 7.
- Sylva, K., & Hurry, J. (1996). Literacy, Teaching and Learning. *An International Journal of Early Literacy*, 2(2), 49–73.
- Taylor, L. (2005). *Introducing cognitive development*. Taylor & Francis Group.
- Torgesen, J. K. (2004). Preventing early reading failure. *American Educator*, 28(3), 6-9.
- Towell, J. L., Bartram, L., Morrow, S., & Brown, S. L. (2019). Reading to babies: Exploring the beginnings of literacy. *Journal of Early Childhood Literacy*, 21(3), 321–337. <https://doi.org/10.1177/1468798419846199>
- Vollmer, E. (2020, January 14). *Expressive vs. receptive language*. TherapyWorks. Retrieved February 10, 2023, from <https://therapyworks.com/blog/language-development/home-tips/expressive-vs-receptive>

language/

Vygotsky L. S., Cole, M., Stein, S., & Sekula, A. (1978). *Mind in society: The development of Higher Psychological Processes*. Harvard University Press.

Waldfogel, J., & Washbrook, E. (2010). Low income and early cognitive development in the UK. *Sutton Trust*, 60.

Wallace, A. (2020, May 16). *Napa Center I World-renowned pediatric therapy*. NAPA. Retrieved February 6, 2023, from <https://napacenter.org/receptive-vs-expressive-language>

Wells, C. G. (1986). *The meaning makers : children learning language and using language to learn* (1st ed.). Heinemann.

Wen, X., Bulotsky-Shearer, R. J., Hahs-Vaughn, D. L., & Korfmacher, J. (2012). Head Start program quality: Examination of classroom quality and parent involvement in predicting children's vocabulary, literacy, and mathematics achievement trajectories. *Early Childhood Research Quarterly*, 27(4), 640-653. doi: 10.1016/j.ecresq.2012.01.004

Zimmer, M. (2022, June 24). *12 tips for parents to boost early literacy for young children*. Start Early. Retrieved November 19, 2022, from https://www.startearly.org/post/12-tips-to-boost-early-literacy/?gclid=CjwKCAiAmuKbBhA2EiwAxQnt7916y-vF4IF6rCmZiRp81GNSwfdYjllqpjMkniEKPDXXK9jspVJCd5RoChoYQAvD_BwE