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Reading Instruction for Students with Intellectual Disabilities:
Inservice Teachers' Perceptions

Agatha Lee Gibbons

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Science

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ABSTRACT

Reading Instruction for Students with Intellectual Disabilities: Inservice Teachers' Perceptions

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Master of Science

Students with intellectual disabilities have at times been overlooked and denied effective reading instruction. Teachers tasked with instructing such students are often limited in the training, resources, and support necessary to effectively instruct these students in reading. These problems are further compounded by the fact that students with intellectual disabilities have historically been misperceived, often by the very educators tasked with instructing them, as either being unable to learn to read or that the prospect of teaching them to read is simply too daunting and complicated to be of sufficient worth (Aldridge, 2014; Kluth & Chandler-Olcott, 2008). Such misperception may lead to insufficient and/or misguided instruction of these students limiting their potential learning and growth (Kliwer, Biklen, & Kasa-Hendrickson, 2006). This qualitative case study explored the perceptions and lived experiences of eight special education teachers from five different school districts, who both worked with students with intellectual disabilities and mentored preservice teachers who worked with students with intellectual disabilities in the area of reading. This study focused on the perceptions of these special education teacher/ mentors before, during and after receiving training in the Targeted Reading Intervention (TRI) program, based on five areas of reading: Phonemic Awareness, Phonics, Vocabulary, Fluency, and Vocabulary. Data suggested a universal lack of support and training in reading for these special education teacher/mentors. Changes of perceptions and teaching practices of the special education teacher/mentors relative to explicit reading instruction for students with intellectual abilities are explored. Implications for practice are included.

Keywords: special education, teacher education, literacy, intellectual disabilities, case study

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“And if men come unto me I will show unto them their weakness. I give unto men weakness that they may be humble; and my grace is sufficient for all men that humble themselves before me; for if they humble themselves before me, and have faith in me, then will I make weak things become strong unto them” — Ether 12:27.

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CHAPTER 1

Introduction

An extensive number of studies have attempted to determine the most effective ways to teach students how to read. However, most of these studies inadequately address strategies for teaching reading to students with intellectual disabilities (ID). And although a limited number of studies have evaluated teacher perceptions of students and how such perceptions affect those teachers' instructional practices (Begeny, Eckert, Montarello, & Storie, 2008; Copenhaver & McIntyre, 1992; Hughes, Gleason, & Zhang, 2005; Rubie-Davies, 2006), what is lacking is an analysis of inservice teachers' views and perceptions in regards to the efficacy of teaching reading to this student population identified with ID.

Within the last 30 years, a growing body of research has focused on identifying viable approaches to impart reading skills to students with ID (Browder, Wakeman, Spooner, Ahlgrim-Dezell, & Algozzine, 2006; Stanberry & Swanson, 2018). In fact, Swanson (1999) headed up a group of researchers who synthesized 92 different studies in the area of reading. Through this study, a number of key components and teaching methods were identified that have proven effective for students with learning disabilities (LD). However, a body of research on reading instruction for students with intellectual disabilities (ID) is still lacking. One contributing factor to this dearth of research may be the limiting notions of both researchers and educators as to what and how much students with ID can realistically learn.

Statement of the Problem

Students with intellectual disabilities have at times been overlooked and denied effective reading instruction. Further, those teachers tasked with instructing such students are often limited in the training, resources, and support necessary to effectively instruct these students in reading.

These problems are further compounded by the fact that students with intellectual disabilities have historically been misperceived, often by the very educators tasked with instructing them, as either being unable to learn to read or that the prospect of teaching them to read is simply too daunting and complicated to be of sufficient worth (Aldridge, 2014; Kluth & Chandler-Olcott, 2008). Such misperception may lead to insufficient and/or misguided instruction of these students limiting their potential learning and growth (Kliwer, Biklen, & Kasa-Hendrickson, 2006).

Statement of Purpose

The purpose of this study was to determine the effect of the Targeted Reading Intervention Program (TRI) on mentor teachers, specifically whether or not eight inservice mentor teachers would make changes in the reading instruction used in their own classrooms following training in the TRI program; and whether or not those same mentor teachers' perspectives and beliefs would change in regards to teaching reading to students with ID following training in the TRI. It is the hope that this study will help advance research pertaining to teaching reading to students with intellectual disabilities. Additionally, we hope this study will bolster the understanding and knowledge of our communities and nation regarding the potential of students with ID to learn to read.

Research Questions

This study's primary research question asked: After receiving training in the TRI, what changes would mentor special education teachers make (if any) in the reading instruction implemented in their own classrooms? A secondary question followed: How would these same mentor teachers' perspectives and beliefs change (if at all) in regards to teaching reading to students with ID following training in the TRI?

The term *intellectual disability* (replacing the former terminology of *mental retardation*) is defined by the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (American Psychiatric Association, 2013) as “a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains” (p. 33). It is characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills (American Association on Intellectual and Developmental Disabilities, 2010 p. 6). Thus, it is a disorder that forms prior to adulthood that affects a person’s intellectual development and ability to effectively use important life skills. Intellectual disabilities may occur separate from or in connection with genetic syndromes or other developmental disabilities such as Down syndrome, or Autism Spectrum Disorder (ASD).

Certain limiting perceptions and beliefs, especially those involving the ability of students with ID to learn to read, may inhibit in-service teachers’ ability to teach reading to these students. However, an abundant supply of research proves that imparting reading skills to students will assist them in future success. This is no less true of students with ID (Katims, 2000; Kliewer et al., 2006). Imparting reading skills to these students will help them be more successful in all areas of their lives—not only socially and academically, but mentally and emotionally as well, enabling them to live more independently and abundantly, and to be more fully integrated into society (Chanell, Loveall, & Conners, 2013; Conners, 2003; Copeland & Keefe, 2007; Parmar & Cawley, 1996).

This was a qualitative study that incorporated interview questions. The attitudes and perceptions revealed through the responses to these questions were of primary importance.

CHAPTER 2

Review of Literature

This literature review includes a brief evaluation of past research on the teaching of reading to students with ID. It further discusses both past and current trends in reading instruction to these students in all five areas addressed by the National Reading Panel (NRP, 2000). This literature review also addresses perceptions and underlying beliefs of teachers, researchers, and our nation as a whole regarding how reading should be taught to such students and the efficacy of such instruction. Finally, this review reveals how limitations in training, specifically in the area of reading instruction, may be limiting the potential literacy of students with ID.

Teaching Reading Skills to Students with Intellectual Disabilities

Record of individuals with cognitive disabilities dates back as far as the ancient Egyptians over 3500 years ago. Yet the notion of teaching literacy (i.e., reading, writing, and spelling) to individuals with mental disabilities was not even considered until John Locke's proposal of the *tabula rasa*, or blank slate, in 1689, and even then such instruction was seldom given much credence or effort. With few exceptions, the practice of teaching reading to individuals with cognitive disabilities was not established until the nineteenth century (Minnesota Governor's Council on Developmental Disabilities, 2018). And although there were a few cases and studies involving literacy instruction to students with ID in the early and mid-twentieth century (Fernald & Keller, 1936; Gray, 1948), it is only in the past 20 years that a formalized systematic way of teaching individuals with cognitive disabilities has become expected practice (Katims, 2000). Until recently, reading instruction with students with cognitive disabilities has mostly focused on sight words and daily living skills (Browder et al., 2006).

Similarly, experts in the field have maintained the view that the best way to teach these students is within the context of functional skills in their community and environment. The pervasive view of researchers and teachers alike has been that basic life skills should be the primary, if not the sole, focus of teaching children with cognitive disabilities (Browder et al., 2006; Durando, 2008). In the past, researchers and experts further believed that many of these students were incapable of learning other skills perceived as less essential, such as reading (Kliewer, 1998; Kluth & Chandler-Olcott, 2008). Furthermore, typically only one in five children with mild or moderate ID manage to achieve even minimal literacy skills (Katims, 2000). Yet the trend has recently begun to shift and there is argument that failing to teach reading to these students based solely on the severity of their cognitive disability may greatly limit their future opportunities (Browder, Ahlgrim-Dezell, Courtade, & Flowers, 2008).

What has been notably missing in the functional reading model of literacy for students with intellectual disabilities is reading for purposes other than basic utility (Browder et al., 2008). As Smith (1992) noted, denying literacy to children is not a logical consequence of a child's limited cognitive ability. It is a moral choice made when particular student constructed meanings are misunderstood and devalued (Smith, 1992). Moreover, focus on teaching all of the NRP's components of literacy (phonemic awareness, phonics, comprehension, fluency, and vocabulary) to this population of students has not been adequately addressed (Lemons, Mrachko, Kostewicz, & Pattera, 2012; NRP, 2000).

In almost all cases, students with any degree of intellectual disability (ID) require repeated practice in an environment where new skills are taught (Browder et al., 2008). For example, a child might learn how to read a recipe in order to bake or fix a meal for themselves. The child would be taught the vocabulary and basic steps of how to cook the item in the kitchen

setting. This is known as *functional reading*, a term used for being able to identify text found in everyday life (e.g., menu items, restroom signs, job tasks). Yet teaching reading skills to students classified with intellectual disability is challenging and requires a significant amount of time and effort (Erickson & Koppenhaver, 1995; Kliwer & Landis, 1999). Because of this, there are some who question, not only the merit and value of teaching this population to read, but whether they can be truly taught to read at all (Browder et al., 2009).

Literacy researchers, McCardle and Chhabra (2004) suggested that students who lack reading skills are negatively affected throughout their lives by losing opportunities for employment, social improvement, economic security, educational opportunities, and overall mental health. Sarason (1990) argued that one of the primary goals of education is to “produce responsible, self-sufficient citizens who possess the self-esteem, initiative, skills and wisdom to continue individual growth and pursue knowledge” (p. 163). These attributes apply equally to all students, whatever their intellectual limitations. More current evidence in the area of reading indicates that the same teaching practices and interventions that have been identified to work with general education students are also effective for students with intellectual disabilities (Allor, Mathes, Roberts, Cheatham, & Champlin, 2010; Browder et al., 2008). Caffrey and Fuchs (2007) further identified that students with ID along with students with learning disability (LD) have been successful at learning from direct instruction, time delay, and strategy instruction. Joseph and Seery (2004) stated that “The potential for individuals with [ID] to grasp and generalize literacy skills has been underestimated by many educators and researchers” (p. 93).

Despite the growing body of research supporting the value of teaching students with ID to read (Allor et al., 2010; Browder et al., 2008; Conners, Rosenquist, Sligh, Atwell, & Kiser, 2006; Pennington, Stenhoff, Gibson, & Ballou, 2012) an undeniable gap still exists in the

number of students with ID who are actually learning these valuable skills. Kluth and Chandler-Olcott (2008) noted that students with intellectual disability may be denied other types of literacy instruction due to the belief that they are incapable of learning other, more sophisticated aspects of literacy.

Until recent years, determining the components of quality evidence-based literacy instruction for students with ID has been challenging (Lemons et al., 2012). This difficulty stems largely from the fact that much of the previous research involving effective reading practices has failed to include this population of students (Duffy, 2016). Moreover, past conventional wisdom pushed the idea that students with ID would require qualitatively different instruction than their peers. Research challenging this notion is becoming more prevalent (Allor et al., 2010; Browder et al., 2008; Conners et al., 2006; Pennington et al., 2012). This growing body of research affirms that the same high-quality instruction proven effective with other struggling students will be beneficial to any student, whatever their intellectual or developmental disabilities might be (Munger, 2016).

As mentioned above, the NRP outlined five areas of development as imperative for students to become adept readers: phonemic awareness, phonics, comprehension, vocabulary, and fluency. Although the NRP did not focus on students with ID, other researchers have begun to investigate these areas in relation to this population of students and have determined that these same areas are equally important when teaching reading to students with more significant forms of disability (Allor, Mathes, Roberts, Cheatham, & Al Otaiba, 2014; Beecher & Childre, 2012).

Each of these five key areas are addressed below. Three of these areas (fluency, vocabulary, and comprehension) are addressed separately, while phonemic awareness and phonics will be jointly discussed. Finally, although functional sight word identification was not

one of the five areas specified by the NRP, its prevalence in the instruction of students with ID warrants further discussion as well.

Teaching phonemic awareness and phonics to students with ID. According to Ainsworth and her colleagues (Ainsworth, Evmenova, Behrmann, & Jerome, 2016), phonics instruction is the study of the sounds of language and the orthographic representation of those sounds and how these sounds are blended together to make words. Phonemic awareness is the ability to hear, identify, and manipulate individual sounds in spoken words (Yopp, 1992). The English language is made up of 26 letters that are used in various combinations to represent close to 44 phonemes. For many years, phonemic awareness and phonics (the method for teaching reading through developing the learner's phonemic awareness) have been recognized as critical components in literacy programs, especially in predicting reading comprehension (Muter, Hulme, Snowling, & Stevenson, 2004; Schatschneider, Francis, Fletcher, & Foorman, 2004; Storch & Whitehurst, 2002).

The vast amount of research that has been done on phonics and phonemic awareness has focused on the general education population (Blachman, 2000; Castles & Coltheart, 2004; Kirby, Parrila, & Pfeiffer, 2003; Melby-Lervag, Lyster, & Hulme, 2012; Plaza & Cohen, 2007). Since the 1990s, various studies have identified phonological awareness and phonics as a leading intervention in improving reading skills with general education students, including those with reading impairments (Ehri, Nunes, Stahl, Willows, 2001; Laing & Hulme, 1999; NRP, 2000; Rack, Hulme, Snowling, & Wightman, 1994). More recent research confirms that students with ID can benefit from similar instruction in phonemic awareness, though more varied and concrete instruction may be necessary (Beecher & Childre, 2012; Lemons et al., 2012; Riepl, Marchand-Martella, & Martella, 2008). Studies show that students who struggle learning letter-sound

correspondences may require explicit and systematic phonics instruction (NRP, 2000; Torgesen et al., 2001).

These findings have caused some educators to reconsider the viability of using phonics with the more seriously intellectually impaired population. For instance, Dessementet and de Chambrier (2015) indicated that “...training phonological awareness skills, combined with explicit phonic instruction, is important to foster reading progress in children with mild and moderate ID with unspecified etiology” (Dessementet & de Chambrier, 2015, p. 2). They further found that children with intellectual disabilities increased their phonological decoding skills after receiving an intense two-year instruction in phonics. Hulme, Goetz, Gooch, Adams, and Snowling (2007) reported their findings on a study involving phonemic awareness with 15 students identified with Down Syndrome. The results indicated that training these students in phonemic awareness increased their reading skills.

In a study published by Browder, Ahlgrim-Delzell, Baker, and Flowers (2012), sight word instruction and phonemic awareness with phonics instruction were compared. The findings indicated that phonemic awareness with phonics instruction significantly increased reading skills for students with intellectual and developmental disabilities in comparison with students receiving only sight word instruction. This study also cited earlier research done with phonics instruction. For example, Bradford, Shippen, Alberto, Houchins, and Flores (2006) identified these students with ID as being able to increase phonics skills through the use of the Corrective Reading Program (a phonics-based approach). Ganz and Flores (2009) also identified improvements with students with autism and students with other developmental disabilities using this same program.

Additional studies (Allor et al., 2010; Browder et al., 2008) examined whether methods proven effective for students with average IQ might be equally effective for students with ID. Allor and colleagues conducted a randomized intervention study demonstrating that students with moderate ID could successfully decode unfamiliar words using isolated skills in phonics and phonemic awareness. Moreover, on measures of vocabulary, comprehension, phonemic awareness, phonics, and word recognition, those students who continued participation in the intervention for 1-2 years significantly outperformed a contrast group of similar students (Allor et al., 2010). The 2008 study by Browder and her colleagues implemented a curriculum specifically tailored for students with ID and limited language capabilities. Compared to students who did not receive the curriculum, students who participated in the study learned far more of the targeted objectives. These students also made significant progress on the nonverbal assessment of phonological awareness (Browder et al., 2008). In another study, Riepl et al. (2008) noted that phonics-based instruction can be effectively presented in a child's first years of education, regardless of their intellectual or developmental disabilities. It is noteworthy to acknowledge that students with ID may require extended amounts of time to learn phonics skills (Allor, Mathes, Roberts, Jones, & Champlin, 2010). This may be one reason special education teachers are reluctant to teach phonics skills to students with ID.

Decoding is not an easy task for typically developing students, let alone students with ID. To be able to decode, a student needs to be able to identify the phonemes in each letter, keep those phonemes in memory, and finally blend the sounds together to form a word (Munger, 2016). One reason that this might be difficult for students with ID is that many of them struggle with short-term memory and it can be difficult for them to remember the sounds in the right order while decoding. Often, they forget the first sounds when they get to the end of the word

and blend the sounds incorrectly (Lindstrom, 2006). Despite these and other issues that may arise for students with ID working on phonics, obstacles can be greatly reduced with creative strategies.

Teaching comprehension skills to students with ID. The NRP began analysis of the extant research data in this area by noting that reading comprehension incorporates eight distinctive cognitive processes (NRP, 2000). These cognitive processes were identified as: (a) comprehension monitoring, (b) cooperative learning, (c) graphic organizers, (d) story structure, (e) questioning, (f) question answering, (g) question generation, and (h) summarizing.

In 2017, a group of researchers from the Netherlands discussed an additional nine linguistic and intellectual skills involved in reading comprehension. These include: (a) word decoding (phonological awareness), (b) letter knowledge, (c) vocabulary knowledge, (d) language-related cognitive skills, (e) listening comprehension, (f) grammar comprehension for sentence comprehension, (g) working memory, (h) reasoning skills for text integration, inference drawing, and reading strategies, and (i) temporal processing for speech perception, ordering phonemes and words, and detecting the prosodic patterns in spoken language (van Wingerdena, Segers, van Balkoma, Verhoevena, 2017). The complexity of learning to comprehend text is without question. Yet students with ID have an even more difficult time with reading comprehension. Some may struggle with working memory (the ability to mentally hold and process information) and may require additional strategies to help them retain information. Students with language processing challenges and/or language delays might have trouble with comprehension. Furthermore, students with ID might have a difficult time either demonstrating or expressing their understanding, and this can be easily misinterpreted as a lack of comprehension (Kluth & Chandler-Olcott, 2008).

Despite its convoluted nature, almost all experts agree that comprehension is *the essence of reading* (Durkin, 1993). Stated another way, comprehension is the primary goal and purpose of reading. Decoding skills are essential for any students learning to read words because the act of decoding provides the opportunity to comprehend what is being read. This is no less true for students with intellectual disabilities.

Reading comprehension studies indicate that all students, regardless of intelligence, utilize the same set of skills in understanding what they read (Allor et al., 2010). If this is true, then why haven't these skills been more universally taught to students with cognitive disabilities? The answer may lie in the complexity of teaching reading comprehension to students with ID, as well as the faulty perceptions among some educators as to what these students are capable of learning. Investigations in reading comprehension support the notion that students with lower cognitive abilities — including students with ID — can learn comprehension skills. However, more intensive and prolonged instruction is required (Allor et al., 2010).

Browder et al. (2008) completed a comprehensive examination of 128 studies that addressed reading skills for students with intellectual disabilities. Her examination revealed that only one third of the studies had any emphasis on reading comprehension and most focused on functional-based comprehension (e.g., sight words and reading newspapers). Research in other areas of comprehension for students with intellectual disabilities is sorely limited. Barnes and Rehfeldt (2013) explain that much of the reading comprehension research done with individuals with ASD (Autism Spectrum Disorder) involves the performance of motor actions (e.g., “jumping” or “clapping” when shown the word “jump” or “clap”) or matching items and/or pictures to text (e.g., when shown the word “horse”, matching to a picture of a horse).

In 2006, Browder and her colleagues conducted a study in which students with ID were given reading instruction across multiple skills, including phonological awareness, phonemic decoding, comprehension, and vocabulary over a two-academic-year period. The study provided strong evidence that students with ID respond favorably to comprehensive reading intervention and are capable of making statistically significant progress over time in learning to read (Browder et al., 2006). Other studies also provide hope for teaching students with ID how to read. Teaching students with ID strategies to monitor their own comprehension has also proven effective (Hudson & Test, 2011; Whalon & Hanline, 2008).

Teaching vocabulary to students with ID. Knowledge of vocabulary is important to a student's overall academic success. Increased understanding of grade level vocabulary lays a foundation for comprehending content-area text (Beach, Sanchez, Flynn, & O'Connor, 2015). Research indicates that knowledge of relevant vocabulary impacts students' access to subject-area content and is a major determining factor of overall academic achievement (Townsend, Filippini, Collins, & Biancaros, 2012). Researchers have also shown a significant correlation between students' vocabulary knowledge and reading comprehension skill (Rupley & Nichols, 2005; Cunningham & Stanovich, 1997). Moreover, the greater a reader's existing vocabulary, the more such readers can compensate for unknown words in a text without disrupting overall comprehension. However, the inverse is also true, meaning that the more unknown words a reader encounters, the more likely comprehension will be derailed (Carver, 1994). Despite the important role vocabulary knowledge plays in key student outcomes, a disproportionate number of teachers devote minimal time to vocabulary word instruction (Lesaux, Kieffer, Faller, & Kelley, 2010).

Several studies have verified that systematic vocabulary instruction improves struggling readers' word knowledge and text comprehension (Kennedy, Deschler, & Lloyd, 2015; Lawrence, Rolland, Braunum-Martin, & Snow, 2014; McKeown & Curtis, 2014).

Teaching every word that could contribute to success in school and life would be impossible for any student, let alone students with ID. It is, therefore, imperative for inservice special education teachers to carefully select which vocabulary words are most important for direct instruction (Beach et al., 2015). In their book, *Bringing Words to Life*, Beck, McKeown, and Kucan (2013) offer a classification system that may help in selecting which words to teach struggling readers, including those with ID. They suggest a tiered system that focuses on teaching words that can be applied to multiple content areas (Beck et al., 2013).

Teaching fluency to students with ID. Fluency is another crucial element of reading instruction. Barnes and Rehfeldt (2013, p. 1) define reading fluency as "...the combined measurement of oral reading speed and accuracy." Reading with fluency incorporates several distinct skills, including automatic recognition of words, fluid pacing attending to punctuation (Munger, 2016) and being capable of maintaining these skills throughout a given text (Deeney, 2011). Fluency is inextricably tied to comprehension in that the greater the reader's fluency, the less effort is required to decode text (Griffith & Rasinski, 2004; Hiebert & Fisher, 2005; NRP, 2000; Vaughn, Gersten, & Chard, 2000). When students lack fluency, they focus on sounding out words instead of understanding the meaning of what they are reading. Because cognitive resources are devoted more to decoding individual words, sufficient focus cannot be assigned to comprehension, and it is such comprehension which is the ultimate purpose of achieving greater fluency.

In a study conducted by Barnes and Rehfeldt (2013), three students diagnosed with Pervasive Developmental Disorder who were falling behind their peers in reading comprehension and fluency, practiced these skills using a systematic methodology, which significantly improved their performance in both areas. In other studies conducted with students with cognitive disabilities, researchers reported similar findings (Ardoin, Williams, Klubnik, & McCall, 2009; Bonfiglio, Daly, Martens, Lin, & Corsaut, 2004). Although the sessions for these studies did not occur in a general education classroom (sessions were conducted in isolated settings, both within and outside the public school free from distractions), the findings of these studies support the theory that students identified with ASD and ID are able to learn fluency and comprehension in a public school setting with the right program and support.

Teaching word identification/sight words to students with ID. Although this is not one of the five areas addressed by the NRP, sight word recognition is the most widely used and researched strategy implemented on behalf of students with ID. Browder et al. (2006) reported at the time that nearly 90% of research studies on reading instruction for students with ID focused on the acquisition of functional sight words. Even now, sight-word instruction remains the predominant form of literacy instruction for students with ID. Sight words are words that are irregular or cannot be decoded easily. These words are considered essential and can greatly benefit a student's reading if they are memorized or recognized by sight (Light & McNaughton, 2011).

The idea of teaching these students functional sight words goes back almost a century (the National Education Association created a form that included instruction and curriculum for students with ID in 1938; Kolstoe, 1970). Teachers working with students with ID were encouraged to teach functional skills or life skills into the early 1980s. Research then changed its

focus and proposed a decline in teaching functional skills (Kolstoe, 1970). Billingsley and Albertson (1999) stated that one possible reason for this decline in teaching functional skills, including functional sight word recognition, was an increased focus on inclusion. There was also an argument that limiting instruction to functional life skills and denying learning in other skills and areas would ultimately inhibit students with ID in their potential contributions to society (Bouck & Flanagan, 2010; Edgar & Polloway, 1994; Weaver, Landers, & Adams, 1991).

Due to the long-standing practice of teaching students with ID functional sight words, it is not surprising that sight word recognition is still viewed as an essential skill for students with ID (Munger, 2016). Part of the reason so much research devoted to this single aspect of literacy exists is because it has an irrefutable track record of success (Alberto, Waugh, Frederick, & Davis, 2013; Ruwe, McLaughlin, Derby, & Johnson, 2011). Part of this success lies in the context of this instruction — namely teaching functional sight words that have a direct application and use in daily living. Attaining such sight word recognition, individuals with moderate to severe disabilities can improve their job skills and daily lives. Some examples include following recipes (Browder, Hines, McCarthy, & Fees, 1984), conducting household chores and shopping for groceries (Lalli & Browder, 1993), reading signs in the community (Schloss et al., 1995), and reading the warning labels on products (Collins & Griffen, 1996).

However, one of the most notable limitations of research on sight word instruction to students with ID is that such recognition does not always indicate comprehension. This is especially true of sight words learned outside of the context or setting where the word is normally found. In fact, very few studies include any measures of true comprehension in regards to sight word recognition (Browder & Lalli, 1991). An approach focused solely on functional sight word acquisition fails to provide students with the skills necessary to read beyond the

words students have managed to successfully memorize. Unless a student derives some functional use and benefit from that recognition, it is of limited worth in that individual's life. The ultimate goal is for students to not only find and recognize words, but to understand their functional meaning in the context they appear. Although numerous studies have shown sight word instruction to be highly effective, its limitation in scope and application leads to the conclusion that it should not be the sole, or even the primary, teaching strategy for students with ID (Allor et al., 2010).

Perceptions on Teaching Students with ID How to Read

There is little dispute over the importance of literacy in our society. Literacy — or the lack thereof — influences virtually every aspect of a person's life. It can hinder ongoing education, limit one's prospects for employment, and even affect an individual's ability to care for oneself or others (Munger, 2016). It follows that accessibility to literacy instruction is essential. Yet when it comes to the question of teaching literacy to students with ID, the importance of this essential skill is discounted far too often. Western culture has a long history of denying, or at the very least failing to acknowledge, the potential of students with intellectual disabilities (Kliewer et al., 2006). Students with low IQs (i.e., below 60) are too often perceived as being incapable of learning many of the most basic skills, let alone how to read. If literacy instruction is addressed, it is often only given limited or superficial treatment (Munger, 2016).

Kliewer et al. (2006) observe that "Restricted literacy among people with disabilities has become institutionalized" (p. 164). To illustrate this, they relate the parallel tales of two figures in American history, Phillis Wheatley and Hellen Keller. Wheatley (in 1772) was an African slave who learned to read and write and subsequently wrote a volume of poetry her master wished to have published. Hellen Keller (born in 1880) was both blind and deaf, only able to

experience the world through touch and smell, yet proved to have a keen intellect and creative spirit and eventually authored several books. Both women, though separated by over a century, battled the limited perceptions of their time. As Kliewer and his colleagues (2006) expressed:

Each [Wheatley and Keller] had done what was deemed impossible for individuals ascribed to the status of slave or profoundly disabled: They had used written language as a powerful tool to transcend the here-and-now, to imagine what might be, or to imagine at all instead of to communicate the mere day-to-day mundane. In so doing, Wheatley and Keller wandered dangerously close to that ideological border that historically has separated valued citizenry, intellectual and moral, from those whose very humanness is in doubt. (p. 167)

Students with intellectual disabilities are subject to similar perceptions today. The prevailing attitude of the past has been a presumption that such individuals are hopelessly incompetent. Yet the humanity and worth of such individuals is irrefutable. To this end, some educators are now advocating for a presumption of competence in students with intellectual disabilities and their ability to learn skills and knowledge (Biklen & Burke, 2006). To presume competence in students is to teach and interact with them as if they can and will learn, to assume “all individuals can acquire valued skills if given appropriate structures and supports” (Copeland & Keefe, 2007, p. 2).

The Merriam-Webster Dictionary defines perception as a way of regarding, understanding, or interpreting something. Gaps or flaws in perception often occur because an individual or group might cling to a view or belief (perception) while the actual reality of that view is quite different. In regards to perceptions on teaching students with ID reading skills, past research suggests that a gap in perception has likely occurred. In the past, students with cognitive

disabilities were largely viewed as being unable to learn reading skills in one or all of the areas outlined above. Current trends, however, imply that this perception gap may be closing.

Ainsworth and colleagues recently published a study challenging the perception that students with intellectual disabilities are too inhibited to learn phonics and reading skills (Ainsworth et al., 2016). Similar findings were reported by Alor and her colleagues (2010). Although these studies suggest that perception is changing in regards to the efficacy of teaching students with ID to read, it is equally certain that the road to a more wide-spread change in perception is long and likely difficult.

In her dissertation, Ruppap (2011) noted that numerous factors may influence teachers' decisions regarding literacy instruction of students with ID, including inconsistent use of standards (Cameto et al., 2010; Ruppap, Dymond, & Gaffney, 2011), acquired beliefs about the usefulness of literacy instruction for such students (Durando, 2008), and inherent perceptions about students' cognitive, communication, and readiness skills (Ruppap et al., 2011). Ruppap also bemoaned the dearth of studies on teachers' beliefs regarding literacy for students with intellectual disabilities. She notes that one possible explanation for this revolves around the insistence on a standards-based curriculum. Standardized assessments, by nature, de-emphasize individualized curricula. And as any teacher or parent of a student with ID knows, such Individualized Education Programs (IEPs) are at the core of special education (Bouck, 2009; Lowrey, Drasgow, Renzaglia, Chezan, 2007).

Beliefs can also distort or suppress knowledge (Pajares, 1992). For example, a teacher's perception of the reading ability of a student with autism might be colored (or discolored) by that teacher's generalized views and beliefs about all students with autism. Such ingrained and often

subconscious beliefs may make the teaching of literacy skills to such students all but impossible, and certainly not worth the effort on a supposedly *lost cause*.

In a landmark study published in 1987, Nespor concluded that beliefs are better predictors of teacher behavior and are more influential than knowledge in terms of how teachers define tasks and solve problems. Even the most dedicated and resourceful special educators may still veer to the perception that their students are “really profoundly disabled” (Evans & Scotti, 1989, p. 102). Such statements underlie a belief that may lead to curricular decisions based solely on stereotypical ideas about the capabilities of students with ID. Ferguson (1985,) found that decisions on instruction and the academic curriculum were based on teachers’ perceptions of general student characteristics. “Despite a pervasive rhetoric of individualization...teachers ‘sort’ students into groups for which a matching set of curricular content is clear to them” (p. 55). Wehmeyer and Palmer (2003) likewise suggested that special education teachers may base their decisions regarding access and instruction on stereotypes of student characteristics. If these characteristics — and more importantly, a teacher’s inherent beliefs or views of these characteristics — discourage a dedicated commitment to the teaching of literacy to such students, then it is even more paramount to shift or shake these perceptions and beliefs and demonstrate that even students with severe intellectual disabilities can benefit from literacy instruction.

In the past, it appears that the assumption of teachers has been that these students can only learn sight words that are functionally based and are — for all intents and purposes — unable to learn other decoding skills (Browder et al., 2008; Burns, 2007; Waugh, Alberto, Frederick, 2011). Yet studies have shown that instruction should not be limited to sight word memorization (Allor et al., 2010), which restricts the potential of children with intellectual disabilities (Coyne, Pisha, Dalton, Zeph, & Cook-Smith, 2012). It has been assumed that these

students are equally incapable of learning reading skills, resulting in an exclusion from reading instruction.

There is growing evidence of change, though. For the first time in history, schools are required to help students with cognitive disabilities meet state standards in reading. This is indicative of the No Child Left Behind Act (No Child Left Behind [NCLB], 2002). This law was primarily established to assist disadvantaged students, including those receiving special education services. It required accountability for all students to learn — including students being served by special education. In the past, little more than sight words were taught to this population. Recent teaching resources, however, provide additional tools to more effectively teach literacy to students with ID (Browder & Spooner, 2006; Downing, 2005; Ryndak & Alper, 2003). Finally, though these students often struggle with communication challenges, advances in assistive technology have created opportunities for reading instruction previously unknown to these students (Beck & Kosnik, 2002; Weikle & Hadadian, 2003).

The 2010 study by Allor and colleagues, which focused on teaching reading to early elementary age students with ID, also concluded that much longer and more intensive academic instruction was required to help these students achieve even minimum grade level reading ability. More importantly, they stated that:

. . . our findings strongly support the use of scientifically based reading instruction for students with ID. On average, students with IQs between 40 and 69 responded positively to an intensive and comprehensive reading intervention that included multiple dimensions of reading development. We encourage educators to seek out reading interventions with proven effectiveness and implement those interventions with high degrees of fidelity over a long period of time, individualizing instruction as needed. (Allor et al., 2010, p. 502)

Mentoring of Preservice Special Education Teachers

Another key factor contributing to in-service special education teachers' perceptions is the influence and example of their mentor teachers. A mentor is a person with more age (usually) and experience (always), who helps guide another person's growth and development. In the teaching field, a teacher who has experience and knowledge and works with a preservice teacher is considered a mentor (Parker-Katz & Hughes, 2008). The mentor's role is to provide guidance, advice, and support to the mentee. Good mentoring is paramount in training preservice teachers on how to teach (Parker-Katz & Hughes, 2008; Roberts, Benedict, & Thomas, 2014).

Through observation, assessment, modeling, and guidance, a mentor can bolster the mentee's skills and abilities (Byington & Tannock, 2011). Appropriate guidance from a mentor can be instrumental in preparing and helping preservice teachers implement proper teaching practices in their future teaching careers (Sudzina, Giebelhaus, & Coolican, 1997). An effective mentor will help mentees implement concepts and knowledge acquired in the theoretical setting of a university classroom into the practical hands-on environment of a primary or secondary education classroom (Parker-Katz & Hughes, 2008).

Special education mentors provide specific training and coaching in fundamental academic areas, such as math and reading, as well as in social/life skills and behavior skills. These mentor teachers provide guidance in writing effective lesson plans, taking data, and administering formative and summative assessments. Preservice teachers integrate these skills as they practice them in the practicum setting (Valencia, Martin, Place, & Grossman, 2009). This is the core purpose behind the mentoring of preservice teachers, the hope being that the skills learned in the practicum setting will carry over into future teaching assignments.

In their 2002 study, researchers, Joyce and Showers demonstrated that literacy coaching in the general education teachers' classrooms had a profound impact on those same teachers' ability to effectively teach their students. Such coaching is equally — if not more — critical in the preservice stage of teacher development, particularly in the student summer practicums prior to certification. In one study related by Renzaglia, Hutchins, and Lee (1997) it was shown that preservice teachers' beliefs and attitudes are significantly influenced by their student practicum mentors and that these experiences also strongly influenced their longevity as special education teachers (Renzaglia et al., 1997).

Each university may have its own distinct mentoring approach in which mentor teachers are trained. However, historically there is little guidance and support in teaching cooperating teachers how to mentor effectively (Butler & Cuenca, 2012; Valencia et al., 2009). Moreover, because there is little to no guidance from universities on how to best mentor practicum students, mentor teachers must rely on the experience and mentoring they received from their own practicum teaching. This dearth of specific training results in practicum experiences disconnected, and possibly even at odds, with theory taught in the university classroom (Sudzina et al., 1997). Increased coaching modeling for mentor teachers will ensure that their guidance of practicum students is more closely aligned to the approach and pedagogy of each specific university.

Academic success in the university classroom does not necessarily equate to success in real-world classroom teaching (Seevers, 2012). Effective mentoring is essential for bridging this gap and ensuring that preservice teachers have the greatest chance of success in their future teaching careers. The goal is to have teachers emerge from their practicum experience with the

tools and skills needed to thrive on their own when they are no longer supported by university supervisors and mentor teachers (Scheeler, 2008).

Instructional strategies, including conferencing, performance feedback, modeling and teacher assessments, will help meld university instruction and hands-on teaching practice (Butler & Cuenca, 2012; Macy, Squires, & Barton, 2009; Margolis, 2012; Parker-Katz & Hughes, 2008; Scheeler, 2008; Valencia et al., 2009).

Literacy Coaches vs. Mentor Teachers

Literacy coaching shares many similarities with mentoring. According to the International Reading Association (IRA), a literacy coach is defined as a reading specialist who aids teachers' professional development by helping them implement an array of instructional practices and programs (IRA, 2004). Careful scrutiny of this definition yields several key differences between a literacy coach and a mentor. First, a literacy coach can instruct multiple teachers at once, while a mentor is typically focused on only one mentee at a time. Two, literacy coaches can instruct at all levels and tenures among teachers, whereas mentors are usually focused primarily on preservice teachers only. Finally, and perhaps most importantly, literacy coaches focus almost exclusively on instructing teachers how to teach reading to their students, whereas mentors can provide guidance and modeling across multiple areas and disciplines.

The goal of a literacy coach is to deepen the classroom teacher's understanding of how students learn and to bring about improvements in classroom instruction that lead to large gains for struggling readers. The role of mentors and literacy coaches can coincide in this regard.

Professional development for teachers, including the use of coaching, is an increasingly common approach for promoting evidence-based instruction (Elish-Piper & L'Allier, 2011).

Literacy coaching, as part of professional development models, has proven to be an effective

means of enhancing the instructional skills of classroom teachers. In fact, literacy coaching has become a widespread component of state and federal literacy reform initiatives (Mraz, Kissel, Algozzine, Babb, & Foxworth, 2011) and has spread to nearly every school district in the country as a strategy for improving teacher skills in helping struggling readers who are often poor, minority, or English Language Learning students (Matsumura, Garnier, Correnti, Junker, & Bickel, 2010).

There has been a substantial amount of research on the efficacy of coaching in ensuring that programs and practices are implemented with fidelity in the classroom setting. Of particular note is the study of Joyce and Showers (2002) who point out that while many skills needed by successful practitioners can be introduced in training, most such skills are not fully applied and integrated without the help of a consultant/coach. Joyce and Showers (2002) noted that training consisting merely of theory and discussion produced only modest improvement in knowledge and demonstrating new skills. Further, there was zero application of this knowledge and skill in the classroom. More gains were made when demonstration, practice, and feedback were added to theory and discussion in a training workshop, but still with almost no use of the new skills in the classroom. However, when on-the-job coaching was added to the mix, large gains were seen in knowledge, ability to demonstrate skills, and application of the new skills in the classroom with students.

Literacy coaches offer ongoing professional development for teachers (Kise, 2006) that may include instruction observation, feedback, modeling of lessons, and assessments (Elish-Piper & L'Allier, 2011). There is broad agreement that 'associate,' 'co-operating,' or 'mentor' teachers—those teachers who supervise student teachers in their practicum setting—are key

contributors to preservice teacher education (Calderhead & Shorrock, 1997; Glickman & Bey, 1990).

Proposed Study

This qualitative study focused on how special education teachers of students with ID perceive their students' ability to learn how to read situated within a reading program called the Targeted Reading Intervention (Vernon-Feagans, Bratsch-Hines, Varghese, Cutrer, & Garwood, 2018). This study further sought to understand how the teaching practices and perspectives of inservice special education mentor teachers were impacted by the Targeted Reading Intervention (TRI) training. Finally, this study explored if and/or how these inservice mentor teachers changed their practices and perspectives (if at all) to incorporate new methods for teaching reading to students with ID.

CHAPTER 3

Method

For the purpose of this case study, eight special education teachers of students with ID were studied over a period of two years. The goal was to understand and illuminate these teachers' perceptions and lived experiences related to reading instruction for students with ID. This section also delineates the research methods used in this qualitative study. This qualitative design includes gathering philosophical assumptions and practical applications. It also addresses measurements, setting, participants, and procedures.

Qualitative Rationale

Creswell (2013) asserted that a qualitative research approach is appropriate when a complex, detailed understanding of an issue is needed. Furthermore, Merriam (2009) posited that qualitative research centers on meaning and understanding. All of these factors contributed to the researcher's decision to select a qualitative approach for this study.

Several qualitative research designs could have been selected for this study. Qualitative research designs considered included (a) narrative, (b) phenomenology, (c) grounded theory, (d) ethnography, and (e) case study. Each aforementioned qualitative design offers a different cognition for collecting data as well as differing ways of organizing and analyzing data. Elements from each of these approaches were used in order to explore the research questions. However, the approach selected for this qualitative research study was a case study approach. This approach was selected in order to study the experiences of the special education mentor teacher participants in real situations relative to perceptions of literacy instruction to students with intellectual disabilities (Stake, 2006).

Researcher Positionality

The researcher has worked as a special education teacher in a classroom for students with intellectual disabilities for the past 15 years. She has taught in the elementary, junior high, and high school settings and has worked with preservice teachers as a co-teacher and mentor teacher for the past seven years. During her time working in special education, she struggled to find an effective reading program that could be specifically tailored for students with ID. She concluded that adequate programs and training in teaching reading skills to these students was not provided. In working with other educators, she frequently encountered the belief or attitude that students with intellectual disabilities did not need to be pushed to learn. This belief extended so far as to label such students as incapable of learning, particularly as it pertained to reading. All these experiences in the teaching field, and working specifically in her own special education classroom, helped shape her belief that, despite their disabilities, all students are capable of learning to read.

When the researcher started working as a mentor teacher for a university summer practicum program, she was surprised to find that some of the preservice teachers she worked with believed that students with intellectual disabilities could not fully learn how to read and should only be taught sight words. The realization that these students were coming out of their university education with these perceptions led the researcher to question why these students might perceive this way. After a few more years of mentoring summer practicum preservice teachers, the researcher was given the opportunity to work more with other mentors who oversaw the preservice teachers. Through conversations and observations, the researcher encountered many of the same perceptions in these mentors that she experienced with preservice teachers. This experience more specifically sparked the questions that are discussed in this study.

For instance, when watching mentor teachers mentor preservice teachers in the area of reading, mentor teachers tended to focus more on sight word recognition than actual phonemic awareness and phonics skills. Within the summer practicum program there was an element of some of these skills being taught using a reading program called *How to Teach Your Child to Read in 100 Easy Lessons* that included some phonics skills. However, upon further investigation it was clear that most of the mentor teachers did not utilize the program in their classrooms and were not familiar with how to help their preservice teacher administer the program. There was also a lack of understanding of the phonetic skills in the program and how one could expand on those skills. Other reading instruction observed by the researcher during summer practicum involved the preservice teachers instructing students to read a story and then asking questions at the end. These observations revealed no teaching of using context clues to determine the meaning of the text being read nor any other means to teach comprehension skills necessary to answer questions.

After working with a group of inservice teachers at the junior high level once a month for collaboration, more questions arose for the researcher on exactly what was being taught in other life skills classrooms in the area of reading. Materials and training in teaching reading skills to small group classroom teachers was sorely lacking. This fueled more passion for the researcher to educate others and also learn more about effective instruction in reading for students with intellectual disabilities.

Participants

Purposeful sampling was utilized to select participants for this case study. Selection criteria included being an inservice special education teacher who: (a) participated in a university sponsored, literacy training initiative during 2018 and 2019; (b) mentored preservice special

education teachers from a nearby university during their six-week intensive summer practicum placements in 2018 and 2019; and (c) had at least two years of experience in teaching students with intellectual disabilities. In all, eight special education teachers from four separate school districts met the sampling criteria and were invited to participate in the study. Institutional Review Board (IRB) approval was received (see Appendix E) and all participants were asked if they would be willing to sign a consent form before the study began, which all agreed to sign. Additionally, parents of youth who were taught by teacher participants in this study signed parent permission forms (see Appendix E).

Special education mentor teachers' demographic information is included in Table 1. Of the eight special education mentor teachers who participated in the study:

- All were certified in special education and worked with students with ID. All were European American/white and female.
- Six of the mentor teachers were currently teaching in classrooms for students with intellectual disabilities.
- Two of the mentor teachers were former teachers of students with intellectual disabilities; one was currently working as a district curriculum coach for special education teachers; and one was working towards a doctoral degree focused on students with intellectual disabilities. Both of these teachers tutored students with intellectual disabilities using the TRI during the study. Both of these teachers had at least five years of teaching students with intellectual disabilities in public schools.
- The mentor teachers in the study taught an average of 11 years with a spread of 4 to 21 years.
- Six held master's degrees.

Table 1

Special Education Mentor Teachers' Demographic Information

Mentor (Pseudonym)	Assigned district	Years teaching	Highest completed degree
Amy	1	8	Bachelors
Claire	5	11	Masters
Emma	2	4	Masters
Carla	1	15	Masters
Jenna	2	11	Masters
Holly	3	21	Masters
Hannah	4	7	Bachelors
Caitlin	2	16	Masters

Note. Assigned District: 1 = Prairie Creek School District 2 = High Ridge School District; 3= Boulder Ditch School District; 4= Muddy River School District; 5=PhD Student.

Measures

The researcher developed an interview protocol with 11 questions. The interviews were semi-structured and allowed for probing questions (see appendix C). The interviews were 30 to 90 minutes in length. Through these questions, the researcher sought an in-depth understanding of inservice mentor teachers' views on the five components of the NRP and their perceptions of what reading skills could and should be taught to students with ID. Study participants were

interviewed as individuals and in focus groups after the first round of mentor teacher trainings. Participants were also interviewed as individuals and in focus groups after the second round of mentor teacher trainings.

Settings

Setting for mentor teacher literacy trainings. The special education mentor teachers in the study participated in mentor teacher trainings. There were 10, two-hour trainings that took place over the course of two years on a nearby university campus. The mentor teacher trainings focused on teaching coaching skills (for mentoring preservice teachers) as well as instruction in the Targeted Reading Intervention program (TRI) and Self-Regulated Strategy Development (SRSD). Trainings focused on building literacy skills and coaching pedagogy. The purpose of the trainings was to support mentor teachers in building literacy and coaching skills so that they could scaffold special education preservice teachers to deliver effective literacy instruction to students during a six-week intensive summer practicum experience.

Setting for mentor teacher interviews. Focus group interviews were conducted at two summer practicum school sites in Utah County. Individual interviews were conducted at a location according to the participant's convenience and request (e.g., over the phone, at the university after mentor trainings, or at schools located in four local school districts where the inservice mentor teachers taught during the school years 2017-2018 and 2018-2019).

Materials

Permission to video record interviews was obtained from all participants. Such video recording helped ensure fidelity and reliability. An iPad camera was used to film most interviews, though an iPhone camera was used in some cases as well. The camera was set in an unobtrusive corner of the room to minimize the possibility of distraction.

Data Collection

Data were collected using two methods. These methods included individual interviews, which took place during the summer of 2019, and focus group interviews, which took place after the 2019 summer practicum.

Individual interviews. The researcher used a semi-structured question guide which contained 11 open-ended questions (see Appendix C). The same guide and questions were used for all participants with allowances for additional probing to further explore participant responses. Responses were kept confidential and not shared between the participants. Undergraduate students and researchers transcribed verbatim the individual interviews. Interview data from the inservice special education mentor teachers were de-identified immediately and assigned participant numbers that aligned with their corresponding transcripts.

Focus group interviews. Focus group interviews have been termed the best method to elicit a group's collective experiences and perspectives regarding a phenomenon. This method can reduce the possibility of acquiescence bias (Tassé, Schalock, Thompson, & Wehmeyer, 2005) by enabling researchers to ask questions to specific members and ensuring that all were able to participate. Furthermore, focus group interviews can help provide inter-member reinforcement, peer support and validation of views and experiences, as well as build confidence and empower group members (Cambridge & McCarthy, 2001; Tassé et al., 2005). A relaxed, informal environment was chosen as the setting for the focus group interviews (Kaehne & O'Connell, 2010). An 'anti-authoritative and non-hierarchical atmosphere' was promoted by the participants' and research team's prolonged relationship with each other (Karnieli-Miller, Strier, Pessach, 2009, p. 280). The length of association (two years) enabled the researcher to establish a relationship with the participants built on equality and mutual trust. The ultimate goal was to

reduce potential power imbalances and allow participants to feel safe talking openly about their experiences (Edwards & Holland, 2013).

Data Analysis

The final product of a case study relies heavily on the analysis that accompanies data collection (Merriam, 2009). As soon as data collection began, informal data analysis commenced. As was previously mentioned, the study participants were employed as mentor teachers for university students enrolled in a special education teacher program designed to prepare them to teach students with intellectual disabilities. As such, the participants engaged in literacy training that took place over a two-year period. This training included a total of 10 training sessions on the TRI.

Stake (2006) suggests that in choosing a case, one must also choose to study its context. Therefore, the researcher not only assisted in the literacy trainings, but also engaged in informal observations of the participants as they took part in the literacy trainings. The type of informal analysis that took place included reviewing each case (each mentor teacher of students with ID), making sense of informal observations, and intentionally allowing for data gleaned in informal observations to guide the interview question process.

After the data collection period was completed, a more intense data analysis process ensued (Merriam, 2009). Stake (2006) also recommends that “the case researcher needs to generate a picture of the case and then produce a portrayal of the case for others to see” (p. 3). This allows for interpretation of the case. Thus, the first read through of the data transcripts focused on analysis of the individual cases (each mentor teacher) and included identification of occurrences or data episodes that illustrated lived literacy experiences relative to the research questions. This first read through served as a more informal first level coding process, wherein

the researcher located data episodes responding to the specific research questions. At this point in the analysis, the data were organized by case. An example of how the data occurrences were organized by case is provided in Table 2.

After organizing the data episodes, the researcher reread each of the individual cases. Rereading of the data organized by case allowed for identification of specific codes. At this point of the analysis, the researcher identified 11 codes: (a) mentor teachers' (MT) belief in effectiveness of the TRI, (b) classroom adaptations post TRI training, (c) how or if MT's beliefs changed after receiving the TRI training, (d) meshing different tools and strategies together to make a reading program (*Frankensteining* teaching of reading), (e) mentors learning from their preservice teachers, (f) lack of training/resources/support in reading instruction, (g) what MTs learned through the TRI program, (h) what MTs would have changed in regards to the TRI training, (i) MTs' belief in students with intellectual disabilities to learn to read, (j) belief that SE teachers lack training and knowledge in teaching reading, (k) beliefs on most important reading skills to teach students with ID. Some codes were often directly connected to the questions posed by the interviewer. Some codes, however, were not part of the original interview questions, and arose organically.

Once each case (mentor teacher) was analyzed, and the 11 codes documented within cases, the researcher initiated a second cycle of coding by engaging in a cross-case analysis (Stake, 2006). The researcher first determined the extent to which each of the 11 codes were evident across cases. At this point in the investigation, the researcher made use of analytic memos. These memos presented as a series of notes organized around each case and allowed the researcher to conduct a conversation with self about the data. For example, these memos served as a means to help the researcher discern how the codes were similar or different across cases.

Table 2

Sample Data Episodes Linked to Research Questions

Research Question	Sample Data Episode
Q1 After receiving training in the TRI, what changes did mentor special education teachers make (if at all) in the reading instruction implemented in their own classrooms?	<p>Data Episode 1: Some of the kids in my class I've had for three years in my own classroom, and I have even implemented the TRI the last couple years when I learned it from BYU in a loose form, not as, you know, not all the components. But it was cool to see some of my students, who kind of understand the segmenting on the board, to learn all the parts. And I was really impressed with how far they went and I was kind of kicking myself that I should have pushed them even more, seeing how much some of my PSTs were able to jump levels of words and stuff with my own students who attended the practicum. So that was cool to see and learn that for the future when I'm going to do TRI in my classroom, I can really push them a little bit more.</p> <p>Data Episode 2: I think, again, kind of like I said before, I think I have a more compact tool that kind of groups it all into one, I think this one more than others I think covers comprehension better than some of the other phonics and phonemic awareness programs that I've used in the past. So that I really do like.</p> <p>Data Episode 5: It's also a good reminder of just making sure you're including all the components with our severe students. This program makes me think "shame on me" for how I used to teach my students reading.</p>
Q 2 How did the mentor teachers' perspectives and practices change after training in the TRI (if at all)?	<p>Data Episode 1: ...So, for me, I think connecting the abstract graphemes to, "This actually means this." Which I think TRI does a great job of, I think I said that earlier, I think that it's the best system I've ever used, where it actually connects a phonics-based or blending system immediately with, "This is what this is, here's picture, let's talk about it, let's strive for five." And, to me, I think that's the most important thing, is that letters and words have meaning and it's to explain all the things around us.</p> <p>Data Episode 2: I can't even think of the words for this. I think it's important to teach those specific kids the ability to persevere – what's the word? Like, stick to a task and... Yeah, build stamina, I think that's great... Especially with the TRI, it's kind of a long little process if you want to get through all the parts. And I had one PST [preservice teacher] who was really good at just flowing through and making it one seamless lesson, and they didn't even really notice that they were really, you know, getting multiple lessons in one. But teaching them to kind of stay persistent is important.</p> <p>Data Episode 3: This is going to be an unpopular opinion in line with TRI, but I think they need to know, like, functional sight words. If I'm going to choose between my students being able to sound out "cat" or knowing that "stop" means stop and they need to follow functional things in the community, I'm going to choose functional things in the community every time. But as far as teaching to learn how to read, if we're not going so far as to say one or the other, I do think a combined approach of phonics and sight words I've seen be most successful for my students. Like, neither in isolation but I've seen a combined approach of we're working on both of those things, be the most effective. So, I think critical sight words in conjunction with letter sounds. And letter sounds over letter names even.</p>
Question 3: What type of training did the inservice special education teachers receive in literacy prior to training in the TRI?	<p>Data Episode 1: My first experience was absolutely nothing. I worked in a, like, they had converted a warehouse into a room – so we even had to buy our own whiteboards. We bought painted board that you would use to build walls with for our whiteboards. And so absolutely no, like zero things. I pulled a lot of things from the internet. And then I moved to a different district and that district it was like the opposite problem. I worked – I went into a classroom that had literally fifty-years of curriculum stuffed in different cabinets and things like that, so, I mean, I was finding textbooks from the '50s. So I had sight word this and that, and I had PCI, and I had Wilson, and I had DRA, and I had pieces of them all - I didn't even know if I had all of them. So yeah – Frankensteining a reading program -Yep, that was the thing.</p> <p>Data Episode 2: As a severe teacher it is, like, we got nothing. Like we are building from the ground up. And so I think that's a big difference that I've seen that's a little more of like, for lack of a better term, a traditional special education approach with support, versus I am creating their idea and knowledge of reading from nothing. I don't know. That's my perception.</p> <p>Data Episode 3: I would have to take what I learned in those and had to see if I could make it work for me. You know, a lot of times I could take the materials that they provided me and then make modifications and implement them in my classroom.</p>

These memos also helped the researcher gain a contextual understanding of the information the codes represented.

In this study, the researcher gave greater heed to codes that were more frequent and evident across contexts (Saldana, 2009; Tracy, 2013). The analytic memos provided a type of analytic bin that allowed the original 11 codes to be analyzed, and compared. Evidence that represented concepts in the data that had features in common were condensed to create findings (Saldana, 2009, p. 48). Once these findings were identified, the researcher created a matrix of all possible quotes as evidence in a word document. Corresponding quotes were then partially annotated to provide a more complete textural understanding of the findings (Miles, Huberman, & Saldana, 2014).

Next, tentative assertions were created and recorded based on the findings across the cases. Modifications were made as the assertions were compared against each other to find overlaps. Findings for assertions were then reviewed and discussed with an external special education literacy expert. Further revisions to the assertions were made as additional insights surfaced from this discussion until agreement was reached. Refer to Table 3 for a sample of how the findings were organized during the cross-case analysis.

Trustworthiness

Researchers in the field of special education advocate that qualitative inquiry include standards of rigor that ensures the credibility and trustworthiness of the data (Brantlinger, Jiminez, Klingner, Pugach, Richardson, 2005). Lincoln and Guba (1985) suggested four criteria that can be used to establish trustworthiness: (a) credibility, (b) transferability, (c) dependability, and (d) confirmability.

Table 3

Sample Findings Across Cases

Question	Finding	Mentor	Characteristic Data Episode
Q1 After receiving training in the TRI, what changes did mentor special education teachers make (if at all) in the reading instruction implemented in their own classrooms?	Mentors Learning from PSTs to Change Practice	Amy	“But I watched the BYU students use it and was able to kind of work with them on that and I do feel like it made a difference particularly with one student who was my former student.”
		Carly	I did see the little students learning with the PSTs. There was one student who had his pocket phrase, and he loved using his pocket phrase I saw that it worked.
		Emma	but now that I have TRI I’m like, okay I really like that, that’s probably going to be a staple of one of my reading centers.
	Classrooms Adaptations Post TRI Training	Carly	I did do TRI with a few of them, the ones that struggled the most. I mean, cause they’re high school so most of them...although they’re reading at only a second or third grade level, but for severe that’s pretty good. That’s pretty good! But I did start doing TRI word work with a couple of my students to try and give them supports in areas where they were struggling because they didn’t have that foundation.
		Amy	Yeah. Like, the TRI totally changed how I teach reading in the classroom.
		Claire	And what I’ve learned so far with TRI, I think I’ve got a lot better grounding and feel a lot more confident.
After receiving training in the TRI, how did mentor teachers’ perspectives and practices change (if at all)?	MT’s beliefs/ changing after training on the TRI	Amy	I’m like, “Okay I get it, I’m with you and I do think it can work.” Where initially I was like of like, “um...?”
		Emma	It’s been almost life changing for some of my students. Just having them learn how to segment words and then all the different steps of the TRI has been really helpful. And I’ve seen them be able to generalize those skills when they’re reading books so it’s been really great.
	Effectiveness of the TRI	Claire	But what I’ve seen, I think it’s great. It think its one of the best ones that I’ve seen, even with Wilson and the other ones.
		Carly	It is effective [The TRI]. Yeah, I think so because I think it taught me a way to teach reading. Where before, I wasn’t ever taught a way to teach it.

Credibility. In order to provide credibility, researchers must strive to present the feelings, thoughts, and actions of the participants accurately (Bloomberg & Volpe, 2012). In this study the researcher increased credibility by experiencing prolonged engagement in the field and by presenting discrepant cases (Bloomberg & Volpe, 2012; Brantlinger et al., 2005).

Prolonged engagement is determined by being in the field long enough to understand the context and conditions of the phenomena and by building trust and rapport with participants to support co-construction of meaning between researcher and participants (Lincoln & Guba, 1985; Merriam, 2009). In this study, the researcher engaged in two years of repeated and considerable time in the field. This allowed the researcher to convey details about the setting and the participants to lend credibility to the study. Furthermore, it should be noted that had the study been completed in one year instead of two years, the study findings would have been different. The prolonged engagement in this study, allowed the researcher to more fully comprehend the understandings, thoughts and feelings of the participants.

In addition to prolonged time in the field, the researcher also deliberately sought to bring to light unique participant understandings or variations in participant's experiences. Searching discrepant data and rival explanations is important to credibility because real life is composed of varying perspectives that often do not align (Bloomberg & Volpe, 2012).

Transferability. Although qualitative work does not often attend to the generalizability, rigorous qualitative inquiry is concerned about transferability. Transferability is the extent to which one study can be applied to a different and similar situation (Merriam, 2009). The technique the researcher used to increase the opportunity for transferability was providing a thick or rich description. A thick description of the participants, setting, data collection and analysis in

this study allows for readers to determine the extent to which conclusions can be applied to their own similar situation.

Dependability. Dependability refers to the transparency in recording the procedures and processes to collect and interpret the data (Lincoln & Guba, 1985). In this study, the researcher provided a detailed and thorough explanation of the study procedures as well as the processes used to collect and analyze the data.

Confirmability. Confirmability is the idea that, as much as possible, study results are generated by participants rather than researcher biases or self-interests. To help readers understand more fully the researcher's possible biases, the researcher has provided a detailed position statement (see below).

The ethical practices of the researcher often determine the trustworthiness of a study. To that end, deliberate attention was focused on research techniques to enhance the credibility, transferability, dependability and confirmability of this study.

CHAPTER 4

Results

Initially the researcher postulated two primary questions: 1) After receiving training in the TRI, what changes would mentor special education teachers make (if any) in the reading instruction implemented in their own classrooms? and 2) How would mentor teachers' perspectives and beliefs change (if at all) in regards to teaching reading to students with ID following training in the TRI? Once the data were evaluated, an additional significant theme emerged. Every interviewed participant brought up the lack of training, support, and materials available to inservice teachers instructing students with intellectual disabilities, especially those classified as severe. This led to the formalization of a third question: What training in reading instruction for students with ID did the mentor teachers say they received prior to the TRI training? The findings that emerged during the cross-case analysis explained above led to the formulation of three assertions.

Assertion 1

Mentor teachers modified their teaching practices in regards to the reading instruction of students with intellectual disabilities following training in the TRI. Evidence gleaned from participant interviews indicates that all but one of the mentor teachers changed their reading instruction following training in the Targeted Reading Intervention (TRI) program. Further, based on interview responses, the majority of mentor teacher participants implemented elements of the TRI in their teaching, both during and post TRI training. A few mentor teacher participants, though not currently teaching in a classroom setting, still implemented elements of the TRI in a one-on-one basis in other settings. For example, Claire, though not currently

teaching, utilized the program with a neighbor's child diagnosed with Autism Spectrum Disorder (ASD).

Of the eight mentor teachers interviewed, only one did not implement any change in reading instruction following the TRI training. This may be partly due to the fact that this teacher was primarily teaching math to students with learning disabilities. The remaining participants implemented some application of the TRI in their own classrooms. Mentor teacher Carly gave an example of how she began using the TRI with her students. "I have this one student I work with who really struggles. . . with being able to decode words. But when I use TRI, he can do it with that level of support for that word work." Jenna helped the interviewer understand why she started using the TRI in her classroom. "When I'm bringing in programs into my classroom, it has to be systematic and it has to be an easier way to teach it, and I think TRI definitely does that."

Mentor teachers who implemented the TRI seemed to be specifically drawn to the comprehension components the TRI provided for students with severe intellectual disabilities. Amy summed up this idea in the following way:

I just appreciate just how it's generally structured. I appreciate the 'strive for five' and exposure to meaning. I think a lot of programs kind of have a focus of either exclusively phonics or exclusively comprehension. And I appreciate that it's combining both of those things.

Based on interviewee responses, the organizational structure of the TRI supported the implementation of the program within special education mentor teachers' classrooms. TRI components that teachers specifically mentioned as helpful included: (a) the cohesiveness of the program, (b) concrete steps within the TRI activities that made sense, (c) the way the TRI was

organized to help teachers match instruction to student needs (this was true even for high school students with no foundational reading skills), (d) that all materials to implement the TRI were included in the trainings, and (e) the ease in which they were able to train paraprofessionals to support the TRI.

Conversely, the one participant who did not implement the TRI, noted she did not feel that the TRI was a cohesive program. This mentor teacher stated:

My issue with all reading programs, the TRI included, is I feel like they focus on such small chunks of it and they don't all necessarily bring the whole reading experience together well to make it generalized for the students. And so I think that's something I have a hard time with.

Assertion 2

In regard to teaching students with ID, there was evidence that the mentor teachers changed their beliefs and perspectives as they relate to two specific areas: a) students' ability to learn to read; and b) the effectiveness of the TRI program. Evidence gleaned from the participants suggests that mentor teachers modified their beliefs and perspectives in relation to the abilities of students with intellectual disabilities to learn to read and in the effectiveness of the TRI program. In the following sections, both of these distinct perceptions/beliefs are discussed in greater detail.

Students' ability to learn to read. When queried about the perception of the ability of students with ID to learn to read, several mentor teachers mentioned that their perceptions of teaching reading had changed following the training in the TRI. Mentor teachers were also surprised at the strides students with severe intellectual disabilities could make in learning to read. For example, mentor teacher Caitlin spoke about the changes she noticed in her own

students while implementing the TRI: “a lot of the students in the summer program this year are my students from last year and so I’ve watched them and one of them has just gone through the roof with reading. I can’t even believe it. He was not reading in May.” Some mentor teachers spoke specifically about the way the TRI helped them understand how to teach students with ID to read. This finding appeared particularly insightful, given the feedback that very few of the mentor teachers had received specific reading training for students with severe intellectual disabilities.

Jenna and Carly summed up this feeling very well. Carly said: “I had not received any previous training on reading instruction [for students with severe disabilities]. The TRI provided a structured way that I could teach it.” Jenna added,

When I think about how I used to teach my students how to read, I think, shame on me.

This is a program that should be in every severe classroom. I love the structure of the TRI and how I can apply it to any level of my students and I can modify the pacing to fit their needs.

Effectiveness of the TRI program. In regards to the effectiveness of the TRI program, seven of the mentor teachers interviewed (approximately 87%) had positive perceptions and responses to the TRI. Overall, many of the mentor teachers recognized the benefits of the TRI immediately. Claire enthusiastically shared: “...I think it’s great. It think it's one of the best ones [reading programs] that I’ve seen.” Holly agreed:

It’s been almost life changing for some of my students. Just having them learn how to segment words and then all the different steps of the TRI has been really helpful. And I’ve seen them be able to generalize those skills when they’re reading books so it’s been really great.

Another mentor teacher, Amy, described how she was skeptical of the TRI at first, but changed her mind once she saw that it worked with her students: “At first I didn’t think the program would work, but after I implemented it, I saw its benefits and changed my opinion.”

However, not all of the mentor teachers felt the TRI was effective. One mentor teacher did not adopt any changes of belief or perception in regards to teaching students with ID how to read. When asked directly if she had made any such changes, the participant simply answered, “No.” When probed further about feelings about the effectiveness of the TRI, the mentor teacher responded: “I did not notice anything different, so yeah.”

It should be noted that in addition to the mentor teachers’ comments regarding the effectiveness of the TRI and the changes they noticed in their students, several shared what they would change about the TRI to make it even more effective. These changes are addressed in the Implications for Practice section below.

Assertion 3

There is a lack of effective training, resources, and support in teaching reading to students with intellectual and/or learning disabilities, particularly where such disabilities are severe. This assertion maintains that there is a lack of effective resources, support, and overall training in teaching reading to students with intellectual and/or learning disabilities, particularly in cases where these disabilities are classified as severe or profound. Mentor teacher comments were greater and lengthier as evidence for this assertion than any other. The sub-findings associated with this assertion include: “Frankensteining” reading instruction; lack of training, resources, and support for teaching reading; and belief that severe/profound teachers lack training and knowledge in teaching reading.

“Frankensteining” reading instruction. One significant sub-finding that emerged during the interviews was the idea of “Frankensteining,” or creating and pulling together different materials to create an amalgamate reading program for students. Caitlin explained: “For the last 10 years as I’ve been teaching, I’ll be picking the brains of other Special Ed teachers and I’ll kind of “Frankenstein” a program together and figure out what works.” Emma described the idea of Frankensteining reading this way: “A lot of it was just me creating my own stuff, seat of the pants kind of thing...it was just “hodge-podge”, if I’m totally honest.” Some aspect of this idea was present in virtually every mentor teachers’ response.

Lack of resources and support for teaching reading to students with severe intellectual disabilities. The lack of resources, and/or support that these mentor teachers have experienced during the course of their teaching careers came up repeatedly throughout the data analysis. During the interviews, Amy’s frustration in this area was almost palpable: “So I went to those [reading] trainings and it was always frustrating. It was a lot of good information, but then it was up to me to say, ‘okay and what are all the ways that I am going to adapt all of this so that it can work in my setting?’ I was always getting only part of a reading curriculum and it was geared towards general education students. The materials were not readily available and when they were made available, I did not receive the full curriculum and so the program could not be implemented with fidelity.” Related to these frustrations, Amy also made the point that, “I think that we don’t always know how to approach teaching reading to this population of students and I think that there is a general lack of understanding amongst a lot of administrators and Gen Ed teachers that it does require something different.”

Lack of literacy training specifically for teaching reading to students with severe intellectual disabilities. All of the mentor teacher participants spoke about the limited literacy

training they received specifically targeted to teaching students with intellectual disabilities to read, particularly those classified as severe. For several of the mentor teachers, this lack of training seemed to start in university teacher education programs. Jenna described the lack of training this way: “I graduated from [a university in the southwestern United States].”

Jenna further explained that she was provided training with the general education teachers in her first teaching district on guided reading, but said that when she changed school districts, there was no reading curriculum or training provided. She said:

When I came into my class in the High Ridge School District there was no curriculum. And so I’ve been using the regular ed teacher’s curriculum. Last year they purchased a math program, but they don’t have anything for reading.

Caitlin described her lack of training this way “I haven’t done any, like, professional development that’s specific to reading.” Similarly, Claire admitted, “Honestly it was me figuring it out and then other teachers who had taught before that were giving me some tips, but no formal training.” Emma explained that most district trainings she attended were focused on behavior. She noted that she had never had any type of academic training, saying: “yeah, that’s just not done for us special education teachers.”

As previously mentioned, this study’s findings resulted in three central assertions. These assertions are further delineated in the Discussion section.

CHAPTER 5

Discussion

This thesis explored mentor teachers' perceptions of teaching reading to students with intellectual disabilities. Three main assertions emerged from the responses collected in the mentor teacher interviews. Each of these assertions, along with their wider implications for teaching students with ID reading, will be further discussed in this section.

History

The initial mentor teacher training on the TRI program began in early 2018. A total of 25 special education mentor teachers received training on each level of the TRI. These special education mentor teachers were given time to practice during these training sessions. Special education mentor teachers were also given training on how to be effective mentors to preservice teachers.

Although some of the mentor teachers had previously mentored students in the university summer practicum program, this was the first formal training specifically geared to mentoring special education preservice teachers who would be working with students with severe intellectual disabilities. Between training sessions, mentor teachers were expected to practice the TRI with students outside the training setting (e.g., students in their own classrooms, or others if they weren't currently teaching in a classroom setting).

Preservice teachers also received training on the TRI prior to their scheduled participation in the 2018 summer practicum. A portion of the special education mentor teachers who participated in the initial training went on to mentor preservice teachers during the 2018 summer practicum. These special education mentor teachers oversaw three to four preservice teachers,

who in turn worked with two to four special education students with severe intellectual disabilities.

The researcher worked with each of the special education mentor teachers in the area of reading. Specifically, responsibilities of the researcher included supporting the special education mentor teachers, observing the preservice teachers, and administering one formative assessment, including coaching and modeling, for the preservice teachers in the area of literacy. The researcher also administered a summative assessment in the area of literacy at the conclusion of the 2018 summer practicum.

The following year (early 2019), this same group of special education mentor teachers (those who received the 2018 literacy and coaching trainings *and* mentored preservice teachers during the 2018 summer practicum) received five additional training sessions on the TRI. In addition to the five TRI training sessions, in the Spring of 2019, the special education mentor teachers were further required to attend a six-week practicum.

Given the mentor teachers' growing understanding of the TRI, a few adjustments were made to the mentor teachers' duties in the area of literacy during the 2019 summer practicum. For example, in the summer practicum of 2019, instead of the researcher administering the formative literacy assessments to the preservice teachers (as was the practice in the 2018 summer practicum), the mentor teachers were assigned this task. In the interviews, the mentor teachers spoke about how giving these formative assessments in literacy helped their confidence grow. They mentioned specifically that learning the TRI more fully helped them prepare for the task of administering the formative assessments.

In the summer practicum of 2019, the researcher was again assigned to support the special education mentor teachers. Observing the special education teachers the second year, the

researcher noted that the mentor teachers took more initiative in mentoring preservice teachers in the TRI than they had the previous summer.

Though this background information provides a framework for understanding, the most important information and meaning was gleaned from the mentor teacher interviews which took place following the summer 2019 practicum. The three primary assertions the researcher arrived at directly correlate to the mentor teacher responses obtained during the interview process. These assertions are discussed more fully below.

Assertion 1. *Mentor teachers modified their teaching practices in regards to the reading instruction of students with intellectual disabilities following training in the TRI.* During and following training in the TRI, the majority of mentor teacher participants modified their teaching practices in regards to the reading instruction of students with intellectual disabilities. In most cases these changes were not immediate. Often the mentor teachers' belief in the effectiveness of the TRI did not truly take root until they saw the progress of students being taught by preservice teachers using the TRI in the summer practicum program. This aligns with Guskey's theory (2002) that significant change in teachers' attitudes and beliefs occurs primarily after they gain evidence of improvements in student learning. Mentor teachers stated that aspects of the TRI program, such as its comprehensiveness, structure, simplicity and effectiveness, led them to modify their teaching practices in regards to the reading instruction of students with cognitive disabilities. This phenomenon is directly related to the concept of self-efficacy.

Self-efficacy is "the belief in one's abilities to accomplish desired outcomes" (Tschannen-Moran & McMaster, 2009, p.228). Tschannen-Moran and McMaster (2009) describe four types of efficacy: Verbal Persuasion; Vicarious Experience; Mastery Experiences;

and Physiological and Affective States. According to this model, all four of these areas were addressed during the mentor teacher training and summer practicum sessions.

The first type of efficacy, Verbal Persuasion, “involves verbal input from others, such as colleagues, supervisors, and administrators that serves to strengthen a person’s belief that he or she possesses the capability to achieve a desired level of performance” (Tschannen-Moran & McMaster, 2009, p.229). This occurred throughout the mentor trainings and summer practicum sessions, where mentors were given verbal praise and encouragement by university supervisor teachers and coaches.

The second type of efficacy, Vicarious Experiences, relates to “observing another person successfully perform an action that one is contemplating” (Tschannen-Moran & McMaster, 2009, p. 230). During the mentor teacher training, efficacy was modeled by the researcher as well as other university supervisors. Ironically, this type of efficacy was also demonstrated for the mentor teachers by the preservice teachers administering the TRI during the summer. As mentor teacher, Amy stated, “I watched the [university] students use it [The TRI] and was able to kind of work with them on that and I do feel like it made a difference particularly with one student who was my former student” mentor teacher, Caitlin had a similar experience. She said,

. . . a lot of the students in the summer program this year are my students from last year and so I’ve watched them and one of them has just gone through the roof with reading. I can’t even believe it. He was not reading in May.

The third type of efficacy, Mastery Experiences, encompasses one’s own personal experiences achieving success in a specific endeavor or field. Such successes can be some of the most powerful reinforcers of self-efficacy because they are achieved on one’s own. As Carly related,

Since I've learned about the TRI, I've used that with a couple students. . . I have this one student I work with who really struggles . . . with being able to decode words. But when I use TRI, he can do it with that level of support for that word work.

Caitlin had a similar personal experience in her own classroom.

Yeah I did a lot more...Now I'm more interested in doing more one-on-ones with TRI... and I was more regular with it. Whereas in the years before that training I would do guided reading groups twice a week. . . This year we did it every single day of the week and that was more saturating for the kids.

The fourth and final type of efficacy, Physiological and Affective States, relates to a person's emotional and physiological status. Often, individuals evaluate their own personal capabilities based on these physiological and emotional cues. For example, one's level of arousal can influence a person's self-efficacy beliefs, based upon whether it is viewed positively (anticipation) or negatively (anxiety). Perception can be enabling or debilitating, depending on whether the situation is viewed as a challenge or a threat (Gregoire, 2003)

Initial training experiences may cause nervous anticipation for a teacher, especially if the teacher is to be observed and the performance critiqued. But trying out a new strategy in a supportive workshop setting where encouragement and assistance are available can also help reduce the fear of trying it with a room full of students. With the ease that comes through continued training and skill development, successfully implemented lessons create feelings of accomplishment, pride, and exhilaration. (Tschannen-Moran & McMaster, 2009, p. 229)

A similar experience occurred during the mentor teacher training where mentors were given the opportunity to practice before working with preservice teachers under their

supervision. This practice opportunity resulted in a higher level of confidence, especially after the second round of mentor training. Mentor teachers also experienced a bump in confidence when they were tasked with administering the formative literacy assessment during the second summer practicum and noticed that their literacy knowledge and understanding of the TRI and literacy had grown.

When the mentor teachers saw that they could do it, their self-efficacy increased. As Cutrer (2016, p. 18) stated: “. . . teacher professional knowledge is acutely tied to teachers’ views of the extent to which their instruction can make a difference for the students they teach.” Woolfolk, Rosoff, and Hoy (1990) found that the efficacy of teachers in their reading instruction was directly tied to student achievement in reading. Teachers that lack training and have a belief that they may not succeed in teaching reading have lower expectations of the ability of their students' will learn to read (Carlisle & Berebitsky, 2011).

Self-efficacy was a key factor in mentor teachers’ ability to successfully mentor preservice teachers, and in their decision to implement changes in their own classrooms. Only when they believed themselves to be capable of making these changes did they assert themselves in moving forward with implementing them.

Assertion 2. *There was evidence that the mentor teachers changed their beliefs and perspectives as they relate to two specific areas: a) the ability of students with cognitive disabilities to learn to read; and b) the effectiveness of the TRI program with these students.*

When mentor teachers’ self-efficacy improved, not only did their belief in their ability to successfully teach reading improve, their beliefs in the innate ability of the students to learn how to read improved as well. A change in belief prompted almost all of them to implement the TRI into their classrooms, which in turn helped improve the reading instruction imparted to their

students. As mentor teachers witnessed the improvement in their students' reading skills, they experienced greater confidence and belief in both the effectiveness of the TRI program and the potential of their students with ID to continue to improve in reading ability and skill.

As pointed out earlier in the literature discussion, perceptions of teachers on the ability of their students to learn, directly affect their students' learning outcomes (Ferguson, 1985).

Because of their perceptions, teachers select material and approaches that either enhance or restrict student learning. In other words, the teachers' beliefs about a student's ability to learn affects their teaching methodology and success in teaching those students how to read. Based on the findings of this research, there is evidence that teachers' beliefs can change, and when they do, they are motivated to implement changes in their practices that directly impacts student learning for the better. Stated earlier in the literature review, teachers involved in previous studies have assumed that students with severe intellectual disabilities can only learn sight words or function-based words (Browder et al., 2008; Burns, 2007; Waugh et al., 2011). While several of the mentor teachers in the study still believe in the importance of functional sight word training:

“This is going to be an unpopular opinion in line with TRI, but I think they need to know, like functional sight words. If I'm going to choose between my students being able to sound out cat or knowing that stop means stop and they need to follow functional things in the community, I'm going to choose functional things in the community every time.”

All of the mentor teachers agreed that other components of literacy are important as well, even those who still believe in the importance of functional sight word training. Notice how Hannah describes the importance of both:

“I think there’s kind of a lot of people drinking ‘hate-orade’ against sight words. And so they just don’t really like it and I think that there comes a point in time where it is necessary. I mean there does need to be a combined method, definitely of [phonemic awareness & phonics] and sight words. And I think they need to be taught, not even separately. I would find a way to teach them together because I think that is the most beneficial for generalization.”

Further, in the practicum settings included in this study, students with severe intellectual disabilities were shown to be capable of learning phonemic awareness, phonics skills, decoding, fluency, and comprehension. For example, Claire in her interview said, “it’s a little bit surprising some of the elements that we’re asking them to do. Especially, some of the more severe/profound kids, then I’m like, “okay, that’s a lot.” ... putting [the sounds] together and blending them was something he [the student] had no concept of and we’ve been working on that. So now talking about, “you’ve done a word. You can blend a word now we’re just changing one letter and see how just changing one letter can change the whole word. He can do it.”

Assertion 3. *There is a lack of effective training, resources, and support in teaching reading to students with intellectual and/or learning disabilities, particularly those where such disabilities are severe.*

The third and final assertion attests to the lack of sufficient and effective training, resources, and support in teaching reading to students with intellectual and/or learning disabilities, particularly those where such disabilities are severe or profound. Kaufhold, Alvarez, Velma, and Arnold (2006) stated:

The results of the 228 respondents in the South Texas schools of Region II were consistent with studies of special educators across the nation. Individuals interviewed personally indicated that the lack of sufficient supplies, coupled with the necessity of

using out-of-pocket money in order to accomplish their teaching tasks caused a high degree of frustration which, in some teachers, led to burnout (p. 159).

With fewer resources, special education teachers often feel overwhelmed and undervalued (Denton, Hasbrouck, & Sekaquaptewa, 2003). The message special education teachers seem to be receiving from their school districts is that special education students are not as important as general education students. This correlates with what Claire said in her interview:

So, I got a curriculum, kind of. But the district didn't want to pay for Special Ed classrooms to have their own set because they're very expensive. And so they pulled the remedial books from Gen Eds and gave them to us . . . it's like why are my students not worthy of the money spent for a full kit that you are spending for every other classroom in the district?

The opinion that there was a lack of training in the area of reading was pervasive across participant interviews. Amy's statements seemed to sum up this sentiment: "I don't know if I've been to a professional development designated to teaching reading." Mentor teachers in the study commented that either they had not received training at all: "No, in regards to the SpEd teachers, we don't do any academic type trainings" (Emma); or the training was very limited:

So the only specific training that I was ever given on teaching kids how to read was my district sent me to a training that was specifically on the See Sound books. That was the only training that I was specifically given on teaching kids how to read.

It seems evident from these statements that additional teacher training is required, especially in teaching reading to students with intellectual disabilities. However, it is important to emphasize that more than just a minimalistic, lecture-centric training is required. Researchers have shown that simply lecturing about the implementation of new practices without also

providing supportive professional development can actually result in a decrease in effective implementation (Cutrer, 2016). This is known as an “ironic process,” in that its outcome is the exact opposite of what was intended (Knight, 2009). In a study conducted by Tschannen-Moran and McMaster in 2009, teachers were assigned to one of four treatments. Those assigned to treatment one received the information in a stand-alone one-time workshop lecture. Treatment two teachers received treatment one, but also observed a modeling demonstration of the new learning with a group of students. Teachers in treatment three received the first and second treatments, and were also given additional time to practice the new learning in groups. Those in the fourth treatment group received treatments one, two, and three. They were further supported by follow-up coaching in the new reading practice. Results showed that the fourth treatment group with the inclusion of follow-up coaching, had the strongest effect on self-efficacy beliefs for reading instruction as well as for implementation of the new strategy (Cutrer, 2016).

The researcher in this study coached the mentor teachers during the course of the TRI training, but no additional follow-up coaching was done in any of the mentor teachers’ own classrooms. The mentor teachers were invited to participate in the researcher’s coaching of preservice teachers during the summer practicum. However, though the mentor teachers were present in the classrooms, most did not participate in the coaching of preservice teachers. During the second round of training, some coaching was again administered to the mentor teachers. Further coaching was given to the mentor teachers during the first part of the 2019 summer practicum. During this round of coaching, all mentor teachers were actively involved. This finding also supports the implementation of all four types of efficacy referred to in Assertion 1 above. When multiple modes of efficacy are utilized together, there is a greater chance of instilling confidence and implementing change in practice and belief.

Limitations

The qualitative inquiry approach of this study came with certain limitations. One inherent limitation of a qualitative study is that it contains, by its very nature, subjective elements which make it difficult to apply conventional standards of reliability. Furthermore, because of the central role of the researcher in the collection and generation of data, replicating the conditions of a qualitative study would be virtually impossible. Even if certain key aspects of the study could be repeated, the countless nuances of unique situations and interactions would be beyond the scope of any other study to replicate.

A second set of limitations involves the researcher's status as a participant observer. One negative component typically found in this particular approach is an element of deception, where the participants are not aware of the researcher's true nature and intent. In the case of this study, however, this negative component did not apply as the participants were informed of the researcher's status and intent. This awareness may, of course, bring its own set of limitations, including suspicion or distrust of the researcher's motives. This limitation was offset by the prolonged timeframe of the study and the mutual trust and respect built between the researcher and participants over this period of time. Another inherent downside of this approach is the risk of becoming too involved and to slant or bias opinion – both by the researcher potentially swaying the opinions of the participants and by the researcher herself being swayed due to over-sympathizing with the participants. This limitation, due to its inherent nature, could not be completely counteracted. However, it was arguably reduced by the researcher's awareness of this limitation and by consciously suppressing the expression of opinion or bias in regards to the TRI and the ability of students with ID to learn to read.

This study could also be strengthened by quantitative inquiry to study whether or not implementation of the TRI with students with intellectual disabilities results in changes in increased student outcomes in reading. The information collected from the mentor participants was based on their own lived views and perceived realities and not off of data that specifically pinpointed the percentage of student improvement using the TRI. However, future studies could benefit from more rigorous studies on reading instruction for this population using the TRI.

One final limitation of the study was the sample size of participants. Because of the limiting criteria for mentor teacher participants, a larger group of participants would have been beyond the scope of this study. Furthermore, the intention of the study was to analyze the lived experiences and perceptions of a select number of mentor teachers who met the study's criteria. Larger scale studies capable of considering multiple inservice and preservice teachers across a wider array of school, grade-level, population and settings could help generalize the results.

Implications for Practice

The TRI can be an effective reading program for students with intellectual disabilities. This program includes all of the “Big Five” areas of reading advocated by the NRP and does so in a systematic and progressive way. The program flows from isolated skills to generalized practice with reading material. One of the most important discoveries is that this program can even prove successful with students with severe intellectual disabilities. Previously the idea of teaching functional sight words was addressed. Because of research that supports gains in reading in this area and because of the views of certain mentor teachers, sight words were included in the lesson plans for the TRI. An example of the lesson plan is included in Appendix A. To quantify and establish how effective the TRI program is, further research in this area is required.

In relation to the third assertion that there is a lack of materials, support and training for special education teachers, there remains a need for more widespread school district support in this area. There is evidence that the lack of material resources contributes to teacher burnout. As Kaufhold and his colleagues pointed out,

Thus, one valid and fairly simple solution to the high attrition rate of special education teachers would be to urge administrators to channel allotted funds to these teachers and to ensure that they have the necessary resources and administrative support in order to perform their duties. (Kaufhold et al., 2006, p. 161)

It might also benefit districts to have a research specialist devoted to finding the latest and most effective evidence-based materials that would be beneficial to use in special education classes. Further training and coaching/mentoring is also needed to increase teacher self-efficacy. As affirmed in the literature review by Joyce and Showers (2002), without consulting and coaching in the classroom fewer changes in instruction occur, thus negatively affecting learning outcomes.

The findings of this research study indicate the need for more specific training on teaching reading skills to students with severe intellectual disabilities. Because of the lack of resources and sufficiently trained teachers, these students are not developing reading skills and the stigma is perpetuated that they are incapable of truly learning how to read. The restrictive preconceptions of teachers and researchers regarding the limited capability of students with severe cognitive disabilities in reading comprehension has resulted in a dearth of rigorous research programs in this area (Browder et al., 2006; Kliever, 1998). Further studies need to be conducted to identify programs and instruction that specifically benefit this population of students with ID, not only in reading, but in all areas of academic learning.

The chronic inattention to this population is a social injustice that needs to be remedied. This research indicates that there is a disregard for the need of specific training and resources for students with severe intellectual disabilities. They are too often being overlooked and marginalized, at least in part due to limited beliefs regarding their ability and potential to learn.

REFERENCES

- American Association on Intellectual and Developmental Disabilities. (2010). *Intellectual disability definition, classification, and systems of supports* (11th ed.). Washington, DC: AAIDD.
- Ainsworth, M. K., Evmenova, A. S., Behrman, M., & Jerome, M. (2016). Teaching phonics to groups of middle school students with autism, intellectual disabilities and complex communication needs. *Research in Developmental Disabilities, 56*(1), 165–176. doi: 10.1016/j.ridd.2016.06.001
- Alberto, A., Waugh, R. E., Frederick, L. D., & Davis, D. H. (2013). Sight word literacy: A functional-based approach for identification and comprehension of individual words and connected text. *Education and Training in Autism and Developmental Disabilities, 48*(3), 332–350. <http://daddcec.org/Publications/ETADDJournal.aspx>
- Aldridge, J. M. (2014). Working with vulnerable groups in social research: Dilemmas by default and design. *Qualitative Research, 14*(1), 112–130. doi: 10.1177/1468794112455041
- Allor, J. H., Mathes, P. G., Roberts, J. K., Cheatham, J. P., & Champlin, T. M. (2010). Comprehensive reading instruction for students with intellectual disabilities: Findings from the first three years of a longitudinal study. *Psychology of the Schools, 47*(5), 445–466. doi: 10.1177/0014402914522208
- Allor, J. H., Mathes, P. G., Roberts, J. K., Cheatham, J. P., & Al Otaiba, S. (2014). Is scientifically based reading instruction effective for students with below-average IQs? *Exceptional Children, 80*(3), 287–306. doi: 10.1177/0014402914522208
- Allor, J. H., Mathes, P. G., Roberts, J. K., Jones, F. G., & Champlin, T. M. (2010). Teaching students with moderate intellectual disabilities to read: An experimental examination of a

- comprehensive reading intervention. *Education and Training in Autism and Developmental Disabilities*, 45(1), 3–22. Retrieved from <https://www.jstor.org/stable/23880147>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.
- Ardoin, S. P., Williams, J. C., Klubnik, C., & McCall, M. (2009). Three versus six re-readings of practice passages. *Journal of Applied Behavior Analysis*, 42(2), 375–380. doi: 10.1901/jaba.2009.42-375
- Barnes, C. S., & Rehfeldt, R. A. (2013). Effects of fluency instruction on selection-based and topography-based comprehension measures. *Research in Autism Spectrum Disorders*, 7(6), 639–647. doi: 10.1016/j.rasd.2013.02.010
- Beach, K.D., Sanchez, V., Flynn, L., & O'Connor, R.E. (2015). Teaching academic vocabulary to adolescents with learning disabilities. *Teaching Exceptional Children*, 48(3), 6–44. doi: 10.1177/0040059915594783
- Beck, C., & Kosnik, C. (2002). Components of a good practicum placement: Student teacher perceptions. *Teacher Education Quarterly*, 29(2), 81–98. http://www.teqjournal.org/backvols/2002/29_2/sp02beck_kosnick.pdf
- Beck, I. L., McKeown, M. G., & Kucan, L. (2013). *Bringing words to life: Robust vocabulary instruction*. New York, NY: Guilford Press.
- Beecher, L., & Childre, A. (2012). Increasing literacy skills for children with intellectual and developmental disabilities: Effects of integrating comprehensive reading instruction with sign language. *Education and Training in Autism and Developmental Disabilities*, 47(4), 487–501. <https://www.jstor.org/stable/23879641>

- Begeny, J. C., Eckert, T. L., Montarello, S. A., & Storie, M. S. (2008). Teachers' perceptions of students' reading abilities: An examination of the relationship between teachers' judgments and students' performance across a continuum of rating methods. *School Psychology Quarterly*, 23(1), 43–55. Retrieved from <https://www.jstor.org/stable/23879641>
- Biklen, D., & Burke, J. (2006). Presuming competence. *Equity & Excellence in Education*, 39(2), 166–175. doi: 10.1080/10665680500540376
- Billingsley, F. F., Albertson, L. R. (1999). Finding a future for functional skills. *Research and Practice for Persons with Severe Disabilities*, 24(4), 298–302. doi: 10.2511/rpsd.24.4.298
- Blachman, B. A. (2000). Phonological awareness. In M. L Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (pp. 483–502). New York, NY: Longman.
- Bloomberg, L. D., & Volpe, M. (2012). *Completing your qualitative dissertation: A roadmap from beginning to end*. Los Angeles, CA: Sage.
- Boat, T. F., & Wu, J. T. (Eds.). (2015). *Mental disorders and disabilities among low-income children*. Washington, DC: National Academies Press.
- Bonfiglio, C. M., Daly, E. J., Martens, B. K., Lin, L-H. R., & Corsaut, S. (2004). An experimental analysis of reading interventions: Generalization across instructional strategies, time, and passages. *Journal of Applied Behavior Analysis*, 37(1), 111–114. doi: 10.1001/jaba.2004.37–111
- Bouck, E. C. (2009). No Child Left Behind, the Individuals with Disabilities Education Act and functional curricula: A conflict of interest? *Education and Training in Developmental Disabilities*, 44(1), 3–13. Retrieved from <https://www.jstor.org/stable/24233459>

- Bouck, E. C., & Flanagan, S. M. (2010). Functional curriculum=evidence-based education? Considering secondary students with mild intellectual disabilities. *Education and Training in Autism and Developmental Disabilities, 45*(4), 487–499. Retrieved from <https://www.jstor.org/stable/23879755>
- Bradford, S., Shippen, M., Alberto, P., Houchins, D. E., & Flores, M. (2006). Using systematic instruction to teach decoding skills to middle school students with moderate intellectual disabilities. *Education and Training in Developmental Disabilities, 41*(4), 333–343. Retrieved from <https://www.jstor.org/stable/23879660>
- Brantlinger, E., Jiminez, R., Klingner, J., Pugach, M., & Richardson, V. (2005). Qualitative studies in special education. *Exceptional Children, 71*(2), 195–207.
- Browder, D. M., Ahlgrim-Delzell, L. Baker, J., & Flowers, C. (2012). An evaluation of a multi-component early literacy program for students with severe developmental disabilities. *Remedial and Special Education, 33*(4), 237–246. doi: 10.1177/0741932510387305
- Browder, D. M., Ahlgrim-Delzell, L., Courtade, G. R., & Flowers, C. (2008). Evaluation of the effectiveness of an early literacy program for students with significant developmental disabilities. *Exceptional Children, 75*(1), 33–52. doi: 10.1177/001440290807500102
- Browder, D. M., Gibbs, S., Ahlgrim-Delzell L., Courtade, G. R., Mraz, M., & Flowers, C. (2009). Literacy for students with severe developmental disabilities: What should we teach and what should we hope to achieve? *Remedial and Special Education, 30*(5), 269–282. doi: 10.1177/0741932508315054
- Browder, D. M., Hines, C., McCarthy, L. J., & Fees, J. (1984). A treatment package for increasing sight word recognition for use in daily living skills. *Education and Training of the Mentally Retarded, 19*(3), 191–200. <https://www.jstor.org/stable/23877256>

- Browder, D. M., & Lalli, J. S. (1991). Review of research on sight word instruction. *Research in Developmental Disabilities, 12*(3), 203–228. doi: 10.1016/0891-4222(91)90008-G
- Browder, D. M., & Spooner, F. (2006). *Teaching language arts, math, and science to students with significant cognitive disabilities*. Baltimore, MD: Brookes Publishing.
- Browder, D. M., Wakeman, S. Y., Spooner, F., Ahlgrim-Delzell, L., & Algozzine, B. (2006). Research on reading instruction for individuals with significant cognitive disabilities. *Exceptional Children, 72*(4), 392–408. doi: 10.1177/001440290607200401
- Burns, M. K. (2007). Reading at the instructional level with children labeled as learning disabled: Potential implications for response-to-intervention. *School Psychology Quarterly, 22*(3), 297–313. doi: 10.1037/1045-3830.22.3.297
- Butler, B. M., & Cuenca, A. (2012). Conceptualizing the roles of mentor teachers during student teaching. *Action in Teacher Education, 34*(4), 296–308. doi: 10.1080/01626620.2012.717012
- Byington, T. A., & Tannock, M. T. (2011). Professional development needs and interests of early childhood education trainers. *Early Childhood Research and Practice, 13*(2), 93–109. Retrieved from <http://ecrp.uiuc.edu/v13n2/byington.html>
- Caffrey, E., & Fuchs, D. (2007). Differences in performance between students with learning disabilities and mild mental retardation: Implications for categorical instruction. *Learning Disabilities: Research & Practice, 22*(2), 119–128. doi: 10.1111/j.1540-5826.2007.00236.x
- Calderhead, J., & Shorrock, S. B. (1997). *Understanding teacher education: Case studies in the professional development of beginning teachers*. London, UK: Falmer Press.

- Cambridge, P., & McCarthy, M. (2001). User focus groups and best value in services for people with learning disabilities. *Health and Social Care in the Community*, 9(6), 476–489. doi: 10.1046/j.0966-0410.2001.00328.x
- Cameto, R., Bergland, F., Knokey, A., Nagle, K. M., Sanford, C., Kalb, S. C., Blackorby, J., Sinclair, B., Riley, D. L., & Ortega, M. (2010). *Teacher perspectives of school-level implementation of alternate assessments for students with significant cognitive disabilities. A report from the National Study on Alternate Assessments*. Washington, DC: National Center for Special Education Research. Retrieved from <http://ies.ed.gov/ncser/>
- Carlisle, J. F., & Berebitsky, D. (2011). Literacy coaching as a component of professional development. *Reading and Writing*, 24(7), 773–800. doi: 10.1007/s11145-009-9224-4
- Carver, R. P. (1994). Percentage of unknown vocabulary in text as a function of the relative difficulty of the text: Implications for instruction. *Journal of Literacy Research*, 26(4), 413–437. doi: 10.1080/10862969409547861
- Castles, A., & Coltheart, M. (2004). Is there a causal link from phonological awareness to success in learning to read? *Cognition*, 91(1), 77–111. doi: 10.1016/S0010-0277(03)00164-1
- Chanell, M. M., Loveall, S. J., & Connors, F. A. (2013). Strengths and weaknesses in reading skills of youth with intellectual disabilities. *Research in Developmental Disabilities*, 34(2), 776-787. doi: 10.1016/j.ridd.2012.10.010
- Collins, B. C., & Griffen, A. K. (1996). Teaching students with moderate disabilities to make safe responses to product warning labels. *Education and Treatment of Children*, 19(1), 30–45. Retrieved from <https://www.jstor.org/stable/42899439>

- Conners, F. A. (2003). Reading skills and cognitive abilities of individuals with ID. In L. Abbeduto (Ed.), *International Review of Research in Mental Retardation* (pp. 191–229). San Diego, CA: Academic Press.
- Conners, F. A., Rosenquist, C. J., Sligh, A. C., Atwell, J. A., & Kiser, T. (2006). Phonological reading skills acquisition by children with mental retardation. *Research in Developmental Disabilities, 27*(2), 121–137. doi: 10.1016/j.ridd.2004.11.015
- Copeland, S. R., & Keefe, E. B. (Eds.). (2007). *Effective literacy instruction for students with moderate or severe disabilities*. Baltimore, MD: Brookes Publishing.
- Copenhaver, R. W., & McIntyre, J. D. (1992). Teachers' perception of gifted students. *Roeper Review, 14*(3), 151–153. doi: 10.1080/02783199209553411
- Coyne, P., Pisha, B., Dalton, B., Zeph, L. A., & Cook-Smith, N. (2010). Literacy by design: A universal design for learning approach for students with significant intellectual disabilities. *Remedial and Special Education, 33*(3), 162–172. doi: 10.1177/0741932510381651
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: SAGE.
- Cutrer, E. A., (2016). *The benefit of literacy coaching for initial resistance to implementation of a literacy program for struggling readers* (Doctoral dissertation, The University of North Carolina at Chapel Hill). Retrieved from ProQuest Dissertations Publishing. ProQuest Number: 10145968
- Cunningham, A. E., & Stanovich, K. E. (1997). Early reading acquisition and its relation to reading experience and ability 10 years later. *Developmental Psychology, 33*(6), 934–945. doi: 10.1037/0012-1649.33.6.934

- Deeney, T. A. (2011). One-minute fluency measures: Mixed messages in assessment and instruction. *The Reading Teacher*, 63(6), 440–450. doi: 10.1598/RT.63.6.1
- Denton, C. A., Hasbrouck, J. E., & Sekaquaptewa, S. (2003). The consulting teacher: A descriptive case study in responsive systems consultation. *Journal of Educational and Psychological Consultation*, 14(1), 41–73. doi: 10.1207/S1532768XJEPC1401_03
- Dessemontet, R. S., & de Chambrier, A.F. (2015). The role of phonological awareness and letter-sound knowledge in the reading development of children with intellectual disabilities. *Research in Developmental Disabilities*, 41–42, 1–12. doi: 10.1016/j.ridd.2015.04.001
- Downing, J. E. (2005). *Teaching literacy to students with significant disabilities: Strategies for the K–12 inclusive classroom*. Thousand Oaks, CA: Corwin Press.
- Duffy, M. (2016). Literacy instruction for students with intellectual and developmental disabilities. In K. Munger (Ed.), *Steps to success: Crossing the bridge between literacy research and practice* (pp. 121–137). New York, NY: SUNY.
- Durando, J. (2008). A survey on literacy instruction for students with multiple disabilities. *Journal of Visual Impairment and Blindness*, 102, 40–45. doi: 10.1177/0145482X0810200105
- Durkin, D. (1993). *Teaching them to read* (6th ed.). Boston, MA: Allyn & Bacon.
- Edgar, E., & Polloway, E. A. (1994). Education for adolescents with disabilities: Curriculum and placement issues. *The Journal of Special Education*, 27(4), 438–452. doi: 10.1177/002246699402700405
- Edwards, R., & Holland, J. (2013). *What is qualitative interviewing?* New York, NY: Bloomsbury.

- Ehri, L. C., Nunes, S. R., Stahl, S. A., & Willows, S. D. (2001). Systematic phonics instruction helps students learn to read: Evidence from the National Reading Panel's meta-analysis. *Review of Educational Research, 71*(3), 393–447. doi: 10.3102/00346543071003393
- Elish-Piper, L., & L'Allier, S. K., (2011). Examining the relationship between literacy coaching and student reading gains in grades K–3. *The Elementary School Journal, 112*(1), 83–106. doi: 10.1086/660685
- Erickson, K. A., & Koppenhaver, D. A. (1995). Developing a literacy program for children with severe disabilities. *Reading Teacher, 48*(8), 676–684. Retrieved from <https://www.jstor.org/stable/20201533>
- Evans, I. M., & Scotti, J. R. (1989). Defining meaningful outcomes for persons with profound disabilities. In F. Brown & D. H. Lehr (Eds.), *Persons with profound disabilities: Issues and practices* (pp. 83–107). Baltimore, MD: Brookes Publishing.
- Ferguson, D. L. (1985). The ideal and the real: The working out of public policy in curricula for severely handicapped students. *Remedial and Special Education, 6*, 52–60. doi: 10.1177/074193258500600310
- Fernald, G. M., & Keller, H. B. (1936). On certain language disabilities: Their nature and treatment (No. 11). Baltimore, MD: Williams & Wilkins.
- Ganz, J. B., & Flores, M. M. (2009). The effectiveness of direct instruction for teaching language to children with autism spectrum disorders: Identifying materials. *Journal of Autism and Developmental Disorders, 39*, 75–83. doi: 10.1007/s10803-008-0602-6
- Glickman, C. & Bey, T (1990). Supervision. In R. Houston (Ed.), *Handbook of research on teacher education* (pp. 549–566). New York, NY: Macmillan.

- Gray, W. (1948). Summary of reading investigations July 1, 1946 to June 30, 1947. *The Journal of Educational Research*, 41(6), 401–435. Retrieved from www.jstor.org/stable/27528927
- Gregoire, M. (2003). Is it a challenge or a threat? A dual-process model of teachers' cognition and appraisal processes during conceptual change. *Educational Psychology Review*, 15(2), 147–179.
- Griffith, L. W., & Rasinski, T. V. (2004). A focus on fluency: How one teacher incorporated fluency with her reading curriculum. *The Reading Teacher*, 58(2), 126–37. doi: 10.1598/RT.58.2.1
- Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching: Theory and Practice*, 8(3), 381–391. doi: 10.1080/135406002100000512
- Hiebert, E. H., & Fisher, C.W. (2005). A review of the National Reading Panel's studies of fluency: The role of text. *The Elementary School Journal*, 105, 443–460. doi: 10.1086/431888
- Hudson, M. E., & Test, D. W. (2011). Evaluating the evidence base of shared story reading to promote literacy for students with extensive support needs. *Research and Practices for Students with Severe Disabilities*, 36(1–2), 34–45. doi: 10.2511/rpsd.36.1-2.34
- Hughes, J. N., Gleason, K. A., & Zhang, D. (2005). Relationship influences on teachers' perceptions of academic competence in academically at-risk minority and majority first grade students. *Journal of School Psychology*, 43(4), 303–320. doi: 10.1016/j.jsp.2005.07.001

- Hulme, C., Goetz, K., Gooch, D., Adams, J., & Snowling, M. (2007). Paired-associate learning, phoneme awareness, and learning to read. *Journal of Experimental Child Psychology*, *96*, 150–166. doi: 10.1016/j.jecp.2006.09.002
- International Reading Association (IRA). (2010). *Standards for reading professionals—revised 2010*. Newark, DE: Author.
- Joyce, B., & Showers, B. (2002). *Student achievement through staff development*. Nottingham, UK: National College for School Leadership.
- Joseph, L., & Seery, M. (2004). Where is the phonics? A review of the literature on the use of phonetic analysis with students with mental retardation. *Remedial and Special Education*, *25*, 88–94. doi: 10.1177/07419325040250020301
- Kaehne, A., & O’Connell, C. (2010). Focus groups with people with learning disabilities. *Journal of Intellectual Disabilities*, *14*(2), 133–145. doi: 10.1177/1744629510381939
- Karnieli-Miller, O., Strier, R., Pessach, L. (2009). Power relations in qualitative research. *Qualitative Health Research*, *19*(2), 279–289. doi: 10.1177/1049732308329306
- Katims, D. S. (2000). Literacy instruction for people with mental retardation: Historical highlights and contemporary analysis. *Education & Training in Mental Retardation & Developmental Disabilities*, *35*, 3–15. <https://www.jstor.org/stable/23879702>
- Kaufhold, J. A., Alvarez, V. G., & Arnold, M. (2006). Lack of school supplies, materials and resources as an elementary cause of frustration and burnout in south Texas special education teachers. *Journal of Instructional Psychology*, *33*(3), 159–161.
- Kennedy, M. J., Deschler, D. B., & Lloyd, J. W. (2015). Effects of multimedia vocabulary instruction on adolescents with learning disabilities. *Journal of Learning Disabilities*, *48*(1), 22–38. doi: 10.1177/0022219413487406

- Kirby, J. R., Parrila, R. K., & Pfeiffer, S. L. (2003). Naming speed and phonological awareness as predictors of reading development. *Journal of Educational Psychology, 95*, 453–464. doi: 10.1037/0022-0663.95.3.453
- Kise, J. A. G. (2006). *Differentiated coaching: A framework for helping teachers change*. Thousand Oaks, CA: Corwin Press.
- Kliewer, C. (1998). Citizenship in the literate community: An ethnography of children with Down syndrome and the written word. *Exceptional Children, 64*, 167–180. doi: 10.1177/001440299806400202
- Kliewer, C., & Landis, D. (1999). Individualizing literacy instruction for young children with moderate to severe disabilities. *Exceptional Children, 66*, 85–100. doi: 10.1177/001440299906600106
- Kliewer, C., Biklen, D., & Kasa-Hendrickson, C. (2006). Who may be literate? Disability and resistance to the cultural denial of competence. *American Educational Research Journal, 43*(2), 163–192. doi: 10.3102/00028312043002163
- Kluth, P., & Chandler-Olcott, K. (2008). *A land we can share: Teaching literacy to students with autism*. Baltimore, MD: Brookes Publishing.
- Knight, J. (2009). What can we do about teacher resistance? *Phi Delta Kappan, 90*(7), 508–513. doi: 10.1177/003172170909000711
- Koellner, K., & Greenblatt, D. (2018). *Inservice teacher education*. Retrieved from <https://www.oxfordbibliographies.com/view/document/obo-9780199756810/obo-9780199756810-0196.xml#firstMatch>
- Kolstoe, O. P. (1970). *Teaching educable mentally retarded children*. New York, NY: Holt, Rinehart, & Winston.

- Lalli, J. S., & Browder, D. M. (1993). Comparison of sight word training procedures with validation of the most practical procedure in teaching reading for daily living. *Research in Developmental Disabilities, 14*(2), 107–127. doi: 10.1016/0891-4222(93)90015-C
- Laing, E., & Hulme, C. (1999). Phonological and semantic processes influence beginning readers' ability to learn to read words. *Journal of Experimental Child Psychology, 73*(3), 183–207. doi: 10.1006/jecp.1999.2500
- Lawrence, J. F., Rolland, R. G., Branum-Martin, L., & Snow, C. E. (2014). Generating vocabulary knowledge for at-risk middle school readers: Contrasting program effects and growth trajectories. *Journal of Education for Students Placed at Risk, 19*(2), 76–97. doi: 10.1080/10824669.2014.958836
- Lemons, C. J., Mrachko, A. A., Kostewicz, D. E., & Pattera, M. F. (2012). Effectiveness of decoding and phonological awareness interventions for children with Down syndrome. *Exceptional Children, 79*(1), 67–90. doi: 10.1177/001440291207900104
- Lesaux, N. K., Kieffer, M. J., Faller, S. E., & Kelley, J. G. (2010). The effectiveness and ease of implementation of an academic vocabulary intervention for linguistically diverse students in urban middle schools. *Reading Research Quarterly, 45*(2), 196–228. doi: 10.1598/RRQ.45.2.3
- Light, J. C., & McNaughton, D. (2011). *ALL Accessible Literacy Learning: Evidence-based reading instruction for learners with autism, cerebral palsy, down syndrome and Other Disabilities*. Pittsburgh, PA: Dyna-Vox Systems.
- Light, J., & McNaughton, D. (2011). *Literacy instruction for individuals with autism, cerebral palsy, down syndrome, and other disabilities*. Retrieved from <http://aacliteracy.psu.edu/index.php/page/show/id/9/>

- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Lindstrom, C. (producer). (2006, June 29), "Reading rockets: Launching young readers" explores the science behind "reading and the brain" [Television broadcast]. Washington, DC: WETA. Retrieved from <http://www.readingrockets.org>
- Lowrey, K. A., Drasgow, E., Renzaglia, A., & Chezan, L. (2007). Impact of alternate assessment for students with severe disabilities: Purpose driven or process driven? *Assessment for Effective Intervention*, 32(4), 244–253. doi: 10.1177/15345084070320040601
- Macy, M., Squires, J.K., & Barton, E. E. (2009). Providing optimal opportunities: Structuring practicum experiences in early intervention and early childhood special education preservice programs. *Topics in Early Childhood Special Education*, 28(4), 209–218. doi: 10.1177/0271121408327227
- Margolis, J. (2012). Hybrid teacher leaders and the new professional development ecology. *Professional Development in Education*, 38(2), 291–315. doi: 10.1080/19415257.2012.657874
- Matsumura, L. C., Garnier, H. E., Correnti, R., Junker, B., & Bickel, D. D. (2010). Investigating the effectiveness of a comprehensive literacy coaching program in schools with high teacher mobility. *The Elementary School Journal*, 111(1), 35–62. doi: 10.1086/653469
- McCardle, P., & Chhabra, V. (2004). *The voice of evidence in reading research*. Baltimore, MD: Brookes Publishing.
- McKeown, M. G., & Curtis, M. E. (2014). *The nature of vocabulary acquisition*. New York, NY: Psychology Press.

- Melby-Lervag, M., Lyuster, S. A., & Hulme, C. (2012). Phonological skills and their role in learning to read: A meta-analytic review. *Psychological Bulletin*, *138*(2), 322–352. doi: 10.1037/a0026744
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Minnesota Governor's Council on Developmental Disabilities. (2018). Parallels in time: A history of developmental disabilities. <https://mn.gov/mnddc/parallels/one/1.html>
- Miles, M. B., Huberman, M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook*. Thousand Oaks, CA: SAGE.
- Mraz, M., Kissel, B., Algozzine, B., Babb, J., & Foxworth, K. (2011). A collaborative professional development initiative supporting early literacy coaches. *NHSA Dialog*, *14*(3), 174–184. doi: 10.1080/15240754.2011.586738
- Munger, K. A. (Ed). (2016). *Steps to success: Crossing the bridge between literacy research and practice*. New York, NY: State University of New York (SUNY).
- Muter, V., Hulme, C., Snowling, M. J., & Stevenson, J. (2004). Phonemes, rimes, vocabulary, and grammatical skills as foundations of early reading development: Evidence from a longitudinal study. *Developmental Psychology*, *40*(5), 665–681. doi: 10.1037/0012-1649.40.5.665
- National Reading Panel (NRP). (2000). *Report of the National Reading Panel—Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: National Institute of Child Health and Human Development. (NIH Publication No. 00-4769). Retrieved from <https://www.nichd.nih.gov/research/supported/nrp>

- Nespor, J. (1987). The role of beliefs in the practice of teaching. *Journal of Curriculum Studies*, 19(4), 317–328. doi: 10.1080/0022027870190403
- No Child Left Behind Act of 2001*, P.L. 107-110, 20 U.S.C. § 6319 (2002).
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307–332. doi: 10.3102/00346543062003307
- Parker-Katz, M., & Hughes, M. T. (2008). Preparing special education mentors using classroom artifacts as a vehicle for learning about teaching. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 31(4), 268–282. doi: 10.1177/0888406408330646
- Parmar, R. S., & Cawley, J. F. (1996). Preparing teachers to teach mathematics to students with learning disabilities. *Journal of Learning Disabilities*, 30(2), 188–197. doi: 10.1177/002221949703000206
- Pennington, R. C., Stenhoff, D. M., Gibson, J., & Ballou, K. (2012). Using simultaneous prompting to teach computer-based writing to a student with autism. *Education and Treatment of Children*, 35(3), 389–406. doi: 10.1353/etc.2012.0022.
- Plaza, M., & Cohen, H. (2007). The contribution of phonological awareness and visual attention in early reading and spelling. *Dyslexia*, 13, 67–76. doi: 10.1002/dys.330
- Rack, J., Hulme, C., Snowling, M., & Wightman, J. (1994). The role of phonology in young children learning to read words: The direct-mapping hypothesis. *Journal of Experimental Child Psychology*, 57(1), 42–71. doi: 10.1006/jecp.1994.1003
- Renzaglia, A., Hutchins, M., & Lee, S. (1997). The impact of teacher education on the beliefs, attitudes, and dispositions of preservice special educators. *Teacher Education and Special Education*, 20(4), 360–377. doi: 10.1177/088840649702000406

- Riepl, J. H., Marchland-Martella, N. E., & Martella, R. (2008). The effects of “Reading Mastery Plus” on the beginning reading skills of students with intellectual and developmental disabilities. *Journal of Direct Instruction*, 8(1), 29–39. <http://www.adihome.org>
- Roberts, C. A., Benedict, A. E., & Thomas, R. A. (2014). Cooperating teachers’ role in preparing preservice special education teachers: Moving beyond sink or swim. *Intervention in School and Clinic*, 49(3), 174–180. doi: 10.1177/1053451213496162
- Ross, J., & Bruce, C. (2007). Professional development effects on teacher efficacy: Results of randomized field trial. *The Journal of Educational Research*, 101(1), 50–60. doi: 10.3200/JOER.101.1.50-60
- Rubie-Davies, C. M. (2006). Teacher expectations and student self-perceptions: Exploring relationships. *Psychology in the Schools*, 43(5), 537–552. doi: 10.1002/pits.20169
- Rupley, W. H., & Nichols, W. D. (2005). Vocabulary instruction for the struggling reader. *Reading & Writing Quarterly*, 21(3), 239–260. doi: 10.1080/10573560590949368
- Ruppar, A. L. (2011). *Influences on teachers’ decisions about literacy for students with severe disabilities* (Unpublished doctoral dissertation). University of Illinois, Urbana Champaign, IL.
- Ruppar, A. L., Dymond, S. K., & Gaffney, J. S. (2011). Teachers’ perspectives on literacy instruction for students with severe disabilities who use augmentative and alternative communication. *Research and Practice for Persons with Severe Disabilities*, 36(3), 100–111. doi: 10.2511/027494811800824435

- Ruwe, K., McLaughlin, T. F., Derby, K. M., & Johnson, J. (2011). The multiple effects of direct instruction flashcards on sight word acquisition, passage reading, and errors for three middle school students with intellectual disabilities. *Journal of Developmental and Physical Disabilities, 23*(3), 241–255.
- Ryndak, D. L., & Alper, S.K. (2003). *Curriculum and instruction for students with significant disabilities in inclusive settings*. Boston, MA: Allyn and Bacon.
- Saldana, J. (2009). *The coding manual for qualitative researchers*. London, UK: SAGE.
- Sarason, S. B. (1990). *The predictable failure of educational reform: Can we change course before it's too late?* San Francisco, CA: Joss-Bass.
- Schatschneider, C., Francis, D. J., Fletcher, J. M., & Foorman, B. R. (2004). Kindergarten prediction of reading skills: A longitudinal comparative analysis. *Journal of Educational Psychology, 96*(2), 265–282. doi: 10.1037/0022-0663.96.2.265
- Scheeler, M. C. (2008). Generalizing effective teaching skills: The missing link in teacher preparation. *Journal of Behavioral Education, 17*(2), 145–159. doi: 10.1007/s10864-007-9051-0
- Schloss, P. J., Alper, S., Young, H., Arnold-Reid, G., Aylward, M., & Dudenhoefter, S. (1995). Acquisition of functional sight words in community-based recreation settings. *The Journal of Special Education, 29*(1), 84–96. doi: 10.1177/002246699502900105
- Seevers, R. (2012). Mentoring pre-service special education teachers: What do they need to know and what do they know? *American International Journal of Contemporary Research, 2*(10), 1–4.
http://www.aijcrnet.com/journals/Vol_2_No_10_October_2012/1.pdf

Smith, F. (1992). Learning to read: The never-ending debate. *Phi Delta Kappan*, 73(6), 432–441.

Retrieved from <https://www.jstor.org/stable/20404665>

Stake, R. E. (2006). *Multiple case study analysis*. New York, NY: Guilford Press.

Stanberry, K., & Swanson, L. (2018). Effective reading interventions for kids with learning disabilities. Retrieved from <http://www.readingrockets.org/article/effective-reading-interventions-kids-learning-disabilities>

Storch, S. A., & Whitehurst, G. J. (2002). Oral language and code-related precursors to reading: Evidence from a longitudinal structural model. *Developmental Psychology*, 38, 934–947. doi: 10.1037//0012-1649.38.6.934

Sudzina, M., Giebelhaus, C., & Coolican, M. (1997). Mentor or tormentor: The role of the cooperating teacher in student teacher success or failure. *Action in Teacher Education*, 18(4), 23–25. doi: 10.1080/01626620.1997.10463361

Swanson, H. L. (1999). Reading research for students with LD: A meta-analysis of intervention outcomes. *Journal of Learning Disabilities*, 32(6), 504–532. doi: 10.1177/002221949903200605

Tassé M. J., Schalock R. L., Thompson J. R., & Wehmeyer M. (2005). *Supports intensity scale: Guidelines for interviewing people with disabilities*. Washington, DC: American Association on Mental Retardation.

Tracy, S. (2013). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. Hoboken, NJ: Wiley-Blackwell.

- Torgesen, J. K., Alexander, A. W., Wagner, R. K., Rashotte, C. A., Voeller, K. K., & Conway, T. (2001). Intensive remedial instruction for children with severe reading disabilities: Immediate and long-term outcomes from two instructional approaches. *Journal of Learning Disabilities, 34*(1), 33–58. doi: 10.1177/002221940103400104
- Townsend, D., Filippini, A., Collins, P., & Biancarosa, G. (2012). Evidence for the importance of academic word knowledge for the academic achievement of diverse middle school students. *The Elementary School Journal, 112*(3), 497–518. doi: 10.1086/663301
- Tschannen-Moran, M., & McMaster, P. (2009). Sources of self-efficacy: Four professional development formats and their relationship to self-efficacy and implementation of a new teaching strategy. *The Elementary School Journal, 110*(2), 228–245. doi: 10.1086/605771
- Valencia, S. W., Martin, S. D., Place, N. A., & Grossman, P. (2009). Complex interactions in student teaching: Lost opportunities for learning. *Journal of Teacher Education, 60*(3), 304–322. doi: 10.1177/0022487109336543
- van Wingerdena, E., Segers, E., van Balkoma, H., & Verhoevena, L. (2017). Foundations of reading comprehension in children with intellectual disabilities. *Research in Developmental Disabilities, 60*, 211–222. doi: 10.1016/j.ridd.2016.10.015
- Vaughn, S., Gersten, R., & Chard, D. J. (2000). The underlying message in LD intervention research: Findings from research syntheses. *Exceptional Children, 67*, 99–114. doi: 10.1177/001440290006700107

- Vernon-Feagans, L., Bratsch-Hines, M., Varghese, C., Cutrer, E. A., & Garwood, J. D. (2018). Improving struggling readers' early literacy skills through a tier 2 professional development program for rural classroom teachers: The Targeted Reading Intervention. *The Elementary School Journal*, 118(4), 525–548. doi: 10.1086/697491
- Waugh, R. E., Alberto, P. A., & Frederick, L. D. (2011). Simultaneous prompting: An instructional strategy for skill acquisition. *Education and Training in Autism and Developmental Disabilities*, 46(4), 528–543. Retrieved from http://www.daddcec.org/Portals/0/ETADD_2011v46n4p528-543_Simultaneous_Prompting.pdf
- Weaver, R., Landers, M. F., & Adams, S. (1991). Making curriculum functional: Special education and beyond: Ideas for implementing a functional curriculum for students with mild handicaps. *Intervention in School and Clinic*, 26(5), 284–287. doi: 10.1177/105345129102600506
- Wehmeyer, M. L., Palmer, S. B. (2003). Adult outcomes for students with cognitive disabilities three-years after high school: The impact of self-determination. *Education and Training in Developmental Disabilities*, 38(2), 131–144. Retrieved from https://kuscholarworks.ku.edu/bitstream/handle/1808/6217/SD25_AdultOutcomesforstudents.pdf?sequence=1
- Weikle, B., & Hadadian, A. (2003). Can assistive technology help us to not leave any child behind? *Preventing School Failure: Alternative Education for Children and Youth*, 47(4), 181–186. doi: 10.1080/10459880309603365

- Whalon, K., & Hanline, M. F. (2008). Effects of reciprocal questioning intervention on the question generation and responding of children with autism spectrum disorder. *Education and Training in Developmental Disabilities, 43*(3), 367–382.
<https://www.jstor.org/stable/23879798>
- Woolfolk, A. E., Rosoff, B., & Hoy, W. K. (1990). Teachers' sense of efficacy and their beliefs about managing students. *Teaching and Teacher Education, 6*(2), 137–148. doi: 10.1016/0742-051X(90)90031-Y
- Yopp, H. K. (1992). Developing phonemic awareness in young children. *The Reading Teacher, 45*(9), 696–703. Retrieved from <https://www.jstor.org/stable/2020096>

APPENDIX A

TRI Lesson Plan Week 1

PST Name _____

Students' names _____

Objectives: _____

	Monday	Tuesday	Wednesday	Thursday
Re-Reading for Fluency				
Segmenting Words				
Change One Sound				
Read Write and Say				

Guided Oral Reading				
TRI Writing				
Pocket Phrases				

Center Activities

	Monday	Tuesday	Wednesday	Thursday
Phonemic Awareness				
Phonics				
Fluency				
Vocabulary				
Comprehension				

APPENDIX B

TRI Observation Form

Re-Reading for Fluency

<input type="checkbox"/> Re-reading a book read recently <input type="checkbox"/> Teacher providing specific positive feedback <input type="checkbox"/> Book at child's independent reading level <input type="checkbox"/> Teacher models rate and phrasing if necessary <input type="checkbox"/> Diagnostic Map marked appropriately				
<p>Corrective feedback expectations: Teacher models rate and phrasing if necessary. Teacher uses echo reading, choral reading or fluency pyramids.</p> <p>Comments:</p>				
1	2	3	4	5

Word Work in PINK/BLUE

Segmenting Words

- Targets sound tiles ready before lesson starts
- Target sounds laid out on board
- Teacher guides child in Strive for Five
- Students uses new word in a sentence
- Teacher has visual of word and shares with student
- Teacher responds to student's response.
- Teacher gives specific positive feedback
- Student says sounds as she moves it down
- Student segments each word
- Student Blends word together at the end
- Student checks each sound
- Teacher moves quickly between words
- Diagnostic Map marked appropriately

Corrective feedback expectations: Teacher models how to form a sentence with new word. Teacher may model how to say sounds and move sounds. Teacher may elaborate on word meaning if necessary. Teacher may stretch out a word but refrains from segmenting the word. If necessary, teacher may give student the sound but only after providing progressive scaffolding for the student.

Comments:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Change One Sound

- ___ Targets sound tiles ready before lesson starts
- ___ Target sounds laid out on board
- ___ Teacher guides child in Strive for Five
- ___ Students uses new word in a sentence
- ___ Teacher has visual of word and shares with student
- ___ Teacher responds to student's response.
- ___ Teacher gives specific positive feedback
- ___ Student says sounds as she moves it down
- ___ Student segments each word
- ___ Student Blends word together at the end
- ___ Student checks each sound
- ___ Teacher moves quickly between words
- ___ Diagnostic Map marked appropriately
- ___ Teacher prompts student to change _____ to _____

Corrective feedback expectations: Teacher models how to form a sentence with new word.

Teacher may model how to say sounds and move sounds. Teacher may elaborate on word meaning if necessary Teacher may need to break down the steps to scaffold the child:

1. What sound can we get rid of if we change bat to cat?" Teacher may stretch out a word but refrain from segmenting the word. Once the student recognizes the /b/ is no longer needed the teacher says:

2. Yes – that is right, we no longer need the /b/, so push it up. (Student pushes up the /b/ tile).
3. Teacher says: Now which sound do we need to change bat to cat? Have the student say the sound as s/he brings down the sound tile. Then have student check and blend. Teacher may repeat but do not automatically give the sound to the student.
4. If necessary, teacher may give student the sound but only after providing progressive scaffolding for the student.

Comments:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Read Write and Say

- Target word is written on the work board
- Teacher asks student to read word
- Teacher guides child in Strive for Five
- Students uses new word in a sentence
- Teacher has visual of word and shares with student
- Teacher responds to student's response.
- Teacher leaves word if student struggles
- Teacher erases word if student reads word fluently
- Student writes word
- Student says each sound as s/he writes it
- Teacher gives specific positive feedback
- Teacher guides student to use Blend as You Go to read
- Teacher moves quickly between words

Corrective feedback expectations: Teacher models how to form a sentence with new word. Teacher may model how to use "Blend As You Go" to read new word. Teacher may elaborate on word meaning if necessary. Teacher may leave word on board if needed as a template for student when writing word. If needed, the teacher can model writing the word and saying each sound as s/he writes it. Proper handwriting is not the objective here – so be accepting of student's handwriting.

Comments:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Sight Words

- Materials ready prior to lesson
- Teacher chooses 1-3 sight words to practice
- Teacher guides child in Strive for Five
- Students uses new word in a sentence
- Teacher engages student in one of the following activities:
 - Read it, Shape it, Write it, Say it
 - Dry Erase Races
 - Sight Word Walks
 - Flash Words
 - Sight Word Catch
- Teacher gives specific positive feedback
- Student says sounds as she moves it down
- Teacher moves quickly between words
- Diagnostic Map marked appropriately

Corrective feedback expectations: Remember that students do not sound out sight words. Rather, students spell the sight word then say the word. For example, if the sight word is were, students would spell W – E –R –E then say WERE.

Comments:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

READING – PINK/BLUE**Guided Oral Reading**

- Teacher introduces the book
- Teacher asks “I wonder questions”
- Teacher records prediction with sticky
- Teacher sets purpose for reading
- Book is at student’s correct level
- Student reads aloud
- Student is engaged with text
- Teacher responds to student’s response.
- Teacher gives specific positive feedback
- Diagnostic Map marked appropriately

Corrective feedback expectations: Teacher offers word-level feedback where appropriate:

Phonemic manipulation feedback, if needed

Phonics knowledge feedback, if needed

Using context feedback, if needed

Using Blend As You Go with a tile

Teacher coaches and scaffolds comprehension:

Making predictions while reading

Summarizing (teacher can help by asking good questions)

Making connections

Making Inferences

Teacher elaborates on word's meaning, if needed

Teacher scaffolds to respond after reading:

Child retells story or information

Child provides personal response

Child synthesizes story or information

Comments:

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

WRITING

TRI WRITING

<input type="checkbox"/>	Teacher asks students to summarize the book								
<input type="checkbox"/>	Teacher uses text from previous day's reading								
<input type="checkbox"/>	Teacher has students rehearse story								
<input type="checkbox"/>	Teacher writes story on chart paper								
<input type="checkbox"/>	Students write story in notebooks								
<input type="checkbox"/>	Student reread story as it is being written multiple x								
<input type="checkbox"/>	Students accountable for Pink/Blue & Green words								
<input type="checkbox"/>	Teacher responds to student's response.								
<input type="checkbox"/>	Teacher gives specific positive feedback								
<input type="checkbox"/>	Students use a "practice page or board"								
<input type="checkbox"/>	Teacher counts words with students								
<input type="checkbox"/>	Teacher draws a line for each word in the story								
<p>Corrective feedback expectations: Teacher offers word-level feedback where appropriate:</p> <p><input type="checkbox"/> Have students say sounds as they write, if needed</p> <p><input type="checkbox"/> Teacher supports students' summary of previously read text, if needed</p> <p><input type="checkbox"/> Teacher scaffolds conventions and punctuation "What do we need at beginning of sentence?" "At the end?"</p> <p>Comments:</p>									
1	2	3	4	5	6	7	8	9	10

AFTER READING

Pocket Phrases

<input type="checkbox"/>	Teacher may ask students to review previous					
<input type="checkbox"/>	Teacher provides student with highlighter tape					
<input type="checkbox"/>	Teacher asks student to find word(s) with the focus sound					
<input type="checkbox"/>	Teacher asks student to mark the spelling of the sound pattern					
<input type="checkbox"/>	Teacher responds to student's response.					
<input type="checkbox"/>	Teacher gives specific positive feedback					
<input type="checkbox"/>	Teacher emphasizes sound pattern of the word not the letter names					
<p>Corrective feedback expectations: Teacher may remind student of focus pattern, if needed.</p> <p>Teacher may remind student to use "Blend As You Go" if needed.</p> <p>Comments:</p>						
1	2	3	4	5	6	7

Total Points /50

APPENDIX C

Mentor Teacher Participant: Interview Protocol

The purpose of this interview is to examine perceptions of classroom teachers who work with students with intellectual disabilities in reading.

Protocols:

- a. Welcome the participant
- b. Ask permission to videotape interview
- c. Ask Interview Questions

Interview Questions:

1. Share with us your feelings on teaching students with cognitive impairments how to read?
2. How confident do you feel in your ability to teach your students with cognitive impairments how to read?
 - a. Probe why do you feel that way? What might make you feel more _____?
3. What can you tell us about the effectiveness of using the TRI in teaching cognitively impaired students to read?
 - a. What challenges did you notice?
 - b. What successes did you notice?
 - c. What surprised you?
 - d. What would you do differently or tweak (if anything?)
 - e. Was anything a waste of time or ineffective or not doable?
3. Outside of the TRI – what specific training have you received in teaching your students how to read?
 - a. As an in-service teacher? As a preservice teacher?

4. What personal or professional strategies or factors (including past experiences) might you possess that positively impact your confidence in teaching your students to read?

Say more.

5. What personal or professional strategies or factors (including past experiences) might you possess that negatively impact your confidence in teaching your students to read?

Say more....

6. What do you think are the most important skills you need to teach students with cognitive impairments how to read?

Do you think you are developing these skills? Why or why not?

If so -How?

7. What do you wish you knew about reading that you do not know?

8. After learning about and practicing the TRI, did you notice any changes (in yourself or in the students you mentored) in the way you think about teaching students with cognitive impairments how to read?

9. Is there anything else you would like to share?

10. After the mentor training the first year, what new reading strategies did you implement in your own classroom with your students if any?

11. After the first year of practicum, did anything change with your reading instruction?

Since the mentor trainings have begun?

TRI PINK DIAGNOSTIC MAP

Student Name:		Week of:			
	Monday	Tuesday	Wednesday	Thursday	Friday
Re-Reading for Fluency	Book: Pages: Fluent: Y / N	Book: Pages: Fluent: Y / N	Book: Pages: Fluent: Y / N	Book: Pages: Fluent: Y / N	Book: Pages: Fluent: Y / N
Segmenting Words	1. Δ O 2. Δ O 3. Δ O	1. Δ O 2. Δ O 3. Δ O	1. Δ O 2. Δ O 3. Δ O	1. Δ O 2. Δ O 3. Δ O	1. Δ O 2. Δ O 3. Δ O
Change 1 Sound	_____ to Δ O _____ to Δ O _____ to Δ O	_____ to Δ O _____ to Δ O _____ to Δ O	_____ to Δ O _____ to Δ O _____ to Δ O	_____ to Δ O _____ to Δ O _____ to Δ O	_____ to Δ O _____ to Δ O _____ to Δ O
Read, Write & Say	1. Δ O 2. Δ O 3. Δ O	1. Δ O 2. Δ O 3. Δ O	1. Δ O 2. Δ O 3. Δ O	1. Δ O 2. Δ O 3. Δ O	1. Δ O 2. Δ O 3. Δ O
Guided Oral Reading	Book: Difficulty with: <input type="checkbox"/> Summarizing <input type="checkbox"/> Blending <input type="checkbox"/> Answering Questions	Book: Difficulty with: <input type="checkbox"/> Summarizing <input type="checkbox"/> Blending <input type="checkbox"/> Answering Questions	Book: Difficulty with: <input type="checkbox"/> Summarizing <input type="checkbox"/> Blending <input type="checkbox"/> Answering Questions	Book: Difficulty with: <input type="checkbox"/> Summarizing <input type="checkbox"/> Blending <input type="checkbox"/> Answering Questions	Book: Difficulty with: <input type="checkbox"/> Summarizing <input type="checkbox"/> Blending <input type="checkbox"/> Answering Questions
Pocket Phrase					
TRI Writing	Difficulty with: <input type="checkbox"/> 3 sound words: _____ <input type="checkbox"/> Sight words: _____ <input type="checkbox"/> Conventions: _____	Difficulty with: <input type="checkbox"/> 3 sound words: _____ <input type="checkbox"/> Sight words: _____ <input type="checkbox"/> Conventions: _____	Difficulty with: <input type="checkbox"/> 3 sound words: _____ <input type="checkbox"/> Sight words: _____ <input type="checkbox"/> Conventions: _____	Difficulty with: <input type="checkbox"/> 3 sound words: _____ <input type="checkbox"/> Sight words: _____ <input type="checkbox"/> Conventions: _____	Difficulty with: <input type="checkbox"/> 3 sound words: _____ <input type="checkbox"/> Sight words: _____ <input type="checkbox"/> Conventions: _____
Notes for Next Time	Words/Sounds to review: Same text? Y / N	Words/Sounds to review: Same text? Y / N	Words/Sounds to review: Same text? Y / N	Words/Sounds to review: Same text? Y / N	Words/Sounds to review: Same text? Y / N
Continue working on:	<input type="checkbox"/> Blending <input type="checkbox"/> Comprehension <input type="checkbox"/> Vocabulary	<input type="checkbox"/> Blending <input type="checkbox"/> Comprehension <input type="checkbox"/> Vocabulary	<input type="checkbox"/> Blending <input type="checkbox"/> Comprehension <input type="checkbox"/> Vocabulary	<input type="checkbox"/> Blending <input type="checkbox"/> Comprehension <input type="checkbox"/> Vocabulary	<input type="checkbox"/> Blending <input type="checkbox"/> Comprehension <input type="checkbox"/> Vocabulary

Δ = define word; O = use in sentence

APPENDIX D

Definition of Terms

Intellectual Disability (ID): The term *intellectual disability* (replacing the former terminology of *mental retardation*) is defined by the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (American Psychiatric Association, 2013) as “a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains” (p. 33). It is characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills (American Association on Intellectual and Developmental Disabilities, 2010 p. 6). Thus, it is a disorder that forms prior to adulthood that affects a person’s intellectual development and ability to effectively use important life skills. Intellectual disabilities may occur separate from or in connection with genetic syndromes or other developmental disabilities such as Down syndrome, or Autism Spectrum Disorder (ASD).

Inservice Teacher: The term *inservice teacher* designates a teacher that has attained certification or is already teaching in a classroom setting (Koellner & Greenblatt, 2018)

Preservice Teacher: In contrast, a *preservice teacher*, is someone still engaged in learning and preparing to become an inservice teacher (Koellner & Greenblatt, 2018).

Report of the National Reading Panel (NRP): In 1997, Congress asked the National Institute of Child Health and Human Development (NICHD) to work with the U.S. Department of Education in establishing a National Reading Panel that would evaluate existing research and evidence to find the best ways of teaching children to read. The 14-member panel included members from different backgrounds, including school administrators, working teachers, and scientists involved in reading research. On April 13, 2000, the NRP submitted its final reports

(National Institute of Child Health and Human Development. Report of the NRP, 2000). Among the most important findings of this panel were five essential components in teaching all students how to read, namely: phonemic awareness, phonics skills, reading comprehension, vocabulary skills, and increased fluency skills. The Targeted Reading Intervention program (or TRI) used in the mentor teaching program referred to above included all five of these components advocated by the NRP.

The Targeted Reading Intervention (TRI) Program: A wide array of studies have focused on these five areas advocated by the NRP. However, no such programs were targeted specifically to students with cognitive disabilities. One particular program, though, showed significant gains for students who were struggling readers. This program, the Targeted Reading Intervention (TRI), includes all five components advocated by the NRP. The TRI-RCT2 study, undertaken in 2013, focused on low income students in rural schools who were struggling readers receiving support in tier 2 interventions (Vernon-Feagans et al., 2013). The study showed conclusive evidence that students who were struggling with reading were able to make significant gains using the TRI program (Vernon-Feagans, Bratsch-Hines, Varghese, Cutrer, & Garwood, 2018).

The Targeted Reading Intervention was introduced to inservice and preservice teachers at Brigham Young University (BYU) by Elizabeth Cutrer. The TRI was taught to inservice teachers who were tasked with mentoring preservice teachers for BYU's summer practicum during the summer of 2018. Over the course of five months, these mentor teachers received five trainings on how to implement the TRI. In addition to TRI training, the mentors also received pedagogical training in mentoring as well. The preservice students were introduced to the TRI in their required reading course in the special education program at BYU during the 2018 winter semester. These preservice teachers used the TRI program during summer practicum (2018) to

teach reading to both mild/moderate and severe/profound students, though the program was modified to adjust for the needs of the latter group. A second round of trainings for inservice teachers took place between January–April of 2019. The TRI instruction continued for new preservice teachers the following year (2019) as well.

APPENDIX E

Consent Forms

Consent to be a Research Subject

Introduction

This research study is being conducted by Dr. Elizabeth Cutrer, PHD, and Agatha Gibbons, Master Degree candidate at Brigham Young University to determine how to effectively teach evidence-based reading skills to intellectually disabled students with cognitive impairments. You were invited to participate because you are a special education teacher who works with students who are intellectually disabled.

Procedures

If you agree to participate in this research study, the following will occur:

- you will be interviewed for approximately forty (40) minutes about your literacy work with students with intellectual disabilities who have cognitive impairments.
- the interview will be audio recorded to ensure accuracy in reporting your statements
- the interview will take in the researcher's office at a time convenient for you or it will take place at a time and location convenient for you
- the researcher may contact you later to clarify your interview answers for approximately fifteen (15) minutes.
- total time commitment will be forty minutes

Risks/Discomforts

You may feel some level of discomfort or loss of privacy while being interviewed. The research will make every effort to lessen discomfort by:

Ensuring that you are interviewed at a place, time and location that are comfortable for you.

Reminding you that you need not answer any questions that make you feel uncomfortable or you do not wish to answer.

Remembering to build rapport with you prior to the interview.

Making sure to ensure your continued privacy. Your personal information will not be shared with any of the other study participants. Only the researcher will have access to the data collected. Any tapes and transcripts of the interview will be destroyed after one year from the end of the study.

Benefits

There will be no direct benefits to you. It is hoped, however, that through your participation researchers may learn about effective ways to teach students with cognitive impairments to read. This information could benefit students with cognitive impairments to live more independently and abundantly, and to be more fully integrated into society.

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Confidentiality

The research data will be kept in a secure location in the MCKB building and on a password protected computer. Only the researcher will have access to the data. At the conclusion of the study, all identifying information will be removed and the data will be kept in the researcher's locked office.

Compensation

There will be no compensation for your participation of the research.

Participation

Participation in this research study is voluntary. You have the right to withdraw at any time or refuse to participate entirely without jeopardy to your reputation or job standing in your school and district.

Questions about the Research

If you have questions regarding this study, you may contact Elizabeth A. Cutrer at elizabethcutrer@byu.edu for further information.

Questions about Your Rights as Research Participants

If you have questions regarding your rights as a research participant contact IRB Administrator at (801) 422-1461; A-285 ASB, Brigham Young University, Provo, UT 84602; irb@byu.edu.

Statement of Consent

I have read, understood, and received a copy of the above consent and desire of my own free will to participate in this study.

Name (Printed): _____ Signature _____ Date: _____

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	11-3-2018	11-2-2019
	Approved	Expires

Video Release Form

As part of this project, I will be making video recordings of you (or your child) during your participation in the research. Please indicate what uses of this video you are willing to permit, by initialing next to the uses you agree to and signing at the end. This choice is completely up to you. I will only use the video in the ways that you agree to. In any use of the video, you (or your child) will not be identified by name.

- _____ Video can be studied by the research team for use in the research project.
- _____ Video can be used for scientific publications.
- _____ Video can be shown at scientific conferences or meetings.
- _____ Video can be shown in classrooms to (elementary/middle/high school/college) students.
- _____ Video can be shown in public presentations to non-scientific groups.
- _____ Video can be used on television or the audio portion can be used on radio.
- _____ Video can be posted to a website (i.e. YouTube)

I have read the above descriptions and give my express written consent for the use of the video as indicated by my initials above.

Name (Printed): _____ Signature _____ Date: _____

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	11-3-2018	11-2-2019
	Approved	Expires

Parental Permission for a Minor

Introduction

My name is Elizabeth A. Cutrer, PhD. I am a faculty member in the Counseling, Psychology and Special Education (CPSE) department at Brigham Young University. My colleagues, Agatha Gibbons and Hyse-suhn Lee, who are both graduate students in the CPSE department at Brigham Young University, are conducting a research study about how to effectively teach evidence-based reading skills to intellectually disabled students with cognitive impairments. We are inviting your child to take part in the research because (he/she) has been placed in an educational setting for students with intellectual disabilities.

Procedures

If you agree to let your child participate in this research study, the following will occur:

- You child will be asked to play reading games and a test.
- This will take place in their regular classroom as part of his/her scheduled curriculum.

Risks

There is a risk of loss of privacy for your son or daughter, which the researcher will reduce by not using any real names or other identifiers in the written report. The researcher will also keep all data in a locked file cabinet in a secure location. Only the researcher will have access to the data.

There may be some discomfort caused by your child being asked to play reading games. Your child may stop the entire process at any time without affecting his/her standing in school or grades in class.

Confidentiality

The research data will be kept in a secure location on a password protected computer and only the researcher will have access to the data. At the conclusion of the study, all identifying information will be removed and the data will be kept in a locked cabinet or office.

Benefits

It is anticipated that your child could learn reading strategies that may help your child to read better. However, there are no guaranteed direct benefits for your child's participation in this project.

Compensation

There will be no compensation for participation in this project.

Questions about the Research

Please direct any further questions about the study to Agatha Gibbons at agibbons@alpinedistrict.org
You may also contact Dr. Elizabeth A. Cutrer at 801-422-7603 and elizabethcutrer@byu.edu.

	Institutional Review Board	
	11-3-2018	11-2-2019
	Approved	Expires

Questions about your child's rights as a study participant or to submit comment or complaints about the study should be directed to the IRB Administrator, Brigham Young University, A-285 ASB, Provo, UT 84602. Call (801) 422-1461 or send emails to irb@byu.edu.

You have been given a copy of this consent form to keep.

Participation

Participation in this research study is voluntary. You are free to decline to have your child participate in this research study. You may withdraw your child's participation at any point without affecting your child's grade or standing in school.

Child's Name: _____

Parent Name: _____ Signature: _____ Date: _____

	Institutional Review Board	
	11-3-2018	11-2-2019
	Approved	Expires