

REPRESENTATIONS OF DYSLEXIA IN CHILDREN'S FICTION PICTURE BOOKS:

A CRITICAL CONTENT ANALYSIS

by

Elizabeth Ann Green

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DEDICATION

This dissertation is dedicated to Team Green. To my husband, Nathan: Thank you for everything, always. I'd do the stars with you anytime. To my son Sam: You are my inspiration. I'm so proud to be your mom. I love you both right up to the moon and back; forever, and ever and always.

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ABSTRACT

The purpose of this mixed methods critical content analysis was to examine the depiction of dyslexia and dyslexic characters in children's fiction picture books published between 2004 and 2022. Examining the data through the lens of critical neurodiversity studies and transactional theory concentrated the data collection and analysis on identifying the types of messages and values about dyslexia that are transmitted to the reader through the text. A mixed method critical content analysis approach was utilized, which involved categorizing texts, text passages, and thematic analysis as a qualitative step, followed by frequency analysis as a quantitative step. The use of mixed methods enabled the collection of descriptive statistics, frequency distributions, and specific data on the books. Multiple rounds of coding were utilized to discover and analyze themes and descriptive statistics found in the fifty-nine texts which met the criteria for inclusion. Results were described, analyzed, and interpreted. Finally, implications for practice and suggestions for future research were discussed

CHAPTER ONE

INTRODUCTION TO THE STUDY

Background for the Study

To deal in images and narratives whether they come from literature, art, film, or popular culture is to focus on issues of representation. I mean here representation in its broadest sense, as a saturating of the material world with meaning...Representation structures rather than reflects reality. (Garland-Thompson, 2005, p. 523)

Children's literature holds a special place in the very heart of education. Enter any school, on any given day, and you will likely witness children's books utilized in a variety of ways, from teacher read-alouds to independent student reading to colorful classroom libraries. Beyond typical classroom uses for reading aloud, fluency and decoding practice, or as mentor texts in Writer's Workshop, quality children's literature provides the opportunity for readers to experience "mirrors, windows, and doors" with the capacity to transform lives (Botelho & Rudman, 2009).

Bishop (1990), who first used the metaphor of books as windows, mirrors and doors, described a transformational process in which literature reflects the human experience back to the reader, which allows for a greater understanding of the world and other people's experiences. Huck, et al. (1987) called for educators to place children's literature at the center of reading instruction because "literature has the power to take us out of ourselves, to enlarge our thinking while educating our hearts" (p. 70). Children's literature can provide experiences for students to learn about children who are not like themselves and to develop empathy (Brenna, 2013; Teale et al., 2021). Through these transformational experiences with text, students also have the

opportunity to practice important process skills such as critical thinking and participation in discussions (Serafini & Moses, 2014).

Books that serve as mirrors allow students to feel acknowledged and validated in their own experiences through reading about characters like themselves. Books that serve as windows provide children with the opportunity to gain a glimpse into the lives of characters with different lived experiences. Books that function as sliding glass doors “invite readers to step into an experience that may change them” (Johnson et al., 2017, p. 569). This change, brought upon by stepping into the lived experiences of other people, allows children to develop an awareness of the world beyond themselves, which is key to promoting tolerance and acceptance of differences (Banks, 2018; Pennell et al., 2018).

The International Literacy Association’s (ILA) *Standards for Reading Professionals* (2018) state, "It is essential that all forms of diversity are acknowledged, respected, and valued in our schools and society" (p. 15). This standard encourages educators to provide students with the chance to experience literacy in ways that increase awareness and appreciation of diversity. Accurate and sensitive portrayals of characters in children’s books are important because children learn about themselves and others through the literature to which they are exposed (Johnson et al., 2017). For this reason, it is worthwhile to examine the types of literature we introduce to children. Since children’s literature provides opportunities for such profound experiences, educators have a powerful responsibility to provide students with excellent, high-quality texts.

Children’s literature is so embedded in the history and culture of classrooms, that it has become a critical component in education, pedagogy, and curriculum (Leland et al., 2017). In

fact, children's literature has been considered a culturally specific artifact through which teachers may transmit cultural messages to students (Harris, 2016). The literature teachers present to students contains messages about dominant culture which will be introduced and reinforced (Fleming, et al., 2016). Therefore, schoolchildren absorb cultural messages through the literature they encounter at school, at home, and at the library.

Since children's books are an important piece of the school curriculum, one can question what these artifacts reveal about culture. The literature children encounter has historically most often depicted the stories of white, male, able characters (Kleekamp & Zapata, 2018; Children's Cooperative Book Center [CCBC], 2020). What we learn about the world as children includes both hidden and explicit lessons about whose lives matter (Nell, 2017), and much of that learning may come from the literature to which children are exposed.

One area of diversity relevant to teaching and learning is dyslexia, especially considering it is estimated that up to 20% of all people are dyslexic (Johnson, 2019). Dyslexia is a neurobiological learning difference which affects reading ability through difficulty with phonological processing, spelling, decoding, and working memory (Johnson, 2019; Moats & Dakin, 2017; National Institutes of Health, 2019; Wanzeck, et al., 2020). The International Dyslexia Association (IDA) (2017) reports that about 85% of students who qualify for special education with a learning disability "have some of the symptoms of dyslexia, including slow or inaccurate reading, poor spelling, poor writing, or mixing up similar words" (p.1). In fact, it is estimated about one-fifth of the population of the United States exhibits at least one characteristic of dyslexia (Washburn et al., 2011b). Based on these statistics, it is likely most American K-12 classroom populations will include students with dyslexia.

All teachers, not just special education professionals, will encounter dyslexic students during their career. The IDA worked with scholars from the National Center for Learning Disabilities and the National Institute of Child Health and Human Development to compose the definition for dyslexia that is commonly accepted in the literature (IDA, 2021). The definition states:

Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. (IDA, 2017, p. 1)

Clear evidence regarding the identification and instruction of students with dyslexia has been established, yet preservice and in-service teachers continue to hold misconceptions about dyslexia and special education processes (Moss, 2019).

Past research has found that teachers hold misconceptions related to dyslexia as a visual problem and misconceptions related to identification of dyslexia, as well as incorrect assumptions related to instruction of students with dyslexia (Washburn, et al., 2014; Echegaray-Bengoa, et al. 2017; Moss, 2019). Stereotypes about dyslexia persist and it has been hypothesized that those stereotypes are difficult to counter (Gonzales & Brown, 2019). Accurate portrayals of dyslexia in children's books could be an important way to combat these enduring misconceptions.

Statement of the Problem

Because misconceptions about dyslexia continue to be prevalent, it is important the books with which teachers and students interact in the classroom include accurate information and

portrayals of individuals with dyslexia. Individuals with disabilities are perhaps one of the most underrepresented groups in children's literature (Pennell et al., 2018) and those with learning disabilities make up an even smaller population within the literature (Kendrick, 2004).

Furthermore, students with disabilities are often not portrayed accurately or sensitively (Curwood, 2013). Bishop (1990) explained, "When children cannot find themselves reflected in the books they read, or when the images... are distorted, negative, or laughable, they learn a powerful lesson about how they are devalued in the society of which they are a part" (p. 557).

For example, only seven books published in 2018-2019 included a character with dyslexia. It is problematic that students with dyslexia have little opportunity to see themselves in the books they read, and even more so if the representations they do see are not accurate.

A recent rise in US state legislation relating to the identification and remediation of dyslexia has led to an increased focus on dyslexia in education (Youman & Mather, 2018; Zirkle, 2020).

While some studies have focused on reading disabilities in children's literature, very few studies have exclusively examined the portrayal of characters with dyslexia in children's literature (Altieri, 2006; Altieri, 2008a; Altieri, 2008b; Sotirovska & Vaughn, 2021). Given the high incidence of language-based learning disabilities in America (Johnson, 2019), it is important to reexamine dyslexia in contemporary children's literature to discover how dyslexia is portrayed.

Purpose of the Study

The purpose of this study is to investigate the representation of dyslexia in fiction children's picture books published between 2004-2021. This study focused specifically on picture books because these are the texts which students are likely to encounter first in their

journey to becoming readers. In addition, picture books are the most common and widespread texts utilized in classrooms (Kümmerling et al., 2015). This study examined how dyslexia and dyslexic characters are portrayed through critical content analysis. Themes discovered were described, analyzed, and interpreted to answer the research questions. This study aims to add to the growing body of literature on representation of disabilities in children's texts through a narrower focus on representations of dyslexia.

This mixed methods critical content analysis explored how dyslexia is portrayed in children's picture books containing dyslexic characters. With this goal in mind, the research was guided by the following questions:

Research Question 1: Which fiction picture books published between 2004-2022 contain characters with dyslexia?

Research Question 2: What are the major themes in fiction picture books published between 2004-2022 that include characters with dyslexia?

Research Question 3: How are characters with dyslexia portrayed in fiction picture books published between 2004-2022?

Research Question 4: How is dyslexia portrayed in fiction picture books published between 2004-2022?

Research Question 5: What misconceptions about dyslexia are present in fiction picture books published between 2004-2022?

Significance of the Study

Accurate and sensitive portrayals of characters in children's books are important because children and teachers learn about themselves and others through portrayals in books. Literature

shapes how the reader thinks, imagines, and synthesizes information about other people and events. The presence of accurate portrayals of dyslexia in children's books could help counter enduring inaccurate beliefs and teacher misconceptions regarding dyslexia. Classroom teachers will also benefit from a better understanding of dyslexic portrayals when making choices about what books they may utilize in their classroom, which will in turn benefit their students. Being exposed to accurate and respectful portrayals of dyslexia in children's books enhances students' capacity to be more responsive and less stigmatizing in matters of diversity and inclusion.

Further, it is important to identify whether children's books including characters with dyslexia contain misconceptions. The presence of misconceptions about dyslexia in children's texts perpetuates false information which confuses the public. In addition, misconceptions in picture books may affect the knowledge of classroom teachers who are responsible for teaching, identifying, and providing proper support for students with dyslexia.

Classroom literature can also provide students with and without disabilities opportunities to learn about differences, develop empathy, and foster inclusive behaviors and attitudes (Rieger & McGrail, 2015; Ostrosky et al, 2015). It is essential to be aware of "who is represented, who is underrepresented, who is misrepresented, and who is ignored in literature" (Botelho & Rudman, 2009). When classrooms are lacking inclusive literature, it begs the question of who and what is being valued in the classroom. When students see themselves reflected in literature in accurate and respectful ways, it can send the signal that they are indeed valued and respected within their school culture (Bishop, 2012).

Children's picture books are an integral part of classroom culture and learning. As such, picture books can be thought of as tools containing cultural information and values which "can

influence readers in subtle ways to accept and internalize beliefs, perceptions, and expectations” (Hintz & Tribunella, 2019, p. 35). Given continued misconceptions about dyslexia and acknowledging the important role children’s literature plays in transmitting cultural messages, it is important to examine children’s picture books containing characters with dyslexia.

Theoretical Framework

The paradigmatic lens for this study is a mix of constructivist and critical paradigms in which reality is created by individuals, situated within groups that are affected by socially constructed norms (Scotland, 2012; Vygotsky, 1986). Theoretical perspectives for this study are informed by the field of disability studies and interpreted through the lens of critical neurodiversity studies (Rosquist et al., 2020). In addition, Rosenblatt’s (1978, 1993) transactional theory of reading provides a lens with which to understand how a reader’s interaction with texts influences their worldview, and in the context of this study, the reader’s understandings about dyslexia. Finally, the theory of conceptual change (Posner et al., 1982) can help to explain why misconceptions about dyslexia continue to persist.

Critical Neurodiversity Studies

The current study examined the messages found in picture books containing characters with dyslexia through a critical lens. Neurodiversity studies builds on the work of past critical paradigms such as disability studies, Critical Race Theory (CRT), Critical Disability Theory (DisCrit), and feminist and queer studies (Rosquist et al., 2020). DisCrit evolved from CRT which explains that racism is a social construct underlying all aspects of institutions in America

(Bell, 1992; Bergerson, 2003; Delgado & Stefancic, 2017). DisCrit expanded upon CRT to include ableism as being upheld as normal and valued in society (Annamma et al., 2018). Racism and ableism are intricately connected with the ‘othering’ of members of society who are not classified as white *and* able (Annamma et al., 2018; Delgado & Stefancic, 2017).

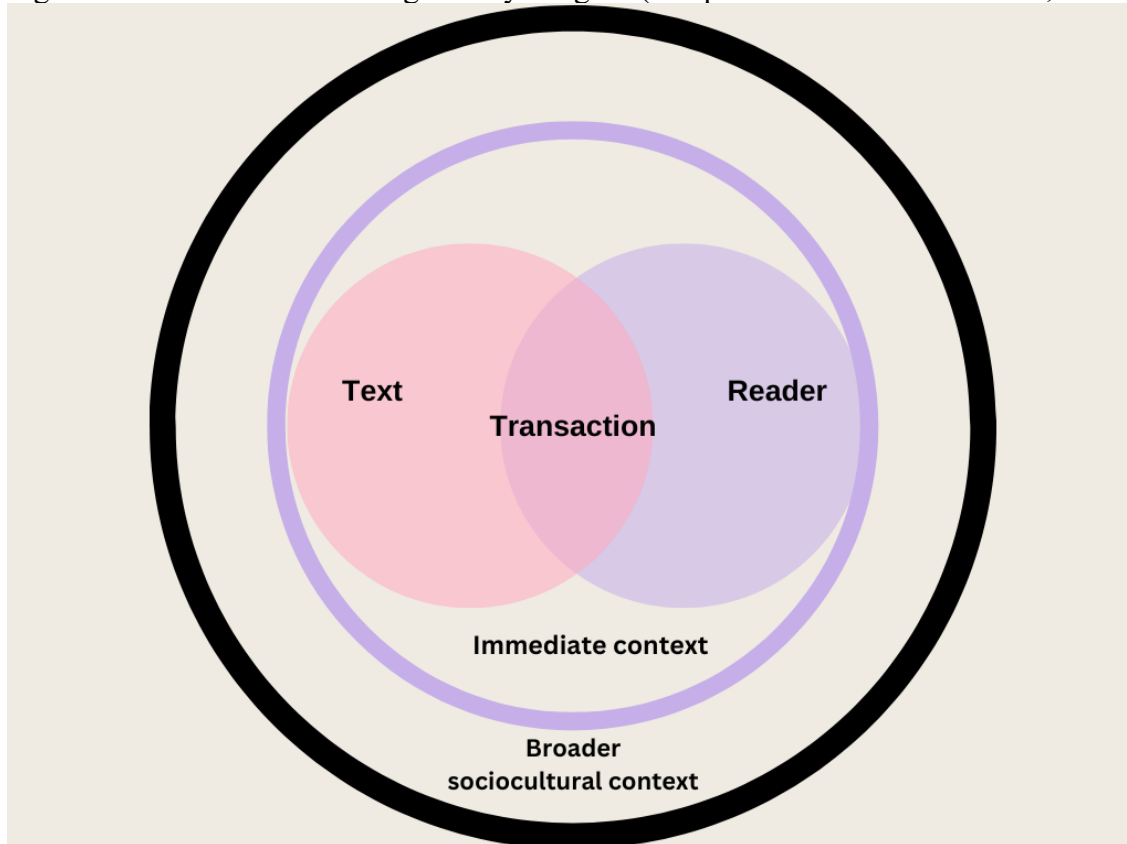
Critical Neurodiversity (NeuroCrit) adds the idea of neuro-normativity within society and societal institutions with neurodivergence as an ‘othered’ social category. This study examined the representation of dyslexia in children’s picture books from a NeuroCrit perspective, paying attention to potential messages about “cognitive othering” and “power inequalities between people differently situated in relation to neurology” which may be present in the texts (Rosquist et al., 2020, p. 2 & 4).

Transactional Theory

Rosenblatt’s (1978, 1993) transactional theory of reading provides a lens with which to understand how a reader’s interaction with texts influences their worldview. During reading, both the reader and the text play important roles in the shaping of meaning. Marhaeni (2016) explained, “Meaning is produced by continuous transaction between the reader and the text, employing the meaning potential of the text and the reader’s experiential reservoir” (p. 1). In transactional theory, the text plays an important role in the reading transaction by contributing information which the reader utilizes and synthesizes (Rosenblatt, 1993). This theory fits within a constructivist framework because the reader also brings to each text interaction their own unique background knowledge, situational context, as well as participation and influence from the broader social context (See Figure 1). In the context of the current study, the transaction

between the content of a picture book and the reader's understandings about dyslexia informs meaning development.

Figure 1. Transactional Reading Theory Diagram (Adapted from Rosenblatt 1978, 1993)



Theory of Conceptual Change

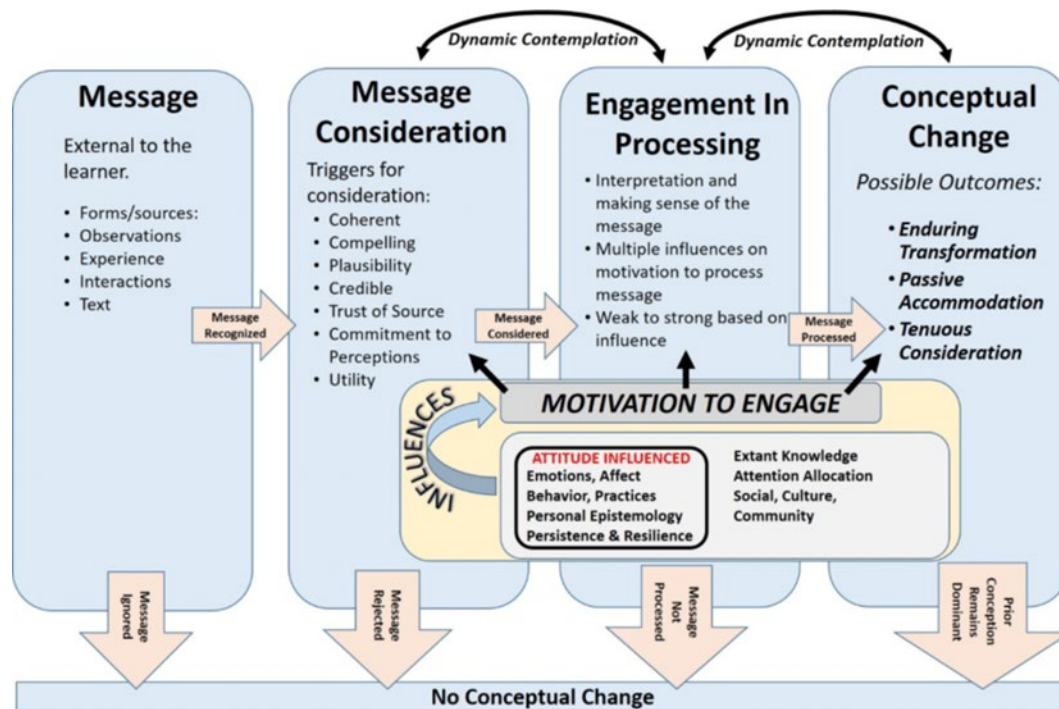
The theory of conceptual change (Posner et al., 1982) can help to explain why misconceptions about dyslexia persist and may appear in children's literature. Misconceptions are hard to change and, in fact, persist even when presented with strong evidence and even with direct instruction of true facts (Lewandowsky et al., 2020). During the process of learning new information, missing knowledge is added to existing conceptual frameworks (Vosniadou, 1994). Sometimes the new incorporated knowledge is wrong because during schema development,

human brains tend to create “naïve frameworks” to help ideas make sense, and then continue to find information which confirms and reinforces that framework, regardless of accuracy (Vosniadou, 1994). Therefore, when the brain comes across new and conflicting information, it is hard to integrate.

When prior knowledge is mostly correct, just missing key information, assimilating new ideas only requires a shift in the organization of concepts stored in the brain, called conceptual reorganization, which is a much simpler process (Chi, 2008). However, when prior knowledge completely conflicts with new information, this is when misconceptions occur. Unlike conceptual reorganization, conceptual change describes the brain process required to remove a misconception, because the information is stored in the wrong category altogether and must be shifted to a completely new one (Chi, 2008).

Conceptual change is a dynamic process involving the message, the learner’s engagement with the message, and consideration of motivation to engage with the message, which is all influenced by emotions, prior knowledge and concepts (Nadelson et al., 2018). This concept was illustrated in the Dynamic Model of Conceptual Change (Nadelson et al., 2018) (see Figure 2). It could be the case that reading children’s books containing misconceptions about dyslexia, and certain stereotypical portrayals of dyslexia, further reinforces the misconceptions that teachers, student, and the general populace may hold. Continuing to encounter misinformation presented in texts would theoretically make it even harder for the process of conceptual change to occur.

Figure 2. Nadelson et al. (2018) Dynamic Model of Conceptual Change (available via license: [Creative Commons Attribution 4.0 International](https://creativecommons.org/licenses/by/4.0/))

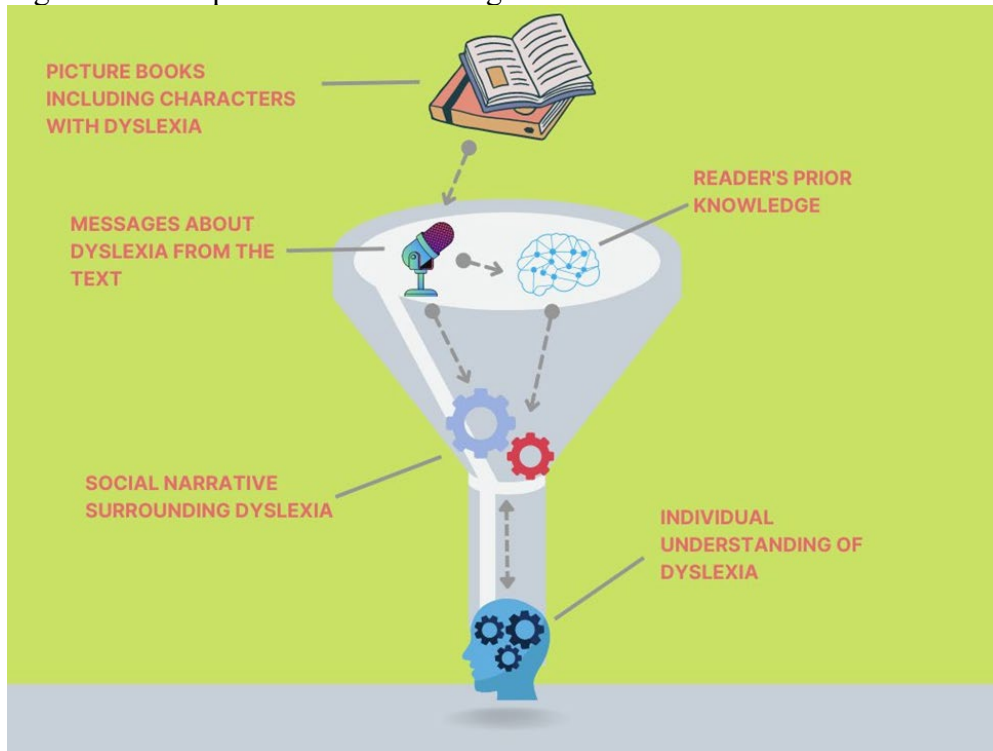


Conceptual Framework

Figure 3 displays the conceptual framework for this study, highlighting the relationships between the theories discussed and pertinent concepts when considering representations of dyslexia in fiction picture books. It is hypothesized the texts containing characters with dyslexia may help to shape and define the social narrative surrounding dyslexia through dissemination of the messages of the individual texts. In this framework, the reader's interaction with the messages about dyslexia in the picture books, combined with prior knowledge (including possible misconceptions), influences the reader's perceptions of dyslexia overall. If the texts contain misconceptions or other messages about dyslexia, then those concepts and understandings may either be reinforced, assimilated, or changed altogether. In this conceptual

framework, it is thought that the messages in the texts directly impact the reader's knowledge and misconceptions about dyslexia.

Figure 3. Conceptual Framework Diagram



Research Methodology

This study focused on the identification and analysis of fiction children's picture books that include characters with dyslexia through critical content analysis. Critical content analysis as a research methodology is used to examine texts through a critical lens to examine potential messages (Short, 2017). Themes were described, analyzed, and interpreted through a critical lens to investigate the research questions.

A mixed method approach to content analysis was utilized (Mayring, 2022). Mixed methods allowed for collection of descriptive statistics, frequency distributions, specific data on types of books, and comparison to the extant literature on dyslexia. Mixed methods also accommodated a qualitative examination of themes found through content analysis. In addition, the coding software MAXQDA (2022) was utilized to aid in the coding process as well as to prepare descriptive statistics and frequency counts.

Operational definitions

Operational definitions for variables of interest in this dissertation are as follows.

Character: Any person, animal, or figure represented in a literary work (Hintz & Tribunella, 2021).

Dyslexia: A neurobiological learning difference which impairs reading ability through difficulty with phonological processing, spelling, decoding and working memory (Johnson, 2019; NIH, 2019; Wanzck, et al., 2020).

Children's Literature: Literary works intended for children (Hintz & Tribunella, 2021).

Misconceptions of dyslexia: Statements regarding characteristics of dyslexia that are not supported by research. The most prevalent misconceptions are related to vision, in which individuals see text moving or backwards on the page (Gonzales, 2021).

Picture books: A type of children's literature which combines multiple modalities, including written language, visual images, and graphic design elements (Serafini, 2014) which work together to convey meaning (Salisbury & Styles, 2018).

Limitations and Delimitations

Limitations

One important limitation in this study involved researcher judgment pertaining to decisions regarding certain character portrayal types. For example, one area which hinged on researcher judgment was whether each text contains misconceptions about dyslexia. These types of decisions were based upon research showing which types of misconceptions continue to be held by classroom teachers; however, the final decision was ultimately based upon researcher's judgment.

For the text set representing the study corpus, books containing characters with dyslexia in the genres of children's chapter books, young adult, adult, and nonfiction literature were not included. Examination of these genres could reveal differing themes and conclusions that were not be considered in this study.

Delimitations

Delimitations of this study include the parameters for the initial book search and creation of the study corpus. For inclusion in this study, the text must meet the following criteria:

- fiction. Narrative autobiographies and narrative biographies were not considered.
- children's picture book
- written in English
- published between 2004-2022. Both traditionally published and self-published picture books were considered since both types of texts may be present in classrooms, regardless of publishing venue.

- available in print at the time of this search. Unavailable, out-of-print texts, and texts exclusively published as e-books were not considered.
- include a character with dyslexia. Dyslexia must be either directly stated within the story or in the author discussion/description or the text must contain classic portrayals of dyslexia such as letter reversals, etc. Texts which include non-specific references to reading difficulties without specific mention of dyslexia were not considered.

Although this study identified and examined instances of misconceptions found in the study corpus, it was not the intent of this study to explore current misconceptions held by teachers or the public, outside what can be found in past research.

Role of the Researcher

I recognize that being aware of possible biases and mindful of my place within the educational and social systems to which I belong is a fundamentally important part of my research. My professional background includes work as an elementary classroom teacher, director of education for a nonprofit experiential learning school, and instructor of preservice teachers at the university level. I consider myself an advocate for children with learning differences, specifically language-based differences such as dyslexia and dysgraphia, through personal experiences with my son and his experiences with dyslexia, as well as my own experiences as an educator.

Chapter Summary

This chapter has introduced this analysis of children's fiction picture books containing characters with dyslexia. The purpose of this study was to identify and investigate the

representation of dyslexia and dyslexic characters in fiction picture books through mixed methods critical content analysis. This study builds upon existing research into representation in children's books by examining a narrower genre of children's literature, that of picture books containing dyslexic characters. Context for the study was examined, the problem and purpose for the research was delineated, and a theoretical framework established. The following chapter will provide a comprehensive literature review of relevant research.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter will review and synthesize the literature related to this critical content analysis of children's picture books containing characters with dyslexia. The literature examined for this study includes topics related to the research questions including defining dyslexia, neurobiological basis and advancements, current best teaching and learning practices, screening and diagnosis, and current legislation. In addition, studies related to dyslexia's history of debate will be reviewed, including historical and continuing misconceptions of dyslexia. The literature reviewed in this chapter will also include an examination of studies focusing on diversity, disability, and dyslexia in children's literature. Finally, a critique of related literature will establish the need for the current study by identifying a gap in the research.

Defining Dyslexia

The specific learning difference known as dyslexia is often characterized by difficulties with accurate or fluent word identification and spelling (Fletcher et al., 2019). Dyslexia affects a person's ability to process the individual sounds in words, called phonological processing, which is a key foundation for developing reading skills (Wanzeck et al., 2020). It is estimated that up to 20% of the population may be dyslexic (Johnson, 2020), so it is crucial for educators to understand exactly what dyslexia entails.

Several studies have examined different definitions of dyslexia and attempted to compile the common elements (Hammill & Allen, 2020; Zirkel, 2020). Hammill and Allen (2020), for instance, looked at sixteen distinct definitions of dyslexia and found elements they had most in common:

1. “Dyslexia is a serious condition”
2. “Affecting the written language comprehension of words (in isolation or in context)”
3. “Unexpected when contrasted with oral language, reasoning, or achievement ability”
4. “Result of neurological and genetic factors” (p. 29).

Many recent studies agree dyslexia is brain-based, spans a continuum of symptoms, is not related to intelligence, impacts reading skills by affecting phonological processing, spelling, decoding, and working memory, and is an inherited trait (IDA, 2017; Johnson, 2019; Kearns et al., 2019; Moats & Dakin, 2017; NIH, 2019; Wanzeck et al., 2020).

The International Dyslexia Association’s (IDA) (2017) definition is widely accepted as the standard definition of dyslexia and will be used as the working definition for this study. The definition states:

Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. (p. 1)

A sizable research team collaborated with the National Center for Learning Disabilities and the National Institute of Child Health and Human Development over the course of three years to produce the IDA criteria (IDA, 2021).

Because dyslexia is characterized by difficulties with the foundational processing skills required for reading (phonological processing, decoding, and working memory), students may

experience difficulties with reading ability in general (Hudson, et al., 2007; Moats & Dakin, 2017). Despite normal to above level intellectual ability, dyslexic students perform significantly lower than their peers on reading tasks, especially related to decoding and working memory tasks (National Institute of Health [NIH], 2019). Consequently, these students may also struggle with reading comprehension which leads to reduced reading experiences and lack of growth of vocabulary and background knowledge (Oakhill, et al., 2019).

Struggling with the main skills emphasized in the education system (i.e. reading and writing), and often insufficient support for those struggles, has social and emotional consequences (Foreman-Sinclair, 2012; Humphry & Mullins, 2002; IDA, 2013; Polychroni et al. , 2007). Past research has revealed students with dyslexia often feel stupid, express feelings of isolation and frustration, and experience bullying from peers and teachers (Glazzard, 2010). Further research into the socio-emotional impacts of unaddressed reading difficulties revealed those students tend to have more behavioral disruptions, incidences with law enforcement and jail time, higher school dropout rates, and are more likely to attempt suicide than their peers (Daniel et al., 2006; Livingston, et al., 2018; Wadlington & Wadlington, 2005).

Biological and Neurological Basis

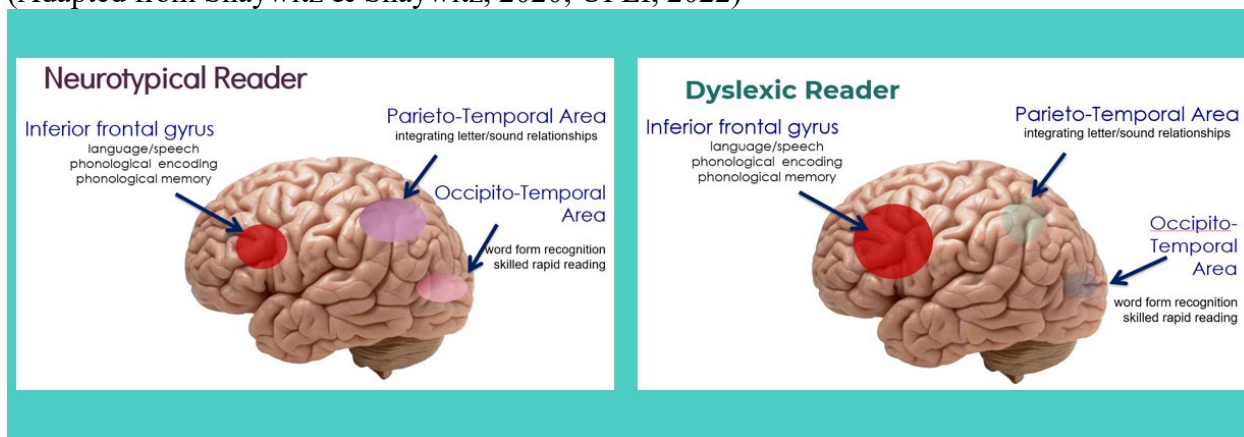
Recent research has revealed the brains of struggling readers, proficient readers, and people with dyslexia differ in a measurable way (Birsch & Carreker, 2018; Galaburda et al., 2018; Kearns et al., 2019; Washington et al., 2020). Reduced white and grey matter in the brain, asymmetry variances, and a larger corpus collosum are some specific variations (Guidi et al., 2018; Kershner, 2019; Skeide et al., 2018; Tschentstscher et al., 2019). A distinct neural signature for dyslexia was discovered thanks to advancements in brain imaging (Shaywitz

& Shaywitz, 2020). Shaywitz et al. (2003) used a series of brain scans to demonstrate people with dyslexia who became proficient readers used different brain regions than non-dyslexic and dyslexic struggling readers. Results suggest dyslexic readers develop and strengthen different pathways than typical readers. In fact, people with dyslexia develop "alternative circuits for word recognition to compensate for disruption of circuitry ordinarily depended on for reading" (Birsch & Cerreker, 2018, p. 63). These findings indicate dyslexic readers activate different neural pathways when reading (Kearns et al., 2019).

In addition, the level to which the areas of the brain all readers utilize and develop are different in dyslexic and non-dyslexic readers (see Figure 3). For example, the areas of the brain used for mapping and remembering the relationships between letters and sounds and reading rapidly are underdeveloped in readers with dyslexia (University of Florida Literacy Institute [UFLI], 2022; Shaywitz & Shaywitz, 2020). However, the brain regions responsible for language and speech are over developed for dyslexic readers, which suggests this part of the brain must work harder to compensate for weaknesses in phonological processing to read successfully.

The research on neurobiological variations between neurotypical readers and readers who have dyslexia has clear educational implications. Dyslexic individuals should be instructed in a manner which enables them to access and develop solid connections in the relevant brain regions. Explicit and direct instruction in phonemic awareness and phonics are among the successful methods that have been shown to facilitate this process (IDA, 2017; Johnson, 2019; Kearns et al., 2019; Mills, 2018; Moats & Dakin, 2017).

Figure 4. Areas of the brain utilized when reading in neurotypical readers vs dyslexic readers (Adapted from Shaywitz & Shaywitz, 2020; UFLI, 2022)



Screening and Diagnosis

The field of disability studies has often been theoretically divided between the individual, or medical model, and the social model of diagnosis. The medical model has been the common model used by school districts, neuropsychologists, and doctors to diagnose disabilities (Denkla, 2018). In this model, disability is physically evident in the individual's body or brain, and certain characteristics of the disability in comparison to 'typical' bodies and brains can be described. For example, brain scans can pinpoint differences in specific areas of the brain in dyslexic readers versus typical readers as shown in the previous section. The existence of biological differences that can be described and classified allows for a diagnosis. These differences explain discrepancies between intelligence and performance within schools and have historically been utilized as the main process for identifying students with learning disabilities in school systems (Swanson et al., 2013). Increasingly, the Response to Intervention Model has been combined with the discrepancy model to form a more complete picture of a student's individual struggles and support needs (Alahmari, 2019).

The social model of disabilities, however, posits that disabilities are a social construct and can only exist within social systems (Oliver, 2016). Garland-Thompson (2005) explained, Disability studies points out that ability and disability are not so much a matter of the capacities and limitations of bodies but more about what we expect from a body at a particular time and place.....we are expected to look, act, and move in certain ways so we'll fit into the built and attitudinal environment. If we don't, we become disabled (p. 524).

In the case of dyslexia, the brain-based differences which create difficulties learning to read are problems in a literacy focused society. In the social model, learning disabilities occur within certain social contexts, such as the education experience, and therefore, a student cannot have a learning disability all by themselves (Dudley-Marling, 2013). The social model of disability explains differences among bodies and brains as natural variations of the experience of being human and therefore learning disabilities are a social construct (Reid & Valle, 2004; Riddle, 2020).

These two models are not necessarily mutually exclusive, however, and some scholars and practitioners advocate for a hybrid model (Erbeli et al., 2018; Fletcher et al., 2019). Differences exist within human bodies and brains which can be sorted, classified, and described empirically. These differences essentially become disabilities within certain social contexts. However, since most children must attend school in our society, these disabilities manifest and thus, these children require certain services to be successful within the school system. In the case of a dyslexic student, a diagnosis would be critical to receive certain interventions that would allow them to learn to read.

The Individuals with Disabilities Education Act (IDEA) is a federal law that guarantees free and appropriate public education (FAPE) to children who meet the qualifications for special education services (U.S. Department of Education, 2004). Historically, students qualify for services if a significant discrepancy exists between ability and achievement (IDEA, 2004). However, there are differing standards for how large a discrepancy must exist across states (Cartledge et al., 2016). In addition, this model of identification often leads to a “wait to fail” situation since discrepancies tend to become large enough for students to qualify around third grade when schoolwork becomes increasingly more difficult (Al Otaiba et al., 2014). Scholars have pointed out the inherent bias in utilizing IQ testing, especially with language minority students (Cline, 2000).

In 2004, IDEA was reauthorized with allowances for alternative identification methods. One model mentioned in IDEA is Response to Intervention (RTI), which includes three Tiers of support: Tier 1: whole-class instruction, Tier 2: small group interventions, and Tier 3: intensive interventions (IDEA, 2004). Student responses to these levels of intervention are monitored and often combined with multi-tier systems of support (MTSS) that can also include behavioral and emotional supports. This process is thought to “better account for interpersonal and institutional factors” (Bradley et al., 2007). States are still allowed to choose how they determine eligibility for special services; however, the intent of the implementation of RTI was to address issues of disproportionality (Cartledge et al., 2016).

Dyslexia is detectable with 92% accuracy by age 5.5 (NIH, 2017), and the process of a dyslexia diagnosis is generally made in the following ways. Classroom teachers who recognize signs of dyslexia can make a teacher referral for more specialized testing. Often in public schools

the RTI process outlined above will be followed and is a critical step in identification (Miciak & Fletcher, 2020). Parents may also request screening through the child's school. Universal screening laws in many states require testing of all students in early elementary (Zirkle, 2020). Parents may also choose to bring their child to a professional outside of the school for diagnosis, including professional dyslexia screeners and neuropsychologists, both of whom will run a battery of tests to determine the likelihood of dyslexia.

Research indicates multiple validated tests should be used for dyslexia screening, and they work best when a variety of risk factors are considered (Washington et al., 2020; Sanfilippo et al., 2020; Wagner, 2018). Areas of testing generally include deficits in phonological awareness, decoding, and rapid naming, as well as genetic history. Comprehensive Test of Phonological Processing (CTOPP), Tests of Phonological Awareness (TOPA), Gray Oral Reading Tests (GORT), Dynamic Indicators of Basic Early Literacy Skills (DIBELS), Dyslexia Screening Test (DST), and Wide Range Achievement Test (WRAT) are examples of routinely used screening tests for dyslexia (Reid, 2016). These tests are most frequently utilized for dyslexia screening because they are valid and reliable tests of specific reading skills. This means the tests measure what they are designed to measure and do so consistently, which provides accurate data for a child's reading skills.

According to prior research, boys are more frequently referred to special education services, more likely to be diagnosed with reading disabilities, and more likely to exhibit behavioral issues in educational settings (Cortiella & Horowitz, 2017; Fish, 2017, Quinn & Wagner, 2015). In a large-scale study of 491,103 second graders, Quinn and Wagner (2015) found the number of males with reading disabilities increased as the severity of impairment

increased. In addition, even though schools had identified less than 20% of the large sample of students identified as reading impaired by the researchers, boys were more likely to be identified with a learning disability in general (Quinn & Wagner, 2015).

There is conflicting evidence regarding whether boys are more likely to have dyslexia than girls. Historically, research has revealed boys are significantly more likely to have dyslexia, often up to three times more likely (DeFries, 1989; Flannery, et al., 2000; Miles et al., 1998; Katusic et al., 2001; Rutter et al., 2004; Vogel, 1990). According to some studies, however, there is no discernible gender difference in the prevalence of dyslexia (Jiminez et al., 2009; Shaywitz et al., 1990). It is hypothesized this disparity results from the fact that boys are more frequently sent for testing than girls because of misbehavior in the classroom, which is a phenomenon known as referral bias or ascertainment bias (Klapproth et al., 2020). The *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013) addresses the issue in a section on ‘specific gender features’ of ‘Reading Disorder’:

Referral procedures may often be biased toward identifying males, because they more frequently display disruptive behaviors in association with Learning Disorders. The disorder has been found to occur at more equal rates in males and females when careful diagnostic ascertainment and stringent criteria are used rather than traditional school-based referral and diagnostic procedures. (p. 49)

In addition to referral bias, gender differences in past studies could have varied due to differences in the sample population, how dyslexia and reading impairment were defined within the study, as well as differences in sample size.

Some researchers have suggested dyslexia cannot be distinguished from poor reading abilities in general (Johnston & Scanlon, 2020; Vellutino, 1979) and is therefore not a useful diagnosis. However, recent research has identified and isolated differentiating factors between poor readers, low IQ readers, and readers with dyslexia. For example, Kuppen and Guswami

(2016) utilized the trajectory method to map the differences between low IQ readers and dyslexic readers on auditory and phonological processing measures. They discovered while both groups exhibited atypical developmental trajectories when results were modeled, the weakness profiles of each group differed. Most notably, the low IQ readers displayed delayed phonological processing, while the participants with dyslexia showed atypical development trajectories of the same skill. Kuppen and Guswami (2016) suggest “phonological development in dyslexia is not simply delayed, but different” (p. 17). Research such as this implies the need for specific teaching strategies directly related to this difference in learning.

Early identification and remediation of dyslexia is critical, so the student not only receives intervention, but also has a chance to form positive self-image through an understanding of the way their brain works (Lindstrom, 2019). The detrimental effects of dyslexia on social-emotional development and academic performance might be reduced if more students were identified early and given the proper intervention.

Effective Teaching Strategies

Advances in neuroscience, and many years of scientific studies of best practices in reading instruction, have provided a clear picture of effective teaching strategies for students with dyslexia. Successful strategies for teaching dyslexic students are well-documented and include direct and explicit instruction in phonemic awareness and phonics (IDA, 2017; Johnson, 2019; Kearns et al., 2019; Mills, 2018; Moats & Dakin, 2017). Explicit instruction refers to a style of teaching that doesn't assume which information and skills students will naturally pick up for themselves (Hughes et al., 2017). Instead, educators leave nothing to chance by deliberately and purposefully planning lessons that involve direct instruction, modeling, and guided practice

in specific skills. Children who are struggling with reading gain more from direct instruction than from self-directed learning because if they were able to figure it out, then they wouldn't be experiencing difficulties (Archer & Hughes, 2011). Effective interventions should begin with comprehensive assessments and then focus on specific areas of need revealed in the assessments (Wanzeck et al., 2020). Evidence based programs which utilize systematic phonics instruction include materials from the Institute for Multisensory Education (formerly Orton-Gillingham), UFLI Foundations, the Sonday System, Wilson, Spire, and Barton, for example.

Meta-analyses of research on effective instruction for students broadly defined as either being at risk or diagnosed with learning disabilities found reading instruction that emphasizes both comprehension and systematic training in core reading skills (phonics, phonemic awareness, etc.) were associated with significant effect sizes (Gersten et al., 2020; Neitzel et al., 2022; Slavin et al., 2011; Suggate, 2010; Swanson et al., 1999; Wanzenk et al., 2016, 2018). Most recently, Hall et al. (2022) reviewed prior metaanalyses and completed their own which encompassed forty years of past research. Unique to that analysis was a focus on studies featuring interventions specifically for students with dyslexia. The results of the meta-analysis support giving dyslexic students in Grades K–5 reading interventions which include direct instruction in phonological awareness, phonics, decoding, spelling, and connected-text reading. In addition, higher dosages (i.e., amount and duration) of interventions resulted in larger effect sizes for the dyslexic populations examined (Hall et al., 2022).

Some dyslexia remediation programs have involved eye strengthening and tracking therapy, including the use of colored lenses or colored overlays (Miyasaka et al., 2018). Both types of therapies operate under the incorrect premise that dyslexia is caused by an underlying

vision problem, so strengthening or accommodating the eye will allow for better tracking and eye convergence while reading. While it may be true that some children with dyslexia also have a vision problem that could be corrected with eye therapy and colored overlays, dyslexia is not an issue with vision (Handler & Fierson, 2011; Vellutino, 2004; Wilkins, 2003).

According to Wilkins' (2003) summary of the relevant research, "the proportion of dyslexic children who benefit from overlays is similar to that in normal children" (p. 50). In an analysis of forty years of dyslexia research, Vellutino (2004) concluded "contrary to popular belief, impaired readers do not see letters and words in reverse, nor do they suffer from inherent spatial confusion or other visual anomalies" (p. 41). Similarly, Handler & Fierson (2011) evaluated the relevant scientific evidence and found dyslexia and visual issues to be unrelated. The use of colored lenses while reading and as a form of vision therapy has been shown to be ineffective by multiple studies (Henderson et al., 2013; Hyatt et al., 2009; Miyasaka et al., 2018; Ritchie et al., 2011).

The use of vision therapies is so pervasive that multiple statements have been published in the past few decades by the American Academy of Pediatrics and the American Ophthalmologist Society debunking the claim that dyslexia is vision based. In 2009, the American Academy of Pediatrics, Council on Children with Disabilities, American Academy of Ophthalmology, American Association for Pediatric Ophthalmology, and the Strabismus Association of Certified Orthoptists issued a *Joint Statement on Learning Disabilities, Dyslexia, and Vision* and declared:

There is no adequate scientific evidence to support the view that subtle eye or visual problems cause learning disabilities. Furthermore, the evidence does not support the concept that vision therapy or tinted lenses or filters are effective, directly or indirectly, in the treatment of learning disabilities. Thus, the claim that vision

therapy improves visual efficiency cannot be substantiated. Diagnostic and treatment approaches that lack scientific evidence of efficacy are not endorsed or recommended. (p. 843)

Dyslexia Legislation

It is estimated only one in five children with disabilities were educated in U.S. schools prior to federal legislation, and many states had laws banning specific students, such as those who were deaf, blind, or who had an intellectual handicap (Hallahan et al., 2020). The advocacy of parents and educators who were worried that many children with disabilities were being denied access to education led to the creation of the Education for All Handicapped Children's Act of 1975 or PL 94-142 (Yell et al., 2017). For the first time in history, this civil rights law guaranteed all children with disabilities would have the right to a free and appropriate public education (FAPE) in the least restrictive environment. The least restrictive environment refers to the educational setting that is as close to a regular school classroom as possible (Underwood, 2018). In addition, schools would have to locate and educate every child with a disability and would no longer be able to prohibit them from attending.

Procedural safeguards for parents were also incorporated into federal law to guarantee the right to advocate for their children. The law has been amended and reauthorized several times and the most recent iteration of PL 94-142 is the Individuals with Disabilities Education Improvement Act (IDEA) mentioned above. Dyslexia is included in the section defining specific learning disabilities of IDEA (United States Department of Education, 2006), which reads as follows:

Specific learning disability. (i) General. Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical

calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. (20 U.S.C. §1401[30]; 34 C.F.R. §300.8[c][10])

Despite mention in federal law, many schools do not use the term dyslexia, and more commonly identify and categorize students as having specific learning disabilities in reading and writing (Lindstrom, 2019). Due to concerns from advocacy groups about local reluctance to use the term dyslexia in students' Individualized Education Plans (IEP), the Office of Special Education and Rehabilitative Services (OSERS) issued a letter to the states explaining “there is nothing in the IDEA that would prohibit the use of the terms dyslexia, dyscalculia, and dysgraphia in IDEA evaluation, eligibility determinations, or [individualized education program] documents” (p. 1). OSERS (2015) further clarified there may be instances where it would be appropriate for an education team to know about the “specific condition underlying the child’s disability (e.g., that a child has a weakness in decoding skills as a result of the child’s dyslexia)” (p. 3).

Perhaps in response to the discrepancy between federal guidance and local identification, laws related to the identification, screening, and remediation of dyslexia in schoolchildren are increasingly passed in state legislatures throughout America. For example, Montana recently passed The Montana Dyslexia Screening and Intervention Act (§20-7-469; 2019). This state bill obligates school districts to screen and identify students with dyslexia and provide appropriate academic interventions. In the first three months of 2018 alone, thirty-three different bills were introduced in state legislatures across the United States (Youman & Mather, 2018). By 2020, all but six states in America had some sort of legislation regarding dyslexia, ranging from creation of task forces to more extensive mandates of specific screening and intervention programs (Zirkle, 2020). Most recently, the National Center on Improving Literacy (2022) showed only

two states in America (Hawaii and Idaho) were currently lacking legislation about dyslexia screening. However, only thirty-one states include legislation related to specific interventions (NCIL, 2022). There is a wide discrepancy across the states as to the extent of legislation regarding dyslexia (Zirkle, 2022).

Widely recognized scholars in the dyslexia research field, Shaywitz and Shaywitz testified to the U.S. Congress regarding the House Resolution on Dyslexia (H. Res. 456, 113th Congress, 2014), stating:

As physician-scientists, we have seen the devastating impact on children and families resulting from the failure by our schools to recognize and address dyslexia; as scientists we know the powerful scientific knowledge that both explains dyslexia and offers an evidence-based route to remediation. Often, we wish there were more knowledge to address a problem. In the case of dyslexia, we have the knowledge to do much better for our children and our nation and so rather than a knowledge gap, there is an action gap.

In recent years, there has been an increase in judicial action related to unmet intervention needs of students with dyslexia, including federal class-action lawsuits which set legal precedence for the use of specific instructional methods such as OG (*Student A. et al. v. Berkeley Unified School District*; *Kenny v. Hillsborough County Schools*, *O.R et al. v. Clark County School District*). These court cases illustrate the rising attention to the rights of dyslexic students to receive appropriate instruction. Considering the recent influx of federal and state legislation, as well as the prevalence of dyslexia in schoolchildren, it is increasingly important for educators to understand, recognize, and know how to teach students with dyslexia.

History of Debate

The history of dyslexia research has been steeped in debate which highlights evolving understanding through time. Research into reading disabilities began to emerge in the late

1800's. A neurologist, Adolph Kussmaul, noticed some of his patients could not read well and often used words in the wrong order. Kussmaul (1877) used the term 'word blindness' to describe their difficulties because he thought it to be a vision problem. Hinshelwood (1896, 1900, 1917), an ophthalmologist, published a series of papers in which he described dyslexia as a congenital blindness for words. Word blindness became the widely accepted explanation for unexpected difficulty with reading (Smirni et al., 2020). The term dyslexia was first used in 1887 by Rudolf Berlin, a physician and ophthalmologist. He coined the phrase from the Greek root dys, meaning 'bad' or 'difficult' and lexia, meaning 'words' (Berlin, 1887). Berlin was the first to propose a factor unrelated to vision and thought brain lesions were the root cause of dyslexia (Wagner, 1973).

In opposition to the concept of word blindness, Orton researched the reading errors of those with dyslexia in the early twentieth century and categorized it as a language impairment. Orton attributed the errors to a problem with brain processing (Kirby, 2020). What is now known as the Orton-Gillingham approach to teaching students with dyslexia was created by Samuel Orton and his colleague Anna Gillingham. The Orton-Gillingham method is now widely used to teach individuals with dyslexia how to read.

By the 1970's, several foundational articles had been written by developmental psychologists (Critchley, 1970; Naidoo, 1972) which helped to formalize modern conceptions of dyslexia. Naidoo's (1972) research is important because it was the first to systematically compare dyslexic and non-dyslexic readers. These studies coincided with the foundation of centers for dyslexia in the United States and England, as well as the original IDEA legislation.

The field of dyslexia studies is continually improving the conceptualization of dyslexia thanks to recent research, especially in the areas of neuroscience. Even considering advances in neuroscience, the history of debate surrounding dyslexia continues into the contemporary era. Some researchers question the usefulness of labeling students with dyslexia at all and argue there is no distinction between dyslexia and generalized poor reading (Elliott & Grigorenko, 2014; Johnston & Scanlon, 2020; Peterson & Pennington 2015; Vellutino, 1979). In contrast, a plethora of researchers in the fields of education, psychology, medicine, and neuroscience, as well as professional and parent-led organizations, are committed to educating teachers and advocating for laws requiring appropriate screening and intervention (Sanfilipino et al., 2020). It is likely that evolving historical understandings of dyslexia, coupled with a history of debate which continues into the present day, have contributed to widespread misconceptions about dyslexia.

Teacher Knowledge and Misconceptions

There has been extensive research on teacher knowledge and misconceptions of dyslexia (Berent & Platt, 2021). Research studies involving educators' misconceptions of dyslexia have historically involved measures of knowledge, giving insight into gaps in teacher knowledge and allowing for patterns of misconceptions to become evident (see Table 1).

Table 1. Common misconceptions about dyslexia compiled from the literature reviewed

Misconception	Study
Dyslexia affects intelligence	Nadelson et al. (2019), Peltier et al. (2020), Rutherford (1971), Thorworth (2014), Wadlington & Wadlington (2005), White et al. (2020).
Dyslexia can be outgrown or cured.	Kumas et al. (2016), Nadelson et al. (2019), Peltier et al. (2020), Wadlington & Wadlington (2005), Washburn et al. (2014)
Reversing letter, words, and numbers is the main characteristic used to diagnose dyslexia.	Knight (2018), Nadelson et al. (2019), Peltier et al. (2020), Peltier et al. (2022), Rutherford (1971), Wadlington & Wadlington (2005), Washburn et al. (2014), White et al. (2020), Worthy et al. (2016)
Students with dyslexia also have behavior problems.	Wadlington & Wadlington (2005), Nadelson et al. (2019)
Dyslexia is a visual disorder in which people see text backwards, flipped, blurred, or moving around the page.	Allington (1982), Anderson (2021), Berent & Platt (2021), Knight (2018), Kumas et al. (2016), Nadelson et al. (2019), Peltier et al. (2020), Peltier et al. (2022), Rutherford (1971), Wadlington & Wadlington (2005), Washburn et al. (2011), Washburn et al. (2014) Washburn et al. (2017), White et al. (2020), Worthy et al. (2016)
People with dyslexia will always be poor readers.	Rutherford (1971), Thorworth (2014), Wadlington & Wadlington (2005)
Dyslexia comes from not being read to at home	Berent & Platt (2021), Thorworth (2014), Wadlington & Wadlington (2005), White et al. (2020)
Colored overlays, special or larger print, and vision therapy are appropriate interventions	Berent & Platt (2021), Gonzales (2021), Kumas et al. (2016), Peltier et al. (2020), Peltier et al. (2022), Thorworth (2014), White et al. (2020), Worthy et al. (2016)
Dyslexia only affects reading	Rutherford (1971), Wadlington & Wadlington (2005), White et al. (2020)

The earliest published measure of dyslexia knowledge was found in *The Reading Teacher*, in which a 7-question test to establish the readers' "Dyslexia Quotient" was featured (Rutherford, 1971). This informal self-test involved information refuting common misconceptions and providing refutations using current research. More formally, Allington (1982) surveyed teachers regarding their knowledge and beliefs about dyslexia. Moats and Foorman (2003) developed *The Teacher Knowledge Survey* and discovered gaps not only in teacher knowledge of dyslexia, but of reading in general. Further, these gaps in teacher knowledge "account for significant variance in young children's reading and spelling" (Moats & Foorman, 2003, p. 28). These earliest measures of teacher knowledge revealed most educators attributed dyslexia to problems with visual perception and highlight the effect teacher knowledge has on emergent literacy skills.

Wadlington and Wadlington (2005) developed and validated the *Dyslexia Belief Index*, which they used to investigate beliefs of two hundred fifty education students and faculty. They discovered that 69% incorrectly assumed that word reversal was the main criterion for diagnosing dyslexia, and 88% responded that they did not feel prepared to work with dyslexic students. Some subsequent studies have either utilized or modified Wadlington's measure (Gonzales, 2021; Peltier, 2020; Peltier, 2022; Washburn et al., 2011 a, 2011b, 2014, 2017, 2022). For example, Washburn et al. (2014) modified the Wadlington's (2005) *Dyslexia Belief Index* with a sample of one hundred seventy-one preservice teachers from the US and UK. They found misconceptions related to visual issues, specifically letter reversals, as the main diagnostic criteria, and the belief that children can outgrow dyslexia. This study confirmed earlier research by Moats and Foorman (2003) which showed most teachers understood basic language concepts

but were unable to demonstrate specific concepts such as principals of phonics. In addition, Peltier et al. (2022) updated and extended the *Dyslexia Belief Index* to create the *Dyslexia Knowledge Questionnaire*. Utilizing a sample of five hundred twenty-four teachers in Nebraska, Peltier et al. (2022) confirmed that even in the year 2022, over 50% of the teachers surveyed believed dyslexia to involve visual issues.

Similarly, the *Scale of Knowledge and Beliefs about Dyslexia* was developed to measure misconceptions, level of training, years of teaching practice, and grade level taught (Soriano-Ferrer & Echeagaray-Bengoa, 2014). Although Soriano-Ferrer and Echeagaray-Bengoa (2014) found significant enduring misconceptions, especially related to vision and vision therapy, elementary teachers had more knowledge and less misconceptions overall than secondary teachers. This measure has also been utilized and/or adapted in subsequent research (Echeagaray-Bengoa et al., 2017; Kumas et al., 2016). For example, Echeagaray-Bengoa et al. (2017) and Kumas (2016) both utilized the scale and noted continued misconceptions related to poor visual perception and letter reversals as the most significant diagnostic criteria.

More recent studies have created unique measures for understanding teacher knowledge of dyslexia (Knight, 2018; Moss, 2020; Nadelson et al., 2019; White, 2020). For example, Knight (2018) utilized a much larger sample of two thousand six hundred teachers in the UK and Wales and corroborated the most enduring misconception of dyslexia as a visual problem, as well as limited opportunities for training specific to dyslexia. Nadelson et al. (2019) created a survey instrument to investigate the relationship between fifty-four K-12 in-service teachers' misconceptions about dyslexia and level of training. As higher levels of professional development and college coursework related to reading disabilities increased in the sample

population, the level of misconceptions about dyslexia decreased. This indicated a significant relationship between knowledge, training, and teacher misconceptions of dyslexia.

In contrast to past studies focusing on quantitative surveys or mixed methods, Worthy et al. (2016) and Gonzales and Brown (2019) utilized a qualitative approach to understanding educator knowledge and experiences with dyslexia. Through interviews with educators, Worthy et al. (2016) discovered recurring themes of a sense of responsibility for helping dyslexic students coupled with confusion and misconceptions related to diagnosis and instruction.

Utilizing semi-structured interviews in which participants were asked to define and describe dyslexia, Gonzales and Brown (2019) found early childhood educators also held the misconception of dyslexia as a visual processing disorder. The pre-school teachers in their study did not view phonemic awareness as a key factor in identifying children at-risk for dyslexia, which is precisely the area where dyslexic students struggle most.

Peltier et al. (2020) took a novel approach to the problem of misconceptions by measuring the extent the theory of conceptual change could be used to affect persistent educator misconceptions. Conceptual change is the dynamic process the brain must undergo to remove a misconception and replace it with true information (Nadelson et al., 2018). Participants read two texts, one with facts about dyslexia and one passage refuting the misconceptions along with the facts. The groups were given pre and posttests using *The Dyslexia Knowledge Questionnaire*. This instrument consisted of twenty Likert scaled items based on Wadlington & Wadlington's (2005) work. The refutation text provided the most change in misconceptions, which is in line with conceptual change theory (Peltier et al., 2020).

White et al. (2020) not only investigated knowledge of dyslexia, but also the perceptions of educator responsibility using the *Knowledge and Insights of Dyslexia Survey (KIDS)* on two hundred forty-three education and non-education majors. Consistent with prior research patterns, it was found that most college students held misconceptions about a visual basis for dyslexia. Most participants agreed that it was a special education teacher's responsibility to identify and teach students with dyslexia, rather than the classroom teacher. Interestingly, there was no statistical difference between knowledge of education majors and non-educations majors which suggests teacher training programs should evaluate the extent to which preservice teachers receive training in student support needs.

In a dissertation study, Moss (2020) provided a unique contribution to the field in the form of a validated measure called the *Teacher Knowledge of Dyslexia and Education Policy (TKDEP)*. Unlike many prior studies which utilized smaller convenience samplings of preservice teachers, Moss (2020) surveyed almost two thousand in-service teachers across the state of Florida and found significant misunderstandings related to the visual myth as well as a lack of knowledge in diagnostic and intervention best practices.

Studies examined in this literature review encompass the knowledge of preservice and in-service teachers in the United States, England, China, Wales, Spain, Peru, Greece, and Turkey. This indicates lack of knowledge and misconceptions of dyslexia are firmly engrained and a worldwide phenomenon (Mather et al., 2020). The misinformation surrounding dyslexia, what Anderson (2021) called "The Dyslexia Myth," is part of a greater phenomenon of enduring neuromyths (such as learning styles, right brain vs. left brain learners, etc.) which can be attributed to educators' lack of understanding of neuroscience as well as the persistence of these

myths in popular culture. Three different pathways to developing misconceptions (either separately or in combination) have been suggested:

1. Distortion or oversimplification of scientific facts
2. Persistence of outdated scientific facts
3. Misinterpretation of scientific facts (Pasquinelli, 2012; van Dijk & Lane, 2020).

It seems likely the widespread misconceptions surrounding dyslexia have resulted from a combination of all three of these pathways.

Shaywitz (2005) found that even though research into multiple facets of dyslexia (including defining characteristics, assessment, and instructional strategies) had been available for twenty years (at time of publication), it had not been included in pre-service or in-service teacher education and training. Consequently, many teachers felt unprepared to work with students with dyslexia. In addition, when teachers held more negative attitudes toward dyslexia, they also rated achievement of students negatively as well (Hornstra, 2010). Even just the word dyslexia had a negative effect on teacher participants' confidence and self-efficacy in one study (Worthy et al., 2018).

The persistence of multiple types of misconceptions in the literature, as well as teachers' lack of training regarding the basic characteristics of dyslexia, highlights the need for specific teacher training. Teacher participants with training in dyslexia held significantly fewer misconceptions than those without (Wadlington & Wadlington, 2005) and the more knowledge an educator had about dyslexia, the more comfortable and effective they were teaching dyslexic students (Echegeray-Bengoa et al., 2017). Some teacher participants emphasized the need for more support for teaching students with dyslexia. In addition, undergraduate students who had

completed a course about reading disabilities and instructional practices had more knowledge and fewer misconceptions about dyslexia than those who had not taken the course (Jones et al., 2019). The results of these studies suggest professional development for teachers directly impacts levels of knowledge and can work to combat misconceptions.

Teachers, parents, and policy makers who hold misconceptions about dyslexia may be more likely to choose inappropriate and ineffective diagnostic and intervention procedures for children (Washburn et al., 2011), thus hindering students' educational and emotional well-being. In addition, perpetuation of neuromyths and misconceptions "has likely been responsible for inappropriate allocation of scarce educational resources including time, effort, and money" (van Dijk & Lane, 2020, p. 3). It is critical to continue to focus future research not only on identifying, but reversing, these misconceptions through education and training. Identifying misconceptions about dyslexia in children's picture books could be one way to combat widespread misinformation.

Representations of Diversity in Children's Literature

The first published analysis of the domination of white characters in children's literature serves as the foundation for research on diversity in children's literature (Larrick, 1965). Since then, studies have focused on how race and racism are depicted in children's literature. Many authors have examined the presence of racism, stereotypes, and the harmful effects of lack of representation of people of color in children's books (Bishop, 1990; Bishop, 2012; Ishizuka & Stephens, 2019; Leahy & Foley, 2018; Sims-Bishop, 1997; Reese, 2008; Myers, 2014; Nell, 2017).

Content analysis of race in children's literature has ranged from examinations of board books for the very young child (Hughes-Hassel, 2010) up to young adult novels, and each study found a continued lack of diversity (Children's Cooperative Book Center [CCBC], 2020; Lee & Low, 2013; Koss, 2015; Ayala, 1999). For example, 75% of the main characters in children's books in 2012 were white, and 50% of children's book characters in 2018 were white (Koss, 2015; CCBC, 2020). CCBC librarian K. Horning (2022) noted, "What we know from being immersed in children's and young adult literature is that white characters are not—and never have been—lacking in books for children and teens."

In addition, male characters are overwhelmingly overrepresented in literature across all genres, according to previous studies (CCBC, 2020; Ernst, 1995; Filipovic, 2018) Lowther, 2014; McGrabe et al., 2011; Prater, 2003; Weitzman et al., 1972; Koss, 2015). For example, Ernst (1995) examined the names of characters in children's book titles and discovered boys were more than twice as likely to be named than girls. In a comprehensive content analysis of six thousand children's books published between 1900 and 2000, McGrabe et al. (2011) discovered 57% of the main characters were male as opposed to 31% female main characters. In a study of 455 picture books published in 2012, 75% of human main characters were white and 60% were male (Koss, 2018). These studies indicate male characters have traditionally been overrepresented in children's literature.

Representations of Disability in Children's Literature

Many studies have examined representations of disability in children's literature in various forms (Adomat, 2014; Blaska, 1996; Blaska, 2003; Blaska, 2004; Dyches et al., 2006, 2018; Dyches & Prater, 2000; Dyches & Prater, 2005; Kleekamp & Zapata, 2018 Price et al.,

2016). The earliest examinations revealed biased representations of disability (Biklen & Bogden, 1977; Doherty-Hale, 1984; Rubin, 1987). Since then, researchers have examined the presence of disabilities in general as well as focused on specific disabilities. Most research into the presence of disabilities in general in children's literature found evidence of characters portrayed inaccurately, unrealistically, and not as dynamic main characters.

Ayala (1999) revealed only 20% of books examined exhibited realistic portrayals of disability and most texts portrayed the characters as pitiable "poor little souls." Prater (2003) observed even though the field of disability studies has evolved, "many juvenile books promote practices that are not current and up-to-date" (p. 59). For example, many of the students in the texts reviewed in Prater's study (2003) were placed in support services without parental permission, which is contrary to IDEA.

Some authors have focused their research on the portrayal of specific types of disabilities such as visual impairments (Carrol & Rosenblum, 2000), attention deficit hyperactivity disorder (Prater et al., 2005), Asperger's Syndrome and Autism (Barker et al., 2011; Black & Tsumoto, 2018; Dyches et al., 2001; Greenwell, 2004; Kelly et al., 2018; Kelly et al., 2015), Down Syndrome (Kalki-Klita, 2005), Deafness (Golos et al., 2012; Pajka-West, 2007), and learning disabilities (Doherty-Hale, 1984; Kendrick, 2004; Landrum, 2001; Prater, 2003). In the texts examined in these studies, most characters were found to be inaccurately represented, included deficit views of disability, and themes of shame.

Children's books including characters with disabilities have been found to either portray the character with a disability as pitiable or as exhibiting special talents and/or superhero traits (Monoyiou & Symeonidou, 2015). It has been suggested even while attempting inclusion, some

children's literature acts as "narrative erasure" of disabilities by portraying the disability as an individual problem to be hidden, overcome, or assimilated (Aho & Alter, 2018).

Some studies, however, have focused on highlighting only those books featuring respectful, dynamic, and authentic characters with disabilities (Hayden & Prince, 2020; Pennell et al., 2018; Prater & Dyches, 2008; Rieger & McGrail, 2015; Sotto & Ball, 2006; Dyches et al., 2009), including Newbery Award winning books (Leininger et al., 2010), Caldecott winners (Dyches et al., 2006), and books considered for the Dolly Gray Award (Taylor et al., 2020). These studies followed a similar structure of exploration of specific criteria for inclusion, a curated list of texts, and recommendations for use in the classroom. Criterion for respectful, authentic, and dynamic characters with disabilities has included the following:

- portray characters as individuals with both strengths and weaknesses
- focus on what they can do; not just on what they can't do
- portray disability as part of who the character is, rather than all they are
- character displays a range of emotions, and their attitudes should not differ dramatically from the other characters
- interesting and dynamic storyline
- authentic and respectful language and portrayal of the disability (Hayden & Prince, 2020; Pennell et al., 2018; Prater & Dyches, 2008; Rieger & McGrail, 2015; Sotto & Ball, 2006; Dyches et al., 2009)

Rieger and McGrail (2015) suggested adding humor as a criterion when reviewing authentic disability representation.

Pennell et al. (2017) made a unique contribution to the examination of authentic representation by focusing on ten texts “that were interesting and meaningful for all readers but especially for upper elementary students who read below grade level” so they could access books as mirrors on their own (p. 414). During their search for ten exemplar texts, Pennell et al. (2017) noted few books examined “offered respectful representation” and many books were written to teach other children about disabilities (p. 417). In contrast, Taylor et al. (2020) evaluated 47 texts and found most characters were portrayed realistically and in a positive manner. Interestingly, 74% of the characters were portrayed as autistic and all those characters were male.

Representations of Dyslexia in Children’s Literature

Research into representations of dyslexia in children’s literature is limited. Four studies were identified which included dyslexia in an overall analysis of character portrayals. Three of those studies focused on creating curated book lists of characters with disabilities (Landrum, 2001), “communication disorders” (Sotto & Ball, 2006), and reading difficulties (Jozwik & Rice, 2020). One study focused on characterization of learning disabilities in general, including dyslexia (Prater, 2003). Finally, four additional studies were found which focused exclusively on dyslexia in children’s literature (Altieri, 2006; Altieri, 2008a; Altieri, 2008b; Sotirovska & Vaughn, 2021).

Landrum (2001) examined intermediate novels (defined by the author as books for readers in grades four through seven) published between 2004 and 2014 with the intent to identify books meeting criteria for positive character portrayals of learning disabilities. Focusing the inclusion criteria on plot, character development, and tone, Landrum (2001) recommended forty-six texts for positive and dynamic character portrayals. The study described the process of

creating the evaluation criteria and provided an annotated booklist of the texts, concluding they would be appropriate for raising awareness of disabilities. Three of the books in the recommended list included dyslexic characters: *Egg Drop* (Banks, 1995); *My Name is Brain Brian* (Betancourt, 1995); and *The Worst Speller in Junior High* (Janover, 1995).

Sotto and Ball (2006) explored texts intended for readers from preschool to eighth grade with the intent to create a list of books with main characters with “communication impairments of mutism, oral and written language disorders (dyslexia), dysfluency or stuttering, and articulation disorders” who could be seen as positive role models (Sotto & Ball, 2006, p. 41). Of the eighteen recommended texts, three included characters with dyslexia: *How Dyslexic Benny Became a Star* (Griffith, 1997); *Thank you Mr. Falker* (Palacco, 1998); and *A Pony for Keeps* (Betancourt, 1995). Sotto and Ball (2006) initially reviewed thirty texts but excluded twelve because the characters were “often depicted as weak, timid, withdrawn, and spineless. The main character without the disability was the one to save or protect the individual with a disability” (p. 42). The authors recommended the remaining eighteen texts for use in bibliotherapy as well as integration into curriculum.

Jozwik & Rice (2020) identified fourteen texts for adolescent readers (Grades 6-8) that include “respectful representations of characters with reading difficulties so language arts and special education teachers can incorporate these texts” into their classroom experiences (p. 167). Unlike Sotto and Ball (2006) and Landrum (2001), this study included analysis, explanation, and examples of the inclusion criteria describing themes of self-acceptance, positive and supportive relationships, and interesting and complex story lines. Unique to this research is an inclusion of

the recommendation for teachers to guide students in examining this literature from a critical perspective as most characters were white and lacked diversity.

The texts included themes of common misconceptions of reading disabilities (e.g., students are lazy or have extraordinary talents) and deficit language. It is interesting to note Jozwick and Rice (2020) concluded texts with misconceptions and deficit language still qualified as respectful representations by including them in the recommended book list. All of the recommended texts included characters with reading difficulties; however, nine of them specifically mentioned dyslexia: *Army Brats* (Benedis-Grab, 2017), *Fish in a Tree* (Mullaly-Hunt, 2015), *Mondays Not Coming* (Jackson, 2018), *One White Dolphin* (Lewis, 2012), *Stupid* (Firmston, 2014), *The Love Letters of Abelard and Lily* (Creedle, 2017), *The Pitcher* (Hazelgrove, 2013), *Unscripted Joss Byrd* (Penaflor, 2016), and *Waiting for Normal* (Connor, 2008).

Prater (2003) focused more on an in-depth content analysis of character portrayals and themes, as opposed to curating a recommended list. In the examination of ninety fiction texts (of which 8 were picture books), most characters with learning disabilities were the main character and the story was told from their point of view. Seventy-two percent of the characters were portrayed as having a reading disability and “many of the characters with reading disabilities were identified as having dyslexia” (Prater, 2003, p. 51). A complete list of books reviewed in the study was included, but all the books with dyslexic characters are not specified. However, the following books with dyslexic characters are named in the analysis: *Kiss the Clown* (Alder, 1986), *Me and Einstein* (Blue, 1979), *My Name is Brain Brian* (Betancourt, 1993), *Yellow Bird*

and Me (Henson, 1986), *Danny Means Trouble* (Suzanne, 1990), *Thank You Mr. Falker* (Palacco, 1998), and *Josh, a Boy with Dyslexia* (Janover, 1988).

In the texts with dyslexic characters examined in Prater's (2003) study, dyslexia is characterized by word reversals and seeing words backwards or upside down. In one text, dyslexia was described in this way: "If you have dyslexia, it's like your brain is a faulty TV set...spots of the picture may be missing or be backwards or upside down. Kids with dyslexia read funny (Konigsberg, 1971, p. 4). Themes of texts including characters with learning disabilities included strengths such as math and art, misbehavior, low self-esteem, the diagnosis process, specific interventions at school, and being victims of teasing and bullying. Prater (2003) expressed disappointment that most of the texts were written with the goal of including disability for others to learn about, rather than "telling a great story that just happened to include a character with a learning disability" (p. 60).

Only four studies were located which exclusively examined picture books and chapter books that include characters with dyslexia (Altieri, 2006; Altieri, 2008a; Altieri, 2008b; Sotirovska & Vaughn, 2021). Three separate articles by the same author, utilizing similar text sets, were published which examined representations of dyslexia in children's fiction (Altieri, 2006; Altieri, 2008a; Altieri, 2008b). Only one study was found to exclusively include picture books with dyslexic characters as the study corpus (Sotirovska & Vaughn, 2021).

In an examination of seventy-seven fiction picture books and chapter books, Altieri (2006) used chi-square analysis to determine relationships between character gender and issues portrayed in the texts. Texts examined in this study included both picture books and chapter books published through 2003, although only three total were picture books (unidentified).

Altieri (2006) discovered significant relationships between gender of the character and “overall feelings of despair/stupidity,” “family,” and “issues related to the academic setting” (p. 165). Male characters were more likely to be portrayed as having feelings of despair and issues within the family, whereas female characters were more likely to be portrayed as having troubles at school (Altieri, 2006). Further, while dyslexic female characters were depicted more frequently, male characters were more likely to have behavioral issues. In addition, characters with dyslexia were portrayed as experiencing high amounts of frustration related to reading.

Altieri (2008a) also examined seventy-two children’s books featuring characters with dyslexia through an a-priori coding process of the following themes: “strengths, difficulties, behavioral issues, self-esteem issues, grade retention, and family members with dyslexia” (p. 165). Only four of the texts examined were picture books, but the author does not note which texts specifically. Altieri (2008a) noted half of the characters with dyslexia were portrayed as exhibiting behavioral problems and 70% displayed low self-esteem. Many of the characters in this study experienced bullying and name calling and many had a relative who also struggled with reading. Strengths of the characters included excellent memory (sometimes described as photographic), enhanced physical abilities (such as sports talent), and artistic talents.

The third study by Altieri (2008b) utilized the same set of seventy-two contemporary realistic children’s fiction texts. This article included a full list of the children’s books examined. Four of the texts were picture books: *Thank You, Mr. Falker* (Palacco, 1998), *Charlie’s Challenge* (Root & Gladden, 1995), *Dolphin Sky* (Rorby, 1996), and *The Best Fight* (Schlieper, 1995). The focus of this study was on discovering how the characters with dyslexia were identified, any specific instructional methodologies, and the characters’ self-concept. In the texts

examined, it was most often a family member or friend who suggested testing for dyslexia. The teacher referred the character for testing in only two of the texts. The most common instructional strategy was tutoring outside of school, followed by peer help, and assistive technologies. Orton Gillingham was specifically mentioned in several of the books; however, no details were given about this methodology. Very few books portrayed teachers in a positive light. Finally, 72% of the texts included language that was demeaning to the character, such a “dumb,” “stupid,” or “lazy.”

Most recently, Sotirovska and Vaughn (2021) focused exclusively on children’s books written for children ages four to eight (based on Lexile Level) in a critical content analysis focusing on the portrayal of dyslexic characters and demographic information. Books selected for the analysis included texts published after the Disabilities Education Act amendments of 1997 up through 2020 (see Appendix A). Themes were found across thirty texts related to bullying, pressure to belong, assistive technologies, character resilience, and definitions of dyslexia (Sotirovska & Vaughn, 2021). Overall, the authors determined most of the books contained male, white characters with stereotypical story arcs of disability in which the character struggles, obtains a diagnosis and subsequent cure. Sotirovska & Vaughn (2021) called for future research to include a larger sample of children’s books and invited authors to “grapple with the complexities of this topic in children’s literature so we can bring it to the forefront of the literacy community of students, teachers, and contributors” (p. 10).

The current proposed study answers Sotirovska and Vaughn’s (2021) call for a larger sample of children’s books featuring characters with dyslexia by examining twenty-nine more picture books. Since Altieri’s (2006, 2008a, 2008b) data set included only four picture books in

addition to chapter books, I propose to include only picture books to examine themes specific to that genre. Doing so will address the gap in publishing years in which only picture books were examined between Altieri's (up to 2003) and Sotirovska and Vaughn's (1997-2020) studies.

Sotirovska and Vaughn (2020) examined picture books limited to kindergarten through fourth grades by Lexile level. In the proposed study, the search criteria will not be limited by Lexile level, or grade level, which will allow for the collection of a larger data set. A larger and more focused study corpus than in prior research will provide the opportunity for a more comprehensive examination of the representation of dyslexia in contemporary children's picture books. In addition, some of the books excluded in this study were included in Sotirovska and Vaughn's (2020) analysis (see Appendix A) because they did not exclude autobiographies. This study is unique in that it focuses solely on fictional representations of dyslexia to discover the messages and characterizations of dyslexia in that specific genre. Finally, the current study will add to the very limited body of research focused exclusively on picture books with dyslexic characters.

Chapter Summary

The literature examined for this study included topics encompassing the field of dyslexia research related to the proposed study including definitions of dyslexia, advances in neuroscience, current best teaching and learning practices for learners with dyslexia, screening and diagnosis, current legislation, as well as dyslexia's history of debate, including historical and continuing misconceptions of dyslexia. The literature reviewed also included an examination of studies focusing on diversity, disability, and dyslexia in children's literature. Four related studies were found which exclusively examined children's books including characters with dyslexia.

Three of those studies reviewed utilized the same data set. A gap in the literature was identified in the publishing years which exclusively examined picture books in prior studies. Finally, the need for more comprehensive search criteria for creation of a larger data set within the fiction picture book genre was established. The following chapter will provide explanations and rationale for the methodology of this mixed methods critical content analysis.

CHAPTER THREE

METHODOLOGY

Introduction

Legislation in America specifically related to dyslexia education exists in all but two states (Zirkle, 2020) and teacher training in appropriate teaching methods is on the rise (Johnson, 2019). Even though dyslexia is well defined in the literature, and advances in neuroscience have allowed researchers to understand what the dyslexic brain needs to be successful in school, misconceptions about dyslexia persist (Moss, 2019). Children's books containing characters with dyslexia are one area in which misconceptions about dyslexia may continue to appear.

Given that texts are never neutral (Low et al., 2021), it is important to examine “the ways language is used to shape representations of others” (Short, 2017, p. 5). The purpose of this study is to explore representations of dyslexia in picture books by answering the following research questions:

Research Question 1: Which fiction picture books published between 2004-2022 contain characters with dyslexia?

Research Question 2: What are the major themes in fiction picture books published between 2004-2022 that include characters with dyslexia?

Research Question 3: How are characters with dyslexia portrayed in fiction picture books published between 2004-2022?

Research Question 4: How is dyslexia portrayed in fiction picture books published between 2004-2022?

Research Question 5: What misconceptions about dyslexia are present in fiction picture books published between 2004-2022?

This chapter provides details and rationale for the methods used in this study. First, the research design and rationale are discussed. Next, a description of the multi-phase data collection and analysis process will be described in detail, including the creation of the study corpus and subsequent mixed methods coding phases. Finally, the analyses used to answer each research question will be explained.

Research Design and Rationale

This critical content analysis of picture books constitutes a mixed method approach to content analysis, as conceptualized by Mayring (2022), who described a qualitative step of categorizing texts and text passages, followed by analysis of frequencies as a quantitative step. Content analysis is an appropriate methodology for this study because the research questions focus on “literature as representations of human experience” (Stephus, 2015, p. 4). Specifically, this study questions how children’s picture books represent the human experience of dyslexia.

What makes a study critical, however, is the theoretical framework (Johnson et al., 2017). Examining the data through the lens of disability studies (Erbeli et al., 2018), critical neurodiversity studies (Rosqvist et al., 2020), and transactional theory (Rosenblatt, 1978) will focus the data collection and analysis on discovering the types of messages and values about dyslexia which are transmitted through the text (Hintz & Tribunella, 2019; Short, 2017). It is worthwhile to examine the ways in which story and language are used in picture books to transmit messages about dyslexia. Literary elements can influence how the reader understands

dyslexia “and by extension influence the power” dyslexic people “may or may not have within a specific society” (Short, 2017, p.5).

For this study, the distinction between the terms ‘text’ and ‘written text’ should be made.

Serafini (2014) provided guidance on the difference:

When I use the term text, I am referring to a cohesive entity that can be disseminated in ways. When I use the term written text, I am referring to the written language aspect of a multimodal ensemble. (p. 13)

In this case, the picture books themselves will be referred to as the ‘text’ and the actual written language on the page will be referred to as the ‘written text’.

Sample

Phase One of this study involved a systematic search to identify the picture books which will constitute the data set for this study. The books for this study were located and identified using specific searches in multiple databases, including Google, Google Scholar, JSTOR, various book review websites, Amazon, and Scholastic. Curated data bases, such as the IRIS Center, were also utilized in the search. Book lists were cross referenced on multiple occasions with searches performed by a research librarian to ensure no books were missed in the search. The identified texts containing dyslexic characters were located, procured, and catalogued into an Excel spreadsheet.

Once a list of potential books was generated, the following criteria were applied to create the study corpus. The book must be:

- fiction. Narrative autobiographies and narrative biographies were not included.
- children’s picture book
- written in English

- published between 2004-2022. Both traditionally published and self-published picture books were considered since both types of texts may be present in classrooms, regardless of publishing venue.
- available in print at the time of the search. Unavailable, out-of-print texts, and texts exclusively published as e-books were excluded.
- include a character with dyslexia. Dyslexia must be either directly stated within the story or in the author discussion/description or the text must contain classic portrayals of dyslexia such as letter reversals, etc. Texts which include non-specific references to reading difficulties without specific mention of dyslexia were excluded.

These delimitations created a data set that fills the gap in the research by casting a wider net than past studies in the search for picture books containing characters with dyslexia. This resulted in a larger data set than past research. The search criteria for this study also fills the gap in the research related to publishing years examined. Specifically, Altieri's (2008) data set included children's books published up to 2003 and Sotirovska and Vaughn's (2021) search criteria began with picture books published beginning in 2007. Further, this search criteria created a list exclusively focused on picture books to add to the research in that specific genre, of which there is only one other published study.

Data Collection Procedures

Once the fiction picture books including characters with dyslexia were identified, procured, and catalogued, I began a systematic multi-step data collection phase (See Figure 5). Phase one of the data collection process constituted creation of the data set, including establishment of text selection criterion, and an extensive search to identify, locate, and procure

the texts. This phase was described in detail in the previous section, and 61 picture books were identified during phase one (see Appendix B).

Phase two of the data collection process represents the qualitative phase, focused on discovering themes in the texts through close reading. Short (2017) described a distinct process for critical content analysis which includes close reading of texts through the theoretical lens and writing theoretical memos. Complimentary to Saldana, (2021), Bradford (2017) clarified the process of close reading in critical content analysis involves a purposeful, multi-step process of top-down and bottom-up reading of texts. Close reading allows for examination of the focalization of the story, the social process of the characters, the story closure, and any related assumptions (Bradford, 2017). Mayring (2022) advised researchers to think of the text under examination as “part of a communication chain” and recommended Caswell’s (1948) approach to analyzing language patterns, paying attention to which characters are speaking and what they have to say.

Two coding cycles within the qualitative phase allowed for a specific focus during each phase. Saldana (2021) clarified the difference between two distinct coding phases as “first cycle coding is analysis-taking things apart. Second cycle coding is synthesis-putting things together into new assemblages of meaning” (p. 6). Further, the two coding cycles may overlap and inform the process of the other. The first coding cycle involved a top-down reading process and the use of inductive and deductive coding. In the top-down reading phase, the researcher examined the text in relation to cultural, historical, and theoretical contexts. The top-down reading phase is focused on discovering major themes in the texts.

The second coding cycle focused on bottom-up reading, with an emphasis on coding and recoding as necessary. In the bottom-up reading phase, the researcher completed textual analysis of how “the words, phrases and literary elements work to support the top-down analytics” (Bradford, 2017, p. 26). This phase of reading is more granular and detailed, looking at specific textual details. Codes continued to be revisited, added, and revised as necessary in this phase.

The two coding cycles included the use of both deductive and inductive codes. The researcher maintained analytic memos throughout both coding cycles. In addition, the researcher developed a code book (see Tables 2 and 3). Saldana (2021) suggested the use of deductive coding in instances where prior research informs ideas and themes which are likely to appear in the text. Attribute coding included data collected and stored for each book: title, year published, author data, gender of the dyslexic character, race of the dyslexia character, notes about misconceptions present in the text, special talents of the character, etc. Process coding noted diagnosis and intervention processes. Emotions coding highlighted characters’ emotions in the picture books and values coding noted the values, attitudes and beliefs towards dyslexia present in the text. Table 2 provides a list of deductive codes that were likely to appear in the texts, developed from wide reading into dyslexia.

In addition to the a priori deductive code list, inductive coding occurred simultaneously as new information was discovered during the close reading and coding cycles. As Saldana (2021) noted, “Induction and deduction are actually dialectical rather than mutually exclusive research procedures” (p. 41). Further, due to the multifaceted nature of character development within children’s literature, coding categories were not mutually exclusive. This allowed for

simultaneous coding (Hays & McKibben, 2021). For example, a chunk of text related to a child's diagnosis of dyslexia could also contain language contributing to a definition of dyslexia.

Phase three of the data collection process represents the quantitative phase. Variables established and confirmed in the qualitative phase were dummy coded for use in calculation of frequencies. For example, gender was coded as either female or male (1=female 0=male) and the presence of misconceptions in the text were coded as either yes or no (1=yes, 0=no). This data was collected and prepared in an Excel spreadsheet on the researcher's personal computer.

Figure 5. Methods and Analytic Process

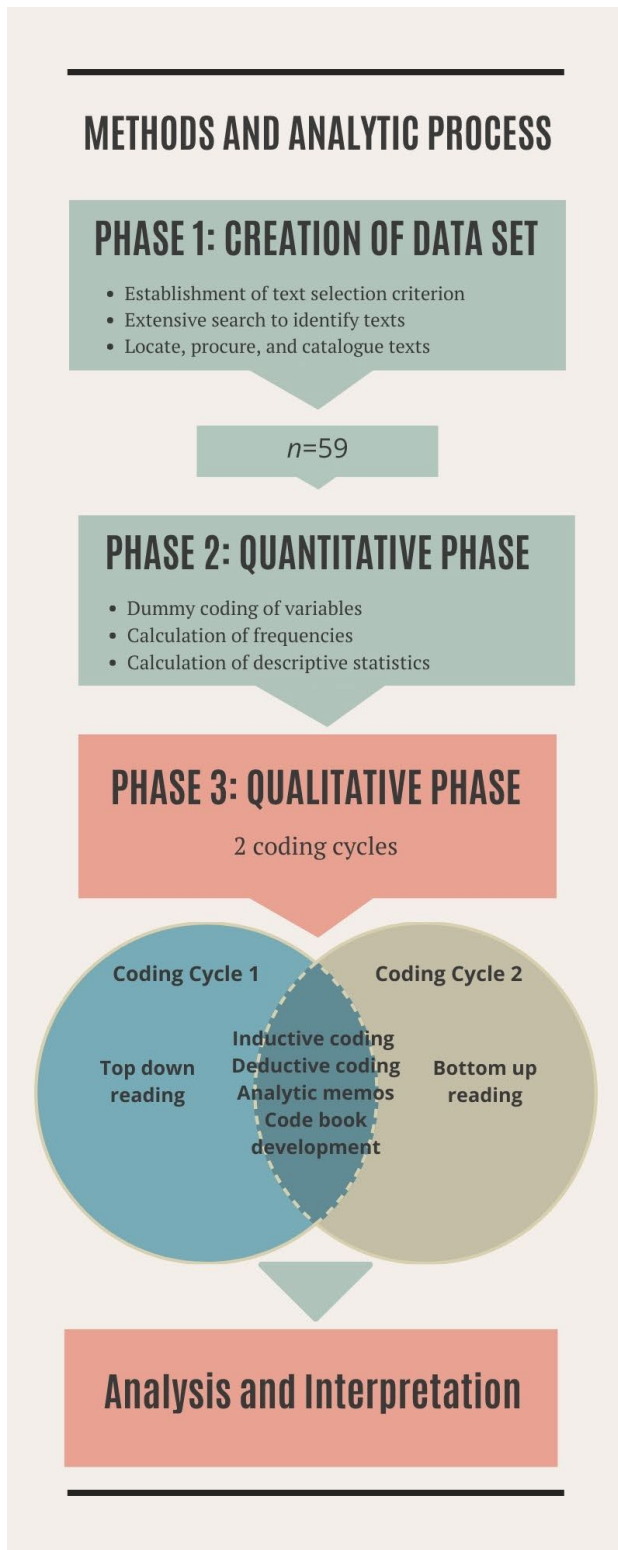


Table 2. Qualitative deductive coding framework

CODE	DESCRIPTION
ACCOMMODATIONS	Words, phrases, or images used to describe specific accommodations or modifications, such as a speech to text software, graphic organizers, colored overlays, etc.
ATTITUDES	Words, phrases, or images used to characterize the dyslexic character's attitude
CLOSURE	How the story is resolved, the final closing message of the text
DEFINITION	Words, phrases, or images used to describe and define dyslexia
DIAGNOSIS	Words, phrases, or images used to describe the process of diagnosing dyslexia or figuring out what is going on with the character's reading difficulties.
BEHAVIOR	Words, phrases, or images used to show how the characters behave in the story. For example, do they act out in class or at home?
INTERVENTION	Words or phrases used to describe services and interventions, such as a special teacher, separate class, extra tutoring etc.
MISCONCEPTIONS	Words or phrases used to describe common misconceptions about dyslexia, such as words moving around the page.
SPECIAL TALENTS	Words or phrases used to describe special talents of the character with dyslexia.
SUPERHERO	Words or phrases used to portray the character with dyslexia as a superhero

Table 3. Quantitative coding framework

CODE	DESCRIPTION
ACCOMMODATIONS	Does the dyslexic character use accommodation of any kind, such as a speech to text software, graphic organizers, colored overlays, etc.? Yes=1, No=0
ANIMAL	Is the character an animal, rather than a human? Yes=1, No=0
BEHAVIOR	Is the character with dyslexia portrayed as a behavior problem at any point in the text? Yes=1, No=0
GENDER	Gender of dyslexic character Female=1, Male=0
RACE	Race of the dyslexic character 1=White 2=Black or African American 3=Latinx 4=Asian/Pacific Islander 5=American Indian/Alaska Native
INTERVENTION	Does the dyslexic character receive an intervention of any kind, such as pull-out services, a special teacher, small group instruction, special reading program, etc.? Yes=1, No=0
MISCONCEPTIONS	Are misconceptions of any kind present in the text? Yes=1, No=0
SPECIAL TALENTS	Are special talents of any kind present in the text? Yes=1, No=0
SUPERHERO	Is the dyslexic character portrayed as a superhero? Yes=1, No=0

Data Analysis

If stories, and the specific language used to tell those stories, are key components in the transmission of cultural information, then examining literature can help us to better understand and reveal values and trends (Hintz & Tribunella, 2019). In the current study, the messages contained in children's picture books were examined using content analysis which "uses messages rather than human beings as its' units of data collection" (Neuendorf, 2017, p. 36).

Data collection and analysis are very closely linked in the content analysis process. The distinct qualitative and quantitative phases of this study, as well as overlapping coding cycles, allow for data collection to occur simultaneously with analysis in some areas. As Saldana (2021) noted, "Coding is in service to thinking," so the act of coding the text and keeping memos of the process connects explicitly to the analysis (p. 36). Producing analytic memos provided the opportunity to document and reflect on coding choices throughout the process, as well as provided a way to reflect on potential bias. Specific data analysis for each research question are as follows.

Research Question One: Which Fiction Picture Books Published Between 2004-2022 Contain Characters with Dyslexia?

The answer to RQ1 forms the study corpus, which is the foundation for the rest of the study. Once all the texts were located through the systematic search described previously, this data was presented in the form of an alphabetical list with citations.

Research Question Two: What are the Major Themes in Fiction Picture Books Published Between 2004-2022 that Include Characters with Dyslexia?

To analyze the data for RQ2, each picture book was transcribed through speech to text software in Microsoft Word. To accomplish this, I read each text slowly out loud for the software to capture each word from the text. All written text, including written text situated within the pictures, were included in the transcription. The transcription for each picture book was then uploaded to MAXQDA (2022) software, in which the multi-step coding process described earlier was accomplished. In addition, every page of each text was scanned, including the front and back cover and any peritext. The scanned images were uploaded to MAXQDA (2022) software where the multi-step coding process described earlier was accomplished focusing on themes found in the illustrations and images.

MAXQDA (2022) software provides a platform for searching texts individually and collectively for key words and phrases, creating a coding system, and highlighting text and images for coding. Further, memos can be attached to the highlighted text and images, extracted and organized. The data can also be utilized within the software to prepare summary tables, word clouds, frequency counts, and graphic data representations (Kukarz & Radicker, 2019).

Research Question Three: How are the Characters with Dyslexia Portrayed in Fiction Picture Books Published Between 2004-2022?

Multi-phase coding utilizing the transcripts and scanned images uploaded to MAXQDA (2022) continued to explore this question through thematic analysis. The focus for coding and theme development was on the portrayal of character development and character traits, such as strengths and weaknesses, as well as the character's interactions with others. Dummy coding for gender, race, and the presence of characteristics discovered during close reading provided

descriptive statistics for characterization as well. Summary tables with frequency counts and graphs were prepared for this data.

Research Question Four: How is Dyslexia Portrayed in Fiction Picture Books Published Between 2004-2022?

Additional focus questions for further exploration of RQ4 were included in the analysis:

- How is dyslexia defined in the texts?
- What messages about dyslexia are offered by the texts?
- How is dyslexia diagnosed in the texts?
- What types of interventions are provided?
- What kinds of accommodations are offered to the dyslexic character?

MAXQDA (2022) continued to be utilized to code the written text and scanned images. I highlighted and extracted the written text used to define dyslexia in each picture book and synthesized these written text units into major themes and compared to definitions in the literature. The language units and images coded for diagnosis, interventions, and accommodations were analyzed and synthesized into themes and described. In addition, MAXQDA (2022) was utilized to search and compile frequencies for the most common words in the texts, which provided insight into the ways in which dyslexia and dyslexic characters are portrayed.

Research Question Five: What Misconceptions About Dyslexia Can Be Found in Children's Picture Books Published Between 1994-2022?

Coding for misconceptions was also analyzed in MAXQDA (2022). The language used when writing about the misconception, as well as portrayal in the image were analyzed and synthesized into themes. Coding for specific types of misconceptions focused on the most

common misconceptions found in the literature review (see Table 1). The types of misconceptions found in the study corpus was compared to current research on enduring misconceptions about dyslexia. Dummy coding for the presence of misconceptions in general in the texts was used to calculate the percentage of picture books containing misconceptions about dyslexia. Summary tables with frequency counts and graphs were prepared for the data.

Study Reliability and Validity (Trustworthiness, Dependability etc.)

During the data collection phase of this study, a code book was developed to establish reproducible coding standards (Saldana, 2021). In addition, I wrote analytic memos, which included reflections, descriptions, and summary of data. I made notes on relationships to theory, past research, and possible themes and patterns. The analytic memos also provided an opportunity to reflect on issues of researcher bias as well. Further, to establish trustworthiness and transparency related to issues of transferability, this study provides rich descriptions of the data collection and research process (Creswell & Poth, 2018).

It is important for reliability that clear and explicit units of analysis are utilized within a mixed methods content analysis (Mayring, 2022). These units were described in detail in prior sections and will be elaborated upon in the results chapter. Finally, to further enhance reliability in this study, a coding software was utilized to reduce the chances for human error (Kukarz & Radicker, 2019).

Chapter Summary

This chapter has detailed the methodology of this critical content analysis of fiction picture books containing characters with dyslexia. The three-phase data collection and analysis

process was described, including the systematic creation of the data set. Finally, this chapter explained the analyses used to answer each research question. The following chapter will present the results of this mixed methods content analysis.

CHAPTER FOUR

RESULTS

Introduction

This study aimed to investigate the representation of dyslexia and dyslexic characters in children's fiction picture books published between 2004-2022. Following are the results of the mixed-method critical content analysis designed to achieve this purpose. The results are described according to each research question and include data gathered in each of the three data analysis phases described in detail in the previous section. The results are reported and displayed and will be analyzed and discussed in the following chapter.

ResultsResearch Question One: Which Fiction Picture Books Published Between 2004-2022 Contain Characters with Dyslexia?

Picture books that contain characters with dyslexia were procured over the course of two years during a thorough and ongoing search of databases such as Google and Amazon. During multiple careful readings of each potential text, the inclusion and exclusion criteria were weighed, and each book was judged accordingly. After applying the delimiting criteria to the collected texts, fifty-nine fiction picture books met the inclusion criteria. Table 4 provides the title, author, and publishing date for each text listed alphabetically by title. See Appendix B for the full reference list for each text.

Most of the texts in this study have been published within the last five years. More fiction picture books with dyslexic characters were published in 2021-2022 ($n=30$) than in the rest of the

years examined ($n=29$). See Figure 6 for a display of the number of picture books containing characters with dyslexia published per year. Additionally, 57.62% of the texts in the study corpus were self-published ($n=34$).

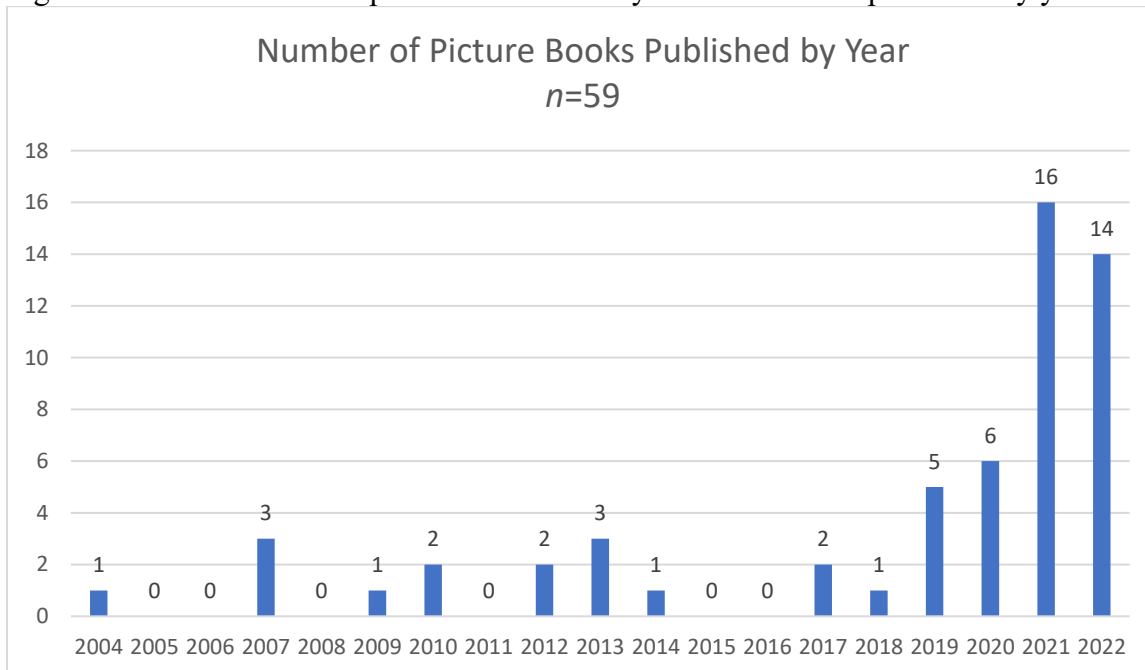
Dyslexia and the associated struggles or talents are the focus of the story in all but two texts. The words dyslexia or dyslexic appear in the titles of 47.45% ($n=28$) of the texts. The word dyslexia or dyslexic is used five hundred eight times across all the texts. The main purpose of this set of texts is to either teach others about dyslexia or provide a mirror for a child with dyslexia. Several authors' notes attest to this. For example, in *My Friend Has Dyslexia: A Social Story* (Westen, 2021), the end note explains, "This story is designed to help explain a little about what dyslexia is and what it might be like to have it." Notable exceptions include *The Hoopstar* (White, 2019) and *Emaline: Knight in Training* (Johnson, 2019), which both portray dynamic black female characters in which dyslexia is just one part of their story, not the entire focus of the text.

Table 4. Title, author, and year published for fiction picture books with dyslexic characters.

Title	Author	Year
<i>Aaron Slater Illustrator</i>	Beaty, A.	2021
<i>Abdul's Story</i>	Thompkins-Bigelow	2022
<i>Anthony the Jumbled-Up Genius</i>	Gentry, V.	2022
<i>Back to Front and Upside-Down</i>	Alexander, C.	2012
<i>Ben and Emma's Big Hit</i>	Newsom, G. & Shamir, R.	2021
<i>Brave Ben Discovers Dyslexia</i>	Graham, Z.	2020
<i>Brilliant Bea</i>	Vukadinovich, M.	2021
<i>Carey Overcomes Dyslexia</i>	Daniels, A.	2021
<i>Chompsey Chomps Books</i>	Conner, C. M.	2021
<i>Cruz Finds His Way: An Inspirational Children's Tale About Dyslexia</i>	vanGessel, A.	2022
<i>Daisy Describes Dyslexia</i>	Stuttgen, W. S. & Finn, K. M.	2021
<i>Different</i>	Anderson-Collie, B.	2022
<i>D is for Darcy, Not Dyslexia</i>	Griebelbauer, A.	2020
<i>Did You Say Pasghetti? Dusty and Danny Tackle Dyslexia</i>	Fortune, T.	2020
<i>Doug the Dyslexic Duck</i>	Childs, S. J.	2013
<i>Dyslexia Byslexia</i>	Johnson-Morrow, C.	2013
<i>Dyslexia is Not a Monster: A Picture Book for Children with Dyslexia</i>	Saidsharipova, S.	2022
<i>Dyslexia My Awesome Superpower</i>	Molnar, P.	2022
<i>Emiline: Knight in Training</i>	Johnson, K.	2019
<i>Finding My Superpower</i>	Prestidge, S.	2021
<i>Henry the Hedgehog</i>	Travis, G.	2022
<i>Hudson Hates School</i>	Hudson, E.	2010
<i>Iago Struggles with Dyslexia</i>	George, T.	2022
<i>I Don't Like Reading</i>	Clark, L. E.	2017
<i>I'm Just Different</i>	Tralongo, C.	2020
<i>If You're So Smart, How Come You Can't Spell Mississippi?</i>	Esham, B.	2014
<i>It's Called Dyslexia</i>	Moore-Mallinos, J.	2007
<i>It's Just Dyslexia</i>	Hauck, M.	2007
<i>Josh, Baps and Diego's First Day of School</i>	Samuels, S. B. & Lee, C.	2018
<i>Just Ask: Be Different, Be Brave, Be You.</i>	Sotomayor, S.	2019
<i>Kamaho the Chameleon Doesn't Like School</i>	Marrote, K. G.	2021
<i>Kamaho the Chameleon Plays Hide And Seek</i>	Marrote, K. G.	2021
<i>Knees: The Mixed-Up World of a Boy</i>	Oelschlager, V.	2012
<i>Lex Leads the Way</i>	Jordan, D.	2022
<i>Lexi Dias and the Power of Dyslexia</i>	McSoley, J. R.	2019
<i>Lily and the Mixed-Up Letters.</i>	Hodge, D.	2007
<i>Luca's Secret: How Luca Overcame Bullying & His Learning Disability</i>	Session, C.	2022
<i>Magnificent Meg</i>	Harris, A.	2020
<i>Mommy, Why is it So Hard for Me to Read?</i>	Kuntz, R.	2010
<i>My Friend Has Dyslexia</i>	Tourville, A. D.	2010
<i>My Friend Has Dyslexia</i>	Westen, N.	2021

<i>Quite Quiet Hannah: The Word's Greatest Artist, Dyslexia</i>	Bobula, J.	2022
<i>Reading is Hard Work</i>	Coffey, D. & Shannon, S.	2013
<i>Roderick Has Dyslexia</i>	Amarely, Q.	2021
<i>Sahith Read it Wrong</i>	Oliver-Yeager, J.	2021
<i>Sophia the Supergirl Sophia the Supergirl: She Knows How to Fight Dyslexia: Her Secret Power Revealed</i>	Moffat, S.	2022
<i>Tabo's Dancing Letters: A Teach to Speech Book</i>	Burnham, P.	2022
<i>The Alphabet War: A Story about Dyslexia</i>	Robb, D. B.	2004
<i>The Back to Front World of Azzie Arbuckle</i>	Montgomery, B.	2017
<i>The Hoopstar</i>	White, C. D.	2019
<i>The Map Challenge: A Book about Dyslexia</i>	Alloway, T.A.	2019
<i>The Mischief Makers Learn Differences are Cool</i>	Cuthbert, C.	2021
<i>The Story Catcher</i>	Martin, D.	2021
<i>The Struggle Unseen</i>	Kelleher, L.	2022
<i>The Writing Goat</i>	Ellis, B.	2022
<i>Tom's Special Talent</i>	Gaynor, K.	2009
<i>What I Need</i>	James, T.	2020
<i>When you see p I see d.</i>	Demarchi, M.	2021

Figure 6. Number of fiction picture books with dyslexic characters published by year



Research Question Two: What are the Major Themes in Fiction Picture Books Published Between 2004-2022 that Include Characters with Dyslexia?

During the coding process, five major themes emerged from the text set. Picture books utilize a combination of text and illustrations to tell a story, so evidence of the identified themes was found in both text and illustrations. The five themes reported in this section are: General Story Pattern, Famous People with Dyslexia, Support, Bullying, and Extra Information.

General Story Pattern. When dyslexic characters are featured in fiction stories, it often serves to highlight the struggles those with dyslexia face in school and daily life. These characters can help people understand how dyslexia can affect someone on a day-to-day basis, allowing readers to gain insight into what it's like to live with dyslexia. By featuring dyslexic characters in stories, authors can provide an authentic perspective of dyslexia. These characters allow dyslexic readers to find representation and recognition within literature, as well as inspiring non-dyslexic readers to have greater empathy for those who have difficulty with reading and writing.

Most often in this text set of fiction picture books, the character personifies dyslexia to teach about it through telling their story, to help a child with dyslexia understand what it is, or to not feel alone. The story follows a general pattern: children struggle with reading and at school and are often bullied, act out, and/or have negative self-esteem. The character is generally then diagnosed with dyslexia, receives help, and the story ends happily with the problem solved. By the end of the story, most characters learned to accept and are proud of their differences and experience feelings of pride and self-acceptance. For example, in *Henry the Hedgehog* (Travis, 2022), Henry's friend helps him realize, "Dyslexia is my superpower...we are unique and that's a good thing". The character in *The Alphabet War* (Robb, 2004) realizes at the end of the story

that “He wasn’t dumb. He was just a different kind of thinker” (p. 23). Directly tied to the characters’ eventual self-acceptance is the portrayal of the characters’ problems as solved. In fact, 69.49% ($n=41$) of texts examined portray the characters’ problems as completely resolved by the end of the story.

Famous People with Dyslexia. Another main theme of this text set is the inclusion of famous people with dyslexia to boost the self-confidence of the character and the reader. The most frequently mentioned famous individuals are Albert Einstein, Leonardo daVinci, Pablo Picasso, Whoopi Goldberg, John F. Kennedy, Richard Branson, and Walt Disney. See Appendix C for a full list of famous individuals with dyslexia named in the study corpus. It is interesting to note that there is no way to know whether some of the historical people mentioned in the texts were dyslexic, although they anecdotally may have fit the profile.

Support. The text set of fiction picture books with dyslexic characters also contains the theme of support from teachers, parents, and friends. The support often comes only from teachers, parents, and other students after the dyslexia diagnosis, or after the student has a break down. For example, in *Lily and the Mixed-Up Letters* (Hodge, 2007), Lily will have to read out loud at the parent night and can no longer hide from reading, so she breaks down sobbing that night with her mom. Her mom divulges that reading was also hard for her and promised to talk to the teacher about getting extra help in reading. In *My Friend Has Dyslexia* (Tourville, 2007), the narrator describes the struggles and triumphs of his dyslexic friend Anna, including how he helps her with reading and to stand up to bullies.

Bullying. Another strong theme is bullying of the character with dyslexia. 40.67% ($n=24$) of the texts included the theme of bullying. Instances of bullying most frequently included being

laughed at, picked on, and called names. Most often, this theme is portrayed as other students in the classroom laughing or making fun of the character for reading difficulties. For example, in *Dyslexia is Not a Monster* (Saidsharipova, 2022), the character explains, “And because my reading was slow, the other kids started making fun of me. ‘Dummy!’ they would shout. ‘Cry baby!’” (p. 7).

In some texts, the bullying was more extreme. For example, in *Kamoho the Chameleon Plays Hide and Seek* (Marrotte, 2021), Kamoho’s bullies trick him into counting for a long time for a game of hide and seek while they dismantle his bike and leave him stranded. The text explains:

These boys were mean to Kamoho because he was in a special class at school for kids who need help learning...Ever since Kamoho was put into special education classes nobody wanted to be his friend. He didn’t understand why they were so mean to him. (p. 4)

In *Luca’s Secret* (DiMarci, 2021), Luca’s bully stalks him in the halls and asks if he is “slow or something” and taunts him by chanting “slow boy” over and over. Luca says, “The students all laugh. I just want to cry” (DeMarci, 2021, p. 7).

Extra Resources. Many of the texts included an author’s note or a note to parents at either the beginning or the end of the story with information and helpful tips. The author’s notes generally provide more detailed information about dyslexia and things parents can do to help, in addition to providing links to twenty-two different associations (see Table 5). The author’s notes are encouraging and positive and are intended as extra helpful resources to aid in the process of learning more about a child’s diagnosis and intervention.

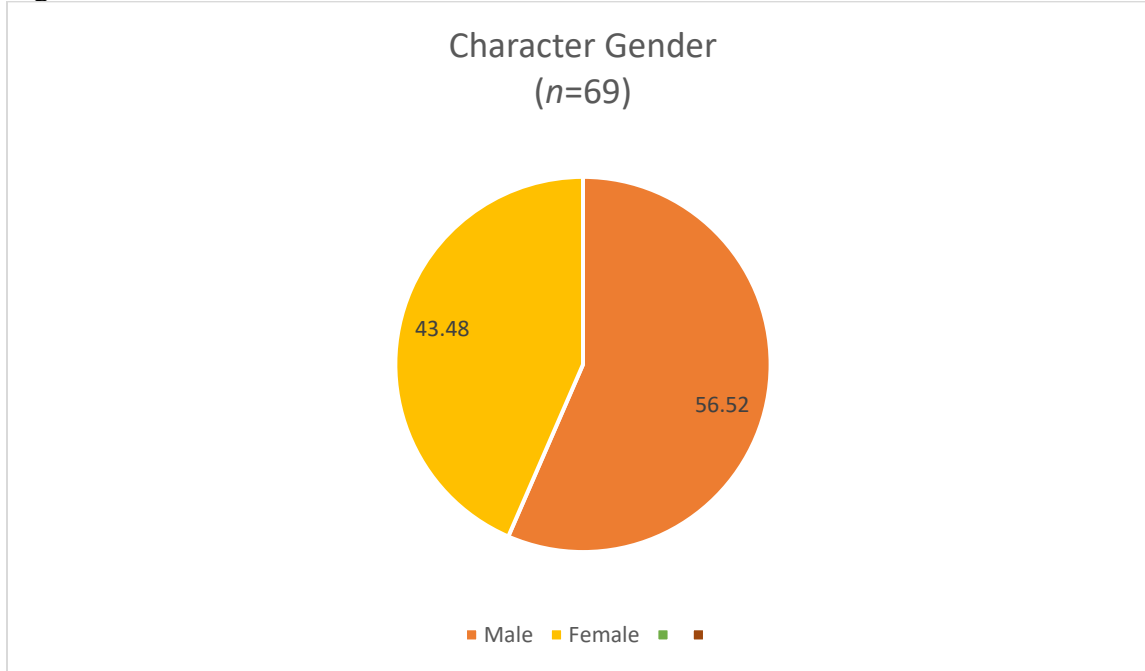
Table 5. Named resources in the study corpus

Named Resource	Resource Website
American Speech Language Association	www.asha.org
Brain Spring	www.brainspring.com
Center for Early Learning	www.earlyliteracylearning.org
Dyslexia Action	www.dyslexiaaction.org.uk
Dyslexia Association of Ireland	www.dyslexia.ie
Dyslexia Australia	www.dyslexia.au
Dyslexia New Zealand	www.dyslexia.nz
Dyslexia USA	www.dyslexiaida.org
Get Ready to Read	www.getreadytoread.org
Headstrong Nation	www.theheadstrongproject.org
Home Reading Helper	www.homereadinghelper.org
International Dyslexia Association	www.ida.org
Learning Disabilities Association of America	www.ldaamerica.org
National Center for Learning Disabilities	www.nclb.gov
National Center on Improving Literacy	www.ncil.gov
Reading Rockets	www.readingrockets.org
Smart Kids with Learning Disabilities	www.smartkidswithld.org
The British Dyslexic Association	www.bdadyslexia.org/uk
The Dyslexia Foundation	www.dyslexiafoundation.org
The Lucy Project	www.lucyproject.org
The Yale Center for Dyslexia and Creativity	www.dyslexia.yale.edu
Understood	www.understood.org

Research Question Three: How are the Characters with Dyslexia Portrayed in Fiction Picture Books Published Between 2004-2022?

In the set of fifty-nine fiction picture books examined, sixty-nine unique characters with dyslexia were identified. 56.52% ($n=39$) of the dyslexic characters are male and 43.48% ($n=30$) are female (see Figure 7).

Figure 7. Character Gender



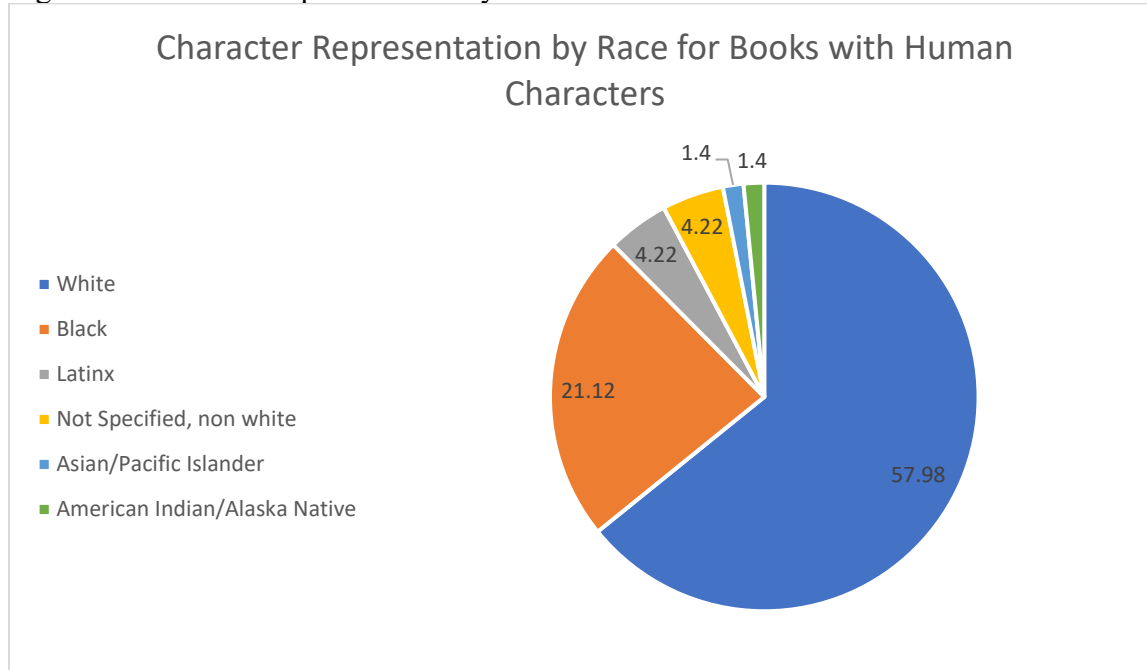
Most of the dyslexic characters were portrayed as white ($n=40$). Fifteen black characters, three Latinx characters, one Asian, three unknown non-white ethnicities, and one American Indian character were identified. Six characters with dyslexia were portrayed as animals, including a duck, pig, alligator, hedgehog, crow, and chameleon. See Table 6 and Figure 8 for displays of percentages of characters by race.

Table 6. Percentage of characters by race

Race	Characters
White	57.98%
Black	21.12%
Latinx	4.22%
Not Specified, Non-White	4.22%
American Indian/Alaska Native	1.40%
Asian/Pacific Islander	1.40%

*Note: animal characters constitute 8.45%.

Figure 8. Character Representation by Race for Books with Human Characters



Point of View. A total of 59.32% ($n=35$) of the stories were told from a third-person point of view and 35.59% ($n=21$) were told from a first-person point of view, with eighteen of those stories told by the character with dyslexia (30.50% of all the texts). Two stories are told from multiple perspectives, where one of the characters is dyslexic, and one of the texts features stories of eight different dyslexic characters. Characters with dyslexia were the main characters in 89.83% ($n=53$) of the texts.

Self-image. The dyslexic characters are often portrayed as having negative self-image and low self-esteem. For example, the character in *When You See P, I see D* (DeMarchi, 2021) explains, “I cannot learn. I am not smart” (p. 15). In addition, many of the characters wonder what is wrong with them. Azzie in the *The Mixed-Up World of Azzie Artbuckle* (Montgomery, 2017) cried, “Why couldn’t I read? What’s wrong with me?” (p. 21). In addition, Oliver in *The*

Struggle Unseen (Kelleher, 2022) exclaimed, “It’s too hard. I can’t do it. Why should I try, I’m too stupid. I’m never going to be able to do it.”

One character’s depiction exemplifies this theme. Aaron, in *Aaron Slater, Illustrator* (Beatty, 2021), starts out a happy, colorful child who loves listening to stories and making art. When Aaron goes to school, he struggles with reading and becomes withdrawn, trying his best to not stand out anymore and to blend in. In the illustrations, Aaron stops wearing bright cheerful clothes and his body begins to droop (Beatty, 2021).

In contrast, some books present a completely positive and encouraging tone. For example, *Different* (Anderson-Colie, 2022), *Tom’s Special Talent* (Gaynor, 2009), *Just Ask: Be Different, Be Brave, Be You* (Sotomayor, 2019), and *Daisy Describes Dyslexia* (Stuttgen & Finn, 2021) all focus on the positive aspects of dyslexia and the dyslexic character throughout the story. These texts are written for the purpose of encouragement and boosting of the self-esteem of a child with dyslexia.

Behavior Problems. Many characters with dyslexia are portrayed as behavior problems either in the classroom or at home. 37.28% ($n=22$) of the texts portray characters as exhibiting undesirable behavior. 38.46% ($n=15$) of male characters were portrayed as exhibiting negative behaviors, while 20.51% ($n=8$) of female characters were portrayed in this way. All but three of the human characters exhibiting poor behavior were white. The remaining three characters were black. Three out of the four animal characters were portrayed in this manner. The types of negative behavior represented in this set of fiction picture books can be classified as either avoidance or aggressive behaviors (See Table 7). Some instances of negative behaviors included lying, pretending to be sick, running out of the classroom, physically acting out, and being the

class clown. In *Brilliant Bea* (Rudolph & Vukadovich, 2021), Bea describes herself as “the one Ms. Bloom had to use up all her patience on” (p. 6).

Table 7. Types of negative behavior portrayals

Negative Behavior Theme	Examples from Texts
Avoidance	hiding face hiding under desk lying to avoid reading out loud lying to get out of going to school pretending to be sick: stomachache, headache, sore throat refusing to work running out of the classroom telling jokes or stories to distract teacher sharpening pencil repeatedly
Aggression	bothering other students crumpling up papers kicking other students kicking the wall pulling another student’s hair saying bad words slamming down pencil tearing up books temper tantrums

Special Abilities. Most characters with dyslexia are portrayed as having special abilities. 18.84% ($n=13$) of characters are portrayed as being a superhero or having superpowers. Sometimes the dyslexia itself is described as the superpower. 73.91% ($n=51$) of the characters are portrayed as having special talents or abilities, with art and athletic ability being the most common special talent portrayed. Altogether, 92.75% ($n=64$) of the characters are portrayed as having special talents or superhero powers. One of the texts even states, “in many ways he is the same if not better than the other children” (Kelleher, 2022, p.8). Most of the texts emphasize that

it is the characters' dyslexia that gives them the powers or special talents. See Table 8 for specific examples from the text set.

Table 8. Special talents and abilities

Special Talent/Ability Type	Specific Talent Named in Study Corpus
Art	clay, drawing, painting, music, poetry, storytelling, baking
Athletics	soccer, football, horseback riding, dancing, baseball, basketball, gymnastics
Brain Based	brilliant, creativity, empathy, big picture thinking, genius, leadership skills, memory for landmarks, pattern recognition, persistence, photographic memory, problem solving, spatial reasoning, strong imagination
STEM	engineering, computers, following diagrams, inventing, math, science whiz

Dislike of School. Many of the characters with dyslexia are portrayed as disliking school. Several of the texts reference the character's dislike of school in the title. For example, one of the picture books is titled *Hudson Hates School* (Hudson, 2010) and another is called *Kamoho the Chameleon Doesn't Like School* (Marrotte, 2021). 50.84% ($n=30$) of the texts portray the character as dreading school, trying to avoid going to school, or disliking school in general. Most characters are also portrayed as ashamed of not being able to read, which fuels their distaste for the school experience.

The characters with dyslexia tend to hide their struggles as long as possible, especially in the school setting, through avoidance behaviors and pretending to be able to read. For example, the narrator in *The Alphabet War* (Robb, 2004) explained, "Most of the time, Adam sat at his desk and pretended. But when he started third grade, he found that pretending wasn't going to be

enough” (p. 13). In *Ben and Emma’s Big Hit* (Newsome & Shamir, 2022), Ben hides his great struggle with reading for as long as possible. The text described that while he hid his struggles every day in reading group, “His belly ached, and he started to sweat. It felt like he was going up against the hardest team in the league, every day” (Newsome & Shamir, 2022, pg. 9). The character in *I Love to Learn but Hate to Read Out Loud* (Henderson, 2019) almost told her mother about the struggles she was hiding, but she didn’t want her mom to think she was “dumb” (p. 11).

Characterization. To better understand how the characters with dyslexia were portrayed in the texts examined, the words utilized to describe the character in the written text were coded as either positive or negative descriptors (see Table 9). ‘Different’ appears in both columns of Table 9 because the term was used to describe the characters with dyslexia in both a positive and a negative way within the text set. In addition to more negative descriptions of characters with dyslexia than positive descriptions, negative words appear more often and repeatedly throughout the texts. For example, the word ‘stupid’ appears twenty-seven times, and the word ‘dumb’ appears seventeen times. Whereas the words ‘genius,’ and ‘brave’ appear ten and thirteen times, respectively. Negative descriptors are frequently used by the characters with dyslexia in reference to themselves. Often, the negative descriptors are used by the bullies and a few times even by teachers.

Table 9. Character Descriptors from written text

Positive descriptors	Negative descriptors
Athletic, Artistic, Brave, Beautiful, Brilliant, Caring, Cool, Courageous, Creative, Delightful, Different, Empathetic, Excited, Fantastic, Faster, Funny, Genius, Good, Good friend, Great at math, Handsome, Happy, Hard worker, Helpful, Inspiring, Intelligent, Kind, Magical, Messy, Outstanding, Proud, Resilient, Science whiz, Skilled, Smart, Special, Strong, Superhero, Unique, Important	Alone, Angry, Ashamed, Bad, can't focus, can't sit still, Challenged, Confused, Depressed, Desperate, Difficult, Different, Disappointed, Disorderly, Dull, Dumb, Embarrassed, Failure, Forgetful, Gloomy, Glum, Helpless, Lazy, Lost, Low self-esteem, Nervous, not smart, Not trying, Panicked, Quiet, Rude, Sad, Scared, Sick, Stressed, Struggling, Stubborn, Stuck, Trouble, Tyrant, Unhappy, Unsure, Worried, Worthless, Muddled, Upset, Stubborn, Procrastinator

In addition to characterization of the dyslexic character by the written text, the illustrations play an important role as well. Illustration types were coded as either positive, negative, or neutral. Positive depictions in the illustrations included images of the character portrayed as smiling, happy, determined, proud, brave, hopeful, etc. Negative depictions in the illustrations included images of the character with dyslexia portrayed as sad, angry, upset, embarrassed, frustrated, etc. Neutral depictions were defined as instances in which the character depiction could not be determined because the character was either in the background, shown from behind, or from the side, and situational clues did not help to determine the depiction type. Every image of every character, both dyslexic and non-dyslexic, was coded in this manner and frequency counts were calculated.

Overall, non-dyslexic characters were portrayed more often and more positively than dyslexic characters (see Figure 9). Dyslexic characters were portrayed 1,237 times in the illustrations and non-dyslexic characters appeared 1,930 times (see Figure 10). Dyslexic characters were portrayed positively (57.31% of dyslexic portrayals) more often than negatively

(38.80% of dyslexic portrayals) (see Table 10 and Figure 11). In addition, when considering the front cover illustrations only, 76.27% ($n=45$) featured a positive character depiction. 20.33% ($n=12$) front cover illustrations were negative and only .034% ($n=2$) were considered neutral depictions.

However, non-dyslexic characters were portrayed positively (82.80% of non-dyslexic portrayals) more often than negatively (8.08% of non-dyslexic portrayals) (see Table 10, Figure 10). In addition, dyslexic characters were portrayed negatively (15.15% of total depictions) more often than non-dyslexic characters (4.92% of total depictions) overall (see Table 10 and Figure 10).

Figure 9. Number of Depiction Types in Illustrations

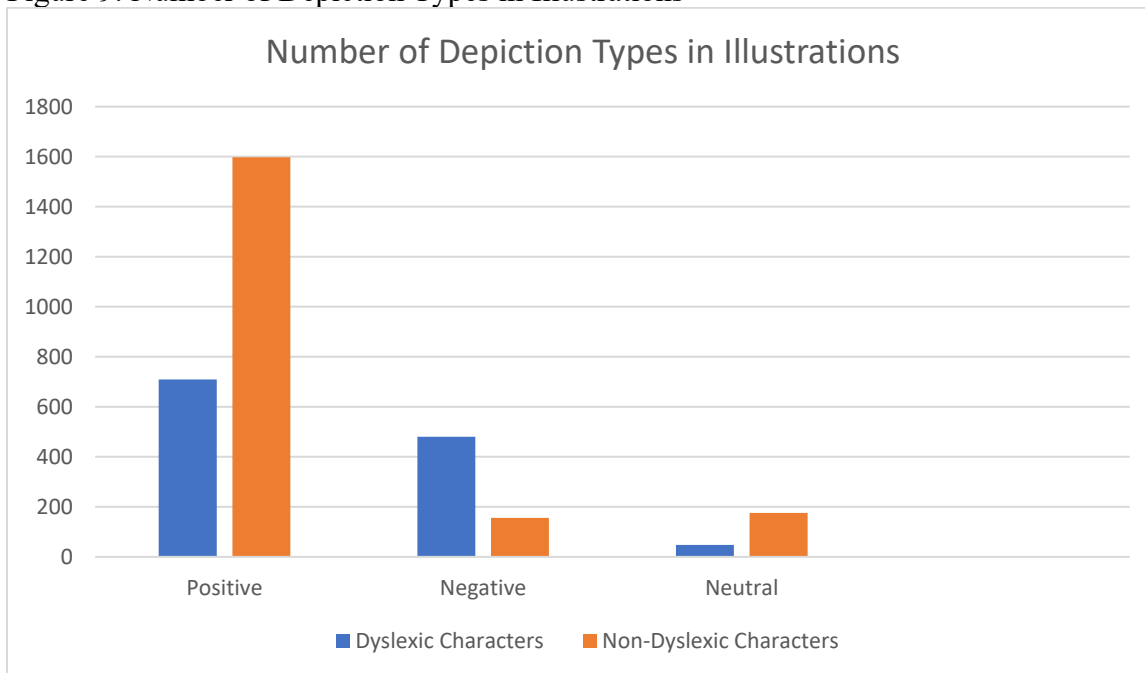


Table 10. Percentage of Types of Depictions in Illustrations

Depiction Type	Dyslexic Character	Non-Dyslexic Character
Positive	57.31	82.80
Negative	38.80	8.08
Neutral	3.88	9.11

Figure 10. Dyslexic Character Depictions in Illustrations

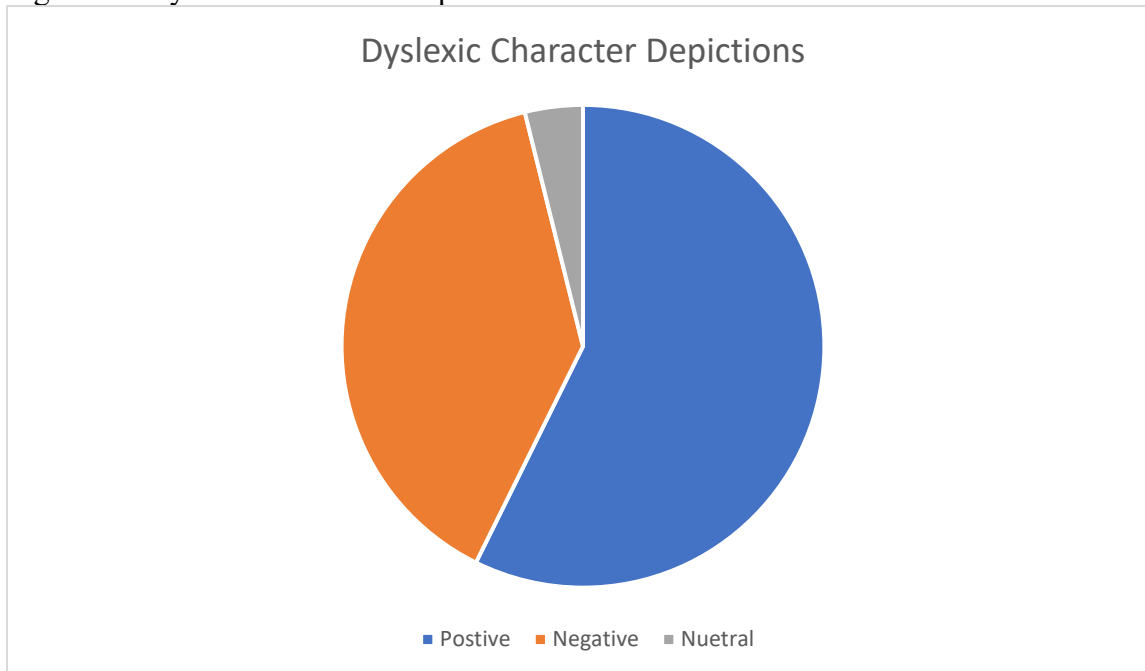


Figure 11. Non-dyslexic Character Depictions in Illustrations

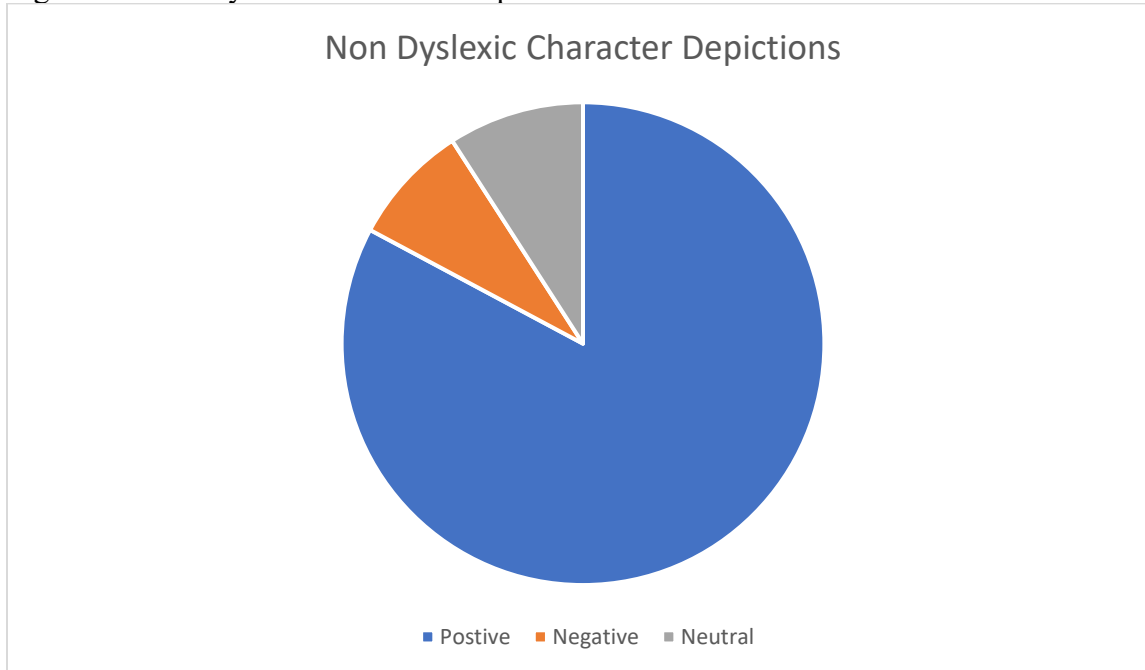


Table 11. Percentage of Total Character Depiction Types in Illustrations

Depiction Type	Dyslexic Character	Non-Dyslexic Character
Positive	22.38	50.50
Negative	15.15	4.92
Neutral	1.51	5.56

Research Question Four: How is Dyslexia Portrayed in Fiction Picture Books Published Between 2004-2022?

How is Dyslexia Defined in the Texts? Instances within the written text in which the author attempted to define dyslexia were coded separately. Due to the large number of coded text segments produced (152 coded texts segments), multiple rounds of subsequent coding were necessary to discover and narrow down themes within the text set. Definitions of dyslexia

utilized most frequently within fiction picture books in this study were combined and summarized into the themes displayed in Table 12.

Table 12. Definitions Coding Themes

Theme	Examples
Description	hereditary brain-based affects between 8-20% of people not related to intelligence learning disability/difference
Difficulties	distinguishing sounds, letters, numbers, writing, short term memory, directions, processing
Differences	See letters differently-blur, switch, move, etc. Hear sounds differently than others

Definitions varied widely in the set of texts examined and ranged from simple explanations such as “having trouble with words” to more complex definitions very closely related to the widely accepted IDA definition (Hauck, 2007, p. 1) . For example, in *Tabo’s Dancing Letters* (Burnham, 2022), dyslexia is defined as a “neurologically based learning disability characterized by difficulties with reading, writing, or the pronunciation of sounds.” And in *Brilliant Bea* (Rudolph & Vukadinovich, 2021) it is described as “difficulty perceiving the individual sounds and words and therefore have trouble with the task of breaking words down to sound them out for reading or spelling.”

Many texts, however, included definitions directly related to the visual myth. For example, in *I Don’t Like Reading* (Clark, 2017), dyslexia is described as “it means my brain finds it tricky to understand words and hears them differently and gets the letters confused and jumbled up.” In the text *Doug the Dyslexic Duck* (Childs, 2017), dyslexia is defined as making “letters and words look funny, and they never look the same.” Many texts referred to letters and

embedded within the texts can be categorized as messages about who dyslexia affects, what it means to be dyslexic, and overcoming dyslexia (see Table 13).

Table 13. Messages about Dyslexia

Theme	Messages from the text
Who dyslexia affects	<ul style="list-style-type: none"> • Dyslexia mostly affects white male people.
What it means to be dyslexic	<ul style="list-style-type: none"> • Dyslexia doesn't mean you are stupid. • Dyslexia gives you special talents or superpowers. • Dyslexia is shameful. • Dyslexia makes you special and unique. • Dyslexia means you have a different way of thinking and/or seeing. • Individuals with dyslexia act out and are angry or sad. • People will bully you or make fun of you if you can't read.
Overcoming dyslexia	<ul style="list-style-type: none"> • A positive mindset is key to overcoming dyslexia. • Dyslexia can be cured. • Dyslexia can be fixed very quickly. • Dyslexia is a challenge to overcome. • Dyslexia is a problem that needs to be fixed to live a happy life. • Hard work and practice will make you a better reader (pay better attention and work harder, calm down, and focus) • You just have to believe you can do it and you will read.

How is Dyslexia Diagnosed in the Texts? The process of obtaining a dyslexia diagnosis is portrayed in several ways. In a few cases, a parent or teacher simply tells the character they are dyslexic without any diagnostic process. For example, in *Mommy, Why is it So Hard for Me to Read?* (Kuntz, 2010) the character questions his mother about his reading difficulties and she simply explains he has dyslexia just like many famous people. In most cases, the characters finally share their struggles, or an event happens where they can no longer hide it. The parent then usually takes the child for testing. Azzie in *The Mixed-Up World of Azzie Artbuckle*

(Montgomery, 2017) explained, “Well one day my mum finally had enough” and took her to see a “special doctor who helped kids who had difficulty reading. This doctor made me take a bunch of weird tests” (p. 21-23). In some cases, the teacher either called the parents or sent home a note to initiate the process. In this set of texts, the diagnosis process most often involved: getting eyes checked first, going to a doctor, school psychologist or reading specialist, taking tests at school, and playing games.

What Types of Accommodations/Interventions are Offered to the Dyslexic Character?

Before the character with dyslexia is diagnosed in this set of stories, certain instructional practices are often described which differ from the ones utilized after a dyslexia diagnosis. Teaching practices in this case included the following: reading aloud from a text, reading aloud from students’ own writing, round robin reading, traditional spelling tests, grading each other’s papers, calling out grades, keeping child inside for extra work during recess, and keeping child at the end of the day.

The texts in this study offer examples of many kinds of interventions provided to the character with dyslexia. Most often, these accommodations are offered after the dyslexia diagnosis and contribute to the character’s ability to read successfully by the end of the story. These interventions can be grouped as either accommodations or modifications and are displayed in Table 14. An accommodation occurs when a student is provided with an intervention which alters the way in which they learn the same content. For example, a student with dyslexia might listen to an audio book that is still the same book the rest of the class is reading. A modification is an adjustment or change to the learning material or the content. For example, a

student might be provided with easier, shorter, or completely different reading material than the rest of the class.

Table 14. Types of Interventions Offered

Accommodations	Modifications
Audio books	“Special program for letter sounds”
Binoculars	“Train my brain to think another way”
Calculator	taught syllables, sounds
Colored overlays	Decodable books
Dictating to a scribe	Drawing pictures to represent words
Extra time	Extra practice
Encouragement	Less homework
Frequent breaks	Letter blocks
iPad	Letter sound matching games
laptop	Make words in sand
Memorizing words	Once a week special class at school
Not having to read out loud	One on one tutoring-Orton Gillingham
movement while working	Paint story
Reading test questions out loud	Paint words
Repeating words	Practice fluency
Special font	Practice phonics
Special reading teacher	Special class
Speech to text software	Special Education class
Tape recorder	Special exercises
Teacher sitting next to character	Syllable games
Spelling with playdough and painting	Lessons on how to open and close the mind’s eye to stop letters from moving

Research Question Five: What Misconceptions About Dyslexia Can Be Found in Children’s Picture Books Published Between 1994-2022?

79.66% ($n=47$) of fiction picture books examined contained misconceptions. The visual misconception appeared in 71.18% ($n=42$) of the texts. The types of misconceptions portrayed in the picture books include visual misconceptions, neuromyths, and misconceptions related to behavior. Table 15 displays the types of misconceptions found in the text set.

Table 15. Types of Misconceptions

Types of misconceptions found in study corpus	Examples from text
Visual <ul style="list-style-type: none"> <li data-bbox="250 401 594 468">• words and letters move on the page. <li data-bbox="250 590 594 657">• See words, letters, and numbers differently <li data-bbox="250 716 521 749">• Colored overlays <li data-bbox="250 808 594 842">• Special Font/Typeface 	jump, bounce, parade, float around the page, flip, turn upside down, grow or shrink in size, fly or float off page, dance, blur, whinny and buck, won't stand still, change weird, funny, strange, jumbled, mixed up, upside down, backwards, blurry Used to help the letters stay still Dyslexia, Dyslexie, Open Dyslexia
Neuromyths	wires in brain not connected right, left brain vs right brain, Learning styles
Behavior	Just need to try harder or focus more, more talented, smarter

In several of the picture books, accurate research-based information has been presented along with misconceptions. In one text, *Brilliant Bea* (Vukadinovich, 2021), there is a lengthy author's note written by a psychologist which is filled with factual information about dyslexia, accommodations and testing. The visual myth is embedded within the lengthy amount of important information. Two books specifically address misconceptions: *Daisy Describes Dyslexia* (Stuttgen, 2021) and *Tabo's Dancing Letters* (Burnham, 2022). After defining what dyslexia means, Daisy describes what it is not: "Some people think dyslexia means that I mix up letters or see them backwards, which is actually a myth!" (Stuttgen, 2021, pg. 1).

Tabo's Dancing Letters (Burnham, 2022) devotes an entire page in the front of the book to eight myths followed by the corresponding refutation fact, including the visual myth.

Ironically, this book then revolves the entire storyline around the visual misconception, including mentioning it in the name. Only ten children's fiction picture books examined in this study do not contain misconceptions: *Abdul's Story* (Thompkins-Bigelow, 2022), *Back to Front and Upside Down* (Alexander, 2012), *D is for Darcy, Not Dyslexia* (Griebelbauer, 2020), *Daisy Describes Dyslexia and How She Learns to Read* (Stuttgen & Finn, 2021), *Finding My Superpower* (Prestidge, 2021), *I'm Just Different* (Trolongo, 2022), *It's Called Dyslexia* (Moore-Milanos, 2007), *Just Ask: Be Special, Be Different, Be You* (Sotomayor, 2017), *The Hoopstar* (White, 2017), and *Tom's Special Talent* (Gaynor, 2009).

Chapter Summary

The purpose of this study was to examine the depiction of dyslexia and dyslexic characters in children's picture books published between 2004 and 2022. The results of the mixed-method critical content analysis were presented in this chapter. Fifty-nine fiction picture books with dyslexic characters were identified. Results indicated most of these texts were published between 2021-2022 and most storylines revolved around dyslexia. Major themes of the text set included the use of a general story pattern, inclusion of famous people with dyslexia, support, bullying, and including space for extra information in the texts.

Sixty-nine unique characters with dyslexia were identified and most of the characters were white males. The characters were largely portrayed as having low self-image followed by self-acceptance, negative behavioral portrayals, and a strong dislike of school. In addition, dyslexic characters were portrayed negatively more often than non-dyslexic characters. To understand the ways in which dyslexia was portrayed in fiction picture books, coding focused on diagnosis, definitions, and the interventions utilized with the dyslexic character. Almost 80% of

texts in the study corpus were found to contain misconceptions. The most prevalent portrayal of misconceptions was related to the visual myth and evidence was found in both written text and illustrations. These results will be further examined and discussed in the final chapter.

CHAPTER FIVE

CONCLUSIONS

Introduction

Children's fiction as a genre often reveals themes of children exploring and discovering the qualities which make them unique and special and celebrating those qualities. Celebrating what makes children unique is a special and important topic for children's literature. The set of fiction picture books in this study leans heavily towards this trend as well. This study explored the ways in which fiction children's picture books portrayed dyslexia and characters with dyslexia. This chapter will provide an overview of the study and the methodology as well as a discussion of the results. Finally, implications for practice and recommendations for future research will be discussed.

Overview

This study examined the depiction of dyslexia and dyslexic characters in fictional children's picture books published between 2004 and 2022. This study focused solely on picture books, as these are the texts that students are most likely to encounter on their path to becoming readers. Moreover, picture books are the most popular and widely used texts in classrooms (Kümmerling et al., 2015). This study contributes to the growing body of literature on the representation of disabilities in children's literature by focusing specifically on portrayals of dyslexia and dyslexic characters within the fiction picture book genre.

Summary of Methodology

This study specifically examined how children's picture books depict the human experience of dyslexia. A mixed method critical content analysis approach was utilized, which involved categorizing texts, text passages, and thematic analysis as a qualitative step, followed by frequency analysis as a quantitative step (Mayring, 2022). In addition, the use of mixed methods enabled the collection of descriptive statistics, frequency distributions, and specific data on types of books. MAXQDA (2022) was used to aid in the coding process and to generate descriptive statistics and frequency counts.

The theoretical framework is what provides the focus for a critical analysis (Johnson et al., 2017). Examining the data through the lens of disability studies (Erbeli et al., 2018), critical neurodiversity studies (Rosqvist et al., 2020), and transactional theory (Rosenblatt, 1978) concentrated the data collection and analysis on identifying the types of messages and values about dyslexia that are transmitted to the reader through the text (Hintz & Tribunella, 2019; Short, 2017). Through a three-phase data collection and analysis process, this study examined how dyslexia and dyslexic characters are portrayed. For inclusion in this study, the texts selected met the following criteria:

- Fiction. Narrative autobiographies and narrative biographies were not considered.
- children's picture book
- written in English
- published between 2004-2022. Both traditionally published and self-published picture books were considered since both types of texts may be present in classrooms, regardless of publishing venue.

- available in print at the time of this search. Unavailable, out-of-print texts, and texts exclusively published as e-books were not considered.
- include a character with dyslexia. Dyslexia must be either directly stated within the story or in the author discussion/description or the text must contain classic portrayals of dyslexia such as letter reversals, etc. Texts which include non-specific references to reading difficulties without specific mention of dyslexia were not considered.

Multiple rounds of coding were utilized to discover and analyze themes and descriptive statistics found in the fifty-nine texts which met the criteria for inclusion.

Research Questions

In this mixed-methods critical content analysis, the representation of dyslexia in children's fiction picture books was examined. With this objective in mind, the research was directed by the following questions:

Research Question 1: Which fiction picture books published between 2004-2022 contain characters with dyslexia?

Research Question 2: What are the major themes in fiction picture books published between 2004-2022 that include characters with dyslexia?

Research Question 3: How are characters with dyslexia portrayed in fiction picture books published between 2004-2022?

Research Question 4: How is dyslexia portrayed in fiction picture books published between 2004-2022?

Research Question 5: What misconceptions about dyslexia are present in fiction picture books published between 2004-2022?

Conclusions

In general, the fifty-nine fictional picture books analyzed in this study captured the immense mental stress and challenges faced by children with dyslexia, particularly in the school setting. Existing literature supports themes of low self-esteem (Ihbour, 2021), bullying (Doiku-Avlidou, 2015), school difficulties (Claasens & Lassing, 2018), and numerous aspects of the intervention and diagnostic process (Lithari, 2018)). Many texts in the corpus appear to accurately depict the experiences of children with dyslexia. However, some themes in this collection of texts are problematic, including ableist neurotypical messages, portrayals of the characters as highly emotional and misbehaved, and the message that dyslexia can be cured swiftly and entirely. Perhaps the most troubling aspect of this text set is the high prevalence of misconceptions and stereotypes about dyslexia. This section will examine and explore these concepts, and the results of the analysis, more deeply.

Texts

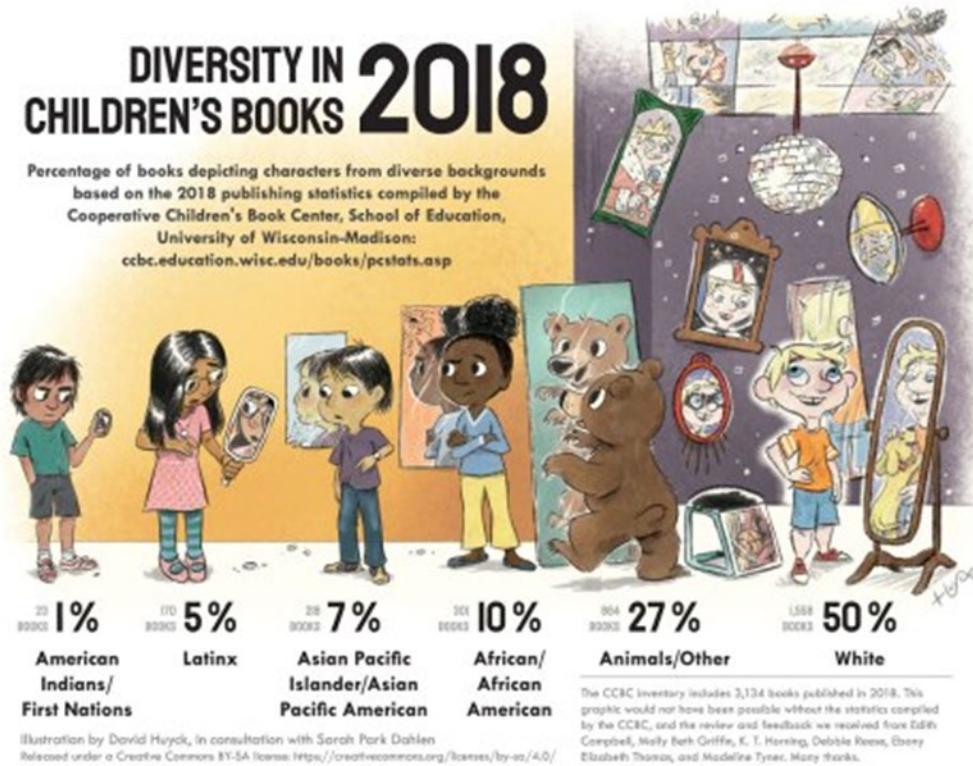
Results indicated a spike in publishing of fiction picture books containing characters with dyslexia between 2021-2022. Eighteen titles were published in 2021 and thirteen in 2022 for a combined total of thirty-one texts in that two-year time span alone. That is just shy of half of all the fiction picture books ($n=59$) examined in this study. This could be related to the recent rise in legislation and thus subsequent training and education of teachers and caregivers (Zirkle, 2020). If educators are learning about dyslexia now more than ever, it is likely that the public is as well. Directly in conjunction with the rise in legislation is the growing popularity of grassroots movements and the continuing conversation surrounding advances in knowledge about dyslexia

and the science of reading (Green, 2022). Dyslexia may now be a more prominent part of mainstream conversation and culture, rather than an outlier.

Even so, only fifty-nine fiction picture books with dyslexic characters were published in the eighteen-year time span examined. This is a drop in the bucket compared to the total number of children's books published in that same period, especially considering in 2022 picture books outsold the young adult market for the first time (Tivnan, 2022). It is troublesome that students with dyslexia rarely see themselves in the books they read, and it is even more problematic when the representations they do see are inaccurate or stereotypical.

Further, there are more books which include animal characters (6) than those with characters who are Latinx (3), Asian (1), American Indian/Alaska Native (AI/AN) (1), or unknown non-white ethnicities (3) in the present study. It is problematic and harmful that AI/AN, Asian, and Latinx children with dyslexia are seeing more animal characters than children like themselves. This data mirrors past research into the trend of higher representation of animal characters in children's books overall. Figure 13 is a graphic created in collaboration with children's book scholars and the CCBC, which showed more animal characters in children's books than all other groups except for white characters (Huyck & Dahlen, 2019). Contributors to the graphic, Huyck & Dahlen (2019) explained, "Children's literature continues to misrepresent underrepresented communities, and we wanted this infographic to show not just the low quantity of existing literature, but also the inaccuracy and uneven quality of some of those books" (n.p).

Figure 13. Diversity in Children's Books 2018



The main purpose of the set of fiction picture books containing characters with dyslexia examined for this study seems to be to teach about dyslexia or explain what it is like, which mirrors prior research into depictions of characters with disabilities (Adomat, 2014; Blaska, 2004; Dyches et al., 2006, 2018; Dyches & Prater, 2005; Kleekamp & Zapata, 2018; Price et al., 2016). These books can serve as a mirror to assist dyslexic children in comprehending and processing their own experiences. These texts can help them recognize that they are not the only children facing these challenges. This style of book appears to be geared toward boosting the self-esteem of dyslexic children, or increasing their acceptance among their peers, and could be

categorized as "therapeutic" texts (Blaska, 2004). These texts can also help other children and teachers understand dyslexia by providing a window into the experiences of a dyslexic child.

Most fictional picture books featuring a character with dyslexia examined in this study were written to educate while employing a narrative format. The story of a child with dyslexia generally follows this pattern: the child has reading difficulties, is frequently angry and upset, and dislikes school most of the time. Reading becomes easier after the child is diagnosed with dyslexia and receives assistance from a special educator or tutor. Typically, children also learn about famous individuals with dyslexia. Many of the books also highlight the benefits of dyslexia. The few books which do not follow this format tended to contain a simple plot line in which the characters use their special talent to save the day. Often, this is achieved by noticing things that others do not, using special skills such as reading a map, remembering landmarks, or winning art contests. There are only two instances of dynamic characters in which dyslexia is a part of their story rather than the focus of the story.

Prater (2003) expressed disappointment that most of the texts in her study were written with the goal of including disability for others to learn about, rather than "telling a great story that just happened to include a character with a learning disability" (p. 60). I echo Prater's (2003) disappointment. In the set of texts examined in this study, there was a notable lack of quality stories or quality illustrations. Many of the texts utilized clip art/bitmoji style art in which there was very little emotion or variance in the characters and setting. Texts with interesting and engaging illustrations within the study corpus included: *Just Ask: Be Different, Be Brave, Be You* (Sotomayor, 2019), *Lily and The Mixed-Up Letters* (Hodge, 2007), *Aaron Slater Illustrator*

(Beatty, 2021), and *Emiline: Knight in Training* (Johnson, 2019). Several of these texts unfortunately contain misconceptions.

Character Portrayal

Results indicated 56.52% of the characters with dyslexia were male and 43.48% of characters were female. These results support a long history of overrepresentation of male characters in children's literature (CCBC, 2020; Lowther, 2014; Kleekamp & Zapata, 2018; Koss, 2015). Interestingly, Altieri (2006) examined gender in children's literature containing dyslexic characters and found much higher percentage (71.43%) of female characters over 10 years (1993-2003). The current study focused on fiction picture books published more recently and showed a reversal of that trend. Results indicated that male dyslexia portrayal is more prevalent in more recent children's fiction picture books.

Results of this study showed male characters with dyslexia were more likely to be portrayed as having behavior problems such as interrupting class, refusing to complete schoolwork, and being sent out of the classroom. These findings support the literature in which boys were more likely to be referred to special education services and more likely to be referred for behavioral interventions and discipline referrals (Cortiella & Horowitz, 2017; Fish, 2017). Further, these results support Altieri's (2008) findings that male characters with dyslexia were more often portrayed as a behavior problem than female characters in books published up to 2003 and shows that the trend continues in contemporary children's fiction picture books.

It is problematic that in a set of texts in which dyslexia is the focus of most of the books, non-dyslexic characters were portrayed more often than characters with dyslexia. In addition, and perhaps most concerning, dyslexic characters were portrayed negatively in illustrations much

more often than non-dyslexic characters, and the written text included more instances of negative character descriptors. Additionally, even though non-dyslexic characters were portrayed more often, they were also portrayed more positively. The illustrations which contained highly emotional, upset, or angry depictions of characters with dyslexia tend to take up an entire page or are generally larger than the images in which the same characters are portraying positive emotions. For example, *Roderick Has Dyslexia* (Amerly, 2021) utilized an entire page spread to an illustration of the angry character kicking a book, with the word “stupid” printed all over the page fifteen separate times.

Overly negative portrayals of characters with dyslexia in illustrations compared to characters without dyslexia is an important trend to examine. This is because the brain processes images faster than words, and thus, emergent readers will tend to naturally rely more on images than written text for meaning making (Kummerling-Meibauer, 2018). If young children utilize illustrations in picture books for comprehension processes, and all aspects of a picture carry meaning (Doonen, 1993), then illustrations in children’s literature can be considered important avenues for conveying cultural norms and values. In fact, some scholars have even considered the picture book to be the “most important medium for the communication of ideas by means of printed text” (Kummerling-Meibauer, 2017). In the set of fiction picture books with dyslexic characters, illustrations paint an overwhelmingly negative portrait of people with dyslexia.

Support

The study corpus included the theme of support from instructors, parents, and friends. Support from friends was portrayed in the texts in many ways, including helping the child with dyslexia with homework, encouraging them to feel better about themselves, and helping them

stand up to bullies. In a meta-analysis of research into the experiences of school children with dyslexia, Neville & Forsey (2023) identified mothers as the main source of support. In the current study, mothers were generally portrayed as supportive and the person to whom the child with dyslexia most often reveals their difficulties, has conferences with teachers, and sets up appointments for testing and tutoring.

In addition, the importance of supportive teachers was also indicated by past research, especially teachers who recognized and acknowledge dyslexic students' difficulties while providing flexible support (Neville & Forsey, 2023). Many teachers in the text set were portrayed in this manner. Teachers are often portrayed as encouraging students' talents, such as Tom's painting skills in *Tom's Special Talent* (Gaynor, 2009). Teachers are often portrayed as providing kind, unfailing support to students who are struggling, such as the empathetic Ms. Greer in *Aaron Slater, Illustrator* (Beatty, 2021) or the consistently empathetic and smiling teacher in *D is for Darcy, Not Dyslexia* (Grieblebauer, 2020).

Low self-esteem

Results of the current analysis found high rates of low self-esteem in portrayal of characters with dyslexia, which mirrors past analysis of characters with dyslexia in children's books (Altieri, 2006; Altieri 2008a; Altieri 2008b, Sotirovska & Vaughn, 2021). Portrayal of characters with dyslexia as struggling with self-esteem is supported by the literature. Research into the psychological and emotional effects of dyslexia has found that dyslexic individuals were more anxious, more depressed, and had overall lower self-esteem when compared to their peers (Ihbour, 2021). Students with dyslexia have an elevated risk for reduced self-esteem and anxiety throughout their academic careers (Novita, 2016; Alexander-Passe, 2016).

A variety of factors that contribute to reduced self-esteem in students with dyslexia have been identified. Humiliation by teachers is a key factor, as are negative comparisons with other students' schoolwork and abilities (Glazzard & Dale, 2013; Glazzard, 2010; Antonelli et al., 2011). Although many teachers are portrayed as kind, understanding, and helpful in the current study corpus, negative experiences with teachers are also often portrayed. Some teacher characters within the stories examined were portrayed as angry, impatient, and punitive in both written text and illustrations. This trend is supported by the literature which shows children with dyslexia most often cited the considerable psychological and emotional impact of demeaning and negative teacher interactions as an obstacle to learning and positive mental wellbeing (Neville & Forsey, 2023; Thomas, 2000). Students with dyslexia have reported teachers becoming angry with their difficulties with reading (Singer, 2008). Several studies have reported teachers embarrassing students with dyslexia in front of the class, and even calling them 'lazy' or 'stupid' (Claassens & Lessing, 2018; Lithari, 2018).

Finally, bullying by peers has been shown to be a significant factor in the low self-esteem of children with dyslexia as well (Doikou-Avlidou, 2015; Glazzard & Dale, 2013). Children with dyslexia in past studies have shared the feeling that no one understood their difficulties and were made to feel different or less than others (Claassens & Lessing, 2018; Singer 2008). The current study showed that bullying was a major theme for dyslexic characters in fiction picture books, as a little more than 60% of texts portrayed bullying. This also supports the trend of portraying bullying in past analysis of children's books (Altieri, 2006; Altieri 2008a; Altieri, 2008b, Sotirovska & Vaughn, 2021).

A little more than half of texts examined in this study portray the characters with dyslexia as not liking school. Most characters, in fact, dread going to school and make up excuses to try to get out of going, such as pretending to be ill. Many of the characters are portrayed as happy children up until they enter school. Reading and writing are the primary skills emphasized by the education system and difficulties with these skills are frequently accompanied by insufficient social and emotional support (Foreman-Sinclair, 2012; IDA, 2013; Polychroni et al., 2007). Further research into the socioemotional effects of unaddressed literacy difficulties revealed that these students are also more likely than their classmates to engage in disruptive behavior, encounter law enforcement, drop out of school, and attempt suicide (Daniel et al., 2006; Livingston, et al., 2018; Wadlington & Wadlington, 2005).

It is important for dyslexic children to see their struggles mirrored in picture books and it is helpful for their peers to see these struggles as well, for them to look through the window, or in extremely well written texts, to step into that world for a while. This experience is key to helping children developing empathy of others' experiences (Botelho & Rudman, 2018). However, in fiction picture books dyslexic characters are portrayed as highly emotional and negatively more often than non-dyslexic characters. I imagine finding the balance between acknowledging the immense struggles dyslexic children experience, especially at school, and not having the negativity be the key takeaway from the text is difficult to accomplish.

Special Abilities

Results revealed that almost 93% of characters with dyslexia in the set of fiction picture books examined were portrayed as having either superpowers or special abilities of some kind. The most frequently portrayed special abilities included sports, art, and creative thinking

abilities. Many of the characters were also portrayed wearing superhero outfits, masks, and capes, and dyslexia is even referred to as a superpower itself. Literary scholars who study disability portrayal have pointed out that it is challenging to not adapt “disability into an extraordinary power or an alternative image of ability” (Siebers, 2001, p. 750). Although the intent of portraying a character with a disability as a superhero is likely to inspire dyslexic students or to make dyslexia seem special or “cool” to other children, it is important to question whether the character is an inspiration because of the disability or in addition to the disability?

Superheroes are often portrayed as individuals with differences that are special and accepted by society. However, it could also be the case that portraying characters with differences as superheroes further reinforces the idea that they are separate from normal society. Very few of the fiction picture books in this study present characters in which dyslexia is just one aspect of their character, that they are just kids with varying abilities, not special or super, just part of the varied spectrum of human ability. Books like *The Hoopstar* (White, 2019) and *Emaline: Knight and Training* (Johnson, 2019) do this well. The characters have special talents, yet the authors were able to include the characters’ struggles with dyslexia without the entire plot revolving around the disability. Dyslexia is an aspect of their character, not the full focus of the plot of the story.

Diagnosis

Past studies have revealed that most children do not receive an early dyslexia diagnosis, which negatively impacts their schooling (Lithari, 2018). This reality is portrayed in many of the texts in this study, as most of the characters have already been in school for quite some time and have learned to hide, struggle, and feel ashamed by the time dyslexia is diagnosed. In some

research, students have indicated their diagnosis helped them manage the emotional stress associated with their school difficulties (Dale & Taylor, 2001; Riddick, 2010). A diagnosis of dyslexia can come as a relief for children seeking explanations for their difficulties, especially helping them to realize those difficulties are not due to being lazy or not smart (Glazzard, 2010).

This reality is reflected in many of the texts in the study corpus. For example, in *Roderick Has Dyslexia* (Amarly, 2021), the narrator described:

Suddenly it felt like a raging storm stopped and the dark clouds in his life disappeared. The sun came out and Roderick's life finally started to change. Now it was OK to be Rodrick. He didn't have to be anybody else. It felt like someone lifted a huge rock off of him. There was finally a name for why he was different, and it was dyslexia.

In *I'm Just Different* (Tralongo, 2022), the character described the immense sense of relief in knowing why they were struggling with school, that there wasn't anything wrong with them, and that they just needed to learn in a different way.

Problem Solved

It is often the case that “disability is considered downbeat or ‘depressing’ and, therefore, narratives including disability “may be allowed only on the condition that the narrative take the form of a story of triumph” (Maples et al., 2010, p. 78). For able individuals, encounters with disability can be uncomfortable (Edwards et al., 2022) and this is no less true within literature (Bolt, 2019). 69.49% texts in this study included the triumph of the character over their dyslexia, with the problem comfortably solved by the end of the story. Once the character with dyslexia learned to read, the character could be considered normal, which is a much more comfortable place for the character to be from the point of view of an able dominated society. As Davis (2005) noted, “Narratives involving disability always yearn for the cure, the neutralizing of the

disability” (p. 132). By portraying dyslexia as something to hide, overcome, or cure, these stories perpetuate the idea that having a disability is shameful, tragic or pitiable.

It is often the case that once the child with dyslexia is diagnosed, the problem is quickly remediated, sometimes by the very next page or from line to line. For example, in *Reading is Hard Work* (Coffey & Shannon, 2013), Brent was portrayed as deciding to buckle down and work hard and “weeks later, Brent was a champion in the books, too.” In a mere matter of weeks, Brent’s dyslexia was remediated, he could read, his problem was solved, and he could now be a champion. In *Did You Say Pasghetti? Dusty and Danny Tackle Dyslexia* (Fortune, 2020), Danny struggles with dyslexia occur over the course of one school week, after which he is diagnosed the following week. Danny learns to read on the following page and his problems are solved. The narrator of the story, Danny’s dog, explained, “After a week of feeling not so smart, our mom took Danny to a reading specialist. Turns out he has dyslexia” (Fortune, 2020, p. 12).

In the book *The Story Catcher*, the author describes Addie’s troubles with reading as the words getting away from her. Addie is portrayed as repeatedly attempting to catch words unsuccessfully in a variety of ways. The conclusion of the book is swift:

“Why is catching stories so hard?” Addie asked her mom.

“Words are like magic,” mom said. “You’ve got to believe before you can catch them.”

“Like magic,” Addie thought as she brought a book with her to take a bath.

“Like magic,” Addie shouted, as one by one letters jumbled and tumbled headfirst into the bubbles. Letters bumped into each other sticking together like glue as they floated toward the ceiling.

“Like magic,” she whispered, as bubbles lightly touched the pages. As she scrambled into bed Addie took a deep breath. She opened her favorite book. This time, instead of running away, the word sat quietly. As Addie slowly began to catch this story all by herself.

“Ah,” she sighed, “just like magic.” (Martin, 2021)

This ending implies that learning to read, and solving the problem with reading caused by dyslexia, is solved by simply believing in the magic of reading. Once the child accepts that reading is magic, then they will be able to read. This message is completely opposite to decades of reading research which shows that the human brain is not hardwired to read (Moats, 2020). Learning to read is a process that involves training the brain to recognize and create pathways to connect speech sounds to print on the page. For individuals with dyslexia, this process requires direct and explicit instruction (Kearns et al., 2019; Mills, 2018; Moats & Dakin, 2017). Learning to read does not happen magically, especially for children with dyslexia.

Waiting for a student to accept the magic and magically start reading, as described in *The Story Catcher* (Martin, 2021), is a harmful message to send teachers, students, and parents because it contradicts research into how the brain learns to read. This message further reinforces the common misconception that children with dyslexia simply need to try harder or read more. In addition, what happens when a child who is struggling to read does accept the magic, but reading doesn't happen magically for them? The child might decide that the magic of reading is simply not meant for them which could affect self-esteem, motivation, and contribute to a fixed mind set. Why are some children unworthy of the magic? It is crucial for caregivers to understand the consequences of not providing appropriate interventions for children with dyslexia. The magic of reading happens only after a child is taught to read. Doing the brain work to develop pathways for sound-symbol correspondence is where the real magic occurs.

It is also interesting to note that the family in *The Story Catcher* (Martin, 2021) are portrayed as American Indian through imagery of dream catchers, headbands, and patterns on shirts and blankets. There is an uncomfortable insinuation in this text between magic, indigenous

traditions, and magically being able to read. This plays into the stereotype of indigenous peoples as mystical and magical (Reese, 2015).

In the texts examined in this study, the characters with dyslexia are often encouraged to speak with parents and teachers to get help. The message is repeated that their dyslexia is not permanent and can be cured and that they should work extra hard to cure the problem. In fact, encouraging the character or the reader to work hard and never give up on overcoming their challenges is a common theme within this set of texts. This message puts responsibility for solving problems on the child. For example, in *Mommy, Why is it so Hard for Me to Read?* The text ends by declaring:

Don't be discouraged by school. Do your best and ask for help when you need it, but remember that just like these other famous dyslexics, you have been given special gifts. Your job in life is to discover what those gifts are and share them with the world.

And Brent, whose reading difficulties were resolved within weeks in *Reading is Hard Work* (Coffey and Shannon, 2013), overcame his difficulties through sheer force of will:

Brent realized he couldn't give up. He learned that no matter how hard it was he needed to keep practicing, just like with soccer. He would be successful. Brent had found his passion and one thing he was good at. He applied that same passion and drive that he had for soccer to reading.

Similarly, the character Lexi Dias, in *Lexi Dias and the Power of Dyslexia* (McSoley, 2019) is portrayed as a superhero, describing all her super traits that come from being dyslexic. She then describes the weaknesses that the bad guys can use to stop her, one of which is reading. When describing her weakness in spelling, she explains, "I just have to never give up, work hard and keep trying" (McSoley, 2019).

This is a tricky dichotomy to represent because getting help with reading will indeed help the character to have less struggle and frustration in their lives. However, there is a fine line

between sending the message that there is something wrong with the character with dyslexia and that they will never be happy or included until it is remediated, juxtaposed with the message that it is the dyslexia itself which makes the character special and unique. At the same time the texts encourage overcoming dyslexia, hiding struggles, and bullying; they are also sending a very strong message that being unique is important. This is a potentially confusing and contradictory mix of messages.

Another related common storyline in these texts is that once the child decides to try harder, then the problem becomes solved. For example, Oliver in *The Struggle Unseen* (Kelleher, 2022) spends most of the story struggling with school and experiencing quite low self-esteem, except when he is playing football. When Oliver helps a friend learn how to throw a football (football is his special talent) he has the idea that he just needs to try harder to do better at school. The story continues, “Oliver decides to not give up at school. He completes his homework and pays attention to his teacher....Oliver’s reading and writing get better. His grades improve and he becomes more confident in class” (Kelleher, 2022). On the next page, he moves out of the special reading class, and goes onto advanced placement classes in high school.

It is interesting to note in the beginning of the story, the author makes sure to point out that his teacher tells him to work harder all the time, even though he really is working as hard as he can. Later in the story, the message changes to placing the burden of “fixing” himself back on the child with dyslexia. This story line is repeated in similar ways in many of the texts. The message sent by these texts is that dyslexia is something to be overcome and once that is managed, then the child’s problems go away. Learning to read is hard work and dyslexia is not

something that ever goes away. To let a child, or their caregivers responsible for their wellbeing, believe that this is the case is a huge disservice to children with dyslexia.

Disabling Environments

When thinking about the experience of the dyslexic characters in children's fiction picture books through the lens of the social model of disability (Riddle, 2020) and critical neurodiversity studies (Rosquist et al., 2020), the struggles these characters face can be thought of as the product of experiencing neurodiversity within a disabling environment. The problems the character with dyslexia encounter largely occur within the school setting because school is where the disability manifests. Brain differences that make it hard to learn to read are a difficulty in a society that values literacy.

One of the most prominent examples of disabling environments can be seen in the types of teaching strategies portrayed in the texts before the characters receive a dyslexia diagnosis. Unfortunately, the text set included many examples of teaching practices that are out of date and not supported by research such as round robin reading, grading each other's papers, announcing grades out loud, and keeping the child inside for extra work during recess (Himmele & Himmele, 2021). In addition, the use of colored overlays and special fonts was portrayed often, which are also not supported by research for use with students with dyslexia since it is not a problem with vision (Custer et al., 2018).

Taking turns reading out loud in front of the class is a popular teaching technique often referred to as Round Robin Reading or Popcorn Reading. Current research does not support the use of this practice because it does not support fluency acquisition, evokes high levels of anxiety and shame in students, and has detrimental effects on reading comprehension (Himmele &

Himmele, 2021). This ineffective and shame-inducing teaching practice appeared in 66.10% of the texts examined. In addition to the negative effects of reading out loud in front of the class for students who struggle with reading, it has also been shown to have no benefit for proficient readers as well (Bessette, 2020). This supports Prater's (2003) analysis of learning disabilities in children's books in which the author explained, "the mere presence of a character with learning disabilities does not guarantee that appropriate characterization or up to date practices are depicted" (p. 61).

The use of best practices for supporting all readers would provide a more enabling environment for neurodiversity within the classroom, including students with dyslexia. Many teaching practices which are supported by research were also present in the texts and include the use of audio books, speech to text software, multi-sensory explicit instruction in phonics and spelling, one-on-one and small group tutoring, and extra time (Birsch & Cerreker, 2020). It is encouraging to see the use of evidence-based practices represented in children's fiction picture books. It is interesting to note that these types of teaching practices were typically provided to the character after the diagnosis of dyslexia and contributed to their ability to read effectively by the end of the story. It is important for teachers to provide research-based supports for all students, regardless of diagnosis, to foster an inclusive and enabling classroom environment.

Ableism and 'Othering'

Disability studies and neurodiversity studies explain that mainstream culture views the body and brain of a person with a disability as something that needs to be fixed or cured, which suggests normal or typical bodies and brains are superior and part of a social structure in which that normality is privileged (Rosquist et al., 2020). There is strong evidence within the study

corpus that neurodivergence in the form of dyslexia is treated as an ‘othered’ social category. The context of most fiction picture books with dyslexic characters places a heavy focus on what is wrong with the character with dyslexia, while privileging normal ability. This was evidenced by the results which showed more negative language related to the characters with dyslexia as well as the fact that dyslexic characters were portrayed more negatively than non-dyslexic characters overall. In addition, when coding the ways in which the texts define dyslexia, a strong focus on struggle and difference was evident. Also, the recurring scenes of the dyslexic child bullied and shunned by their peers until they are cured of their dyslexia, is a clear illustration of treating neurodiversity as inferior to neurotypical learning.

This set of texts is complicated because they center neurodivergence in the form of dyslexia while simultaneously emphasizing all the ways in which the character is different and not accepted by their peers. Indeed, one text reassured the reader that having dyslexia “doesn’t mean you are stupid or a freak” (Coffey & Shannon, 2013). Some texts celebrate different ways of thinking and learning and seek to empower the dyslexic reader. However, many texts in this study corpus spend a large portion of the narrative focused on what is in need of fixing. In many stories, the child is not accepted until after the reading problem is solved or they use their special talents to save the day.

For example, in *Hudson Hates School* (Hudson, 2010), the same group of classmates who made fun of him for his difficulties are portrayed as welcoming Hudson at the end of the book. This welcoming, friendly scene occurs only after Hudson learns to read. This scene contributes to Hudson’s happy ending, in which he is finally accepted and can now enjoy school. He is normal now and can be accepted. Similarly, some characters are bullied until they have a useful

skill that saves the day. In four texts that skill is helping the group find their way after being lost. These types of scenarios play out over and over throughout the texts in the study corpus. The theme of acceptance after the resolving of the dyslexia disability sends a powerful message: You will only be accepted as normal once you are cured.

There is a subtle yet important difference between the character gaining acceptance from their peers, especially after those same peers bullied them, and the character being proud of themselves for overcoming a difficult challenge such as learning to read despite a learning difference. After Azzie, in *The Back to Front World of Azzie Artbuckle* (Montgomery, 2017) works hard with her tutor and after lots of practice, she proudly explains, “It has taken me a long time to be proud of being me” (p. 29). The important difference in this example is that the approval doesn’t come from neurotypical, and often bullying, peers, but from the character’s own improved self-esteem.

Although dyslexic characters were the main character in 89.83% of the texts examined, only 30.50% of stories were told from the character’s point of view. Several of the texts in this study are narrated by a character who is not dyslexic and is telling the story for the dyslexic character, such as in *My Friend Has Dyslexia* (Toureville, 2010). In this story, the narrator friend is the one who explains the dyslexic character’s struggles and triumphs, along with all the ways in which he is a good friend and helps the character with dyslexia.

In *If You’re So Smart, How Come You Can’t Spell Mississippi?* (Esham, 2014), the story revolves around a little girl speaking with her dyslexic dad and then researching more about dyslexia to better understand a classmate with dyslexia. The storyline follows the non-dyslexic

main character's journey to understand dyslexia, and the dyslexic characters are secondary. At the very end of the story, she says:

I can't wait to go to school on Monday. I think Mark Twingle needs to know how great his mind is and what incredible things he might accomplish one day...maybe I'm just the right person to tell him. (Esham, 2014)

The girl goes to sleep happily thinking about how she is going to help her dyslexic classmate discover how great he is and help him feel better about himself.

On the surface this sounds kind, and the reader does learn a lot about dyslexia along the way, but it seems to send the message that all the dyslexic character needs is validation from the non-dyslexic character for everything to be better for him. External validation from another character was also evident in *Kamoho the Chameleon Doesn't Like School* (Marrotte, 2021), Kamoho is finally able to read because the teacher sits down next to him and points at the word. The story ends with Kamoho walking happily home thinking that he "just needed someone to believe in him so he could believe in himself" (Marrotte, 2021).

Stereotypes and Misconceptions

Negative stereotypes of dyslexia include poor behavior, acting out in class, and being extremely moody and emotional, and these portrayals are present in the texts examined for this study. While it is true that struggling with unremediated dyslexia is an extremely frustrating and socio-emotionally damaging experience for children as discussed (Livingston et al., 2018), portrayals in children's fiction texts which heavily emphasize the characters in this way contribute to the perpetuation of negative stereotypes of children with dyslexia. It is true that many children with dyslexia struggle with low self-esteem, low performance at school, and acting out. However, as Cartledge et al. (2022) explained:

Stereotypes, which may be taken from a kernel of truth and distorted beyond reality, are very damaging and counterproductive. You must avoid stereotypes attributed to all groups, especially minority groups...These negative and misleading stereotypes can be long lasting, greatly shaping people's attitudes, policies, and actions towards others. (p.197)

Appel & Weber (2021) performed a meta-analysis about the effects of stereotypes in media and found "negative stereotypes and devaluing content in the media impair members of negatively stereotyped groups, whereas nonmembers are not affected (p. 169). The meta-analysis focused on groups which are frequently stereotyped in the media, such as women and minorities. It is possible similar phenomenon could occur with individuals with dyslexia, especially children, who are exposed to stereotypical portrayals of characters who misbehave and are highly emotional.

Stereotypes of dyslexia, even well-intentioned ones such as having superpowers or special talents, can lead to pigeonholing of children into a specific profile, especially one that is difficult to live up to. It is obvious the authors of these texts mean well, and their goal is to empower children and help them feel better about learning differently. I wonder what happens to the child with dyslexia who does not excel at art or sports? What happens to the dyslexic child who internalizes the idea that their dyslexia should give them superpowers when in fact they are simply ordinary children? Considering most fiction picture books in this study portray characters with dyslexia as having some kind of special ability, this send the message that dyslexic individuals must be talented in some way.

Even though dyslexia is a common learning difference that affects people of all ages and backgrounds, it is often misunderstood, and much research has shown persistent misconceptions (White et al., 2020). Almost 80% of the texts examined in this study contained misconceptions about dyslexia. The fact that such a high number of children's fiction picture books contain

misconceptions mirrors the extensive research into the lack of understanding of dyslexia and the continued misconceptions about dyslexia held by teachers (Moss, 2020). It is concerning that so many picture books contain misconceptions because the presence of incorrect facts could continue to reinforce misconceptions held by caregivers.

Most of the texts include misconceptions related to the visual myth. Texts describe the dyslexic character as seeing the words differently and moving around in a variety of creative ways. Describing dyslexia as something which makes characters see words and letters in visually different ways showed up often in the texts when language was used related to defining dyslexia as well. For example, in one text dyslexia was described as “letters bouncing around on the page” (Westen, 2021) and another explained “the letters whinnied and bucked and wouldn’t stand still” (Robb, 2004).

Another way in which the visual myth appears in these texts is through the use of ‘dyslexia friendly’ fonts. Several author’s notes include information about the font, and its use in improving reading for people with dyslexia. The concept of dyslexia-friendly fonts is becoming a more popular way to help people with dyslexia read better, but this claim has also been challenged. Studies have repeatedly shown that these specialized typefaces do not actually improve reading for individuals with or without dyslexia (Kuster et al., 2018).

Organizations such as Brightspace D2L and Google have taken notice of current research into special fonts and discontinued support of the use of dyslexia friendly fonts on their platforms. The major software company Google decided not to support such fonts because “they are all based on a fundamental misunderstanding of what dyslexia is” (Crossland, 2016). Brightspace D2L online learning platform, utilized by many colleges and universities, also

discontinued the use of these fonts due to lack of empirical evidence supporting the use of dyslexia friendly fonts (Earl, 2019).

The danger with well-meaning texts, especially those which contain misconceptions embedded within true information, is that the embedded misinformation is even further reinforced. This means that conceptual change, especially in the case of the visual myth, becomes harder to accomplish with each reading of these texts. Each time a parent, teacher or child reads a text with misinformation, their transaction between misinformed background knowledge, true scientific evidence, and the misconception in the text combines to further cement the misconception in the reader's brain. Thus, the cycle of misconceptions related to dyslexia continues within popular culture.

How would a parent or teacher without specific training or knowledge of these misconceptions even know to question one small piece of misinformation from a two-page spread of facts written by someone with a PhD? This is especially concerning considering much of the information relates to the process of diagnosis. Having a misconception about dyslexia as a vision issue may impact the diagnosis and intervention process for the child with dyslexia. The work of educating teachers, school librarians, and parents to recognize misconceptions in the texts they choose is a key piece of the overall work to combat harmful misconceptions.

Serafini (2014) explained:

Dominant meanings or interpretations are socially agreed upon meanings that emerge out of social relations and gain power in the contexts of their creation and dissemination. The fields of cultural and visual studies focus on revealing how particular interpretations and cultural norms become embedded in media messages and visual images in a way that allow them to be reinforced and internalized, thereby becoming dominant. (p. 39)

The phenomenon of the embedding of cultural norms into media seems to be what is occurring with popular misconceptions of dyslexia showing up in children's picture books. Results of this content analysis suggest certain stereotypes of dyslexia, predominately the visual myth, have become so clearly entrenched in our society that they show up in just shy of 80% of fiction picture books featuring characters with dyslexia. This is a dominant meaning, indeed, of what it means to be dyslexic, and it is profoundly misconstrued.

Implications for Practice

Children's literature is of vital importance for children because those who are exposed to books and storytelling from an early age have been found to have better language development, literacy skills, and comprehension levels than those children who haven't experienced these activities (Demir-Lira et al., 2019). Exposure to books by caregivers at an early age can also help children develop essential social-emotional skills (Schapita & Arim, 2020) that will be the foundation of many aspects of their lives, such as communication, problem solving, and creativity. Through literature, children learn about themselves, others, and the world around them. This makes children's literature a powerful tool educators and caregivers can use to help children grow into healthy, successful adults. With this fact in mind, educators must be aware of the quality and content of the literature they use with children.

Teachers must be knowledgeable about dyslexia so they will be able to recognize signs of dyslexia as early as possible. This will allow the child to receive proper accommodations and instruction. Educators who hold misconceptions will be less likely to provide the urgent interventions needed by dyslexic students to be successful in the classroom (Washburn et al., 2011). It has been shown in a multitude of studies that misconceptions about dyslexia are

widespread amongst educators (Mather et al., 2020). The current study demonstrated these same misconceptions are also evident in most contemporary children's fiction picture books containing characters with dyslexia. It is possible these books are serving as reinforcement of the erroneous beliefs, especially the belief that dyslexia is a visual issue. More teacher training is needed in order to recognize misconceptions in literature.

Educators, parents, and librarians must be aware that children's books including dyslexic characters are also highly likely to contain stereotypes and instances of bias and ableism. When white, male, able characters are privileged in children's literature while other races and abilities are largely ignored or misrepresented, racism and ableism are preserved and encouraged through the books schoolchildren read. Results of this study showed there are very few fiction picture books with characters with dyslexia that are free of misconceptions, and many include stereotypes and deficit language. It could be helpful for educators, librarians, and parents to know these ten children's fiction picture books examined in this study do not contain misconceptions: *Abdul's Story* (Thompkins-Bigelow, 2022), *Back to Front and Upside Down* (Alexander, 2012), *D is for Darcy, Not Dyslexia* (Griebelbauer, 2020), *Daisy Describes Dyslexia and How She Learns to Read* (Stuttgen & Finn, 2021), *Finding My Superpower* (Prestidge, 2021), *I'm Just Different* (Trolongo, 2022), *It's Called Dyslexia* (Moore-Milanos, 2007), *Just Ask: Be Special, Be Different, Be You* (Sotomayor, 2017), *The Hoopstar* (White, 2017), and *Tom's Special Talent* (Gaynor, 2009).

Caregivers and educators must be diligent in choosing to utilize texts which are free from stereotypes and misconceptions, present accurate facts, and portray characters realistically and respectfully. Educators and librarians can conduct a critical analysis of the books in their

libraries to ensure diverse, accurate, and respectful representation. To avoid perpetuating detrimental stereotypes, the representation must also be accurate. Choice of high-quality texts should also include deliberate text choices which do not contribute to reinforcement of deficit views and language of neurodiversity. Children's literature that includes characters with dyslexia influences the construction of the identity of dyslexic children as well as the forming of knowledge of other children about what dyslexia is in general. This, in turn, continuously contributes to and informs the general overall understanding of dyslexia as a society.

Recommendations for Future Research

The forms of misinformation found in children's books should continue to be compared to the literature on common misconceptions about dyslexia in future investigations. Future studies should also continue to investigate the types of misunderstandings classroom teachers currently hold to see if they are the same misconceptions shown in stories about dyslexic characters in the same period. It would be fascinating to go more in depth into the depictions of the various accommodations and services in the fictional accounts of dyslexia compared to the research on the most effective methods for assisting dyslexic students. In addition, it would be interesting to further examine the depictions of interventions to services being provided in contemporary classrooms and school settings.

Several picture books featuring characters with dyslexia have already been published in 2023, at the time of this writing. This further reflects the growing media attention, rise in state legislation, and teacher training in America today. It would be interesting to investigate whether an increase in information and education about dyslexia has resulted in a more accurate

narrative. Future research should incorporate recently published texts to consider whether the narrative surrounding dyslexia has changed since the scope of this project.

Other genres including dyslexia and dyslexic characters are also worth investigating. For example, this study did not examine autobiographical picture books or nonfiction picture books. How is dyslexia portrayed in these texts compared to portrayals in fiction text? Are there fewer misconceptions in these genres since they are based on true stories and information? Are there fewer misconceptions in the texts when the author is dyslexic or do the popular misconceptions affect their understanding as well? These questions would be salient to investigate.

Stakeholders who maintain misconceptions about dyslexia may be more likely to select inadequate diagnostic and intervention procedures for children (Washburn et al., 2011), thereby compromising the educational and emotional well-being of students. In addition, the perpetuation of neuromyths and misconceptions "has likely led to the misallocation of scarce educational resources, such as time and money" (van Dijk & Lane, 2020, p. 3). It is essential that future research continue to focus on not only recognizing but also countering these misconceptions through training.

To extend the research in the current study, I intend to survey classroom teachers and school librarians to discover which of the picture books are currently present in schools, how they are being utilized, and whether those texts contain misconceptions. This could provide a more solid link to the possible connection between children's books and misconceptions about dyslexia. In addition, an evaluation checklist is currently in development to assist teachers and parents in evaluating picture books with dyslexic characters to ensure they are presenting texts with accurate and respectful representations. Another important avenue which connects this

research directly to practice will be to use the checklist to evaluate the texts identified in this study to produce a list of accurate and respectful children's picture books containing dyslexic characters. This could be a valuable resource for teachers, librarians, and parents.

Chapter Summary

Overall, the fifty-nine fiction picture books examined in this study have captured the extreme stress and difficulties experienced by children with dyslexia, especially in the school setting. Themes of low self-esteem, bullying, school avoidance, and many aspects of the diagnosis and intervention process are all supported by the extant literature. Many texts in the study corpus seem to include accurate depictions of the experiences of children with dyslexia.

However, several themes within this set of texts are problematic, including ableist neurotypical messages (i.e., problems will disappear, and people will like you again when you are cured), negative and stereotypical depictions, as well as the message that dyslexia can be cured quickly and completely. Perhaps the most concerning aspect of this text set is the high level of misconceptions present in the texts (almost 80% contain misconceptions). Continued reinforcement of misconceptions related to dyslexia could directly affect the diagnosis and intervention process for students.

I encourage and applaud educators, librarians, and caregivers who wish to incorporate fiction picture books that include characters with dyslexia into their libraries. Library collections must reflect the diversity of the human experience, including neurodiversity, for children to learn about the full range of the human experience. This sentiment feels even more urgent as book banning is on the rise in cities across America (American Library Association, 2022). It is of

vital importance, however, that these texts contain accurate and respectful depictions, even if they are fiction.

The very act of choosing to share a book with children imparts a message about the culture and values of their caregivers and school environment. Utilizing children's literature which meets high quality standards for authenticity and inclusivity ensures all children can see themselves in the books they encounter. In addition, all children have the opportunity to learn about other peoples' experiences in a respectful way through quality literature. The transformative process of stepping through the metaphorical sliding glass door allows children to experience respectful and accurate identities other than their own (Bishop, 2012). I believe this experience can open hearts, broaden minds, and change lives.

REFERENCES

- Adomat, D.S. (2014). Exploring issues of disability in children's literature discussions. *Disability Studies Quarterly*, 34(3). <https://doi.org/10.18061/dsq.v34i3.3865>
- Aho, T., & Alter, G. (2018). "Just like me, just like you": Narrative erasure as disability normalization in children's picture books. *Journal of Literacy & Cultural Disability Studies*, 12(3), p. 303-319. <https://doi.org/10.3828/jlcls.2018.24>
- Alahmari, A. (2019). A review and synthesis of the response to intervention (RtI) literature: Teachers' implementations and perceptions. *International Journal of Special Education*, 33(4), p. 894-909.
- Allington, R. L. (1982). The persistence of teacher beliefs in facets of the visual perceptual deficit hypothesis. *The Elementary School Journal*, 82(4), 351-359.
- Al Otaiba S., Wagner R.K., Miller B. (2014). "Waiting to fail" redux: Understanding inadequate response to intervention. *Learning Disability Quarterly*, 37(3), 129-133.
- Altieri, J. L. (2006). Children's contemporary realistic fiction portraying dyslexic characters: An examination of the issues confronted and the gender of the characters. *Reading Research and Instruction*, 45, 161-178.
- Altieri, J.L. (2008a). Behavioral issues, self-esteem struggles, retention, and more: The portrayal of book characters with dyslexia. *Reading Horizons*, 48(2), 81-94.
- Altieri, J. L. (2008b). Fictional characters with dyslexia: What are we seeing in books? *Teaching Exceptional Children*, 41(1), 48-54.
- Anderson, M. J. (2006). Try a disability on for size: Sensitizing school personnel. *Georgia School Counselors Association Journal*, 13, 31-40.
- Annamma, S. A., Connor, D., & Ferri, B. (2013). Dis/ability critical race studies (DisCrit): theorizing at the intersections of race and dis/ability. *Race Ethnicity and Education*, 16(1), 1-31. [doi/full/10.1080/13613324.2012.730511](https://doi.org/10.1080/13613324.2012.730511)
- American Library Association. (2022). *Surge in book challenges*. Retrieved from <https://www.ala.org/news/mediapresscenter/presskits/surge-book-challenges-press-kit>
- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th Ed.). American Psychiatric Association Publishing.
- Anderson, A. (2021) Advancing school professionals' dyslexia knowledge through neuroscience: bridging the science-education gap through developmental psychology. *Frontiers of Education*, 5, p. 615791. [doi: 10.3389/educ.2020.615791](https://doi.org/10.3389/educ.2020.615791)
- Andrews, S.E. (1998). Using inclusion literature to promote positive attitudes toward disabilities. *Journal of Adolescent & Adult Literacy*, 41(6), 420-426.
- Appel, M., & Weber, S. (2021). Do Mass Mediated Stereotypes Harm Members of Negatively Stereotyped Groups? A Meta-Analytical Review on Media-Generated Stereotype Threat and Stereotype Lift. *Communication Research*, 48(2), 151-179. [https://doi-](https://doi.org/10.1177/0891912220978888)

org.proxybz.lib.montana.edu/10.1177/0093650217715543

- Arnett, A. B., Pennington, B., Peterson, R. L., Wilcutt, E. G., DeFries, J.C., Olson, R. K. (2017). Explaining the sex difference in dyslexia. *Journal of Child Psychological Psychiatry*, 58(6), p. 719-727. DOI: 10.1111/jcpp.12691
- Archer, A. L. & Hughes, C. A. (2011). *Explicit Instruction: Effective and Efficient Teaching*. Guilford Press.
- Arneil, B. (2009). Disability, self-image and modern political theory. *Political Theory*, 37 (2), p. 218-242.
- Artman-Meeker, K., Grant, T.O., & Yang, X. (2016). By the book: Using literature to discuss disability with children and teens. *Teaching Exceptional Children*, 48(3), 151–158. <https://doi.org/10.1177/0040059915618195>
- Ayala, E. C. (1999). "Poor little things" and "brave little souls": The portrayal of individuals with disabilities in children's literature. *Reading Research and Instruction*, 39, 103-117.
- Barker, C., Kulyk, J., Knorr, L., & Brenna, B. (2011). Open Inclusion or Shameful Secret: A Comparison of Characters with Fetal Alcohol Spectrum Disorders (FASD) and Characters with autism spectrum disorders (ASD) in a North American Sample of Books for Children and Young Adults. *International Journal of Special Education*, 26(3), 171-180.
- Bessette, Harriet J. (2020). Using choral reading to improve reading fluency of students with Exceptionalities. *Georgia Journal of Literacy*, 43 (1).
- Bell, D. (1992). *Faces at the bottom of the well: The permanence of racism*. Basic.
- Berent, I., & Platt, M. (2021). Public misconceptions about dyslexia: The role of intuitive psychology. *PLOS ONE*, 16(12). <https://doi.org/10.1371/journal.pone.0259019>
- Bergerson, A. A. (2003) Critical race theory and white racism: Is there room for white scholars in fighting racism in education? *International Journal of Qualitative Studies in Education*, 16 (1), 51-63, DOI: 10.1080/0951839032000033527
- Berlin, R. (1887). *Eine besondere art der Wortblindheit (dyslexie)*. Wiesbaden: J. F. Bergmann
- Birsch, J., & Cerreker, S. (2019). *Multisensory Teaching of Basic Language Skills, 4th ed.* Brookes Publishing.
- Black, R. S., & Tsumoto, C. A. (2018). Portrayal of adolescents with autism spectrum disorders in young adult literature. *Exceptionality Education International*, 28(1), 45-67.
- Blaska, J. (2004). Children's literature that includes characters with disabilities or illnesses. *Disability Studies Quarterly*, 24(1), article 866. <https://doi.org/10.18061/dsq.v24i1.866>
- Blaska, J. K. (1996). *Using Children's Literature to Learn about Disabilities and Illness*. Practical Press.

- Blaska, J. K. (2003). *Using children's literature to learn about disabilities and illness (2nd ed.)*. Educator's International.
- Biklen, D., & Bogdan, R. (1977). Media portrayals of disabled people: A study in stereotypes. *Interracial Books for Children Bulletin*, 8(6 & 7), 4-9.
- Bishop, R.S. (1990). Mirrors, windows, and sliding glass doors. *Perspectives: Choosing and Using Books for the Classroom*, 6(3), ix-xi
- Bishop, R. S. (2012). Reflections on the development of African American children's literature. *Journal of Children's Literature*, 38(2), 5-13.
- Bolt, D. (2019). The metanarrative of disability: Social encounters, cultural representation and critical avoidance, in *Routledge Handbook of Disability Studies*, 2nd ed. Routledge.
- Bradley, R., Danielson, L., & Doolittle, J. (2007). Responsiveness to Intervention: 1997 to 2007. *TEACHING Exceptional Children*, 39(5), 8-12. <https://doi.org/10.1177/004005990703900502>
- Brenna, B. (2013). Mindful portrayals: Using fiction to create awareness, understanding, and support for people with autism and developmental disabilities. *Education and Training in Autism and Developmental Disabilities*, 48(4), 514-521.
- Botelho, M.J., & Rudman, M.K. (2009). *Critical multicultural analysis of children's literature: Mirrors, windows, and doors*. Routledge.
- Carroll, P. S., & Rosenblum, L. P. (2000). Through their eyes: Are characters with visual impairment portrayed realistically in young adult literature. *Journal of Adolescent & Adult Literacy*, 43(7), p. 620-630.
- Cartledge, G.; Kea, C. D.; Watson, M.; Oif, A. (2016) Special education disproportionality: A review of response to intervention and culturally relevant pedagogy. *Multiple Voices for Ethnically Diverse Exceptional Learners*, 16 (1), p. 29-49. <https://doi.org/10.5555/2158-396X.16.1.29>
- Chi, M.T.H. (2008). Three types of conceptual change: Belief revision, mental model transformation, and categorical shift. In Vosniadou, S. (Ed.), *Handbook of Research on Conceptual Change*. Hillsdale, NJ: Erlbaum, 61-82.
- Claassens, T. & Lessing, A.C. (2018). Young adult learners with dyslexia: Their socio-emotional support needs during adolescence, *Journal of Psychology in Africa*, 25 (1), p. 32-36.
- Cline, T. (2000). Multilingualism and dyslexia: Challenges for research and practice. *Dyslexia*, 6(1), 3-12.
- Cooperative Children's Book Center, School of Education, University of Wisconsin-Madison (2020). *Diversity Statistics FAQ*, retrieved from <https://ccbc.education.wisc.edu/literature-resources/ccbc-diversity-statistics/diversity-statistics-faqs/>

- Cortiella, C. & Horowitz, S. H. (2017). *The State of Learning Disabilities: Facts, Trends and Emerging Issues*. National Center for Learning Disabilities.
- Creswell, J., & Poth, C. (2018). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.
- Critchley, M. (1970). *The dyslexic child*. Heinemann.
- Crossland, D. (2016). *Add to Google Web fonts #17*, retrieved from <https://github.com/antijingoist/open-dyslexic/issues/17>.
- Curwood, J.S. (2013). Redefining normal: A critical analysis of (dis)ability in young adult literature. *Children's Literature in Education*, 44, p. 15–28.
- Daniel, S. S., Walsh, A. K., Goldston, D. B., Arnold, E. M., Reboussin, B. A., & Wood, F. B. (2006). Suicidality, school dropout, and reading problems among adolescents. *Journal of learning disabilities*, 39(6), 507-514.
- Davis, L. J. (1998). Who put the 'The' in the novel?: Identity politics and disability in novel studies. *NOVEL: A Forum on Fiction*, 31 (3), p. 317-334.
- DeFries, J. C. (1989). Gender ratios in children with reading disability and their affected relatives: A Commentary. *Journal of Learning Disabilities*, 22, p. 544-545.
- Denkla, M. B. (2018). *Understanding Learning and Related Disabilities: Inconvenient Brains: Meanings, Functions and Ambiguity*. Routledge.
- Delgado, R. and Stefancic, J. (2017). *Critical Race Theory: An Introduction*. 3rd ed. New York: New York University Press.
- Demir-Lira, ÖE, Applebaum, LR, Goldin-Meadow, S, Levine, SC. (2019). Parents' early book reading to children: Relation to children's later language and literacy outcomes controlling for other parent language input. *Developmental Science*, 22. <https://doi.org/10.1111/desc.12764>
- Doherty-Hale, D. (1984). Children's literature for the learning disabled. *Learning Disability Quarterly*, 7(4), 336-342.
- Dudley-Marling, C. (2004). The social construction of learning disabilities. *Journal of Learning Disabilities*, 37 (6), p. 482-489.
- Dyches, T. T., Egan, K., Moss, K., Grow, H., Black, S., & Prater, M. A. (2018). Same but different: Characters with developmental disabilities in current juvenile literature. *Education and Training in Autism and Developmental Disabilities DADD Online Journal: Research to Practice*, 5(1), 73-89. http://www.daddcec.com/uploads/2/5/2/0/2520220/updated_dec_doj_2018.pdf
- Dyches, T. T., & Prater, M. (2000). Developmental disability in children's literature: Issues and annotated bibliography. *Council for Exceptional Children/Mental Retardation and Developmental Disabilities*.

- Dyches, T. T., & Prater, M. A. (2005). Characterization of developmental disability in children's fiction. *Education and Training in Developmental Disabilities, 40*(3), 202-216.
- Dyches, T. T., Prater, M. A., & Cramer, S. F. (2001). Characterization of mental retardation and autism in children's books. *Education and Training in Mental Retardation and Developmental Disabilities, 36*(3), 230-243.
- Dyches, T., Prater, M.A., & Jenson, J. (2006). Portrayal of disabilities in Caldecott books. *Teaching Exceptional Children Plus, 2*(5). Retrieved from <http://hdl.lib.byu.edu/1877/3468>
- Dyches, T. T., Prater, M. A., & Leininger, M. (2009). Juvenile literature and the portrayal of developmental disabilities. *Education and Training in Developmental Disabilities, 44*(3), 304-31
- Earl, S. (2019). *Intent to end of life notice for: OpenDyslexic font option in account settings*. Brightspace Community. Retrieved from <https://community.brightspace.com/s/article/Intent-to-End-of-Life-Notice-for-OpenDyslexic-Font-Option-in-Account-Settings>
- Echegaray-Bengoa, J., Soriano-Ferrer, M., & Joshi, R. M. (2017). Knowledge and beliefs about developmental dyslexia: A comparison between pre-service and in-service Peruvian teachers. *Journal of Hispanic Higher Education, 16*(4), 375-389. doi:10.1177/1538192717697591
- Edwards, B.; Cameron, D.; King, G. & McPherson, A.M. (2022). The potential impact of experiencing social inclusion in recreation for children with and without disabilities. *Disability and Rehabilitation, 44* (14), p. 3469-3478. DOI: 10.1080/09638288.2020.1865465
- Erbeli, F.; Hart, S. A.; Wagner, R. K.; & Taylor, J. (2018.) Examining the etiology of reading disability as conceptualized by the hybrid model. *Scientific Studies of Reading, 22* (2), p. 167-180, DOI: 10.1080/10888438.2017.1407321
- Elliott, J. G. & Grigorenko, E. L. (2014). *The Dyslexia Debate*. Cambridge University Press.
- Filipovic, K. (2018) Gender representation in children's books: Case of an early childhood setting, *Journal of Research in Childhood Education, 32*(3),p. 310-325, DOI: 10.1080/02568543.2018.1464086
- Fish, R. E. (2017). The racialized construction of exceptionality: Experimental evidence of race/ethnicity effects on teachers' interventions. *Social Science Research, 62*, 317-334.
- Flannery, K. A., Liederman, J., Daly, L., & Schultz, J. (2000). Male prevalence for reading disability is found in a large sample of black and white children free from ascertainment bias. *Journal of the International Neuropsychological Society, 6*, p. 433-442.
- Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (2019). *Learning disabilities: From identification to intervention (2nd ed.)*. Guilford Press.

- Foreman-Sinclair, K. (2012). Kindergarten through second-grade teachers' knowledge and beliefs about dyslexia assessment and retention. Sam Houston State University, ProQuest Dissertations Publishing, 3531773.
- Galaburda, A., Gaab, N., Hoeft, F. & McCardle, P. (2018). *Dyslexia and Neuroscience*. Paul Brookes Publishing.
- Garland-Thomson, R. (2005). Disability and representation. *PMLA*, 120 (2), p. 522-527.
- Gersten, R., Haymond, K., Newman-Gonchar, R., Dimino, J., & Jayanthi, M. (2020). Meta-analysis of the impact of reading interventions for students in the primary grades. *Journal of Research on Educational Effectiveness*, 13(2), 401–427
- Glazzard, J. (2010). The impact of dyslexia on pupils' self-esteem. *Support for learning*, 25 (2), 63-69.
- Golos, D.B., Moses, A.M. & Wolbers, K.A. (2012). Culture or disability? Examining deaf characters in children's book illustrations. *Early Childhood Education*, 40, 239–249
- Gonzalez, M. (2021). Dyslexia knowledge, perceived preparedness, and professional development needs of in-service educators. *Annals of Dyslexia*, 71, p. 547–567. <https://doi.org/10.1007/s11881-021-00235-z>
- Gonzalez, M., & Brown, T. B. H. (2019). Early childhood educators' perceptions of dyslexia and ability to identify students at-risk. *Journal of Education and Learning*, 8 (3), 1-12.
- Greenwell, B. (2004). The curious incidence of novels about Asperger's Syndrome. *Children's Literature in Education*, 35(3), 271-284.
- Guidi, L. G., Velayos-Baeza, A., Martinez-Garay, I., Monaco, A. P., Paracchini, S., Bishop, D. V., & Molnár, Z. (2018). The neuronal migration hypothesis of dyslexia: A critical evaluation 30 years on. *European Journal of Neuroscience*, 48(10), 3212-3233.
- Gwernan-Jones, R., & Burden, R. L. (2010). “Are they just lazy?” Student teachers' attitudes about dyslexia. *Dyslexia*, 16, p. 66–86. <https://doi.org/10.1002/hidys>.
- Hall, C., Dahl-Leonard, K., Cho, E., Solari, E.J., Capin, P., Conner, C.L., Henry, A.R., Cook, L., Hayes, L., Vargas, I., Richmond, C.L. and Kehoe, K.F. (2022). Forty years of reading intervention research for elementary students with or at risk for dyslexia: A systematic review and meta-analysis. *Reading Research Quarterly*. <https://doi.org/10.1002/rrq.477>
- Hallahan, D., Pullen, P., Kauffman, J., & Badar, J. (2020). Exceptional learners. *Oxford Research Encyclopedia of Education*. <https://doi.org/10.1093/acrefore/9780190264093.013.926>
- Hammill, D.D. & Allen, E. A. (2020). A revised discrepancy method for identifying dyslexia. *Journal of Pediatric Neuropsychology*, 6 (27), p. 27-43. <https://doi.org/10.1007/s40817-020-00079-2>
- Handler, S. M., Fierson, W. M.; Section on Ophthalmology and Council on Children with

- Disabilities, American Academy of Ophthalmology, American Association for Pediatric Ophthalmology and Strabismus, and American Association of Certified Orthoptists. (2011). Learning disabilities, dyslexia, and vision. *Pediatrics*, *127*(3), e818-e856.
- Harris, K. (1979). *Education and Knowledge: The Structured Misrepresentation of Reality* (1st ed.). Routledge. <https://doi.org/10.4324/9781315528731>
- Harris, P. J., Oakes, W. P., Lane, K. L., & Rutherford, R. B. (2009). Improving the early literacy skills of students at risk for internalizing or externalizing behaviors with limited reading skills. *Behavioral Disorders*, *34*(2), 72–90. <https://doi.org/10.1177/019874290903400202>
- Hays, D.G. & McKibben, W.B. (2021), Promoting rigorous research: Generalizability and qualitative research. *Journal of Counseling & Development*, *99*, p. 178-188. <https://doi.org/10.1002/jcad.12365>
- Henderson, L. M., Tsogka, N., & Snowling, M. J. (2013). Questioning the benefits that coloured overlays can have for reading in students with and without dyslexia. *Journal of Research in Special Education Needs*, *13*, p. 57–65. <https://doi.org/10.1111/j.1471-3802.2012.01237>
- Himmele & Himmele (2021). *Why Are We Still Doing That?: Positive Alternatives to Problematic Teaching*. ASCD.
- Hinshelwood, J. (1896). A case of dyslexia: A peculiar form of word-blindness. *The Lancet*, 1451-1454.
- Hinshelwood, J. (1900). Congenital word-blindness. *The Lancet*, 1506-1508.
- Hinshelwood, J. (1917). *Congenital Word-Blindness*. H. K. Lewis.
- Hintz, C., & Tribunella, E. L. (2019). *Reading children's literature: A critical introduction*. Broadview Press.
- Hornstra, L., Denessen, E., Bakker, J., Van Den Bergh, L., & Voeten, M. (2010). Teacher attitudes toward dyslexia: Effects on teacher expectations and the academic achievement of students with dyslexia. *Journal of learning disabilities*, *43*(6), 515-529.
- Huck, C., Hepler, S., & Hickman, J. (1987). *Children's literature in the elementary classroom*. Michigan, MI: Holt.
- Hughes, C. A., Morris, J. R., Therrien, W. J., & Benson, S. K. (2017). Explicit instruction: Historical and contemporary contexts. *Learning Disabilities Research & Practice*, *32*(3), 140-148.
- Hughes-Hassell, S. (2013). Multicultural young adult literature as a form of counter-storytelling. *The Library Quarterly*, *83*(3), 212–228.
- Hudson, R., High, L., & Al Otaiba, S. (2007). Dyslexia and the brain: What does current research tell us? *Reading Teacher*, *60*(6), 506-515.

- Humphrey, N., & Mullins, P. M. (2002). Self-concept and self-esteem in developmental dyslexia. *Journal of Research in Special Educational Needs*, 2(2), no-no.
- Huyck, D & Dahlen, S. P. (2019 June 19). *Diversity in Children's Books 2018*. sarahpark.com blog. Created in consultation with Edith Campbell, Molly Beth Griffin, K. T. Horning, Debbie Reese, Ebony Elizabeth Thomas, and Madeline Tyner, with statistics compiled by the Cooperative Children's Book Center, School of Education, University of Wisconsin-Madison: ccbc.education.wisc.edu/books/pstats.asp. Retrieved from readingspark.wordpress.com/2019/06/19/picture-this-diversity-in-childrens-books-2018-infographic.
- Hyatt, K. J., Stephenson, J., & Carter, M. (2009). A review of three controversial educational practices: Perceptual motor programs, sensory integration, and tinted lenses. *Education and Treatment of Children*, 32, p. 313–342
- Ihbour, S., Anarghou, H., Boulhana, A., Najimi, M., & Chigr, F. (2021). Mental health among students with neurodevelopmental disorders: Case of dyslexic children and adolescents. *Dementia & Neuropsychologia*, 15(4), p. 533–540. <https://doi.org/10.1590/1980-57642021dn15-040014>
- International Dyslexia association. (2017). *Dyslexia in the classroom: What every teacher should know*. Retrieved from <https://dyslexiaida.org>
- International Reading Association. (2010). *Standards for reading professionals—revised 2010*. International Reading Association Press.
- Ishizuka, K. & Stephens, R. (2019) The cat is out of the bag: Orientalism, anti-blackness, and white supremacy in Dr. Seuss's children's books. *Research on Diversity in Youth Literature*, 1(2).
- Jones, A. L., Holtgraves, T. G., & Sander, J. B. (2019). Attitudes and knowledge of future teachers to identify struggling readers. *The Teacher Educator*, 54(1), p. 46–59. <https://doi.org/10.1080/08878730.2018.1490842>
- Jimenez, J. E., Garcia de la Cadena, C., Siegel, L., O'Shanahan, I., Garcia, E., & Rodriguez, C. (2009). Gender ratio and cognitive profiles in dyslexia: A cross national study. *Reading and Writing*, DOI 10.1007/s11145-009-9222-6.
- Johnson, V. (2019). Dyslexia: What reading teachers need to know. *The Reading Teacher*, 73 (3), 339-346.
- Johnson, N., Koss, M.D., & Martinez, M., 2017 (2017). Through the sliding glass door: #EmpowerTheReader, *The Reading Teacher* (71) 5, p. 569–577.
- Johnston, P., & Scanlon, D. (2020). An examination of dyslexia research and instruction, with policy implications. *Literacy Research Association*. Retrieved from <https://lira.memberclicks.net/assets/docs/Dyslexia%20Research%20Report%20final%20-%20updated%207-9-21.pdf>
- Joshi, R. M. (2004). *Dyslexia: Myths, Misconceptions, and Some Practical Applications*. Baltimore, M.D. International Dyslexia Association.

- Jozwik, S.L. & Rice, N. E. (2020). Analyzing the portrayal of characters with reading difficulties in realistic fiction. *Journal of Adolescent & Adult Literacy*, 64 (2), 167–179
- Kalke-Klita, T. (2005). Moving forward: The inclusion of characters with Down Syndrome in children's picture books. *Language and Literacy*, 7.
- Katusic, S. K., Colligen, R. C., Berbarese, W. J., Schaid, D. J., & Jacobsen, S. J. (2001). Incidence of reading disability in a population-based birth cohort, 1976-1982. *Mayo Clinic Proceedings*, 76, p. 1075-1077.
- Kearns, D. M., Hancock, R., Hoefft, F., Pugh, K. R., & Frost, S. J. (2019). The neurobiology of dyslexia. *Teaching Exceptional Children*, 51(3), 175-188. doi: 10.1177/004005991882005
- Kelley, J. E., Cardon, T. A., & Algeo-Nichols, D. (2015). DSM-5 autism spectrum disorder symptomology in fictional picture books. *Education and Training in Autism and Developmental Disabilities*, 50(4), 408-417.
- Kelley, J. E., Barrio, B. L., Cardon, T. A., Brando-Subis, C., Lee, S., & Smith, K. (2018). DSM-5 autism spectrum disorder symptomologies in award-winning narrative fiction. *Education and Training in Autism and Developmental Disabilities*, 53(2), 115-127.
- Kendrick, J. (2004). Signifying something: Images of learning disability in fiction for children. *Disability Studies Quarterly*, 24 (1).
- Kirby, P. (2020) Dyslexia debated, then and now: a historical perspective on the dyslexia debate. *Oxford Review of Education*, 46(4), 472-486. <https://doi.org/10.1080/03054985.2020.1747418>
- Klapproth, F., Holzhüter, L., & Jungmann, T. (2022). Prediction of students' reading outcomes in learning progress monitoring. Evidence for the effect of a gender bias. *Journal for educational research online*, 14(1), 16-38.
- Kleekamp, M. C., & Zapata, A. (2018). Interrogating depictions of disability in children's picture books. *The Reading Teacher*, 72(5), 589-597. <https://ila.onlinelibrary.wiley.com/doi/abs/10.1002/trtr.1766>
- Knight, C. (2018). What is dyslexia? An exploration of the relationship between teachers' understandings of dyslexia and their training experiences. *Dyslexia*, 24(3), 207-219.
- Koss, M.D. (2015). Diversity in contemporary picture books: A content analysis. *Journal of Children's Literature*, 41(1), 32–42.
- Kuckartz, U. & Rädiker, S. (2019) *Analyzing qualitative data with MAXQDA*. Springer
- Kumaş, K.; Dodur, H.M.S; Yazıcıoğlu, T. (2021). Teachers' knowledge about dyslexia and reading models. *International Journal of Curriculum and Instruction* 13(3), p. 3096–3121.
- Kümmerling-Meibauer, B., Meibauer, J., Nachtigäller, K., & Rohlfing, K. J. (2015). *Learning from Picturebooks*. Taylor & Francis.

- Kuppen, S. E. & Goswami, U. (2016). Developmental trajectories for children with dyslexia and low IQ poor readers. *Developmental Psychology*, 51 (5), p. 717-734.
- Kussmaul, A. (1887). Speech disorders. *Encyclopedia of the practice of medicine*.
- Kuster, S.M., van Weerdenburg, M., Gompel, M. (2018). Dyslexie font does not benefit reading in children with or without dyslexia. *Annals of Dyslexia*, 68, p. 25–42.
<https://doi.org/10.1007/s11881-017-0154-6>
- Landrum, J. (2001). Selecting Intermediate Novels That Feature Characters with Disabilities. *The Reading Teacher*, 55(3), p. 252–258.
- Larrick, N. (1965). The all-white world of children’s books. *Saturday Review*, p. 63–65.
- Leahy, M. A., & Foley, B. C. (2018). Diversity in children’s literature. *World Journal of Educational Research*, 5(2), p. 172-183.
- Lee & Low Books. (2013). Why hasn’t the number of multicultural books increased in eighteen years? *The Open Book Blog*. Retrieved from <http://blog.leeandlow.com/2013/06/17/why-hasntthe-number-of-multicultural-books-increased-in-eighteen-years>
- Leininger, M., Dyches, T.T., Prater, M.A., & Heath, M.A. (2010). Newbery award winning books 1975–2009: How do they portray disabilities? *Education and Training in Autism and Developmental Disabilities*, 45(4), p. 583–596.
- Leland, C. H., Lewison, M., & Harste, J. C. (2017). *Teaching Children's Literature: It's Critical!* Routledge.
- Lewandowsky, S.; Cook, J.; Ecker, U.; Albarracin, D.; Amazeen, P. Kendou, et al. (2019). *The Debunking Handbook 2020*. <https://doi.org/10.17910/b7.1182>
- Lithari, E. (2018). Fractured academic identities: Dyslexia, education, self-esteem and school experiences. *International Journal of Inclusive Education*, 23 (3), p. 1-17.
- Lindstrom, J. H. (2019). Dyslexia in the schools: Assessment and identification. *Teaching Exceptional Children*, 51(3), 189-200. doi: 10.1177/0040059918763712
- Livingston, E. M., Siegel, L. S., & Ribary, U. (2018). Developmental dyslexia: Emotional impact and consequences. *Australian Journal of Learning Difficulties*, 23(2), 107-135. doi: 10.1080/19404158.2018.1479975
- Low, D. E., Lyngfelt, A., Thomas, A., & Vasquez, V. M. (2021). Critical Literacy and Contemporary Literatures. In *The Handbook of Critical Literacies* (pp. 308-316). Routledge.
- Lowther, T. (2014). Children’s books still promote gender stereotypes. *The New Republic*. Retrieved from <https://newrepublic.com/article/116943/childrens-books-still-promote-gender-stereotypes>.

- Lyon, G. R., Shaywitz, S. E., & Shaywitz, B. A. (2003). A definition of dyslexia. *Annals of Dyslexia*, 53, 1-14.
- Maples, J. (2010). Re-seeing the mighty: Critically examining one film's representations of disability in the English classroom. *The English Journal*, 100 (2), p. 77-85.
- Mather, N., White, J., & Youman, M. (2020). Dyslexia around the world: a snapshot. *Learning Disabilities: A Multidisciplinary Journal*, 25(1), p. 1–17. <https://doi.org/10>
- Marhaeni, Agung. (2016). Rosenblatt's transactional theory and its implementation in the teaching of integrated reading. *Journal Ilmu Pendidikan*. DOI: 5. 10.17977/jip.v5i4.1052.
- Mayring, P. (2022). *Qualitative content analysis: a step-by-step guide*. Sage.
- MaxQDA (2022).
- Myers, W. D. (2014). Where are the people of color in children's books. *The New York Times*, 15.
- McFarland, J., Hussar, B., Zhang, J., Wang, X., Wang, K., Hein, S., Diliberti, M., Forrest Cataldi, E., Bullock Mann, F., & Barmer, A. (2019). *The condition of education 2019* (NCES 2019-144). U.S. Department of Education. National Center for Education Statistics.
- Miciak, J., & Fletcher, J. M. (2020). The critical role of instructional response for identifying dyslexia and other learning disabilities. *Journal of Learning Disabilities*, 53(5), 343–353
- Miles, T. R., Haslum, N.M., & Wheeler, T. J. (1998). Gender ratio in dyslexia. *Annals of Dyslexia*, 48, p. 27-55.
- Mills, J. (2018) Effective multi-sensory strategies for students with dyslexia, *Kappa Delta Pi Record*, 54 (1), 36-40, doi: 10.1080/00228958.2018.1407181
- Moats, L. C. & Dakin, K. E. (2017). *Basic facts about dyslexia and other reading problems*. Baltimore: The International Dyslexia Association.
- Moats, L. C., & Foorman, B. R. (2003). Measuring teachers' content knowledge of language and reading. *Annals of Dyslexia*, 53, 23-45.
- Monoyiou, E., & Symeonidou, S. (2015): The wonderful world of children's books? Negotiating diversity through children's literature, *International Journal of Inclusive Education*, 20(6), p. 588-603.
- Moss, S. (2019). Teacher Knowledge of Dyslexia and Special Education Policy. ProQuest Dissertation.
- Nadelson, L.S.; Beavers, A.; Eppes, B.; Rogers, A.; Sergeant, K.; Turner, S.; & Van Winkle, A. (2019). A comparison of teachers' perceptions, misconceptions, and teaching of students with dyslexia. *World Journal of Educational Research*, 6 (4), p. 442-463.
- Nadelson, L., Heddy, B., Jones, Taasobshirazi, G. & Johnson, M. (2018). Conceptual change in

- science teaching and learning: Introducing the dynamic model of conceptual change. *International Journal of Educational Psychology*, 7, p. 151-195. 10.17583/ijep.2018.3349.
- Naidoo, S. (1972). *Specific Dyslexia*. Pitman Publishing.
- National Center for Improving Literacy, Office of Elementary and Secondary Education (2019). *State of Dyslexia*. Retrieved from improvingliteracy.org.
- National Center for Improving Literacy (2022). *State of Dyslexia*, retrieved from <https://improvingliteracy.org/state-of-dyslexia>
- National Institute of Health (2019). *Dyslexia Information Page*, <https://www.ninds.nih.gov>
- Neitzel, A. J., Lake, C., Pellegrini, M., & Slavin, R. E. (2022). A synthesis of quantitative research on programs for struggling readers in elementary schools. *Reading Research Quarterly*, 57(1), p. 149–179.
- Nel, P. (2017). *Was the Cat in the Hat Black? The Hidden Racism of Children's Literature, and the Need for Diverse Books*. Oxford University Press
- Ness, M. K., & Southall, G. (2010). Preservice teachers' knowledge of and beliefs about dyslexia. *Journal of Reading Education*, 36(1).
- Neuendorf, K. A. (2017). *The content analysis guidebook*. Sage.
- Nevill, T. & Forsey, M. (2003). The social impact of schooling on students with dyslexia: A systematic review of the qualitative research on the primary and secondary education of dyslexic students, *Educational Research Review*. doi: <https://doi.org/10.1016/j.edurev.2022.100507>.
- Novita, S. (2016). Secondary symptoms of dyslexia: A comparison of self-esteem and anxiety profiles of children with and without dyslexia. *European Journal of Special Needs Education*, 31 (2), p. 279-288.
- Oakhill, J., Cain, K., & Elbro, C. (2019) Reading comprehension and reading comprehension difficulties. In Kilpatrick, D. A., Joshi, R. M. *Reading Development and Difficulties: Bridging the Gap Between Research and Practice*. Springer, p. 83-113.
- Office of Special Education and Rehabilitative Services. (2015). Dear Colleague: Guidance on dyslexia. Retrieved from <https://www2.ed.gov/policy/speced/guid/idea/memosdcltrs/guidance-on-dyslexia-10-2015.pdf>
- O.R et al v. Clark County School District, 2:17-cv-01541-RFB-NJK (D. Nev. Mar. 31, 2018)
- Ostrosky, M.M., Mouzourou, C., Dorsey, E.A., Favazza, P.C., & Leboeuf, L.M. (2015). Pick a book, any book: Using children's books to support positive attitudes toward peers with disabilities. *Young Exceptional Children*, 18(1), p. 30–43. <https://doi.org/10.1177/1096250613512666>

- Pajka-West, S. (2007). Perceptions of deaf characters in adolescent literature. *ALAN Review*, 34, 39-45.
- Pasquinelli, E. (2012). Neuromyths: Why do they exist and persist? *Mind, Brain, and Education*, 6, p. 89–96. doi:10.1111/mbe.2011.6.issue-2.
- Pennell, A. E., Wollak, B., Koppenhaver, D. A. (2018). Respectful representations of disability in picture books. *The Reading Teacher*, 71 (4).
- Peterson, R. L., & Pennington, B. F. (2015). Developmental Dyslexia. *Annual Review of Clinical Psychology*, 11. <https://doi.org/10.1146/annurev-clinpsy-032814-112842>
- Peltier, T.K., Washburn, E.K., Heddy, B.C. (2022). What do teachers know about dyslexia? It's complicated! *Reading and Writing*, <https://doi.org/10.1007/s11145-022-10264-8>
- Peltier, T.K., Heddy, B.C. & Peltier, C. (2020). Using conceptual change theory to help preservice teachers understand dyslexia. *Annals of Dyslexia* 70, p. 62–78. <https://doi.org/10.1007/s11881-020-00192-z>
- Peterson, S. B. & Lach, M. A. (1990). Gender stereotypes in children's books: their prevalence and influence on cognitive and affective development. *Gender and Education*, 2 (2), p. 185-197, DOI: 10.1080/0954025900020204
- Posner, G. J., Strike, K. A., Hewson, P. W., & Gertzog, W. A. (1982). Toward a theory of conceptual change. *Science education*, 66(2), 211-227.
- Polychroni, F., Koukoura, K., & Anagnostou, I. (2006). Academic self-concept, reading attitudes and approaches to learning of children with dyslexia: Do they differ from their peers? *European Journal of Special Needs Education*, 21(4), 415-430.
- Prater, M. A. (2003). Learning Disabilities in Children's and Adolescent Literature: How are Characters Portrayed? *Learning Disability Quarterly*, 26(1), 47–62. <https://doi.org/10.2307/1593684>
- Prater, M.A. (2000). Using juvenile literature with portrayals of disabilities in your classroom. *Intervention in School and Clinic*, 35(3), 167–176. <https://doi.org/10.1177/105345120003500307>
- Price, C.L., Ostrosky, M.M., & Santos, R.M. (2016). Reflecting on books that include characters with disabilities. *Young Children*, 71(2), p. 30–37.
- Quinn, J. M., & Wagner, R. K. (2013). Gender differences in reading impairment and in the identification of impaired readers: Results from a large-scale study of at-risk readers. *Journal of Learning Disabilities*, 48 (4), p. 433-445. DOI: 10.1177/0022219413508323.
- Regan, T., & Woods, K. (2000). Teachers' understandings of dyslexia: Implications for educational psychology practice. *Educational Psychology in Practice*, 16(3), p. 333-347.
- Reese, D. (2008). Indigenizing children's literature. *Journal of Language and Literacy Education*, 4(2), 59-72.

- Reid, G. (2016). *Dyslexia: A Practitioner's Handbook, 5th ed.*, Wiley: Oxford.
- Reid, D. K., & Valle, J. W. (2004). Learning dis/ability as the intersection of competing discourses: Implications for classrooms, parents, and research. In *Learning about learning disabilities* (pp. 513-534). Academic Press.
- Rieger, A. & McGrail, E. (2015). Exploring children's literature with authentic representations of disability. *Kappa Delta Pi Record*, 51(1), p. 18-23. <https://doi.org/10.1080/02289560>.
- Riddle, C. A. (2020) Why we do not need a 'stronger' social model of disability. *Disability & Society*, 35 (9), p. 1509-1513, DOI: 10.1080/09687599.2020.1809349
- Ritchie, S. J., Della Sala, S., & McIntosh, R. D. (2011). Irlen colored overlays do not alleviate reading difficulties. *Pediatrics*, 128, p. 932–938. doi.org/10.1542/peds.2011-3014
- Rosenblatt, L. M. (1993). The Transactional Theory: Against Dualisms. *College English*, 55(4), p. 377–386. <https://doi.org/10.2307/378648>
- Rosenblatt, L. M. (1978) *The Reader, the Text, the Poem: The Transactional Work*. Southern Illinois Press.
- Rubin, E. (1987). Disability bias in children's literature. *The Lion and the Unicorn*, 11 (1), p.60-67
- Rutherford, W. L. (1971). What is your DQ (Dyslexia Quotient)? *The Reading Teacher*, 25(3), p. 262–266.
- Rutter, M., Caspi, A., Fergusson, D.M., Horwood, L.J., Goodman, R., Maughan, B. (2004). Gender differences in reading difficulties: Findings from four epidemiology studies. *Journal of the American Medical Association*, 291.
- Saldaña, J. (2021). The coding manual for qualitative researchers. *The coding manual for qualitative researchers*, p. 1-440.
- Salisbury, M. & Styles, M. (2018). *Children's Picturebooks: The Art of Visual Storytelling*, 2nd ed., Lawrence King.
- Sanfilippo J, Ness, M, Petscher Y, et al. Reintroducing Dyslexia: Early Identification and Implications for Pediatric Practice. *Pediatrics*. 2020, 146 (1). <https://doi.org/10.1542/peds.2019-3046>
- SB140: Establish the Montana Dyslexia and Intervention Act (2019) *Regular Session*. Retrieved October 27, 2021. Retrieved from <https://legiscan.com/MT/bill/SB140/2019>
- Schapira, R. & Aram, D. (2020) Shared book reading at home and preschoolers' socio-emotional competence, *Early Education and Development*, 31(6), p. 819-837, 10.1080/10409289.2019.1692624
- Scotland, J. (2012). Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English language teaching*, 5(9), 9-16.

- Serafini, F. (2014). *Reading the Visual: An Introduction to Teaching Multimodal Literacy*. Teachers College Press.
- Serafini, F. & Moses, L (2014). The roles of children's literature in the primary grades. *The Reading Teacher*, 67 (6), p. 465–468.
- Share, David L. 2021. Common misconceptions about the phonological deficit theory of Dyslexia. *Brain Sciences*, 11 (11), p. 1510. <https://doi.org/10.3390/brainsci11111510>
- Shaywitz, B. A., & Shaywitz, S. E. (2020). The American experience: Towards a 21st century definition of dyslexia. *Oxford Review of Education*, 46(4), 454-471.
- Shaywitz, S.E.; Shaywitz, B.A.; Fletcher, J.M.; Escobar, M.D. (1990). Prevalence of reading disability in boys and girls: Results of the Connecticut longitudinal study. *JAMA*, 264(8), p. 998–1002. doi:10.1001/jama.1990.03450080084036
- Short, K. G. (2017). Critical content analysis as a research methodology, in Johnson, H.; Mathis, J.; Short, K. G. (eds.) *Critical Content Analysis of Children's and Young Adult Literature*. Routledge.
- Siebers, T. (2001). Disability in theory: From social constructivism to the New Realism of the body. *American Literary History*, 13 (4), p. 737-754.
- Singer, E. (2008). Coping with academic failure, A study of Dutch children with dyslexia. *Dyslexia*, 14 (1), p. 314-333.
- Skeide, M. A., Bazin, P. L., Trampel, R., et al. (2018). Hypermyelination of the left auditory cortex in developmental dyslexia. *Neurology*, 90, 492-497. <https://doi.org/10.1212/WNL.0000000000004931>
- Smirni, P., Vetri, L., Misuraca, E., Cappadonna, M. (2020). Misunderstandings about developmental dyslexia: a historical overview. *Pediatric Reports*, 12(1), p.50-55. <https://doi.org/10.4081/pr.2020.8505>
- Sims Bishop, R. (1997). Selecting literature for a multicultural curriculum. In V.J. Harris (Ed.), *Using multiethnic literature in the K-8 classroom*, p. 1–20. Christopher-Gordon.
- Slavin, R. E., Lake, C., Davis, S., & Madden, N. A. (2011). Effective programs for struggling readers: A best-evidence synthesis. *Educational Research Review*, 6(1), 1–26.
- Soriano-Ferrer, M., & Echegaray-Bengoa, J. A. (2014). A scale of knowledge and beliefs about developmental dyslexia: Scale development and validation. *Procedia-Social and Behavioral Sciences*, 132, p. 203-208. <https://doi.org/10.1016/j.sbspro.2014.04.299>
- Sotirovska, V., & Vaughn, M. (2022). The portrayal of characters with dyslexia in children's picture books. *Early Childhood Education Journal*, 50(5), 731-742.
- Sotto, C. D., & Ball, A. L. (2006). Dynamic characters with communication disorders in children's literature. *Intervention in School and Clinic*, 42(1), p. 40–45. <https://doi.org/10.1177/10534512060420010701>

- Suggate, S. P. (2010). Why what we teach depends on when: Grade and reading intervention modality moderate effect size. *Developmental Psychology*, 46(6), p. 1556.
- Student A. et al. v. Berkeley Unified School District, 2021
- Swanson, H. L., Hoskyn, M., & Lee, C. (1999). *Interventions for students with learning disabilities: A meta-analysis of treatment outcomes*. Guilford Press.
- Taylor, T. & Tarnasky, K. & Brundage, K. & Prater, M. (2020). Selecting and using children's books with authentic representations of characters with developmental disabilities, *DADD Online Journal*, 7, p. 10-30.
- Teale, W., Martinez, M. G., & Yokota, J. (2021). *Books Come Alive: Reading Aloud and Reading Along with Young Children*. Rowman & Littlefield.
- Tivnen, T. (2022). Young love: picture books oust children's fiction for the first time in two decades. The Bookseller, retrieved from <https://www.thebookseller.com/news/young-love-picture-books-oust-children-s-fiction-first-time-two-decades-1300961>
- Tschentscher, N., Ruisinger, A., Blank, H., et al. (2019). Reduced structural connectivity between left auditory thalamus and the motion sensitive planum temporal in developmental dyslexia. *Journal of Neuroscience*, 39, 1720-1732. <https://doi.org/10.1523/JNEUROSCI.1435-18.2018>
- Templeton, T. (2020). Picture perfect: The role of picture books in a secondary classroom. *Scan: The Journal for Educators*, 39(6), p. 17–20. <https://search.informit.org/doi/10.3316/informit.323170272128673>
- Thorwarth, C. (2014). Debunking the myths of dyslexia. *Leadership and Research in Education*, 1, p. 51-66.
- Torgesen, J. K. (2004). Lessons learned from research on interventions for students who have difficulty learning to read. In P. McCardle & V. Chhabra (Eds.), *The Voice of Evidence in Reading Research* (pp. 355–382). Paul H Brookes Publishing Company.
- Underwood, J. (2018). Under the law: Defining the least restrictive environment. *Phi Delta Kappan*, 100(3), 66–67. <https://doi.org/10.1177/0031721718808270>
- United States Department of Education (2006). Individuals with Disabilities Education Act, 20 U.S.C. §§ 1400 et seq. (2006 & Supp. V. 2011).
- van Dijk, W. & Lane, H. B. (2020). The brain and the US education system: Perpetuation of neuromyths, *Exceptionality*, 28 (1), p. 16-29, DOI: 10.1080/09362835.2018.1480954
- Vellutino, F. R. (1979). *Dyslexia: Theory and Research*. MIT Press
- Vellutino, F.R., Fletcher, J.M., Snowling, M.J., & Scanlon, D. M. (2004). Specific reading disability (dyslexia): What have we learned in the past four decades? *The Journal of Child Psychology and Psychiatry*, 45(1), 2-40.
- Vogel, S. (1990). Gender differences in intelligence, language, language, visual-motor abilities,

- and academic achievement in students with learning disabilities: A review of the literature. *Journal of Learning Disabilities*, 23, p. 44-52.
- Vosniadu, S. (2008). *The International Handbook on Conceptual Change*. Routledge.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wadlington, E. M., & Wadlington, P. L. (2005). What educators really believe about dyslexia. *Reading Improvement*, 42(1), p. 16-33.
- Wagner, R. (1973). Rudolf Berlin: Originator of the term dyslexia. *Annals of Dyslexia*, 23 (1), 57-63.
- Wanzck, J., Al Otaiba, S. & McMaster, K. (2020). *Intensive Reading Interventions for the Elementary Grades*. New York: Guilford Press.
- Wanzek, J., Vaughn, S., Scammacca, N. K., Gatlin, B., Walker, M. A., & Capin, P. (2016). Meta-analyses of the effects of tier 2 type reading interventions in grades K-3. *Educational Psychology Review*, 28(3), p. 551–576.
- Wanzek, J., Stevens, E. A., Williams, K. J., Scammacca, N., Vaughn, S., & Sargent, K. (2018). Current evidence on the effects of intensive early reading interventions. *Journal of Learning Disabilities*, 51(6), p. 612–624.
- Washburn, E. K., Joshi, R. M., & Cantrell, E. B. (2011a). Are pre-service teachers prepared to teach struggling readers? *Annals of Dyslexia*, 61(1), p. 21–43.
<https://doi.org/10.1007/s11881-010-0040-y>
- Washburn, E. K., Joshi, R. M., & Binks-Cantrell, E. S. (2011b). Teacher knowledge of basic language concepts and dyslexia. *Dyslexia*, 17(2), p. 165–183.
<https://doi.org/10.1002/dys.426>
- Washburn, E. K., Binks-Cantrell, E. S., & Joshi, R. M. (2014b). What do preservice teachers from the USA and the UK know about dyslexia? *Dyslexia*, 20(1), p. 1–18.
<https://doi.org/10.1002/dys.1459>
- Washburn, E. K., Mulcahy, C. A., Musante, G., & Joshi, R. (2017). Novice teachers' knowledge of reading-related disabilities and dyslexia. *Learning Disabilities: A Contemporary Journal*, 15(2), p. 169–191.
- Washington, J. A., Compton, D. L., & McCardle, P (2020). *Dyslexia: Revisiting Etiology, Diagnosis, Treatment, and Policy*. Paul H. Brooks.
- Weitzman, L. J., Eifler, D., Hokada, E., & Ross, C. (1972). Sex-role socialization in picture books for preschool children. *American journal of Sociology*, 77(6), 1125-1150.
- White, J., Mather, N., & Kirkpatrick, J. (2020). Preservice educators' and noneducators' knowledge and perceptions of responsibility about dyslexia. *Dyslexia*, 26(2), p. 220–242.
<https://doi.org/10.1002/dys.1653>

- Worthy, J., DeJulio, S., Svrcek, N., Villarreal, D. A., Derbyshire, C., LeeKeenan, K., Wiebe, M. T., Lambert, C., Rubin, J. C., & Salmerón, C. (2016). Teachers' understandings, perspectives, and experiences of dyslexia. *Literacy Research: Theory, Method, and Practice*, 65(1), p. 436–453. <https://doi.org/10.1177/2381336916661529>
- Williams, J. S. (2012). Teachers' perceptions and pedagogical content knowledge of phonological awareness, phonics, and dyslexia (Doctoral dissertation, Walden University).
- Youman, M., & Mather, N. (2018). Dyslexia laws in the US: A 2018 update. *Perspectives on Language and Literacy*, p. 37–41.
- Yell, M. L., Katsiyannis, M., & Bradley, R. (2017). The Individuals with Disabilities Education Act: The Evolution of Special Education Law, in Kauffman, J.M., Hallahan, D.P., & Pullen, P.C. (Eds.). (2017). *Handbook of Special Education (2nd ed.)*. Routledge. <https://doi.org/10.4324/9781315517698>
- Zirkel, P. A. (2020). Legal developments for students with dyslexia. *Learning Disability Quarterly*, 43(3), 127–139. <https://doi.org/10.1177/0731948720931538>

APPENDICES

APPENDIX A

PICTURE BOOKS IN SOTIROVSKA AND VAUGHN'S (2021) STUDY

It's Called Dyslexia (Moore-Mallinos, 2010)

Tom's Special Talent (Gaynor, 2009)

I Define Me (Smith, 2019)

Mommy, why is it so hard for me to read? (Kuntz, 2010)

Junkyard wonders (Palacco, 2010)

Lexi Dias and the Power of Dyslexia (McSoley, 2019)

Dyslexia Byslexia (Johnson-Morrow, 2013)

Magnificent Meg: A Read-Aloud Book to Encourage Children with Dyslexia (2020)

Got Dyslexia? (Harris, 2011)

D is for Darcy: Not Dyslexia (Griebelbauer, 2020)

The Map Challenge: A Book about Dyslexia (Alloway, 2019)

Doctor Dyslexia Dude(Robinson & Robinson, 2019)

Quite Quiet Hannah, The World's Greatest Artist (Bobula et al., 2011)

The Alphabet War: A Story about Dyslexia (Robb, 2004)

My Storee: Just because you can't spell doesn't mean you can't write! (Russel, 2018)

My Friend Has Dyslexia (Tourville, 2010)

Knees: The Mixed-up World of a Boy with Dyslexia (Oelschlager, 2012)

Did You Say Pasghetti? Dusty and Danny Tackle Dyslexia (Fortune, 2020)

The Art of Miss Chew (Palacco, 2012)

I Am Just Me: My Life with Dyslexia and Dysgraphia (Burke, 2013)

Dyslexia: Talking it Through (Cony, 2003)

Josh, Baps and Diego's First Day of School (Samuels, 2018)

It's Just Dyslexia (Hauck, 2007)

My Journey with Dyslexia (Surita & Flores-Pinos, 2015)

If You're So Smart, How Come You Can't Spell Mississippi? (Esham, 2018)

I Have Dyslexia. What Does That Mean? (Ball-Dannenberg & Dannenberg, 2009)

Lily and the Mixed-Up Letters (Hodge, 2007)

Hudson Hates School (Hudson, 2011)

Taking Dyslexia to School (Shader & Dineen, 2002)

APPENDIX B

COMPLETE REFERENCE LIST OF PICTURE BOOKS IN STUDY CORPUS

- Alexander, C. (2012). *Back to Front and Upside Down*. Albury Books.
- Alloway, T.A. (2019). *The Map Challenge: A Book about Dyslexia*. Quarto Publishing.
- Amarely, Q. (2021). *Roderick Has Dyslexia*. Self-Published.
- Beaty, A. (2021). *Aaron Slater Illustrator*. Harry N. Abrams Publishing
- Bobula, J. (2011). *Quite Quiet Hannah: The World's Greatest Artist*
- Burnham, P. (2022). *Tabo's Dancing Letters: A Teach to Speech Book*. Self-Published.
- Childs, S. J. (2013). *Doug the Dyslexic Duck*. Sarah Bradford Publishing.
- Clark, L. E. (2017). *I Don't Like Reading*. Jessica Kingsley Publishing.
- Coffey, D. & Shannon, S. (2013). *Reading is Hard Work*. Self-Published
- Conner, C. M. (2021). *Chompsey Chomps Books*. Self-Published.
- Cuthbert, C. (2021). *The Mischief Makers Learn Differences are Awesome*. Self-Published.
- Daniels, A. (2021). *Carey Overcomes Dyslexia*. Xulon Press.
- Demarchi, M. (2021). *When You See p, I See d*. Fulton Books.
- Esham, B. (2014). *If You're So Smart, How Come You Can't Spell Mississippi?* Mainstream Connections Publishing.
- Fortune, T. (2020). *Did You Say Pasghetti? Dusty and Danny Tackle Dyslexia*. Self-Published
- Gaynor, K. (2009). *Tom's Special Talent*. Special Stories Publishing.
- Gentry, V. (2022). *Anthony the Jumbled-Up Genius*. Self-Published.
- George, T. (2022). *Iago Struggles with Dyslexia*. Self-Published.
- Graham, Z. (2020). *Brave Ben Discovers Dyslexia*. Self-Published
- Griebelbauer, A. (2020). *D is for Darcy, Not Dyslexia*. The Passage Press.
- Harris, A. (2020). *Magnificent Meg: A Read Aloud Book to Encourage Children with Dyslexia*.
Garden Bench Publications.
- Hauck, M. (2007). *It's Just Dyslexia*. Author House Publishing.
- Hodge, D. (2007). *Lily and the Mixed-Up Letters*. Tundra Books
- Hudson, E. (2010). *Hudson Hates School*. Frances Lincoln Children's Books.
- Johnson, K. (2019). *Emeline: Knight in Training*. Oni Press.

- Johnson-Morrow, C. (2013). *Dyslexia Byslexia*. Author House.
- Jordan, D. (2022). *Lex Leads the Way*. Capables LLC
- Kelleher, L. (2021). *The Struggle Unseen*. Self-Published.
- Kuntz, R. (2010). *Mommy, why is it so hard for me to read?" The Utterly Amazing World of Dyslexia*. Dyslexia Think Tank.
- Marrote, K. G. (2021). *Kamaho the Chameleon Doesn't Like School*. Self-Published.
- Marrote, K. G. (2021). *Kamaho the Chameleon Plays Hide and Seek*. Self-Published.
- Martin, D. (2021). *The Story Catcher*. Story Catcher Publishing.
- McSoley, J. R. (2019). *Lexi Dias and the Power of Dyslexia*. Marcinson Press.
- Moffat, J. (2022). *Sophia the Supergirl: She Knows How to Fight Dyslexia - Her Secret Power Revealed*. Self-Published.
- Montgomery, B. (2017). *The Back to Front World of Azzie Arbuckle*. Your Stories Matter.
- Moore-Mallinos, J. (2007). *It's Called Dyslexia*. Gemser Publishing.
- Newsom, G. & Shamir, R. (2021). *Ben and Emma's Big Hit*. Philomel Books.
- Oelschlager, V. (2012). *Knees: The Mixed-Up World of a Boy with Dyslexia*. Vanita Books.
- Oliver-Yeager, J. (2021). *Sahith Read it Wrong*. Kind Words Publishing.
- Prestidge, S. (2021). *Finding My Superpower*. Self-Published
- Robb, D. B. (2004). *The Alphabet War: A Story about Dyslexia*. Albert Whitman & Company.
- Rudolph, S. & Vukadinovich, M. (2021). *Brilliant Bea: A Story for Kids with Dyslexia and Learning Differences*. Magination Press.
- Saidsharipova, S. (2022). *Dyslexia is Not a Monster: A Picture Book for Children with Dyslexia*. Self-Published.
- Samuels, S. B. & Lee, C. (2018). *Josh, Baps and Diego's First Day of School*. Gwendolyn Teatime Publishing.
- Session, C. (2022). *Luca's Secret: How Luca Overcame Bullying and His Learning Disability*. Self-Published.
- Sim, S. A. (2021). *My Difference is My Superpower*. Self-Published.

- Sotomayor, S. (2019). *Just Ask: Be Different, Be Brave, Be You*. Philomel Books.
- Stuttgen, W. S. & Finn, K. M. (2021). *Daisy Describes Dyslexia and How She Learns to Read*. Beautifully Unique Publications.
- Thompkins-Bigelow, J. (2022). *Abdul's Story*. Salaam Reads / Simon & Schuster Books for Young Readers.
- Tourville, A. D. (2010). *My Friend Has Dyslexia*. Picture Window Books.
- Tralongo, C. (2020). *I'm Just Different*. Tralongo Publishing.
- Travis, G. (2022). *Henry the Hedgehog*. Self-Published.
- vanGessel, A. (2022). *Cruz Finds His Way: An Inspirational Tale about Dyslexia*. Self-Published.
- Westen, N. (2021). *My Friend Has Dyslexia: A Social Story*. Self-Published.
- White, C. D. (2019). *The Hoopstar*. Author House.

APPENDIX C

LIST OF NAMED FAMOUS PEOPLE WITH DYSLEXIA IN STUDY CORPUS

Agatha Christie

Alexander Graham Bell

Andrew Jackson

Andy Warhol

Ann Bancroft

Ansel Adams

August Rodin

Aja Wilson

Beethoven

Bella Thorne

Benjamin Franklin

Billy Bob Thornton

Bruce Jenner

Carl Lewis

Carol W Greider

Charles Schwab

Cher

Chris Robshaw

Danny Glover

Dave Pilkey

Dr Archer Martin

Edward James Olmos

F Scott Fitzgerald

Galileo Galilei

Gavin Newson

George W Bush

George Washington

Greg Louganis

Gwen Stefani

Hans Christian Andersen

Harry Belafonte

Helen Taussig

Henry Ford

Henry Winkler

Jack Horner

Jackie Stewart

Jacques Dubochet

Jamie Oliver

Jay Leno

Jennifer Aniston

Jessica Watson

John Britton

John Eckles

John F Kennedy

John Irving

John Lennon

Kara Tointon

Keanu Reeves

Keira Knightley

Kobe Bryant

Leonardo da Vinci

Lewis Hamilton

Loretta Young

Maggie Aderin

Magic Johnson

Michelle Carter

Muhammad Ali

Nelson Rockefeller

Nolan Ryan

Oliver Reed

Orlando Bloom

Pablo Picasso

Pierre Curie

Rachel Yankee

Richard Branson

Roald Dahl

Robert Rauschenberg

Robin Williams

Robin Williams

Salma Hayek

Stephen Hawking

Steve Jobs

Steven Spielberg

Ted Turner

Theo Paphitis

Thomas Edison

Thomas Jefferson

Tim Tebow

Tom Cruise

Tom McLaughlin

Tom Smothers

Tommy Hilfiger

Walt Disney

WB Yates

Whoopi Goldberg

Winston Churchill

Woodrow Wilson