

Best Practices in Literacy for Students with Complex Support Needs

Michelle D. Davis

Department of Education, Curriculum and Instruction

Pennsylvania State University

Dr. Fran Arbaugh, Advisor

February 15, 2022

Introduction

Learning to read and write is a fundamental skill that most people acquire in their early years of academic life. Toddlers carry books to their parents for bedtime stories, sing-a-long to nursery rhymes for the thousandth time, and scribble with crayons on their parents' important papers or even the wall (like my daughter!). Children with complex communication needs, however, may never learn to communicate in written form. Many of these children are prevented from learning these basic skills simply due to a lack of exposure to written material. Due to their physical and language disabilities, they are unable to physically interact with text, and talk about the text, pictures, or stories and thus their caregivers cannot see any visible interest in print material unless they present the books or letters to the child. There may be no spontaneous interactions with print material in the home, such as newspapers, mail, or cereal boxes, that physically able children experience. Because more interactions with and exposure to print material increase a child's interest and ability (Katims, 1991) and (Mol and Bus, 2011), one can surmise that less exposure to print does nothing to promote interest in print material.

Before moving forward, clarification needs to be made in the form of a definition. Let's define who is a student with complex support needs (SCSN). A person with complex communication and support needs is

“(a) student who often has(d) the most severe cognitive impairments and concomitant physical, communication, or mental health impairments” (Wehmeyer, et al., 2016).

As stated on the website Literacy Instruction for All,

“Individuals who have complex communication needs are unable to communicate effectively using speech alone and may benefit from using augmentative and alternative communication (AAC) methods, either temporarily or permanently. Students in our classrooms with complex communication needs may also have vision impairment, physical challenges, intellectual disabilities or some combination of any number of impairments that impact their lives and learning” (Retrieved April 25, 2022).

Since these children are unable to mimic speech, participate in oral phonological awareness activities, and are often unable to directly access books or letters with their bodies, their parents and caregivers are less likely to use books, songs, and written material to interact with them (Light and Smith, 1993). Their exposure to print material is passive and not intentional.

Among the 7.2 million students with disabilities across the United States, children with high-incidence disabilities account for nearly 80 percent (or 5.7 million) of those identified. A high-incidence disability includes diagnoses such as a specific learning disability, speech or language impairment, other health impairments, and autism. (NCES, 2022). While students categorized as having high-incidence disabilities are many, there are approximately 140,000 students with complex support needs in schools throughout the United States. Students with cerebral palsy, orthopedic impairments, cognitive and physical disabilities, and those who are blind and/or deaf are part of this population of students often referred to as low-incidence. These students with the most complex needs make up a small 2% of all students with disabilities in the country (NCES, 2022). Though these students are in the minority, their needs are no less

important than the 80% in the majority of disability categories. It is the 2% who are the focus of this curricula analysis.

For over twenty years, I have taught students with disabilities in the public school setting. The first part of my career was spent working with students with learning disabilities and other health impairments (ADD/ADHD); the 80 percent mentioned earlier (NCES, 2022). Those students were in their chronological age group and working towards the general education curriculum, the standards for all students in their assigned grade level (PA Department of Education, Standards Aligned System; www.pdesas.org, 2022). For the last nine years, I have worked exclusively with students with more complex support needs; the 2 percent. These students include children with cerebral palsy, intellectual disability, communication disorders (non-verbal), and moderate to severe physical disabilities (ambulatory to wheelchair users). The students in my classroom are in their chronological age school (age 14 and up, in a high school), but they are not working directly toward the general education curriculum. We use the Alternate Assessment Standards from the Pennsylvania Department of Education to align my students' goals and objectives. The alternate assessments have some near and far links to the general education curriculum, which allows the use of them to support the students' IEP goals (*Alternate Assessment Standards*, PA Department of Education, Standards Aligned System, 2022).

Wondering and Inquiry Questions

Throughout the years, I have wondered if I am adequately meeting the needs of my high-need students, including both their academic and functional skill needs. I have questions regarding the curriculum that surround the adopted state standards, access to

the general education curriculum, and the alternate state standards for these most affected students in public schools. My first question is: What is more appropriate for a student with complex support needs to learn or be exposed to; a functional literacy program, or an adapted version of the general education literacy and reading program? My inquiry has many aspects to it, but ultimately I come back to literacy for the most challenged population of students. **What is the best practice/curriculum to teach literacy skills to students with complex support needs?**

For years, students with complex needs have been taught skills deemed functional or vocational in nature, such as reading or math skills that would be appropriate for use in the home, community, or job environment (Ruppar, et al 2011). Since the Elementary and Secondary Act of 2001, also known as No Child Left Behind (NCLB), students with all disabilities are required to be assessed on their knowledge of the curriculum requirements in the state standards (US Department of Education, 2001). With this change in accountability, there should be a change in curriculum.

In my classroom, my students work towards their individual goals, determined by an assessment procedure and prioritized based on need. In addition to helpful functional and vocational skills, I also want to expose my students to a literacy or literature program that will increase their exposure to non-functional academics and may lead to greater knowledge of and interest in literature. I want my students exposed to novels, plays, poems, and more. A functional-only literacy program would eliminate any semblance of literature and focus solely on functional skills (reading a want-ad, writing a resume, reading street signs). Should my students be relegated to a curriculum or standard that does not provide them a complete education or am I doing

them a disservice by not teaching them only “functional literacy”? Is exposure to a more robust literature program a way to generalize literacy skills and incorporate function as well?

My second question is a piggyback from the first: Is it more appropriate to work on vocational skills and activities of daily living with students with complex support needs than it is to expose them to the general education curriculum? The majority of “curriculum” programs that exist for high school students with special needs focus on some type of vocational skills and daily living activities including writing letters, filing paperwork, reading instructions, and making change from a retail transaction. This type of work is important, and arguably all students should know and understand these skill sets, however, is it detrimental to their academics or more functionally beneficial for students with disabilities to work towards the vocational aspect of goal setting?

Each student over the age of 14 must be a part of a transition planning program (life after high school, employment and job skills, post-secondary education), which easily lends itself to the vocational aspect of student learning, especially for students with special needs (US Department of Education, 2015). However, is the vocational training and job skills THE most important for students with special needs in high school? If I am certain that my students are not going to be gainfully employed (they wander off, are non-verbal, and need 24-hour care), should vocational skills be my focus for their education, or are they better suited with exposure to higher-order literature, history, and science? Will it harm them or help them in the long term?

These two questions have many different nuances in and of themselves and are not easily answered. Yet, I want to make the curricular focus of my teaching to be centered

around those questions. I seek a better understanding of what is best and most appropriate for ALL students with special needs to learn. My inquiry question is to compare three leading reading programs designed and marketed for use with students with low-incidence disabilities. These reading curriculum programs are Readtopia, Pathways to Literacy, and Edmark Reading Program. **Do these reading curricula align with best practices for teaching reading to students with complex disabilities?**

Current Knowledge

For as many years as students with disabilities have been provided access to regular schools and included in curricular discussions, there have been curriculum companies distributing material marketed towards them. However, many of these programs focus on job skills and vocational and household training for students above the age of 14 with disabilities. For example, the market contains the following vocational education programs: *Career Readiness Curriculum*, *Digability*, Mahoney, A's / *Can Work!*, *Life Centered Education*, *Overcoming Obstacles*, and *Pre-Voc One* to name a few. There is a lack of programs designed for access to high-level curriculum standards. As Browder, et al (2009) noted, "If reading instruction was provided at all, it typically focused on a list of specific sight words encountered in daily living".

When we have low expectations, we receive low results, and high expectations net high achievement, correct? Wineburg (1987) argued that the so-called self-fulfilling prophecy was merely a diversion from the real reason behind achievement gaps in American schools. By using expectations as a "cure" for the ailments of American education, the pygmalion theory distracted school boards and policymakers from the

real problems. Such diversions could be a lack of resources, poverty, or even trauma, but Wineburg (1987) felt that the real reason this theory was so widely accepted was that it was easier than doing the real work involved to “fix” the problems in American schools and teachers were an easy target (pg.35). In the area of special education, the diversion has been access to education (West & Schaefer Whitby, 2008).

As West and Schaefer Whitby (2008) pointed out in *Federal policy and the education of students with disabilities: Progress and the path forward*, historically, children with cognitive and physical impairments were seen as low achieving and not given the opportunity to learn with their typically developing peers. When that all changed with the Individuals with Disabilities Education Act in 1974, handicapped children were given the right to attend the same school buildings as their peers, but not necessarily receive the same instruction (2008).

Also noted in the same article, with the re-authorization of the Elementary and Secondary Education Act in 2001 (also known as No Child Left Behind, NCLB), school administrators began to realize that they had not met the needs of their students with disabilities and their low expectations were now being held to account (West & Schaefer Whitby, 2008, pg. 9). Placement of students with disabilities and their access to general education standards became more important than ever, as debated by Agran et al, (2010) and (2020), Kauffman, Travers, and Badar (2020), and Cole et al, (2021).

In Agran et al's article (2020), *Why aren't students with severe disabilities being placed in general education classrooms*, they note that most times “an historically common district-level placement policy in districts in which all students with a particular disability label are placed together in a classroom or school, to be served by

professionals with a particular educational background”. Agran, et al believe this placement grouping is less beneficial than inclusion services in the general education classroom. Does placing students with disabilities in a cluster classroom harm them? Does it prevent them from exposure to the general education curriculum as mandated by law?

Kauffman, et al (2020) argue that Agran’s stance is harmful to the individual that is in the Individual Education Plan (IEP), and some students need to be placed in separate settings due to the content of their learning. To put it more succinctly, they state,

“some students need to be taught skills that others do not, typically because other students learned them long ago. ... some skills are more fundamental than those required by the general education curriculum, and sometimes these skills involve such things as functional communication, self-care, mobility, and others that can only be related to the general education curriculum in the most tangential way, irrespective of student age. We argue that an appropriate education for students with severe disabilities fundamentally requires effective instruction, which often implies intensive interventions with very high opportunities to respond, not needed by most students” (pg. 29).

In another push for inclusion, in a 4-year study of students with disabilities placed in a regular education classroom 80% or more of the time, Cole, et al (2021) “found strong support for greater inclusion in general education settings” (pg. 222). They also noted that more students should be placed in settings where they can access the general

education curriculum and less time in settings that do not meet their individual needs (pg. 223).

To push back on that statement, Kauffman, et al (2020) believe that blanket decisions about placement take the individual out of the equation and can cause more harm than good for students with disabilities, and “students with severe disabilities who need specialized instruction should receive it wherever it is most effective” (pg. 29). In support of the use of literature in special education classrooms, Ruppert, et al (2011) argue, “Literacy instruction may provide an avenue for teachers to provide meaningful, standard-based instruction within a variety of educational contexts, including general education classrooms and the community” and that “defined as oral and written communication in everyday contexts, literacy meets the definition of a functional skill”.

If literacy is a functional skill as stated in the previous quote by Ruppert, et al (2011), what does literacy for students with complex needs look like in the classroom? Many students with low-incidence disabilities are non-verbal and rely on other forms of communication such as vocal output devices, manual icon communication, gestures, and behavior, rather than vocalizations (Edwards, et al 2015). How are students without verbal communication taught to read? How are they assessed on their ability to read? How is their reading comprehension determined?

Several articles, books, and studies provide some insight into best practices for teaching students with low-incidence disabilities to read. Most notably, Apitz, et al (2017), Browder, et al (2009), Erickson (2017), and Erickson and Koppenhaver (2019). Erickson details her thoughts in an article published by *The American Journal of Speech-Language Pathology* (2017),

“Comprehensive instruction in emergent literacy is required for students with severe disabilities to develop the range of knowledge, skills, and understanding they require to eventually use print to interact meaningfully with others. This means ensuring that each day students have access to (a) shared reading and writing instruction; (b) independent reading and writing opportunities that they fully direct; and (c) instruction focused on letters, their sounds, and general phonological awareness so that students develop the skills they need to read and write words at some point in the future”.

Analysis of Reading Curricula

For the purpose of this inquiry, an analysis of the Readtopia reading program, Pathways to Literacy program, and the Edmark Reading program will be conducted to determine how each one supports the best practices of reading instruction for students with disabilities. I chose to analyze these three programs, from the many available, due to the amount of information available online and in print, as well as the ability to physically access the materials. In my workplace, I have access to all three of these reading curricula, two (Edmark and ELSB) due to purchase within the agency, and one due to access to a demonstration portion of the program. To determine the benefit of these reading programs for students with complex needs I will analyze each one for the following components that have been identified in the research as necessary for good practice when teaching students with disabilities to read: 1) “must be comprehensive,... meaning that everyday instruction must address word reading, written language

comprehension, and fluency (Erickson, 2017), systematic, direct, and explicit, 2) “based on scientific research on reading” (Browder, et al, 2009). 3) incorporating multiple communication needs (Edwards, et al 2015).

Readtopia

To begin to look at the ways in which these programs support literacy acquisition for students with complex needs, we need to dissect each one individually. I will start by examining the Readtopia reading program by Building Wings, formerly Don Johnston, Inc. The education perspective of the Readtopia program is a combination of traditional and constructivist perspectives. By downloading a copy of a teacher’s guide, I was able to determine that the materials are highly structured and have a detailed manual provided with many lessons for each chapter of the anchor content material. There are assessments built into the program in the form of multiple choice, close reading, and student observations. While the program is designed as a reading program for children with reading difficulties and has a very direct and explicit component, it presents the material in a way that is engaging and motivating for children of all ages. Videos and photographs paired with the reading material as well as opportunities for students to respond to the readings and videos presented in the unit. Along with the reading material, the program provides functional life skills integration within the texts, as noted in the Teacher’s Guide.

Found in the literature: “Readtopia is designed to focus on academics while also linking academic content to practical application within the context of students’ everyday lives wherever possible” (from mydemo.readtopia.com, retrieved January 11, 2022). The program contains several units of study from Ancient Earth, Mammals, Birds, and

Reptiles, to the Solar System. Within each of these units of study, there are corresponding videos, vocabulary lessons, and anchor activities that are related to the main theme of the unit.

Explicit in the Readtopia program is that students learn to read in many different ways. There are many components to the program that demonstrate this value: group readings, small group instruction, shared readings, word work, close reading activities, and assessments of comprehension at the conventional reading level. The program supports students of varying reading abilities within the same classroom. Each student is able to access the same topical content on his/her own instructional level through the use of the leveled texts provided in the Readtopia program. It is up to the teacher to determine at what level to place the student, based on previous assessments.

In addition, the Readtopia program contains the assumption that teaching reading should be done in a very systematic and explicit way. The lesson plans detail the materials needed, the strategy being taught, and the curricular cross-over that happens with that strategy as well as other supports that can be found within the Readtopia materials to help teach struggling readers. The materials include specific information on integrating phonics lessons, vocabulary, word work, writing, and shared and independent reading. Another bonus found in the teacher's guide is tips for including students with communication needs by detailing how to incorporate their use of manual communication boards, or vocal output devices.

As noted earlier in this analysis, the overall perspective of the Readtopia program is that of a deliberate and balanced mixture of traditional and constructivist viewpoints. The structure of the program allows students to work on many aspects of literacy at the

same time, having mastered some, all, or none at any point in the program. Although the construction of the curriculum appears to be a bottom-up approach (Posner, pg. 170), there are no prerequisite skills necessary when using Readtopia. The ultimate goal is to provide access to age-appropriate reading materials for students with disabilities. By doing so, the curriculum is furthering the overall development of the student, as all other learning can be derived from print literacy.

Edmark

The second reading curriculum program that I am analyzing in this inquiry is the Edmark Reading Program distributed and marketed by Pro-Ed. The program came to market in 1972 and is based on the behavioral science of the 1960s. As described in the literature, the Edmark Reading Program is designed to work for students who have not had success with traditional phonemic awareness and phonics-based reading programs. According to literature found on the Pro-Ed website,

“Edmark Reading Program provides repeated encounters with 350 frequently seen sight words and three word endings. Students begin by recognizing and reading a new word in isolation and then in the context of phrases, sentences, and stories. They use their newly learned words in a variety of reading activities, which include matching pictures to words, using manipulatives, reading story books, practicing spelling and writing, and playing interactive card and board games for reinforcement of word recognition and comprehension”

(<https://www.proedsoftware.com/edmark/>,retrieved 2023).

The purpose of the Edmark Reading Program is to provide students with disabilities success at the errorless level, reducing support over time to increase students' word reading and comprehension abilities. This curriculum focuses on automatic word recognition and a generalization approach to reading by presenting words singularly and out of context in a repetitive, rote drill practice technique. In total, 350 words are presented to students throughout the program to be automatically recognized and generalized to various reading activities.

A behavioral approach to learning is employed by the Edmark Reading Program as detailed in the Teacher's Guide and Program Overview. The following research-based learning strategies are utilized throughout the program as detailed in the guide: errorless learning, positive reinforcement, use of manipulatives, oral vocabulary, controlled vocabulary stories, social skills enrichment (through game playing), and continuous progress monitoring. Also noted in the guide is the ease of use of the program and the emphasis that, "No special skills are required beyond a positive attitude, the ability to provide encouragement, and a willingness to teach at the learner's pace" (Edmark Support, retrieved 2023).

All materials are provided in a print or newly available online format for the user and students including boxes of sight word flashcards, books of student material (pictures and phrase match, stories), and assessments. The program requires a verbal or sign language response from the student to determine accuracy, though a total communication approach is mentioned as an option for students who have difficulty with verbal expression.

The Edmark Reading Program approaches reading with a mastery approach, meaning that a student must complete one section or skill before moving on to the next. Although many of the activities in the program do not have an achievement criterion, the materials state to work on other activities in the lesson until the student masters the word providing difficulty. The program depends upon mastery of words in an errorless environment that will lead to generalization in a mixed presentation.

Pathways to Literacy

The reading program, Pathways to Literacy, was developed by researchers at the University of North Carolina Charlotte, led by Dr. Diane Browder through a grant funded by the United States Department of Education, Project RAISE. The primary focus of the research was early literacy for children with severe developmental disabilities (Pathways to literacy, 2023). This curriculum is based upon the premise that the purpose of reading is to derive meaning from literature. Seeing a need in the field of literacy instruction for students with profound intellectual disabilities, the team at UNC-C developed Pathways to Literacy in 2011 to support teachers and students. The original reading program developed is titled Early Literacy Skills Builder and includes instruction in phonological awareness, concepts of print, and phonics. Pathways to Literacy was designed as a precursor for those students not yet able to meaningfully participate in phonics and phonological awareness instruction. The program is based upon the work of the National Reading Panel and includes five levels of instruction in literacy for students with intellectual disabilities and communication disorders.

Noticing a need for comprehensive and specific literacy instruction for this low-incidence population, the team also created an assessment designed to be a “far measure” of literacy learning, titled the NonVerbal Literacy Assessment. This tool uses a variety of access methods such as direct selection, eye gaze, and verbalizations to determine student learning. The communication needs of various students were considered when designing this assessment.

Several important aspects of the Pathways to Literacy program are the use of scripted lesson plans, an emphasis on building foundational reading skills, and a Universal Design for Learning approach to instruction. A least-to-most prompt hierarchy is used to engage and promote student responses and encourage interaction with the text. Students who progressed through the Pathways to Literacy program were then ready to move to the next level of instruction, the Early Literacy Skills Builder which includes instruction in phonemic awareness, phonics, vocabulary, and comprehension, as promoted by the National Reading Panel (2000).

Noted in the literature, “We proposed that all young students receive intensive instruction in reading and that functional sight word instruction increase in importance as students age. This model emphasizes literature versus functional sight words as the lifelong priority for literacy learning, but with functional sight words becoming more important as students enter the transition years”. Incorporating both literature and words seen in real-world interactions has been the hallmark of the Early Literacy Skill Builder developed by Project RAISE. The use of alternative communication methods, such as vocal output devices, by students when interacting with text is encouraged by the program and helpful examples are provided.

Findings

Each of the reading curricula examined takes a varied approach to literacy instruction for students with significant intellectual and physical disabilities. From the use of behavioral modification paired with a mastery approach found in the Edmark Reading Program to the incorporation of recommendations by the National Reading Panel embedded in Pathways to Literacy and Readtopia, each of the programs provides a different route to learning to read.

The components of the Readtopia program and Pathways to Literacy reflect the explicit and direct approach to reading that is a common theme for teaching students with disabilities and is necessary for growth and retention of skills (Allor, et al 2010). The use of shared readings, word work, and close readings align with the research on teaching reading skills to students with intellectual disabilities as found in Browder, et al's updated book, *Teaching Students with Moderate and Severe Disabilities*, (2020) and Apitz, et al's article, *Planning Lessons for Students With Significant Disabilities in High School English Classes* (2017). The use of a strictly behavioral approach to learning, which is the basis of the Edmark Reading Program, does not align with the recommendations of the National Reading Panel and excludes the teaching of phonics and phonological awareness skills.

Students without disabilities in the United States public education system are taught to read using a variety of approaches, but most include the recommendations of the National Reading Panel and tout the "science of reading" as their foundation. Though students with intellectual disabilities have unique learning needs, using an

approach to literacy instruction that is not bound by current research is reckless and harmful and does not promote the generalization of skills (Bruni and Hixson, 2017).

Understanding that the decision to purchase any curriculum program in question is only part of the effort, implementing the curriculum is the real challenge. In the Readtopia program and Pathways to Literacy, the authors and contributors have placed a great deal of effort into the structure of the units, the lesson plans, the activities, and how they connect to and support the anchor reading materials. The many important aspects these two programs incorporate are inclusivity, time management, and organization. For example, the Readtopia program is a reading program designed to teach reading skills to students at varying cognitive and academic need levels. The inclusive education culture embraced by many modern schools is supported by the use of the Readtopia reading program. Students are provided with materials appropriate for them at their individual ability level, determined by a placement assessment. They are also included with students at levels above or below them, interacting with a varied version of the same text. The inclusive structure of the Readtopia program allows teachers to use the same characters, plot structure, and theme in activities and conversations within a mixed-ability classroom.

By contrast, the Edmark Reading Program presents words in isolation, emphasizing a memorization and generalization-heavy approach to learning word recognition, not learning to read. In their literature, Edmark notes that, “Research has also shown that *Edmark Reading Program* is effective for teaching essential aspects of reading programs—vocabulary, fluency, and comprehension—as recommended by the National Reading Panel”, however, they leave out the two other foundational skills of

learning to read as presented by the National Reading Panel, phonemic awareness, and phonics instruction (US Department of Health and Human Services, 2000). They make concessions for this by stating, “the program is ideal for use with students who have failed at learning phonemic awareness and phonics or who cannot master these skills” (Edmark, 2023). By presenting students with disabilities with a reading program developed using a behavior approach to learning, Edmark relies on memorization and generalization to acquire reading skills, not on skill building to develop decoding abilities that can be applied across materials. As noted in *Beyond sight words: Reading programs for people with intellectual disabilities*, “there is a large generative benefit in teaching students phonics, because with instruction in a relatively small number of skills, students will be able to read a large number of words” (Bruni and Hixson, 2017).

Each program contains an assessment portion, in keeping with the importance of monitoring the progress of students’ learning. The Edmark Reading Program assessments take the form of pre and post-tests for sight word instruction, picture match, and phrase matching. There are other assessments in the form of short story reading, spelling, and comprehension activities that are also part of the Edmark program. Readtopia’s assessments contain work in modified cloze reading, vocabulary, and oral reading fluency for students working in the transitional and conventional reading levels. Finally, Pathways to Literacy contains five levels of instruction and a non-verbal literacy assessment to monitor student progress and skill retention.

Implication for Teaching Practice

Having done a detailed analysis of three reading curricular programs for the benefit of classrooms of students with complex needs, my hope is that program supervisors, curriculum purchasers, reading specialists, and teachers use this information to make informed decisions when looking for resources to support the education of these students.

These programs support providing access to general education curriculum standards to students with disabilities in an accessible format. The literature has presented many examples that detail the benefits of exposure to reading instruction for children of all ability levels Cipielewski and Stanovich (1992), Grolog, et al (2020), Katims (1991), Lovelace & Stewart (2007), and Mol & Bus (2011). In her article, *Comprehensive literacy instruction, Interprofessional collaborative practice, and students with severe disabilities* (2017), Erickson details the type of literacy instruction students with complex support needs should receive in the modern classroom. It should be direct, explicit, and comprehensive using an approach “that balances an emphasis on skills with an emphasis on meaning”. In addition, Browder, et al (2009) state “At all grade levels, the core of the literacy program should be literature, including both narrative and information text. Students may be acquiring improved listening skills as this text is read but also can be active participants in the sharing of this text using assistive technology and recognition of key vocabulary words or pictures”.

To get to the point where students with complex support needs are taught literacy skills at all levels of their school experience will take a detailed and systematic approach to the professional development of the teachers and administrators that serve these

students (Knight, 2002). Mindsets will need to be changed, materials will need to be purchased, and lessons will need to be written. The purpose of this endeavor may not be to have students with complex needs reading at grade level, but it is to provide them with access to reading instruction and reading materials that they did not have before (Gilmour, Fuchs, Wehby, 2019). Taking a detailed look at reading programs marketed toward students with complex support needs, through the lens of research, will correlate to implementing robust reading instruction for everyone.

References

- Agran, M., Wehmeyer, M., Cavin, M., & Palmer, S. (2010). Promoting active engagement in the general education classroom and access to the general education curriculum for students with cognitive disabilities. *Education and Training in Autism and Developmental Disabilities*, 45(2), 163–174.
<http://www.jstor.org/stable/23879804>
- Agran, M., Jackson, L., Kurth, J. A., Ryndak, D., Burnette, K., Jameson, M., Zagona, A., Fitzpatrick, H., & Wehmeyer, M. (2020). *Why aren't students with severe disabilities being placed in general education classrooms: Examining the relations among classroom placement, learner outcomes, and other factors*. *Research and Practice for Persons with Severe Disabilities*, 45(1), 4–13.
<https://doi.org/10.1177/1540796919878134>
- 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 in the Schools*, 47(5), 445-466. <https://doi.org/10.1002/pits.20482>

- Apitz, M., Ruppar, A., Roessler, K., & Pickett, K. J. (2017). Planning Lessons for Students With Significant Disabilities in High School English Classes. *Teaching Exceptional Children*, 49(3), 168-174. <https://doi.org/10.1177/0040059916654900>
- Browder, D., 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?: RASE. *Remedial and Special Education*, 30(5), 269-282. <https://doi.org/10.1177/0741932508315054>
- Browder, D. M., Spooner, F., & Courtade, G. R. (2020). *Teaching Students with Moderate and Severe Disabilities. Second Edition*. Guilford Press.
- Bruni, T. P., & Hixson, M. D. (2017). Beyond sight words: Reading programs for people with intellectual disabilities. *Behavioral Development Bulletin*, 22(1), 249-257. <https://doi.org/10.1037/bdb0000062>
- Career Readiness Curriculum*. Partners for Youth with Disabilities. (2022, September 2). Retrieved January 15, 2023, from <https://www.pyd.org/curriculum/>
- Cipielewski, J. and Stanovich, K. E., Predicting growth in reading ability from children's exposure to print, *Journal of Experimental Child Psychology*, Volume 54, Issue 1, 1992, Pages 74-89, ISSN 0022-0965, [https://doi.org/10.1016/0022-0965\(92\)90018-2](https://doi.org/10.1016/0022-0965(92)90018-2)

Cole, S. M., Murphy, H. R., Frisby, M. B., Grossi, T. A., & Bolte, H. R.. (2021). The Relationship of special education placement and student academic outcomes.

The Journal of Special Education, 54(4), 217–227.

<https://doi.org/10.1177/0022466920925033>

Edmark_Support. (n.d.). Retrieved January 15, 2023, from

<https://www.proedsoftware.com/edmark/>

Edwards, C., Miller, J., & Goodwin, M. (2015). *Communicate With Me: a resource to enable effective communication and involvement with people who have a learning disability: Foundation for communication and involvement*. Speechmark Publishing.

Erickson, K. (2017). Comprehensive literacy instruction, interprofessional collaborative practice and students with severe disabilities. *American Journal of Speech-Language Pathology*, 26, 193-205.

Erickson, K., & Koppenhaver, D. (2019). *Comprehensive literacy for all : Teaching students with significant disabilities to read and write*. Brookes Publishing.

Gilmour, A. F., Fuchs, D., & Wehby, J. H. (2019). Are students with disabilities accessing the curriculum? A meta-analysis of the reading achievement gap between students with and without disabilities. *Exceptional Children*, 85(3), 329–346.

<https://doi.org/10.1177/0014402918795830>

Grolig, L., Tiffin-Richards, S.P. & Schroeder, S. Print exposure across the reading life span. *Read Writ* 33, 1423–1441 (2020).

<https://doi.org/10.1007/s11145-019-10014-3>

Katims, D. S.. (1991). Emergent literacy in early childhood special education. *Topics in Early Childhood Special Education*, 11(1), 69–84.

<https://doi.org/10.1177/027112149101100108>

Kauffman, J. M., Travers, J. C., & Badar, J. (2020). Why some students with severe disabilities are not placed in general education. *Research and Practice for Persons with Severe Disabilities*, 45(1), 28-33.

<https://doi.org/http://dx.doi.org/10.1177/1540796919893053>

Knight, P., A systemic approach to professional development: learning as practice, *Teaching and Teacher Education*, Volume 18, Issue 3, 2002, Pages 229-241, ISSN 0742-051X, [https://doi.org/10.1016/S0742-051X\(01\)00066-X](https://doi.org/10.1016/S0742-051X(01)00066-X).

Life centered education. Council for Exceptional Children. Retrieved January 15, 2023, from

<https://exceptionalchildren.org/improving-your-practice/life-centered-education-transition-curriculum>

Lovelace, S., & Stewart, S. (2007). Increasing print awareness in preschoolers with language impairment using non-evocative print referencing. *Language, Speech, and Hearing Services in Schools*, 38, 16-30.

Mahoney, A. (n.d.). *I Can Work, A work skills curriculum*. Therapro. Retrieved January 15, 2023, from

<https://www.therapro.com/I-Can-Work-A-Work-Skills-Curriculum.html>

Mol, S. E., & Bus, A. G. (2011). To read or not to read: A meta-analysis of print exposure from infancy to early adulthood. *Psychological Bulletin*, 137(2), 267-296

National Center for Education Statistics. (2022). Students With Disabilities. *Condition of Education*. U.S. Department of Education, Institute of Education Sciences.

Retrieved October 9, 2022, from <https://nces.ed.gov/programs/coe/indicator/cgg>

Overcoming Obstacles Curriculum Overview. Overcoming obstacles. (n.d.). Retrieved January 15, 2023, from <https://www.overcomingobstacles.org/portal/en>

Pathways to literacy. Attainment Company Home. (n.d.). Retrieved January 15, 2023,

from

<https://www.attainmentcompany.com/curriculum/core-curriculum-solutions/pathways-to-literacy>

Pennsylvania Department of Education Standards Aligned System, PA Assessment Anchors and Eligible Content, 2022,

https://static.pdesas.org/content/documents/Grade_11_ELA_Alternate_Eligible_Content.pdf

Posner, G. *Analyzing the curriculum*. Boston. McGraw-Hill. 2004. 0072823275. 1-294.

Pre-voc one. Attainment Company Home. (n.d.). Retrieved January 15, 2023, from

<https://www.attainmentcompany.com/pre-voc-one>

Readtopia. Homepage - MyReadtopia Demo. (n.d.). Retrieved January 11, 2022, from

<https://demo.myreadtopia.com/>

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(3–4), 100–111. <https://doi.org/10.2511/027494811800824435>

US Department of Education, (2001). *The No Child Left Behind Act of 2001*.

<https://www2.ed.gov/nclb/overview/intro/execsumm.html>

US Department of Education, (2015). *Transition and Postsecondary Programs for Students with Intellectual Disabilities*.

<https://www2.ed.gov/programs/tpsid/index.html>

West, J. E., & Schaefer Whitby, P. J. (2008). Federal policy and the education of students with disabilities: Progress and the path forward. *Focus on Exceptional Children*, 41(3), 1-16.

Wineburg, S. S. (1987). The Self-fulfillment of the self-fulfilling prophecy. *Educational Researcher*, 16(9), 28–37. <https://doi.org/10.2307/1175727>