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IDENTIFYING READING INTERVENTIONS
APPROPRIATE FOR MIDDLE SCHOOL STUDENTS WITH LEARNING
DISABILITIES IN INCLUSIVE CLASSROOM SETTINGS

by

Mary Douthitt

A capstone project submitted in partial fulfillment of the requirements for the
degree of Master of Arts in Literacy Education.

Hamline University

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CHAPTER ONE

Introduction

It is widely accepted among researchers that students with disabilities benefit more from accessing core content instruction in an inclusionary, general education setting, than they do from learning in a self-contained or pull-out special education model (OSPI Special Education, & Center for Strengthening the Teaching Profession CSTP, 2020). Yet, as I compare three of my own teaching placements, I know that implementation of inclusionary practices varies greatly. Having content endorsements in English and social studies along with my special education endorsement, I am aware of the increasingly complex demands of content-area reading for secondary students. Working in three different school settings over three years, I became particularly concerned for older students with disabilities who did not have the reading skills required to access complex texts. Inclusionary practices, as they were implemented in the buildings where I worked, were not providing students who have disabilities with the modifications or the accommodations they needed to be successful. In my different teaching placements, I have observed what the National Center for Learning Disabilities, and Understood found in a joint research report (2019), which was that few of my colleagues in special education have content endorsements, while content teachers have had little training in teaching students with disabilities. For students with disabilities to make academic progress in an inclusive setting, their teachers must have training that is

appropriate for their needs. Both the content teacher and the special education teacher need access to strategies appropriate for the grade level of the students. The question for which I seek an answer through this Capstone project is, *what are effective reading interventions for middle school students with learning disabilities that will enable them to achieve academic progress in an inclusive classroom?*

Background

The evolution of this question as the impetus for my Capstone project began with a teaching assignment in a self-contained, seventh-grade reading class for students who have individual education plans (IEP). In reviewing my students' assessments, I found their reading levels ranged from pre-reading to fourth grade. The course work I completed for my English teaching endorsement focused on English literature, writing composition, and grammar, but not on the science of reading. Course work for my special education endorsement included one reading class that covered the stages of reading development with an emphasis on early childhood. It did not include specific strategies required to address gaps in that development for students entering their teens. I was not adequately prepared to teach a seventh-grade reading class in which some students had not yet mapped all the letters of the alphabet to their corresponding sounds, while others were able to decode words well, but poor fluency impeded their comprehension.

The building where I worked employed not one, but two reading specialists teaching seventh-grade reading classes. I asked my administrator why my students were not included in reading classes taught by educators with the appropriate training to meet

their needs. It was explained that as a Title 1 school, reading specialists are paid from federal funds, while students with disabilities receive special education services funded through the state. There are currently efforts in place in my state's legislature to "braid" these funding sources and allow cross-program access for students. Until those efforts come to fruition, a student with an IEP will receive services from special education providers who are less likely to have the content area training required to help them make academic progress.

Bookending this self-contained teaching experience, my teaching placements have put me in two other schools that practiced inclusion. Also Title 1 schools, they both placed special education teachers in core-content classrooms led by a general education teacher. In these placements I was tasked with providing instructional support to students with IEPs. This support typically meant helping students complete assignments planned by the general education teacher. In one school, I supported three different teachers in three different subjects. In the other building, I supported a cohort of 125 students and four core-content teachers. Co-planning is a key element of effective co-teaching (Dieker, 2001, as cited in Wexler et al., 2018). With insufficient time allotted for co-planning in so many content areas, and no professional development provided to train in co-teaching practices, my role in the classrooms in both settings was limited to that of a paraeducator. Sometimes I took groups to the library in order to work on a specific assignment or help students get caught up. Sometimes I pulled a few students in the hall to read the text out loud if they were struggling to read it themselves. Neither of these pull-out practices is

inclusionary. Most frequently, I managed discipline issues. It is worth noting that in one placement, the school's MTSS (Multi-Tiered System of Support) specialist reported that students with disabilities, who made up 20% of the students in my cohort, were responsible for 50% of the cohort's discipline calls. The frustration students with IEPs were experiencing in this supposed inclusive setting was clear.

During my year in the self-contained reading classroom for students with learning disabilities, I admit I was relieved not to be co-teaching. Despite not having experience teaching reading, I was happy to have agency in my own classroom. After talking to one of the reading specialists in my building, doing research of my own, and drawing on my own experience as a parent with a child who has dyslexia, I made three central decisions in my approach to the class: 1. I would read everything out loud, 2. I would set the expectation that students follow along while I read out loud, and 3. Content reading materials selected would be at their grade-level, not their reading level. While I was aware this final decision was not one that some of the teachers in the English department agreed with, my belief was that my students were capable of understanding the materials if it was read to them, and the higher interest level might increase their confidence and motivate them to do more independent reading.

Without the benefit of the knowledge gained from the master's program in literacy education in which I am currently enrolled, I approached the class in essentially the same way I approached reading with my own children. We read, we questioned, we talked about the context of the stories, about other stories (or movies, or comic books, or

video games) that were similar. My class drew pictures of scenes, made posters of characters and created comic retellings. Some of my students experienced frustration with our school's accelerated reader (AR) incentive program. They found it challenging to retain enough information from their independent reading to pass an AR test and be entered for the monthly prize. On Fridays, I began reading aloud historical fiction picture books about figures who represented the diversity of students in my class, then allowed students to take the AR test immediately after reading. They passed the tests and before long we had a prize-winner from my class. The atmosphere was generally positive and the discipline calls were relatively low.

As the year progressed, I recognized that some of my students with learning disabilities were capable of succeeding in general education classes with minimal accommodations. When I discussed the students with my administration, they were enthusiastic about helping those students move to a more inclusive setting. At the end of the year, state testing showed my students averaged 1.3 years of growth. However, it is one thing to move students from one primary reading level to the next in a class devoted entirely to supporting their reading practice. It's another to make those gains in a core-content class. I began to ponder how to help students requiring intensive support to be successful in a grade-level, co-taught, inclusion setting.

Project Goal

In Chapter Two, the Review of Literature will provide a history of inclusion, its benefits, and some of the problems that exist in implementing inclusive models. It will

then examine issues in teacher preparedness for working in an inclusive setting. This includes both the impact of teacher attitudes toward students with disabilities as well as teacher training in helping students with disabilities make academic progress. Chapter Two will then explore research-based strategies that are effective in working with older students who require foundational reading instruction.

This leads, in turn, to the goal of my Capstone which is to begin building a toolkit of research-based reading strategies that are appropriate for both the middle school age group and the inclusive classroom setting. My project as described in Chapter Three, is one such strategy. Because learning a small number root words can unlock the meaning of thousands of words (Brown, 1947, as cited by Morrow & Gambrell, 2019), I have identified learning Greek and Latin roots as a high leverage strategy which provide fundamental phonological awareness practice as well as writing practice in a multi-sensory, daily inclusion classroom exercise. Finally, Chapter Four will include a reflection on improvements to the vocabulary curriculum based on beginning implementation during the current school year, as well as a reflection on improvements that can be made in inclusive teaching practices.

My state of Washington is ranked 44 of 50 for including students with disabilities in the general education environment (OSPI Special Education, & Center for Strengthening the Teaching Profession, 2020). In an effort to remedy this, the state legislature provided incentive funding in 2019, to encourage schools to increase inclusion (Wellman, 2019). However, increasing the inclusion of students with disabilities is not as

simple as changing student schedules (Collins et al., 2001). My teaching experiences, as described in this chapter, have shown how inclusive settings are not successful when teachers lack appropriate training, time to co-plan, and effective strategies for remediating foundational skills. The following chapter will explore these elements in the hope of moving inclusion from a word to a practice.

CHAPTER TWO

Review of Literature

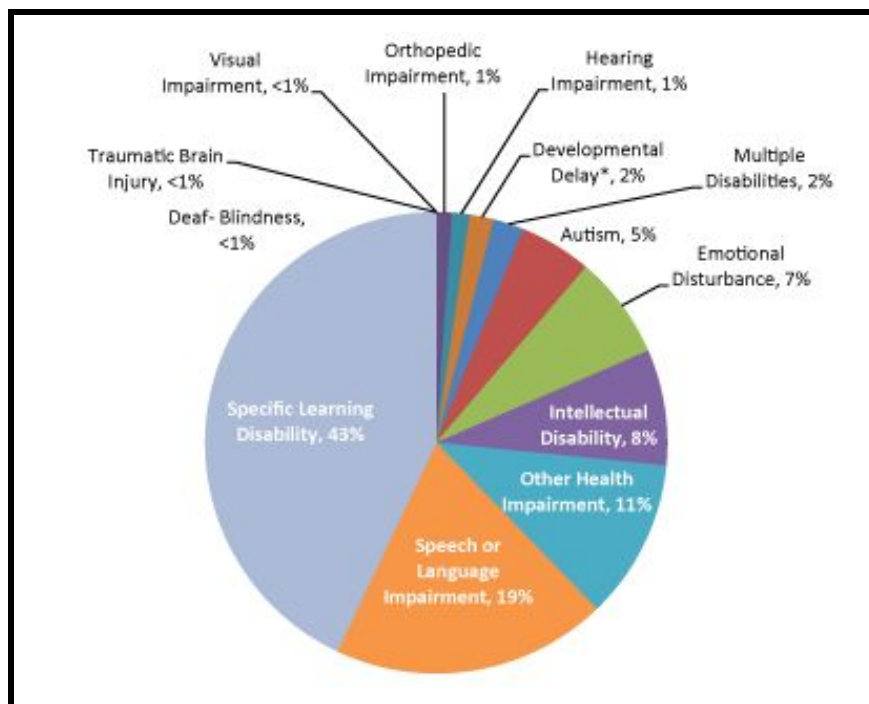
Chapter Two examines research to answer the question, *what are effective reading interventions for middle school students with learning disabilities that will enable them to achieve academic progress in an inclusive classroom?* This review of literature begins by examining the purpose, history, benefits and concerns of inclusionary practices in schools. An exploration of whether teachers are adequately prepared to work with and to facilitate academic progress for students with learning disabilities in an inclusive educational setting will follow. In the final section of Chapter Two, appropriate research-based strategies for increasing foundational skills in middle school-aged students will be reviewed. These strategies lead to the development of this Capstone's project which is a Greek and Latin root vocabulary curriculum. The details of the vocabulary curriculum will be detailed in Chapter Three.

Before examining the topics of inclusion, teacher training, and effective reading strategies, it is necessary to understand the different categories of disabilities recognized by the Individuals with Disabilities Education Act (IDEA). IDEA is the federal law governing the implementation of special education services provided in schools (Individuals with Disabilities Education Act, 2004). Thirteen categories of disability are identified within IDEA: deafness, hearing impairment (e.g., auditory or language processing disorders that are not considered to be deafness), deaf-blindness, speech or

language impairment (expressive or receptive language disorders), visual impairment, orthopedic impairment (including both congenital impairments such as cerebral palsy, and the effects of injury or disease such as burns or amputations), other health impairment (ADHD and other health conditions that affect strength, alertness and sensory tolerance), specific learning disability (disorder affecting the ability to understand and use language), autism spectrum disorder, intellectual disability (significantly subaverage intellectual functioning combined with adaptive behavior deficits), traumatic brain injury, emotional disturbance (e.g., anxiety, obsessive-compulsive disorder, schizophrenia, and other mental health disorders), and multiple disabilities (i.e., a student with more than one disability included in the IDEA (Individuals with Disabilities Education Act, 1975, 2004).

Figure 1

Percentage of Students in IDEA Disability Categories, Fall 2008 (Davis et al., 2011)



Most school districts sort these thirteen categories into broader programs depending on the type of special education services that need to be delivered. While program determinations are made individually, typically, the term “developmental disabilities” include students with intellectual disabilities, and depending on the severity, traumatic brain injury, autism spectrum disorder, and multiple disabilities. The focus of this paper is on students with “learning disabilities,” that is, students with neurological processing differences such as a specific learning disability, other health impairment, and some students on the autism spectrum who have higher cognitive functioning.

All students with disabilities have struggled to be included in our country's educational system. An understanding of inclusion, its history, benefits and concerns, is essential and is the focus of the following section.

What is Inclusion?

Inclusion in special education is defined by Washington State's Office of the Superintendent of Public Instruction as, "...the belief and practice that all students have the right to meaningfully access academic and social opportunities in general education settings" (OSPI Special Education, & Center for Strengthening the Teaching Profession CSTP, 2020, <https://www.k12.wa.us/>). Inclusion advocates, including the Washington State's OSPI, frequently point to the body of research showing academic, social, and emotional gains for students with disabilities in inclusive settings as compared to students in self-contained or pull-out special education classes. Yet a review of the literature on inclusive education yields results that vary. Students with different disabilities are placed in different programs with instructors who possess different levels of training. Providing effective inclusive education can be a struggle for both teachers and students in American schools (National Center for Learning Disabilities, & Understood, 2019). It is helpful to examine that struggle.

History of Inclusion

The argument for increased inclusive practices for students with disabilities has its roots in the civil rights movement. Like the struggles for racial and gender equity in schools, Boroson (2017) posited that the struggle for inclusive education in America has

been a long one, fought on multiple fronts. Her research shows the through line for students with disabilities bears similarity to students of color and students who are female in the pursuit of access to an appropriate and equitable education.

American educational institutions were established to enable people to become good citizens and future leaders (Spring, 2010, as cited in Martusewicz et al., 2015). However, when our country's educational institutions were established, the full privileges of citizenship were the province of white, able, males. Schooling for 19th century women generally consisted of homemaking skills. Post-secondary colleges did not admit women until 200 years after their founding. Even after admission was finally permitted, "Many professors disapproved of the admission of women, asserting that women were constitutionally incapable of higher-level academic work and often refusing to acknowledge women's presence in their classes" (Boroson, 2017, p. 20).

For people of color, obtaining an education in the American educational system has been an even greater challenge. The U.S. Supreme Court decision, *Plessy v. Ferguson* (1895), made doctrine the Jim Crow practice of "separate but equal." That law stood until *Brown v. Board of Education* (1954) overturned it. Even with the passing of the Civil Rights Act of 1964, schools were slow to desegregate. The effort took decades as, "Many whites denounced the 'Civil Wrongs Bill,' holding that such federal laws imperiled their own rights" (Sokol, 2008, as cited in Boroson, 2017, p. 20). While our modern schools are desegregated, court battles continue to the present day to ensure racial equity under the Civil Rights Act (Orfield, Mattise, & Willoughby, 2004).

In 1919, *Beattie v. Board of Education*, found that the presence of a student with a disability in a classroom was, "...a distraction to his peers and teachers, consequently impeding their education" (Yell et al., 1998, as cited in Kirby, 2016, p. 178). Obtaining an equitable education for students with disabilities has been slow ever since. As recently as the late 20th century, students with disabilities were excluded from the institutions of general education until the federal Education for All Handicapped Children Act was passed in 1975. The act required public schools to guarantee a free, appropriate public education (FAPE) to students with disabilities, but moving from exclusion to inclusion has been slow. Nationally, 68.2% of students with learning disabilities, the most common disability category, are in general education classrooms 80% or more of the school day, and 24.1% experience inclusion environments for 40-79% of the day (US Department of Education, 2015, as cited in Kirby, 2017, p. 176).

Figure 2

From Exclusion to Inclusion, (UNESCO IIEP, & United Nations Children’s Fund, 2019)



Society’s intransigent view of education, i.e., that educational institutions are the province primarily of the dominant culture, has slowed the progress of inclusion for all students for centuries. Boroson (2017) noted that, “educators and families today fear the intrusion of students who are differently abled into general education classrooms” just as they believed, “...black students would be a drag on teachers’ time and energy” (p. 20). In either circumstance, Americans have viewed inclusive education as something that, “would dilute the dignity and integrity of a homogenous learning environment” (Boroson, 2017, p. 20).

Benefits of Inclusion

The history of inclusion serves to illustrate the long-held belief that students with disabilities either cannot learn in the general education environment or will disrupt the learning of others and therefore must be separated from their peers in order to receive the specially designed instruction outlined in an individual education plan (IEP). In research on students with learning disabilities, Kirby (2017) showed that the separation of students with learning disabilities contributes to the perception held by the general population that disability is deviant, while Goffman (1963, as cited by Collins et al., 2001) found students in special education adopted a strategy of avoiding engagement through “passing and denial” (p. 234) with regard to their segregated status.

The good news is that evidence points to improved attitudes of those with disabilities by their peers in general education placements. Collins et al. (2001) surveyed students without disabilities enrolled in an inclusive core-content class and found two-thirds of them had positive remarks, such as, “Student with disabilities was good kid” or “Was good learning experience” (Collins et al., 2001, p. 54).

For students with disabilities, the research indicates that academic placement can lead to *ability formation*, which is when, “...students come to accept a conception of their perceived ability status consistent with that institutionalized in larger society” (Rosenholtz & Simpson, 1984, as cited by Fitch, 2003, p. 246). Fitch (2003) conducted in-depth interviews of students with disabilities both in inclusion models and in pull-out, or excluded, models, in an effort to better understand how academic placement affected

their self-perception. His findings showed students with disabilities in inclusive environments had consistently higher views of their own capabilities. One student said that he, "...felt he was capable of figuring things out 'on his own' and did not like the feeling of dependence he associated with special education" (Fitch, 2003, p. 243). The research indicates that inclusion reduces the perception that students with disabilities may have of being in, "...a 'back place,' a temporary safe refuge where they belonged" (Goffman, 1953, as cited by Fitch, 2003, p. 241). Instead, inclusion creates a more equitable environment for students, building confidence that will carry forward into society as they grow to adulthood.

In fact, the research shows that post-secondary outcomes for students with disabilities who have had higher levels of core-content instruction in general education classrooms are more positive than for those who have not experienced such inclusion. Joshi and Bouck (2017) studied the performance of students with learning disabilities in postsecondary programs. Aggregating data from the National Longitudinal Transition Study-2 (NLTS2) the authors discovered that, "...receiving core content area instruction in the general education classroom was related to whether students with learning disabilities ever attended or were currently attending any postsecondary education" (Joshi & Bouck, 2017, p. 9). They found students with disabilities who had been part of inclusive core content classes had a higher likelihood of enrolling in two-year postsecondary coursework. Interestingly, participation in career technical education (CTE) courses had no relationship to continuing postsecondary study. The conventional

wisdom among a number of educators is that CTE programs provide students with disabilities job skills that will lead to postsecondary certification in the trades.

Problems with Inclusion

It is important to note that researchers whose studies yielded mostly positive results on the effects of inclusive learning environments also drew attention to the fact that inclusion of students with disabilities, "...in a regular academic classroom is not a simple matter" (Collins et al., 2001, p. 58). Multiple factors need to be considered when placing students with disabilities. While inclusion should be a standard practice, IEP teams can, "...allow the tail to wag the dog by first determining an optimal percentage of time for general education" (Fore et al., 2008, p. 70). IEP teams must keep the student's individual goals and objectives in the foreground when placements are determined. Inclusion-minded educators can sometimes make placement decisions for students with disabilities based on achieving a higher number of minutes in the least restrictive environment (LRE) rather than on unique student needs.

Magiera and Zigmond (2005) observed that research on the efficacy of co-teaching lacked a focus on student achievement. Indeed, their research showed that students with disabilities in a co-taught model of inclusion, had less interaction with the core-content teacher when a special education teacher was present (Magiera & Zigmond, 2005, p. 83). Tremblay (2013) found students with disabilities in inclusion settings made academic gains in reading and writing but not in math which was, "...contrary to Fontana (2005), who observed an effect in math but not in writing" (p. 255). Further, Fore et al.

(2008) found the research to be limited by, “the lack of information regarding classroom teachers’ backgrounds, professional experiences and instructional practices” (p. 69).

When we consider that individuals with disabilities face an unemployment rate as adults of about 80% (U.S. Department of Labor, Bureau of Labor Statistics, 2020), the importance of improving educational outcomes is clear. Improving reading skills specifically is an important factor for success in school. As was shown in this section, inclusion contributes to positive self-image and community perspectives, positive post-secondary outcomes, and positive academic gains. The following section will examine how well teacher training programs have prepared educators – both core content and special education teachers – to work in an inclusive environment.

Teacher Preparedness for Supporting Students with Disabilities

As school districts increasingly move toward higher levels of inclusion, teachers may not have the training required to meet the needs of all students. In an inclusive English language arts (ELA) classroom where students with individual education plans (IEP) are expected to have their reading and writing goals served, the general education ELA teacher may have insufficient training in differentiating instruction, or they may have earned an English endorsement without accompanying coursework in English literature and writing as many states allow, while the special education teacher who has been trained to differentiate will most likely not have an endorsement in the content area being taught. (National Center for Learning Disabilities, & Understood, 2019; Robinson, 2011; Theobald et al, 2020). It is entirely possible that neither instructor has had direct

instruction in teaching reading interventions. Kirby (2017) stated, “All teachers should be knowledgeable in differentiating instruction and prepared effectively by their university program” (p. 188). Yet, a survey conducted as a joint project between the National Center for Learning Disabilities (NCLD) and Understood found that most feel underprepared by their teacher training programs and unsupported by their districts to teach students with disabilities (National Center for Learning Disabilities, & Understood, 2019). Many found the courses on teaching students with disabilities they took in teacher training programs not to be relevant in the classroom, and “...*only half* strongly believed that students with learning and attention issues can meet grade-level expectations” (National Center for Learning Disabilities, & Understood, 2019, p. 6). Research on effective practices in teaching reading to students who are below grade-level standards is clear that, “...teacher performance and student performance are inextricably linked” (Shippen et al., 2005, p. 181). In order to improve reading outcomes for students with disabilities, a review of teacher preparedness to meet their needs is necessary.

Teacher Attitudes Toward Students with Disabilities

The United Nations Educational, Scientific and Cultural Organization (UNESCO) determined in 1994 that inclusion is the best approach to learning for all students. However, their 2005 report on inclusion stated that, “Negative attitudes towards differences and resulting discrimination and prejudice in society manifests itself as a serious barrier to learning” (Guidelines for inclusion, 2005, p. 22). Research from Woodcock and Hitches (2017) found that at the secondary level, teacher attitudes toward

inclusive teaching declined after their first year in-service. One contributing factor to this decline may be the apparent cross-purposes of inclusive policies combined with accountability for achieving standards. In their research in the UK, Woodcock and Hitches found that standardized testing measures have narrowed the lens through which educators can measure student progress. (Woodcock & Hitches, 2017). Teachers experience frustration when students with disabilities are expected to meet the same level of achievement on state tests as their non-disabled peers. This factor, in combination with classroom size, availability of support, overall workload (Guidelines for inclusion, 2005, p. 22; Akçamete & Özlem, 2018, p. S792), the severity of the disabilities of students assigned to them (Avramidis & Norwich, 2002, cited by Woodcock & Hitches, 2017, p. 301), and the views of their colleagues (Boyle, Topping, & Jindal-Snape, 2013, as cited by Woodcock & Hitches, 2017, p. 301) may all contribute to a decline in positive perspective regarding teaching students with disabilities.

Teachers with low expectations of their students with disabilities can be a contributing factor to the students' failure to meet standards. Akçamete and Özlem (2018) observed that a frequently used accommodation for students struggling in reading was to provide simplified materials, more aligned to the student's performance level rather than giving the students grade-level materials. They noted a belief among teachers in their study that, "...these students are children who do not know how to learn" (Akçamete & Özlem, 2018, p. S796). Indeed, Woodcock and Vialle (2011, cited by Woodcock & Hitches, 2017) observed that teachers with a misunderstanding of the needs

of students with learning disabilities, "...lead to less positive expectations of achievement for these students and an underestimation of their ability" (p. 302). In fact, when educators tie a poor grade to the *effort* students put forth, students believe they have control of their outcomes. "Students may deduce that more was expected of them, informing them of their capability to succeed" (Weiner, 2000, as cited by Woodcock & Hitches, 2017, p. 303). Whereas, when teachers express sympathy or give positive feedback despite poor performance, students internalize a belief that they are not capable. The teacher's intention, which is to build self-esteem, backfires and results in lower self-esteem for the student (Woodcock & Hitches, 2017).

Impact of Teacher Training

National Center for Learning Disabilities and Understood (2019) reported that teacher training programs fall short in preparing pre-service teachers – both in general education and in special education – to fully meet the needs of students with disabilities. Their survey indicated that only seven states require coursework for teaching students with disabilities at the elementary and secondary level, two states require clinical experiences with students with disabilities and just one state has requirements for standards, coursework, and clinical preparation. "In effect, almost every state has failed to bring their licensure or certification standards in line with our new reality: Every general education teacher will surely have students with high-incidence disabilities in their classroom" (National Center for Learning Disabilities, & Understood, 2019, p. 12). Those pre-service teachers who have had coursework in teaching students with

disabilities may not derive the intended benefit. Woodcock and Vialle (2016, as cited by Woodcock & Hitches, 2017) found that, “Pre-service teachers who had taken an inclusive education unit were shown to have lower expectations for students with SpLD (learning disabilities) than for those students without SpLD” (p. 302). Unfortunately, fewer than 50% of teachers who were training to work in general education classrooms felt capable of identifying disruptive behaviors as a response to not knowing how to access help, not feeling confident in a concept being taught, or not knowing how to organize their work. One in three general educators identify student learning disabilities as laziness, while one in four believe they can be outgrown (National Center for Learning Disabilities, & Understood, 2019, p. 13).

The training special educators receive does prepare them to work with students who have disabilities, however it falls short in content area pedagogy. In their comparison of general education and special education training programs, Brownell et al., (2005) found, “...limited evidence of two defining features of exemplary teacher education programs: a strong programmatic vision and a heavy emphasis on subject-matter pedagogy” (p. 248). Brownell et al., (2005) found that special education programs focused attention on instructional methods, assessment, and IEPs, but not on subject-matter pedagogy. They further found that unlike most general education programs, few special education programs communicated a clear vision that served to guide programmatic decisions. Surveys conducted of in-service general education teachers by Akçamete and Özlem (2018) revealed that expectations of the instructional

supports to be provided by special education teachers were high, but opinions of their teaching ability was low (p. S802).

A contributing factor to the lack of subject-matter pedagogy for pre-service special education teachers may lie in the funding some programs rely on. The Office of Special Education Programs (OSEP), which is run by the U.S. Department of Education, funded 42% of the programs in the Brownell study. OSEP's funding typically requires its grantees to focus on specific areas within special education. OSEP funded programs were less likely to utilize student cohorts, to emphasize cultural diversity or the acquisition of teacher knowledge (Brownell et al., 2005, p. 248). Brownell et al. (2005) found that programs that emphasize cultural diversity in particular produce teachers whose students have greater academic success. The study concluded that more research is needed regarding the impact of OSEP funding on special education preparation programs.

Knowledge of Interventions

It is clear in the research that students who are struggling with reading when they reach middle school will experience increased levels of frustration in their coursework. At the secondary level, more time is spent reading to learn increasingly complex concepts, with little instructional time devoted to learning to read (Shippen et al., 2005; Solis, 2012), putting students who require interventions at greater risk of falling further behind. Making academic progress is complicated for these students by the fact that about two-thirds of teachers who teach English for less than half of their school day, did not major in English in college and have not taken extensive college course work in the

subject (Robinson, 2011, p. 43). In addition, interventions for improving reading ability at the secondary level are under-researched. “Although applying effective prevention programs that address early reading difficulties is fundamental to preventing further reading difficulties in at-risk children, intervention approaches for students who have already exhibited reading failure have less empirical support” (Kamil et al., 2008, as cited by Vaughn et al., 2011, p. 392). Increased research in reading interventions for older students is needed.

The existing research does show that secondary students who struggle with reading have a wide range of gaps that need to be addressed. “These include problems in recognizing words, understanding word meanings, and understanding and connecting with text; students often lack background knowledge required for reading comprehension” (Biancarosa & Snow, 2004, as cited by Vaughn et al., 2011, p. 392). In response to intervention (RTI) models, special education teachers frequently take an individualized approach to remediation of students requiring Tier 2 interventions, even though there is a paucity of research regarding the effectiveness of individualized interventions.

In a study by Vaughn et al. (2011) comparing the efficacy of an individualized approach to intervention in which teachers base their instructional decision on individual variations in student progress with a standard protocol intervention which uses, “research-based instructional programs and is provided in a specified manner to all students with learning difficulties” (Vaughn et al., 2011, p. 393), students increased their

reading comprehension levels using the standard protocol, but did not achieve gains using the individualized intervention. Despite the common practice in special education of utilizing individualized interventions, Vaughn et al., (2011) found, “Overall, students identified with disabilities (i.e., served by special education) were at more of a disadvantage (i.e., had poorer outcomes) in the individualized condition than in the standardized condition” (p. 404). One might be tempted to use these results to bolster an argument in favor of inclusion, as “Inclusion opponents suggest that special education will become diluted and no longer ‘special’” (Rea, McLaughlin & Walther-Thomas, 2002, p. 204), and the standardized – or general education - protocol had a positive result. However, the results from Vaughn et al., (2011) found little increase in reading fluency.

Without additional training, the combined skills of a general education and a special education teacher will likely not be enough to bridge the reading skills gap for middle school students. Until training programs bolster their preparation for teaching in inclusion settings, educators working in these settings need specific, research-based strategies if their students are to make the academic progress needed to be successful. The following section identifies reading strategies appropriate for middle school students which can be adapted to accommodate a variety of cognitive strengths.

Reading Strategies for Middle School Students

As the demands of content reading increase at the middle school level, the academic challenges for students with learning disabilities also increase. The rate of identification of a learning disability increases as students get older. Students with

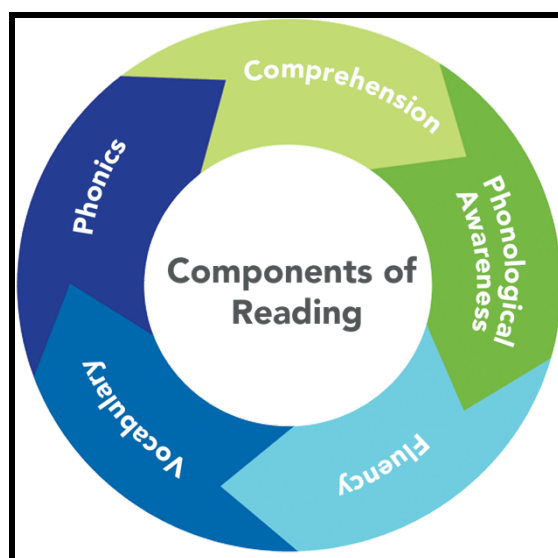
learning disabilities drop out of school at a rate that is three times higher than that of their peers who do not have learning disabilities (Solis, 2012). In the school year ending in 2017, only 67.1% of students with disabilities graduated from high school compared to 84.6% of their peers without disabilities (U.S. Department of Education, 2020). Shanahan (2015) identified students who are reading between the 35th and 50th percentile as “strugglers” who will need scaffolding and extra time when accessing grade level, content specific reading materials, while those reading below the 35th percentile will require explicit foundational instruction in reading skills.

The Report of the National Reading Panel (2000) defined the five components of effective reading instruction as phonemic awareness, phonics, fluency, vocabulary, and comprehension. However, the report indicated that systematic phonics instruction had its greatest impact on kindergarten and first graders, but, “...failed to exert a significant impact on the reading performance of low-achieving readers in 2nd through 6th grades (i.e., children with reading difficulties and possibly other cognitive difficulties explaining their low achievement)” (National Reading Panel, 2000, p. 110). The finding has been reinforced that using phonics instruction to improve decoding practices, and using decodable texts, does not have a basis in evidence after first grade (Allington, 2013; Shanahan, 2005). For this reason, strategies in this section will focus on developing the components of phonemic awareness and vocabulary, fluency, and comprehension. These research-based strategies, appropriate for older, low-achieving readers, inform the

development of the Greek and Latin root vocabulary curriculum project described in Chapter Three.

Figure 3

Five Components of Reading Instruction (Florida Center for Reading Research, as cited by Durrance, 2017)



An underlying consideration in examining interventions that are appropriate for middle school students is the conventional wisdom, mentioned previously, that students first learn to read, and then they read to learn. Robb (n.d.) presented this idea as mythology. The process of learning to read and then reading to learn should be viewed by educators as a continuum. Students in early grades focus on decoding words and they read from decodable texts. Rather than having a “Mission Accomplished” moment at the end of the third grade, in which, “Teachers expect students to apply the sight-word and decoding skills, supposedly gained in the earlier grades, to new and challenging

content-area information” (Robb, n.d.), teachers in the upper grades, middle and even high school, must scaffold students’ reading practices and apply evidence-based reading strategies to the authentic texts of subject-matter pedagogy. The reading strategy research was reviewed with that approach in mind.

Phonemic Awareness and Vocabulary

Phonemic awareness is the ability to identify phonemes (the sounds within words) and manipulate them. Many young children acquire phonemic awareness as a pre-reading skill. Phonemic awareness begins before learning phonics, which is the ability to map sounds to printed text. Phonemic awareness develops in children as they listen to sounds to printed text. Phonemic awareness develops in children as they listen to language, play rhyming games, and are read to. “Without phonemic awareness, phonics is harder to learn” (Shanahan, 2005, p. 9). While the research shows that direct instruction of phonics after first grade is ineffective, there is some evidence to show that older students benefit from phonemic awareness instruction (National Reading Panel, 2000). In older students, the research links phonemic awareness with a morphemic approach to vocabulary instruction (Bhattacharya, 2020).

Along with phonemic awareness, understanding word meanings is a foundational component to overall comprehension. Children are exposed to vocabulary through spoken interactions with others, through the media they consume, and through reading – both independent and academic. However, in building critical vocabulary, students with greater means have a greater advantage. Shanahan (2005) cited a landmark study by Hart and Risley (1995) that found, “...children in low-income families were exposed to half as

much spoken language during their first four years of life than were children from working-class families” (p. 27). Utilizing evidence-based instructional methods can help to close this gap. The National Reading Panel (2000) stated that repetitive exposure is a key element in vocabulary development. “Students should not only repeat vocabulary items in learning; they should be given items that will be likely to appear in many other contexts” (p. 249). In addition to allowing for repetitive exposure, activities should allow students to engage deeply with the vocabulary. Activities such as copying definitions from a dictionary provide only superficial engagement with the words and are shown to be ineffective (Shanahan, 2005, p. 29).

Recommended Phonemic Awareness and Vocabulary Strategies.

A number of strategies can be utilized with students at the middle school level to fill gaps in phonemic awareness and vocabulary development. *Semantic mapping*, also known as word webs, help students connect new vocabulary to their background knowledge of known, related words (National Reading Panel, 2000, p. 257). A guided activity, the class brainstorms words related to a newly learned word, discovering how much they already know about the new word. *Read alouds* (the instructor reads while students follow along in their own copy of the material) have multiple benefits in middle school. They enable students with disabilities whose reading levels are below grade level, to access more sophisticated language and content than they are able to when reading independently. It provides an opportunity for the instructor to, “...model and engage students in higher-level thinking. They ask questions to prompt discussion about vocabulary and

comprehension, define words, and reread the text” (Morrow & Gambrell, 2019, p. 205). Read alouds that utilize these techniques can increase vocabulary by 22% (Morrow & Gambrell, 2019). Middle school teacher Short (2019) advised devoting the last five minutes of class to read alouds so that, “...students walk out of class talking about the book and wondering what will happen next in the story.” *Analysis of roots and affixes*, also called morphemes, are a means of remediating phonemic awareness while strengthening vocabulary. “Knowledge of prefixes, suffixes, and Latin and Greek base words help readers read words and gain an understanding of meaning based morphemic units in English words” (Henry, 2017, as cited by Bhattacharya, 2020, p. 2). Berrill (2018) concurred with this finding, stating, “A morphological approach thus not only complements a phonemic approach to decoding but it is of tremendous help for people who have difficulty with the phonics approach as it does not rely on the ability to *hear* the sounds of words.” Learning a relatively small number of roots and affixes can unlock meaning for thousands of words. “A small set of Greek and Latin roots (14 total) also hold much potential for enabling students to understand unfamiliar words; they can be combined with other morphemes to create 100,000 words” (Brown, 1947, as cited by Morrow & Gambrell, 2019, p. 209).

Table 1

Power of prefixes and suffixes (Morrow & Gambrell, 2019, p. 210)

Prefixes	Suffixes
un- (not, opposite of)	-s, -es
re- (back, again)	-ed
in-, im-, il-, ir (not)	-ing
dis- (opposite of)	-ly
en-, em- (put into)	-er, -or (agent)
non- (not)	-ion, -tion, -ation, -ition
in-, im- (in, into)	
over- (too much)	
mis- (badly, wrong)	
Percentage of all prefixed words: 60%	Percentage of all suffixed words: 80%

The study of Greek and Latin roots is a sophisticated and age-appropriate means of remediating skills not mastered in early elementary school and they form the basis of my curriculum project described in Chapter Three. Building phonemic awareness and deepening vocabulary leads to increased fluency, which is crucial to good comprehension.

Fluency

Fluent readers read with accuracy, at an appropriate speed (rate), and with proper expression (prosody). “Fluency represents a level of expertise beyond word recognition accuracy, and reading comprehension may be aided by fluency” (National Reading Panel, 2000, p. 191). Repeated, oral reading is a key component of fluency instruction, but this is often accomplished with round-robin reading in class. The research shows that round-robin reading, in which one student reads aloud while the others listen, while widely practiced, is ineffective (Ash, Kuhn, & Walpole, 2008; Rasinski & Hoffman, 2003, as cited by Allington, 2013, p. 526; Shanahan, 2005). One problem with the approach is that only one student benefits (Stallings, 1980, as cited by Shanahan, 2005, p. 21), and because the student reading may not be modeling fluency, “...the interruptive round robin oral reading lesson fosters the dysfluency that typically marks the oral reading behaviors of struggling readers” (Allington, 2009b, as cited by Allington, 2013, p. 527). In addition, the practice produces anxiety for struggling readers, is boring, and wastes instructional time (National Reading Panel, 2000, pp. 3-11). The most effective ways to increase fluency are through guided, repeated oral reading practices, readers theatre, and modeling fluency through read alouds (Hicks, 2009, p. 321). While middle school students with learning disabilities may lose patience reading the same passage repeatedly, there are strategies for making this practice part of a deeper dive into content in an inclusion classroom.

Recommended Fluency Strategies for Middle School.

Reading fluently, that is reading accurately, with appropriate speed, and with expression, is necessary for good comprehension. Effective strategies to develop fluency must be identified for struggling middle school readers. *Partner reading* is a strategy in which two students are paired. One reads aloud and the other follows along (Shanahan, 2005, p. 23). The listening partner might be tasked with identifying a feature of the text, such as examples of figurative language. Students can also take turns reading out loud while working together to annotate a text passage. Unlike round-robin reading in which one reader reads while the entire class listens, partner reading enables groups to work in pairs, reducing the performance stress. Students can be paired with a classmate with whom they are comfortable, and in a single class period, more students are reading so more have the opportunity to practice. *Reader's theatre* naturally lends itself to repeated readings. Jones, Clarke and Enriquez (2010) recommended that older students use texts they find motivating such as those dealing with social justice issues. They can write their own scripts based on preferred texts. "Reader's Theater can also be turned into a videotaping or podcasting experience for students, giving them a wider audience beyond the four walls of the classroom" (Jones, Clarke & Enriquez, 2010, p. 51). *Read alouds*, described earlier as a phonemic awareness and vocabulary strategy, are also beneficial in developing fluency. They provide students with an opportunity to listen to the teacher modeling reading with appropriate phrasing, acknowledging punctuation, reading with expression, changing tone for different characters, while also stopping for discussion and

defining challenging words. Using the strategies to build fluency also helps shape meaning in reading, leading to improved comprehension.

Comprehension

Comprehending the text goes further than simply remembering what has been read. The National Reading Panel (2000) cited Durkin (1993) in saying, “Reading comprehension has come to be viewed as the ‘essence of reading,’ essential not only to academic learning but to life-long learning” (p. 228). While the strategies previously discussed lay the groundwork for reading comprehension, an additional layer of “intentional thinking” must be added to the reading process. This involves explicitly teaching students the strategies they use while reading to help them think about their thinking.

Recommended Comprehension Strategies for Middle School.

Strategies which help students think about what they already know, and consider what they are about to learn, help them to better comprehend the material they read.

Frontloading of background knowledge prior to reading helps students to consider what they already know, and what the purpose of their reading is (Morrow & Gambrell, 2019, p. 155). This can be done with a KWL (What I: Know – Want to Know – Hope to Learn) chart, a QHT (I Have: Questions about this - Heard of this - could Teach this to others) chart, or a discussion of some of the vocabulary the student will encounter in the reading.

Summation of the Main Idea, “...teaches students to capture the most important information about the overall idea of a paragraph or a body of text and expresses this

information in a condensed form” (Solis et al., 2012, p. 331). Students with learning disabilities who were taught a review procedure for summarizing the main idea, then given scaffolding for the procedure in the form of a checklist, outperformed their peers who worked without a checklist in their ability to transfer their learning to other topics (Solis et al., 2012). *Story mapping* is a graphic representation of a story summary in which students identify the story's events – setting, rising action, climax – in a graphic organizer (Shanahan, 2005, p. 46). *Annotation*, the act of marking the text in a meaningful way, helps students to, “...slow down, reread, and interact with texts” (Morrow & Gambrell, 2019, p. 164). Explicit instruction and guided practice in annotation, with markings that follow teacher-led guidelines, help students practice close reading and to use the annotations effectively for test or writing preparation (Morrow & Gambrell, 2019).

Summary

The reading strategies described in this section can all be incorporated into an inclusive English language arts classroom at the middle school level. They reflect the idea that learning to read is a continuum, and strategies for improved reading practice are part of grade-level literary and informational reading. As Chapter Two described, inclusive settings reap benefits for students with disabilities, including a higher rate of post-secondary education. But inclusion must be approached deliberately. Teaching in an inclusive setting is complex, as the chapter describes. In order to help students achieve academic progress, co-teachers must have both appropriate training and time for

co-planning. They must work with research-based strategies that will provide students with appropriate practice in both foundational skills they lack and the grade level skills they need to develop. Chapter Three will describe how teachers in an inclusive middle school classroom can use Greek and Latin roots to practice foundational skills. This curriculum is part of a toolkit of effective reading interventions co-teaching teams need to enable students with learning disabilities to achieve academic progress.

CHAPTER THREE

Project Description

Overview

When I began teaching middle school special education ELA, I found myself tasked with bringing reading levels up in students with learning disabilities who were reading at first and second grade levels. I held Washington State secondary endorsements in both English and social studies, and a PK-12 endorsement in special education. None of my coursework in any of these endorsements provided training in teaching specific, research-based strategies to teach foundational reading skills. My Title I building had two reading specialists, each teaching multiple sections of remediated reading. When I asked if students with disabilities could be placed in reading classes with a reading specialist, I learned that funding prevented that from happening. Reading specialists were paid as part of Title I federal funding, while services for students in special education were paid by state dollars. This experience led me to the question, *what are effective reading interventions for middle school students with learning disabilities that will enable them to achieve academic progress in an inclusive classroom?*

Middle school students face increasingly complex texts as academics become more challenging. Research reviewed in Chapter Two showed that students reading below the 35th percentile require explicit, foundational reading instruction (Shanahan,

2015). These students are increasingly placed in inclusive classrooms. Inclusive environments are shown to improve both self-esteem and the opportunity for post-secondary educational success.

However, a concern for students in inclusive, co-taught models, as previously shown, is that too often the general education teacher lacks training in scaffolding instruction for students requiring remediation, and the special education teacher lacks knowledge in subject-matter pedagogy. Inclusive, co-taught settings which result in student success require adequate teacher training, time for co-planning, and effective strategies for remediating foundational skills. My goal for this Capstone was to begin building a toolkit of research-based reading strategies that are appropriate for both the middle school age group and the inclusive classroom setting. I have identified learning Greek and Latin roots as a high leverage strategy which provides foundational phonological awareness practice, it enables students to construct meaning from many words after learning a relatively small number of roots, and will incorporate writing practice in a multi-sensory, daily inclusion classroom exercise.

Project Description

To aid middle school co-teaching teams in delivering explicit, foundational reading instruction within an inclusive classroom, a year-long Greek and Latin root word vocabulary curriculum has been devised for use in seventh grade English Language Arts classes. Learning a root word gives students a tool to unlock the meaning of multiple related words, thus expanding vocabulary (Brown, 1947, as cited by Morrow &

Gambrell, 2019). The National Reading Panel (2000) reported that a rich vocabulary is critical to reading comprehension. It recommended exposure to words likely to be encountered in many contexts. Further, by examining the morphemic unit of the roots, students also strengthen their phonemic awareness. As previously shown, while phonemic awareness is typically acquired as a pre-reading skill, there is evidence to show that working with morphemes helps to bolster phonemic awareness in older students (Chomsky & Halle, 1968; Venezky, 1999; as cited by Gray, Ehri, & Locke, 2018). Phonemic awareness, like vocabulary, was identified in the National Reading Panel Report as critical to improve fluency and comprehension.

The Greek and Latin roots vocabulary curriculum introduces a new root word each week of the school year. A different activity related to the root will be practiced each day, using ten to fifteen minutes of class time. This could be used as a warm-up or entry activity. A list of ten words that contain the root is provided, allowing for differentiation (see Table 2 below).

Five more commonly known words are in the “Word List.” All students will be expected to work with these words in the different activities during the week. Three of the most common words from the Word List will be in bold. Students requiring the highest level of scaffolding may use just the three words. Five less commonly known words will be in an “Additional Words” list. Students requiring less scaffolding may add these words to each activity during the week. Some may include words that peers have added to an anchor chart posted in class where students can add words they know or

encounter containing the root. The roots themselves would be placed on a classroom word wall to reinforce learning.

Table 2

Example Weekly Word List (for root word “aud”)

Word List	Additional Words
Audience	Audiologist
Audible	Audit
Audition	Auditory
Audio	Audiophile
Auditorium	Audiovideo

The Monday activity is an introduction of the root and completing a Q-H-T (Question – Heard – Teach) chart for the Word List words. A Q–H–T chart was selected because it is used in the district’s SpringBoard curriculum published by College Board. A K-W-L (Know – Want to Know – Learn) chart could be substituted.

On Tuesday, students will use the provided definitions for the three common, bolded words from the Word List that include the root (e.g., Aud: to hear - auditorium, audience, audition) to illustrate their words. They can research images online to find an image that matches the definition. This incorporates multi-sensory learning to accommodate different learning styles.

On Wednesday, students find dictionary definitions for words from the list which do not have provided definitions.

The Thursday activity will vary from week to week. On a rotating basis, it will be breaking the words from the provided list into their syllable parts, sorting the provided

list according to where the root falls (beginning, middle, end) then drawing a box around the root, tracing the root in colored pencil, creating a word web, and finding the list word that rhymes with a provided word.

Friday culminates in a writing exercise that requires using words from the provided list. Early in the year, as students learn the procedure for the vocabulary exercise, students will be asked to write complete sentences for each word from the five-word list. Once the procedure is learned, the writing sample will vary slightly from week to week, but will align with grade-level, standards-based, IEP goals. For example, students may be asked to write an informational paragraph that has a topic sentence, supporting details and a conclusion, using at least three words from the list. This is in alignment with CCSS W.7.2. They may be asked to make a claim and support it with logical reasoning, again using at least three words from the list. This is in alignment with CCSS W.7.1 (National Governors Association Center for Best Practices, & Council of Chief State School Officers, 2010). The writing exercise is designed to be a quick, in-class write and can be accompanied by higher levels of scaffolding for students, such as provided transition words or sentence starters, depending on their individual needs. As the year progresses, students working at a higher level can be asked to cite evidence based on an accompanying non-fiction text.

Assessment

Progress monitoring of students' standards-based IEP goals will provide assessment of effectiveness of the intervention. Running records given every two weeks

will have vocabulary from the curriculum in the reading passage. Students will be asked to define the vocabulary word. Additionally, the Friday writing sample will be used to assess students' progress toward IEP writing goals. The sample allows students to show their ability to use words in context. The weekly assessment will provide instructors with information about whether new vocabulary was understood, whether more in-class word work is required, and whether students need increased guided instruction in written expression.

Rationale

As inclusive classrooms become the norm, general education and special education teachers must find ways to incorporate strategies for increasing the foundational reading skills of students with learning disabilities into the core content curriculum. Increasing vocabulary is accepted in the research as beneficial to improving students' reading comprehension (National Reading Panel, 2000; Jones, Clarke, & Enriquez, 2010). According to Michael Graves (2006, 2008; cited by Jones, Clarke, & Enriquez, 2010), two critical components of a vocabulary program are teaching word-learning strategies and fostering word consciousness. Teaching Greek and Latin roots provides students with a tool to construct meaning when faced with unknown words. It helps students use the strategy of connecting words they do know, with those they do not (Jones, Clarke & Enriquez, 2010) thus increasing their word consciousness. Additionally, the research, "...is clear that teaching morphology impacts literacy achievement" (Carlisle, 2010; Goodwin, Huggins, Carlo, August, & Calderon, 2013, as

cited by Morrow & Gambrell, 2019, p. 189). Middle schoolers encounter increasingly challenging academic vocabulary as their content course work grows in complexity, and such academic vocabulary is morphologically complex (Gray, Ehri, & Locke, 2018). Exercises that connect and, “increase the reader’s awareness of both morphemes and phonemes makes sense given the morpho-phonemic structure of English orthography” (Chomsky & Halle, 1968; Venezky, 1999, as cited by Gray, Ehri, & Locke, 2018, p. 78).

Audience and Setting

The Greek and Latin root vocabulary curriculum will be utilized in a seventh-grade inclusion English language arts (ELA) class. These classes have a combination of students with and without IEPs. Seventh-graders were chosen because they are the youngest group in our current middle school model. In the following year, eighth graders will study affixes, providing an opportunity to expand their vocabulary knowledge of prefixes and suffixes and review their work on root words and meanings, all while continuing to build the foundational skill of phonemic awareness, and practicing their written expression through the weekly writing sample. When the district middle schools shift to a three-year model (sixth, seventh, and eighth grades in one building), basic Greek and Latin roots will be taught in sixth grade, affixes in seventh-grade, and a combination of the two in eighth grade.

Curriculum Framework

Learning Greek and Latin root vocabulary falls into a constructivist learning framework. In a constructivist framework, the student is an active participant in the

development of his or her base of knowledge. The instructor, who has depth of knowledge in the subject matter, guides the student to actively construct meaning from materials (Fernando & Marikar, 2017). When using the root vocabulary curriculum, the teacher facilitates the student's acquisition of knowledge beyond the weekly root presented, as the student is acquiring a tool to construct meaning from previously unknown words. Root word knowledge develops student awareness that words are derived from other languages. They learn that when they possess knowledge of part of a word, they can untangle meaning for the whole word. As the student encounters unfamiliar words, acquired knowledge of Greek and Latin roots provides students with the tools to analyze and decipher word meanings (Yurtbaşı, 2015).

Project Outline and Timeline

This curriculum will be implemented over the course of the school year. It is intended to be used as an opener or entry task and take ten to fifteen minutes of the class period. Teachers could assign a section as homework if they need to use the class time differently on a particular day. However, at the middle school level, students with disabilities frequently need encouragement, which includes modeling to complete literacy-related tasks. The negative experiences they have had with such coursework can serve to discourage many students from engaging. Modeling and doing the tasks together in class encourages participation in the activity.

Summary

The Greek and Latin root vocabulary curriculum is one tool, though by no means the only tool, that general and special education teachers can use in an inclusive classroom setting to provide reading interventions to students with disabilities. A variety of tools addressing different aspects of literacy instruction are needed to enable students to make gains in reading.

The Greek and Latin root vocabulary curriculum is grounded in research from the National Reading Panel (2000) of effective strategies to use with readers at the middle school level to help achieve academic progress. Learning root words utilizes a constructivist framework to provide students at the middle school level with a tool to decipher the meaning of challenging vocabulary they will encounter in their core-content courses. Students are assessed in terms of their progress toward reaching standards-based IEP goals. As the previously reviewed research has shown, increased knowledge of vocabulary is critical to reading comprehension. In addition, the exercises students perform in working with the words helps them to analyze the morphemes and increase both morphemic and phonemic awareness – skills necessary for reading fluency. Scaffolding options built into the curriculum enable teachers to differentiate the curriculum according to individual student needs. The following chapter will reflect on improvements that can be made on the Greek and Latin root vocabulary curriculum following its implementation during the current school year, as well as on ways to improve inclusive practices and teacher training.

CHAPTER FOUR

Critical Reflection

Introduction

The question I sought to answer in my Capstone project was, *what are effective reading interventions for middle school students with learning disabilities that will enable them to achieve academic progress in an inclusive classroom?* This resulted from the observations I made teaching in placements that included both inclusive classrooms and a self-contained resource room. In the resource room, students with learning disabilities were expected to improve their reading ability though they were served by special education teachers who do not hold content endorsements and have not been trained in research-based reading strategies. To remedy this, students with disabilities are increasingly placed in co-taught, inclusive classrooms; however, in my observation, modifications that might enable students to recover the foundational reading skills needed to succeed in school were not provided by content area teachers. For students with disabilities to make academic progress in an inclusive setting, their teachers must have training that is appropriate for their needs.

This chapter will review the key findings of my research into the issues of inclusion, teacher training, and effective reading strategies that can be employed to help students improve academic outcomes in an inclusive, co-taught, middle school ELA

classroom. Policy implications regarding teacher training based on these findings are suggested and the limitations on the project due to our current pandemic are discussed.

Key Findings from the Research

A key takeaway from my research as well as a validation of my own experience was the conclusion by Collins et al. (2001) that inclusionary practices are not simple. In 2019, the legislature in my state of Washington, provided incentive funding to encourage schools to increase inclusion (Wellman, 2019). This legislation was passed as a response to Washington being ranked 44 of 50 for including students with disabilities in the general education environment (OSPI Special Education, & Center for Strengthening the Teaching Profession, 2020). The incentive led the school where I was placed during the 2019-20 school year to move all students with learning disabilities to general education classes with part-time co-teaching. The extent of teacher training that accompanied this change took the form of a one-page handout on co-teaching models. This quick fix led to increased discipline issues for students with IEPs, which is not, I suspect, the outcome the legislators sponsoring the inclusion incentive wanted. Student outcomes will not improve merely by placing two teachers in the classroom. For inclusive co-teaching to be successful, it must be accompanied by time for co-planning and adequate teacher training (Dieker, 2001, as cited by Wexler et al., 2018).

Related to the finding that effective inclusionary settings are not simple was the finding of Magiera and Zigmond (2005) that research on the efficacy of co-teaching lacked a focus on student achievement. While there is evidence regarding the concept of

ability formation, which is when, "...students come to accept a conception of their perceived ability status consistent with that institutionalized in larger society" (Rosenholtz & Simpson, 1984, as cited by Fitch, 2003, p. 246), and that students with disabilities have more positive perceptions of their abilities when they are in inclusive environments, it is nevertheless necessary to understand whether and how much they are progressing academically. It is also important to understand what is contributing to those academic gains, and whether it is the training of the teachers, the strategies teachers implement, or the fidelity with which implementation of the strategies occurs — or some combination of those factors.

For students with learning disabilities, academic growth is guided by the student's IEP and the "specially designed instruction" it requires. The most surprising finding for me in the research was that the use of a research-based, standard protocol resulted in a greater increase in reading comprehension than the individualized approach to intervention which is at the heart of a student's IEP (Vaughn et al., 2011). Since students with disabilities drop out of school at a rate that is three times that of their non-disabled peers (Solis, 2012) and face an unemployment rate as adults of 80% (U.S. Department of Labor, Bureau of Labor Statistics, 2020), it should not have come as a surprise that the learning goals written into an IEP may not be accompanied by effective intervention strategies. After all, training programs for the special education teacher focus on differentiation of instruction rather than on content (National Center for Learning Disabilities & Understood, 2019).

Shanahan (2015) found that as content becomes more complex at the secondary level, struggling readers will not only need content-specific materials scaffolded, but some may require explicit foundational reading instruction. An aspect of my research that particularly resonated for me was the idea that learning to read is a continuum (Robb, n.d.). Explicit reading instruction using evidence-based reading strategies should not end at fourth grade but must continue into upper elementary and secondary grades in order to help students who are struggling access the complex content-area texts they encounter. Research showed that for older students, learning root words not only unlocks the meaning of many words after learning a relatively small number of roots, but learning morphemes builds phonological awareness and aids in decoding (Berrill, 2018; Brown, 1947, as cited by Morrow & Gambrell, 2019).

Implications on Policy

If middle school students with learning disabilities are to improve in their reading ability, their teachers must have knowledge of effective methods of reading instruction. It would be most beneficial to students if special education teachers who provide reading instruction to students are dual endorsed in reading. Beginning in September 2019, the state of Washington began requiring dual endorsements for teachers wanting to work in special education (Washington State Office of the Superintendent of Public Instruction, n.d.). This policy, along with incentive funding for increased inclusion, was meant to address the poor outcomes previously noted for students with disabilities. However, a statistical analysis performed by Theobald et al. (2020) showed that special education

teachers who held another endorsement were more likely to leave special education and teach in their second endorsement area.

As my 2020-21 school year has gotten underway in a fully remote environment due to the Covid-19 pandemic, the demands of learning online platforms, prepping for a co-taught English class, a resource English class (which in my middle school building is limited to students with IEPs who are still emergent readers), a study skills/social skills class, and managing a full caseload of students with IEPs, I know that I have found myself wondering if remaining in special education is worth the workload. If policymakers are serious about changing outcomes for students with disabilities, they will find a way for special educators to increase their training and become more specialized. It may be that the task of case management should be separated from that of teaching so that case managers can focus on paperwork related to IEPs, recording data related to IEP goals, and conducting IEP meetings, while special education teachers can focus on modifying and adapting curriculum. Perhaps generalist special education teachers who do not have core content area endorsements should be limited to teaching study skills and social skills, and that special educators working in co-taught English classrooms need to also be reading specialists.

Limitations

Covid-19 has imposed significant limitations on the implementation of my Greek and Latin root vocabulary curriculum and my assessment of its use. My co-teacher and I are finding that in our remote learning environment most class activities are taking

approximately twice the time as they might in-person. Students run into technical difficulties and require repeated instruction, and in our remote model, we meet every other day instead of daily. Students need more time to review previous learning. Our district's ELA department is currently meeting to reassess targets for the year, to ensure the most critical standards for students are being addressed. Others will be dropped. My co-teacher and I planned to use the Greek and Latin root vocabulary curriculum as a warm-up in our co-taught classes but determined it had to be one of the items we let go. Our reading focus for first semester will now be solely on providing scaffolded support in finding the central idea of informational text. This skill will provide students the greatest support in their content reading in other classes. We are hoping that next semester, as students gain skills in the online platform, we will be able to bring in the vocabulary curriculum as well as other reading strategies like read-alouds and readers' theatre.

My resource ELA students who are all emergent readers are using the Greek and Latin roots vocabulary curriculum. With just seven students, my resource group is a third the size of my co-taught classes and I am able to coach them in the different tasks in less time. Because we have fewer instructional days in remote learning, we take two weeks per root word. This enables them to complete all the activities and the repetition of the root word over that span of time is helping them to recall it. Because students complete the work in a fillable PDF, they are not able to incorporate things like tracing the words or coloring the accompanying illustration. Those activities allow students with ADHD or other disabilities that impact processing speed to move into the tasks gradually. Without

them, students can be slow to get started which is challenging to monitor online. It is hard to know if a student is thinking about what to do next, or if they have opened another browser tab and are watching YouTube videos. However, I am encouraged to see more detail in the final writing activity as the weeks progress.

Future Research

As previously mentioned, Magiera and Zigmond (2005) found that research on co-teaching lacked data on student achievement. Further research needs to be conducted on both the impact of co-teaching and the impact of teacher training on the progress of students with disabilities. Within the co-taught ELA classroom, it would be beneficial to know whether one of the two teachers possessing a reading endorsement improves reading outcomes for students with learning disabilities.

Communication of Results

Despite the limitations of remote learning, I plan to continue utilizing the Greek and Latin root word vocabulary with resource students and hopefully with students in our co-taught classes in the spring. Working with my co-teacher, we will edit the activities in the weekly packets as needed. Once we return to in-person learning, I want to expand the packets to include prefixes and suffixes that can be used by the 8th grade ELA co-teaching team.

Additionally, because our school is working with advisors from the University of Washington as part of a long-term grant partnership, which in turn is partnering with the Washington State Office of the Superintendent of Public Instruction, I have an

opportunity to discuss the issue of identifying and implementing research-based reading instruction strategies in inclusive classrooms. We work with our assigned team at UW multiple times throughout the year with an open door to discuss concerns. This is a fortunate opportunity to raise the issue of the need for middle school students with disabilities to have reading instruction provided by teachers with a reading endorsement.

Summary

My primary focus as I approached this project was to answer the question, *what are effective reading interventions for middle school students with learning disabilities that will enable them to achieve academic progress in an inclusive classroom?* What I discovered was that effective interventions need to be implemented in an effective teaching environment. This school year, as I have begun work in a middle school that is developing its inclusive practices with advisors from the University of Washington as part of a long-term grant partnership, the differences in my professional relationship with my co-teacher are distinct from previous years. I am co-teaching three sections of one subject with one partner teacher (as opposed to one section of three or four subjects with three or four partner teachers) and we have a mutual prep period. In addition, we are able to talk informally between classes, strategizing about student needs and developing solutions to problems we observe. While the unique conditions of the pandemic make it impossible to draw concrete conclusions about anything, my current co-teaching partnership in which we both are receiving training in co-teaching, we have time for co-planning, she is a veteran ELA teacher and I have content endorsements along with a

special education endorsement, feels like an appropriate framework for positive results for our students.

References

- Akçamete, G., & Özlem, D. G., Opinions of classroom teachers on reading comprehension difficulties, inclusion education and co-teaching. *Quality & Quantity*, vol. 52, no. Supplement 1, Springer Netherlands, Dec. 2018, pp. 791–806, doi:10.1007/s11135-017-0664-7.
- Allington, R. L. (2013). What really matters when working with struggling readers. *The Reading Teacher*, 66(7), 520-530. doi:10.1002/trtr.1154
- Berrill, D. (2018, May 04). *Learning to read: The importance of both phonological and morphological approaches*. LD@school. Retrieved July 31, 2020, from <https://www.ldatschool.ca/phonological-morphological-approaches/>
- Bhattacharya, A. (2020). Syllabic versus morphemic analyses: Teaching multisyllabic word reading to older struggling readers. *Journal of Adolescent & Adult Literacy*, 63(5), 491-497. doi:10.1002/jaal.984
- Borosan, B. (2017). Inclusive education: lessons from history. *ASCD*, 74(7), 18–23.
- Brownell, M. T., Ross, D. D., Colón, E. P., & McCallum, C. L. (2005). Critical features of special education teacher preparation: A comparison with general teacher education. *The Journal of Special Education*, 38(4), 242-252. doi:10.1177/00224669050380040601
- Brown v. Board of Education, 347 U.S. 483. (1954). Retrieved from the Library of Congress, <https://www.loc.gov/item/usrep347483/>.

- Collins, B.C., Branson, T.A., Hall, M. et al. Teaching secondary students with moderate disabilities in an inclusive academic classroom setting. *Journal of Developmental and Physical Disabilities* 13, 41–59 (2001).
- Davis, K., Liu, K., Lazarus, S., & Thurlow, M. (2011, July). Understanding subgroups in common state assessments: Special education students and ELLs. *National Center on Educational Outcomes (NCEO)*. Retrieved August 19, 2020, from <https://nceo.info/Resources/publications/OnlinePubs/briefs/brief04/brief04.html>
- Durrance, S. (2015, December 10). *Are teachers prepared to teach reading?* SREB: Southern Regional Education Board Retrieved from <https://www.sreb.org/blog-post/are-teachers-prepared-teach-reading>
- Fernando, S. Y., & Marikar, F. M. (2017). Constructivist teaching/learning theory and participatory teaching methods. *Journal of Curriculum and Teaching*, 6(1), 110. doi:10.5430/jct.v6n1p110
- Fitch, F. (2003). Inclusion exclusion ideology: special education students' changing sense of self. *The Urban Review*, 35(3), 233-252.
- Fore, Cecil, III, et al. Academic achievement and class placement in high school: do students with learning disabilities achieve more in one class placement than another? *Education & Treatment of Children*, vol. 31, no. 1, Feb. 2008, p. 55+.
- Gray, S. H., Ehri, L. C., & Locke, J. L. (2018). Morpho-phonemic analysis boosts word reading for adult struggling readers. *Reading & Writing*, 31(1), 75–98. <https://doi-org.ezproxy.hamline.edu/10.1007/s11145-017-9774-9>

Guidelines for inclusion: Ensuring access to education for all (pp. 1-37, Publication).

(2005). Paris, FR: UNESCO.

<https://unesdoc.unesco.org/ark:/48223/pf0000140224>

Hicks, C. P. (2009). A lesson on reading fluency learned from the tortoise and the hare.

The Reading Teacher, 63(4), 319-323. doi:10.1598/rt.63.4.7

Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (2004)

Jones, S., Clarke, L. W., & Enriquez, G. (2010). *The reading turn-around: A five-part framework for differentiated instruction*. New York, NY: Teachers College Press.

Joshi, G. S., & Bouck, E. C. (2017). Examining postsecondary education predictors and participation for students with learning disabilities. *Journal of Learning*

Disabilities, 50(1), 3–13. <https://doi.org/10.1177/0022219415572894>

Kirby, M. (2017). Implicit assumptions in special education policy: Promoting full inclusion for students with learning disabilities. *Child & Youth Care Forum*,

46(2), 175–191. <https://doi-org.ezproxy.hamline.edu/10.1007/s10566-016-9382-x>

Magiera, K., & Zigmond, N. (2005). Co-teaching in middle school classrooms under

routine conditions: Does the instructional experience differ for students with

disabilities in co-taught and solo-taught classes? *Learning Disabilities Research*

and Practice, 20(2), 79-85. doi:10.1111/j.1540-5826.2005.00123.x

Martusewicz, R. A., Edmundson, J., & Lupinacci, J. (2015). *Ecojustice education:*

Toward diverse, democratic, and sustainable communities (2nd ed.). London:

Routledge.

Morrow, L. M., & Gambrell, L. B. (2019). *Best practices in literacy instruction* (6th ed.). New York, NY: The Guilford Press.

National Center for Learning Disabilities, & Understood. (2019). *Forward together: helping educators unlock the power of students who learn differently* .

<https://nclid.org/research/forward-together/>

National Governors Association Center for Best Practices, & Council of Chief State School Officers. (2010). *Common core state standards for English language arts*.

Washington, D.C.: <http://www.corestandards.org/ELA-Literacy/>

National Reading Panel (U.S.), & National Institute of Child Health and Human Development (U.S.). (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: Reports of the subgroups*. Washington, D.C.: National Institute of Child Health and Human Development, National Institutes of Health.

Orfield, G., Mattise, C., & Willoughby, B. (2004). *Brown v. Board: Timeline of school integration in the U.S.* Tolerance.org.

<https://www.tolerance.org/magazine/spring-2004/brown-v-board-timeline-of-school-integration-in-the-us>

OSPI Special Education, & Center for Strengthening the Teaching Profession (CSTP). (2020). *Inclusionary practices professional development project*. Washington Office of Superintendent of Public Instruction. Retrieved July 09, 2020, from

<https://www.k12.wa.us/policy-funding/special-education-funding-and-finance/inclusionary-practices-professional-development-project>

Plessy v. Ferguson, 163 U.S. 537. (1895). Retrieved from the Library of Congress, <https://www.loc.gov/item/usrep163537/>.

Rea, P. J., McLaughlin, V. L., & Walther-Thomas, C. (2002). Outcomes for students with learning disabilities in inclusive and pull-out programs. *Exceptional Children*, 68(2), 203-222. doi:10.1177/001440290206800204

Robb, L. (n.d.). *The myth of learn to read/read to learn*. Scholastic Teachers. Retrieved July 29, 2020, from <http://teacher.scholastic.com/professional/readexpert/mythread.htm>

Robinson, H. (2011). Highly qualified teacher status and the reading achievement of students with disabilities. *American Secondary Education*, 39(3), 42-66. Retrieved from <https://ezproxy.hamline.edu/login?url=https://www-proquest-com.ezproxy.hamline.edu/docview/964175689?accountid=28109>

Shanahan, T. (2005). *The national reading panel report: Practical advice for teachers* (pp. 1-48, Publication). Naperville, IL: Learning Point Associates.

Shanahan, T. (2015, March 30). *Middle school interventions*. Shanahan on Literacy. Retrieved June 25, 2020, from <https://shanahanonliteracy.com/blog/middle-school-interventions>

- Shippen, M. E., Houchins, D. E., Steventon, C., & Sartor, D. (2005). A comparison of two direct instruction reading programs for urban middle school students. *Remedial and Special Education, 26*(3), 175–182.
<https://doi.org/10.1177/07419325050260030501>
- Short, K. (2019, May 14). *Reading aloud to middle school students*. Edutopia. Retrieved July 31, 2020, from
<https://www.edutopia.org/article/reading-aloud-middle-school-students>
- Solis, M., Ciullo, S., Vaughn, S., Pyle, N., Hassaram, B., & Leroux, A. (2012). Reading comprehension interventions for middle school students with learning disabilities: A synthesis of 30 years of research. *Journal of Learning Disabilities, 45*(4), 327–340. <https://doi.org/10.1177/0022219411402691>
- Theobald, R., Goldhaber, D., Naito, N., & Stein, M. (2020). *The special education teacher pipeline: Teacher preparation, workforce entry, and retention*. Washington, DC: National Center for Analysis of Longitudinal Data in Education Research (CALDER).
- Tremblay, P. (2013). Comparative outcomes of two instructional models for students with learning disabilities: inclusion with co-teaching and solo-taught special education. *Journal of Research in Special Educational Needs, 13*(4), 251–258.
<https://doi.org/10.1111/j.1471-3802.2012.01270.x>
- UNESCO IIEP, & United Nations Children's Fund. (2019). *On the road to inclusion: Highlights from the UNICEF and IIEP technical roundtables on*

disability-inclusive education sector planning (Rep.). Paris, France: UNESCO.

U.S. Department of Education. (2020). *Common Core of Data (CCD). National Center for Education Statistics*. Retrieved November 01, 2020, from

https://nces.ed.gov/ccd/tables/ACGR_RE_and_characteristics_2016-17.asp

U.S. Department of Labor, Bureau of Labor Statistics. (February 26, 2020). *Persons with a Disability: Labor Force Characteristics Summary*

<https://www.bls.gov/news.release/disabl.nr0.htm>

Vaughn, S., Wexler, J., Roberts, G., Barth, A. A., Cirino, P. T., Romain, M. A., Denton, C. A. (2011). Effects of individualized and standardized interventions on middle school students with reading disabilities. *Exceptional Children*, 77(4), 391-407.

doi:10.1177/001440291107700401

Washington State Office of the Superintendent of Public Instruction. (n.d.) *Dual*

endorsement requirements. Retrieved August 17, 2020, from

<https://www.k12.wa.us/certification/teacher-certificate/dual-endorsement-requirements>

Wellman, L. (2019, March 9). *Senate passes bill to increase special education funding*.

Washington State Senate Democratic Caucus.

<http://sdc.wastateleg.org/wellman/2019/03/09/senate-passes-bill-to-increase-special-education-funding/>.

Wexler, J., Kearns, D. M., Lemons, C. J., Mitchell, M., Clancy, E., Davidson, K. A., Wei, Y. (2018). Reading comprehension and co-teaching practices in middle school

English language arts classrooms. *Exceptional Children*, 84(4), 384-402.

doi:10.1177/0014402918771543

Woodcock, S., & Hitches, E. (2017). Potential or problem? An investigation of secondary school teachers' attribution of the educational outcomes of students with specific learning difficulties. *Annals of Dyslexia*, 67(3), 299-317.

Yurtbaşı, M. (2015). Building English vocabulary through roots, prefixes and suffixes.

Global Journal of Foreign Language Teaching, 5(1), 44.

doi:10.18844/gjflt.v5i0.39