ABSTRACT

Title of Dissertation: IMPLEMENTATION ISSUES IMPEDING EVIDENCE-BASED INSTRUCTION FOR STUDENTS WITH SIGNIFICANT COGNITIVE DISABILITIES IN ONE PUBLIC SCHOOL SYSTEM

Janet Stephanson, Doctor of Education, 2023

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For over 50 years, providing relevant and individualized instruction for students with significant cognitive disabilities (SSCD) has challenged school systems because of the heterogeneity of the population and the complicated nature of their learning characteristics, warranting the implementation of specific instruction using targeted, evidence-based instruction, not common practice in most school settings.

The intention of this mixed-method Participatory Action Research (PAR) study is to investigate the barriers to providing evidence-based practices in District A while creating a framework of the PD required to increase teacher capacity to deliver the instruction. An Innovation Configuration Matrix (IC Matrix) created by Browder et al. (2014) will be used as the foundation for the study, as it details the evidence-based practices (EBPs) for students with severe disabilities by detailing what instruction is needed, how the instruction should be provided, and what supports are needed for the instruction to occur. The PAR process will occur

through the administration and evaluation of a survey for all teachers of SSCD, followed by three convenings of a group of nine District A teachers of SSCD who will use the information of the survey, the IC Matrix, and federal and state guidance to create a PD Framework detailing the learning needs for all teachers of SSCD in District A.

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IMPLEMENTATION ISSUES IMPEDING EVIDENCE-BASED INSTRUCTION FOR STUDENTS WITH SIGNIFICANT COGNITIVE DISABILITIES IN ONE PUBLIC SCHOOL SYSTEM

by

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Dedication

I dedicate this work to every student and educator I have worked with throughout my career as a special educator. First and foremost, to my students. I have become the person I am because of the relationships I've made with you and your families. And to the educators…. Thank you for always presuming competence. The power of your influence to improve the lives of students with significant cognitive disabilities and their families is immeasurable.

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Section 1: Introduction

Problem Statement

Providing meaningful instruction to students with significant cognitive disabilities (SSCD) has been a source of confusion, controversy, and uncertainty among educators for decades. Despite significant and specific advancements in educational research regarding how these students learn, school systems have struggled to determine what constitutes appropriate and meaningful instructional programs that should produce desired outcomes (Agran et al., 2018; Agran et al., 2020; Spooner & Browder, 2015). As Supervisor of Special Education in a Maryland Public School district (District A), I am witnessing that confusion, controversy, and inconsistency in the current instructional programs for our students with significant cognitive disabilities. At the core of the confusion and inconsistency is the tension between the longstanding philosophy that SSCD should be provided instruction focused primarily on a "functional curriculum" to teach "life skills" and more recent assessment and accountability requirements of both special and K-12 federal education policy that require these students receive instruction and be assessed on grade level academic content standards. For both general and special education teachers, this tension results in a struggle with perceiving SSCD as capable of learning the general education curriculum and/or constructing educational programs that blend instruction of the general curriculum with the teaching of functional skills (Hunt et al., 2012, Root et al., 2015, & Ryndak et al., 2014).

Based on my observations and interactions with many teachers and families, the problem facing District A is that SSCD are not receiving instruction that integrates functional and grade-level academic content using established evidence-based practices (EBPs). Instead, I am

witnessing instruction that lacks a cohesive and rigorous purpose calculated to help a student meet specific and meaningful educational outcomes.

The role of a special education teacher is hard. It is, therefore, not surprising that our teachers are struggling to provide appropriate instructional programming. In addition to providing instruction, a non-exhaustive list of responsibilities of a special educator includes: providing ongoing and regular case management through communication with parents and other staff members, regularly assessing and reporting on a student's performance through data collection and ongoing formal and informal assessments, develop, implement, and monitor the Individual Education Program (IEP) for each student, plan and provide direct instruction for students, plan with the general education teachers, related service providers (e.g., speech and language pathologists, occupational therapists), instructional assistants, parents, and administrators, attend IEP meetings, and create and manage student schedules and the schedules of instructional assistants. Hagaman and Casey (2018) found that new special education teachers ranked stress caused by having too many responsibilities as the primary reason they would leave the profession. Teachers of SSCD find themselves in additionally challenging situations because they not only have the responsibilities of other special education teachers as listed above but according to Ruppar et al. (2016), "teaching students with severe disabilities requires specialized expertise in areas unique among all areas of teaching" (p. 282). Therefore, to provide instruction well for SSCD, these teachers will require additional training in multiple areas.

To understand the scope and context of the problem, it is necessary first to understand which students are considered to have significant cognitive disabilities and then to explore the history of educating these students in public schools.[1]

Significant Cognitive Disability

The term "significant cognitive disability" was first used in the 1997 reauthorization of the Individuals with Disabilities Education Act (IDEA) about the assessment and accountability requirements that were linked to those in the Elementary and Secondary Education Act (ESEA). The terminology, which is still in federal law and wide use, describes a group of students with disabilities who, even with accommodations, cannot participate in state or district assessments and who require an "alternate assessment" to be included in accountability measures (Browder et. al, 2014), as before 1997 had been excluded from these measures. Kleinert (2020) points out that students considered to have a significant cognitive disability represent a cross-categorical group of students not defined by any one of the 15 IDEA categories. Instead, they are defined by being determined eligible to participate in their state's alternate assessment. The total number of students who can be assessed using an alternate assessment is limited by current federal guidelines to 1% of the total tested population. Therefore, one of the challenges in determining which students are included in the group "students with significant cognitive disabilities" (SSCD)is that the criteria are subjective. Each state determines its definition and local school IEP teams are required to interpret it. However, according to Thurlow et al. (2019), among all students with disabilities, this is a very small group and the most heterogeneous in terms of abilities and levels of support required. Typically, these students exhibit significant cognitive

[1] Please refer to Appendix A: Key Terms and Acronyms, for clarification of frequently used terms, acronyms, and abbreviations.

deficits and poor adaptive skill levels and are identified as having pervasive needs across settings or time. Historically, many of these children have been labeled as "trainable or profoundly mentally retarded", "severely handicapped," or "severely mentally handicapped." In 2010, with the signing of Public Law 111-256, known as "Rosa's Law", the term now used in place of mentally retarded or mentally handicapped became "intellectually disabled" or "having an intellectual disability." In 2017, the federal register updated all federal regulations to include IDEA, the Rehabilitation Act, and others. (Rosa's Law, 2017).

Under federal law, each state has the flexibility to determine its own definition for which students have a significant cognitive disability and are eligible to participate in the state's alternate assessment. As this dissertation is focused on a school system in Maryland, the definition for the state of Maryland is as follows:

> "A significant cognitive disability is determined by a holistic understanding of a student's development and performance in a variety of settings. A particular score on a standardized assessment may be one consideration but should not be the sole or primary consideration. For a student to be determined to have a significant cognitive disability, a review of student records must indicate a disability or multiple disabilities that significantly impact cognitive functioning, educational performance, and adaptive behavior. The IEP team reviews and discusses multiple sources of information for evidence of a significant cognitive disability including, for example psychological assessments, assessments of adaptive skills, educational assessments, classroom observations, and other formal and informal assessment data. A significant cognitive disability is pervasive and affects learning across all content areas and impacts adaptive behavior. Students with significant cognitive disabilities require extensive instruction and

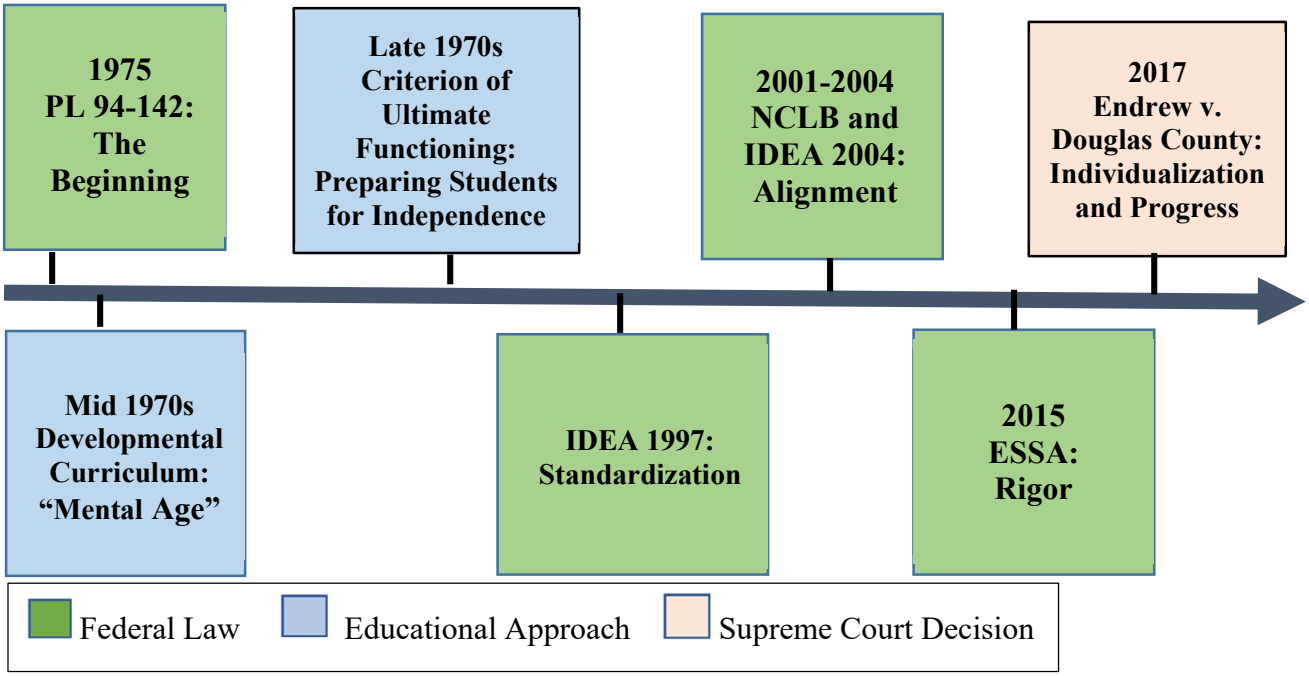
> support not only to acquire academic content but also in all aspects of participation in school and community life, including communication, social interaction, self-management, leisure, and recreational activities, and employment. Adaptive behavior is defined as a collection of behaviors, including conceptual, social, interpersonal, and practical skills, essential for someone to live independently and to function safely in daily life. A significant cognitive disability is pervasive and affects learning across all content areas, independent functioning, community living, leisure, and vocational activities." (MSDE, 2022, p.4-5).

The next section provides a comprehensive overview of the evolution of educating children with the characteristics of those considered to have a significant cognitive disability. It is important to understand this history to understand how current practices in schools have remained in flux.

History of Public-School Programs for SSCD

Figure 1 provides a visual timeline of the history of instruction for SSCD. Each component will be expanded upon throughout this section.

Figure 1
History of the Education of SSCD in American Public Schools



Note. The events which marked the progression of education for SSCD in American public schools are shown.

With the 1975 passage of the Education of All Handicapped Children Act (PL 94-142), access to publicly funded education was assured for all children, regardless of type or level of any disabling condition (Keogh, 2007). For each student with a disability, the law guaranteed a free and appropriate public education (FAPE) by ensuring the development of an Individualized Education Program (IEP) that was to be provided in the least restrictive environment (LRE) possible. The law, specifically its "zero reject" mandate, was as Kurth et al. (2018) described, "first and foremost a civil rights Act" (p.145) and a monumental turning point for the education of SSCD. The "zero reject" provision required public schools to provide education to any child with a disability, regardless of severity. In 1975, few SSCD were in general education classes

and if they were in public schools, they received their instruction in separate classes or separate wings in a typical public school or were placed in separate specialized public schools and centers.

Regardless of the setting, many public-school systems struggled to define what it meant to educate these children, as prior to 1975, many of these students had either been at home or in institutions or centers that focused on "training" of simple skills or only custodial care (Wehmeyer & Schalock, 2013). A review of special education services developed within the New York City Public School system in the early 1900s, Hendrick and McMillan (1989) described the public-school system's development of special education programs for students for two groups of children. One group was considered to be only partially "mentally defective" (p.400), and the school system and professionals believed that these students could be cured through medical means or special education. These students differed from those children in the second group that were considered "idiotic" or "permanently defective" (p.400) and for whom the school system was not responsible.

In the 1950s and 1960's, a common practice to determine if a student with "mental deficiencies" could be "educated" was to rely solely on a student's IQ score and corresponding "mental age". Specific scores determined which students were deemed not "educable" and instead were considered "trainable" or "profoundly mentally deficient". These individuals were either provided "training" or residential care in institutions or were at home. Schools had almost no experience educating SSCD. Therefore, at the time of passage of PL 94-142, most experts in the field of special education did not believe SSCD had the capacity to learn what public schools provided as education (i.e., academic grade level curriculum) and professionals in the field of special education began to create new and separate curricular approaches that could guide day to

day instruction. That in turn led to further segregation of the students in special classes, schools, and centers. These approaches are described below.

Developmental Curriculum

Given the emphasis on IQ scores for determining "educability", the first instructional programs for SSCD were based on early childhood curriculum and instruction that emphasized a developmental perspective based on a student's "mental age" as measured by intelligence tests (Browder et al., 2004). If a student was determined to have a "mental age" of 4 or 5, it was assumed that instruction should be geared to what a 4- or 5-year-old child could learn. This approach was individualized for each student but as Brown et al. (1979) explain, the unfortunate outcome was nonfunctional, artificial, and inappropriate for a student's chronological age. The realization that using an early childhood curriculum would not provide students with the skills needed to be functioning and contributing members of society led Brown and his colleagues to create an instructional approach based on "the criterion of ultimate functioning" (Brown et al., 1976).

Criterion of Ultimate Functioning and Functional Skill Instruction

In their groundbreaking work, Brown et al. (1976) developed a new approach to educating SSCD, referred to as the criterion of ultimate functioning. Brown and colleagues stated that, "the criterion of ultimate functioning refers to the ever changing, expanding, localized, and personalized cluster of factors that each person must possess in order to function as productively and independently as possible in socially, vocationally, and domestically integrated adult community environments" (p.8). Brown et al. continued by explaining that if severely handicapped citizens (i.e., individuals with significant cognitive disabilities) are to function

independently and productively in community settings, the segregated educational environments of residential institutions and separate schools or centers were not acceptable places for instruction. Their model specified that instruction must consist only of those activities which promote the criterion of ultimate functioning for each individual student to be independent in natural domestic, vocational, and community environments. The goal of education, therefore, was to teach the specific skills required by an individual to allow them to progress to that ultimate criterion. This translated in the educational arena to instruction that was chronologically age appropriate and occurred in "natural" environments, meaning the setting in which the individual would be expected to use that skill. Examples of the instruction include: teaching an adolescent with significant cognitive disabilities how to use public transportation by actually having a teacher or para-educator teach the student to ride a real public bus; instructing a younger student how to purchase items from an actual vending machine versus counting play money; teaching a student to walk across the bleachers at a football game as opposed to teaching a student to walk on a balance beam; and teaching a student to recognize and act appropriately in response to community signs (e.g. exit, restroom) instead of labeling words representing the names of primary colors (Brown et al., 1979).

From the beginning a major challenge of the approach of the criterion of ultimate functioning was that it needed to be mostly taught in natural environments in the community and not in settings (i.e., schools and classrooms) with the students' same-age typical peers. In order to integrate the philosophy of the criterion of ultimate functioning and education in the least restrictive environment, it was sometimes common for a student to receive instruction for some portion of a school day in a self-contained class in a comprehensive public school so they would be "visible, functioning citizens integrated into the everyday life of complex public

communities" (Brown et. al, 1976, p. 3). The belief at the time was that the only way for SSCD to achieve future independence in the community was through a separate curriculum focused solely on the specific areas of community functioning described above (Ford et al., 1989 & Giangreco et al., 1993). [2]

The educational philosophy of the criterion of ultimate functioning was widely adopted following the passage of PL 94-142. It also led to the development of "formal" functional skills curricula which became the gold standard for instruction for SSCD and the basis for special education teacher preparation for decades, including in Maryland and in District A. However, the tension between functional skill instruction and education in the LRE continued, aided by the movement for creating universal standards and assessments beginning in the late 1980s.

The 1997 IDEA Amendments: Emphasis on Standards

While special education policymakers and researchers began to confront how all students with disabilities would participate in the new standards driven reform policies that were emerging in the late 1980s and early 1990s (McDonnell et al., 1997), instructional priorities for SSCD underwent a huge and relatively sudden shift with the passing of the 1997 Amendments to

[2] Brown et al. (1976) suggested the following six questions be used as teams plan for a student's instructional program: 1. Why should we engage in this activity? 2.Is this activity necessary to prepare students to ultimately function in complex heterogeneous community settings? 3. Could a student function as an adult if they did not acquire the skill? 4. Is there a different activity that will allow students to approximate realization of the criterion of ultimate functioning more quickly and more efficiently? 5. Will this activity impede, restrict, or reduce the probability that students will ultimately function in community settings? And 6. Are the skills, materials, tasks, and criteria of concern similar to those encountered in adult life?

IDEA. Those amendments began the alignment of special education policy to the ESEA standards-driven reforms, specifically the requirement that states develop assessments to measure the progress of all public-school students.

The 1997 amendments required states to assess all students with disabilities through the regular assessments with or without accommodations and permitted an alternate assessment for students "working on performance goals and standards unique to his or her situation, because no portion of the curriculum is appropriate" (Yell & Shriner, 1997, p.7). The amendments also required that IEP teams develop individual educational goals to provide access to the general education curriculum, to the extent possible. This meant providing students with instruction focused on the same content as all other students (McGrew & Evans, 2004; McLaughlin & Thurlow, 2003). At the same time, research began to focus on developing new assistive technologies that, for the first time, enabled many students to begin to communicate and physically respond to specific stimuli (Quenomeon, 2008), thereby offering the possibility that many of these students could access grade level academic-focused content.

Despite the focus on access to grade level content and the requirement for an alternate assessment, IDEA provided no definition of an alternate assessment. Therefore, the earliest state efforts at developing alternate assessments consisted of evaluating students' attainment of functional skills as the creators of these assessments involved stakeholders (e.g., teachers and researchers) whose training and focus was the criterion of ultimate functioning and functional curriculum and instruction, measured primarily through the construction of individual student portfolios, demonstrating the acquisition of functional skills (Ysseldyke et al., 1996). Instruction remained focused on separate functional curricular "standards" which were mostly a hierarchy of skills in several critical domains such as: self-management, home living, vocational, community

functioning (e.g., travel, community safety, grocery shopping, general shopping, eating out, using services), recreational/leisure, and functional academics (e.g., reading sight words, money skills, time skills).

However, several professionals and advocates continued to call for measures to support more inclusive assessments and instruction to access general education curriculum. One such measure was the development of "standards-based IEPs" where individual goals were determined based on grade level standards. Another, perhaps more profound measure, was the ESEA Amendments of 2000, the "No Child Left Behind Act" (NCLB) and subsequent federal regulations released December 9, 2003, clarifying that alternate assessments could be based on alternate achievement standards (AA-AAS) for SSCD that must be aligned to content standards appropriate for the student's grade level of enrollment (McGrew & Evans, 2004). This distinction requires state alternate assessments to shift away from the acquisition of functional skills and shift towards the instruction of grade level standards.

NCLB and ESSA: Impact of the ESEA Amendments

The NCLB and the 2015 ESEA amendments, titled the "Every Student Succeeds Act" (ESSA), further moved instruction of SSCD toward a more inclusive and academic focus. The 2001 NCLB amendments to ESEA and the accompanying regulations expanded assessment requirements for SSCD by including results of the AA-AAS with each school's accountability to determine adequate yearly progress (AYP) at the district and state levels in the grade tested (Kohl et al., 2006 and McGrew and Evans, 2004), with a stipulation that no more than 1% of all proficient and advanced scores could be included in accountability calculations. Further, the 2003 NCLB regulations stipulated that a state's alternate achievement standards must: be aligned to the state's academic content standards, promote access to the general education curriculum,

and reflect professional judgment of the highest achievement standards possible (U.S. Department of Education, 2005).

As Browder et al. (2004) highlight, state departments of education experienced several challenges in attempting to implement the new requirements. Browder and colleagues examined the curricular focus of alternate assessments for 31 states through the review of performance indicators in math, language arts, and functional skills. The reviewers concluded that the best examples were states that attempted to blend functional and academic standards-based curriculum in defining their alternate assessment performance standards, noting concerns that a purely standards-based academic focus would not provide the individualized approach of a functional curriculum. The latter concern was shared by many professionals and parents who questioned the intended outcomes of a general standards-based curriculum with alternate performance standards vs. the long-standing functional curriculum.

The passage of the 2015 ESEA amendments (ESSA, 2015) further defined guidelines for participation in grade level academic instruction and increased performance expectations for SSCD through two significant changes. The first change emphasized grade level standards and instruction by including the word "academic" in the alternate achievement standards (i.e., Alternate Assessments based on Alternate Academic Achievement Standards (AA-AAAS). The second change reduced the number of students eligible to participate in the AA-AAAS. States are required to have a 1% threshold on student participation in the assessment as opposed to the previous 1% threshold based on number of students scoring at or above proficient on the assessment. In other words, the 1% provision changed from one of which scores could be included in accountability calculations (up to 1% of total tested population counting as proficient) regardless of the percent tested with an alternate assessment to restricting the total

participation in the alternate assessments and accountability to not more than 1% of the total tested population. These changes came about as advocates for all students with disabilities became concerned that many children who were not SSCD and could participate in the general assessment with accommodations were instead assigned to participate in the alternate assessments. While this practice increased states' participation and performance rates it denied many students with IEPs access to a more rigorous curriculum. (Appendix B provides an overview of the changes to the criteria for AA-AAAS in federal legislation.)

National AA-AAAS Consortia

The history of states' efforts to create alternate assessments is too complex to be reviewed here. However, because it relates to Maryland's system, one development needs to be briefly described. In October of 2010, the US Education Department awarded grants to two consortia of states to develop standardized alternate assessment programs aligned with the Common Core State Standards for assessment of English language arts (ELA) and math. The first grant was awarded to the National Center and State Collaborative Partnership (NCSC), a consortium of 18 states, the District of Columbia, and several territories led by the University of Minnesota. The second grant was awarded to the Dynamic Learning Maps (DLM) Alternate Assessment System Consortium, a consortium of 11 states led by the University of Kansas (Dynamic Learning Maps, 2010). Over the last 11 years, both consortiums have created alternate assessments and corresponding alternate academic achievement standards. NCSC has evolved into the Multi-State Alternate Assessment (MSAA), using the Core Content Connectors. The alternate standards used with the DLM Consortium are referred to as the Essential Elements. (Quenemoen et al, 2015). Both consortiums have standards for ELA and math, but only DLM includes alternate academic achievement standards for science. Currently, 22 states, including

Maryland, are part of the DLM consortium (Dynamic Learning Maps, 2022) while MSAA includes five states, 6 territories, and Washington, DC (MSAA states, n.d.). All other states have an independent AA-AAAS system.

US Supreme Court Endrew Decision

Despite all the changes that have been made to the IDEA and the ESEA, it is important to recognize what has not changed. The IDEA established the IEP as the foundation for determining what constitutes an appropriate education for an individual student and the educational goals intended to drive special education and related services. For SSCD, specifically, there has been a consistent tension between the individually determined educational goals and instruction of standards-based curriculum. Blackwell & Rosetti (2014) voiced the opinion of many advocates that the IEP should determine a meaningful, instructional program for students with disabilities and that the goals needed to be individually determined and not universal content standards.

The most recent US Supreme Court decision in determining what is appropriate for a specific child with a disability, the 2017 *Endrew v. Douglas Co,* emphasized that for school districts to meet their obligation under IDEA, they, "must offer an IEP reasonably calculated to enable a child to make progress appropriate in light of the child's circumstances." The decision solidified the responsibility of the IEP team to ensure each component of the IEP (as described in Appendix C) is carefully created based on individualized and appropriate assessments and research-based practices and as Turnbull et al. (2018) stated should reflect high expectations for all students. The *Endrew* decision did not alter current IDEA requirements that the first two components of any IEP must be an individual assessment of "the student's abilities in both academic and/or functional skill areas" and from this to develop "challenging, ambitious, and

measurable goals" that describe what the student is to accomplish in academics and/or functional skills in a 12-month period.

A challenge for IEP teams, specifically for the IEP teams of SSCD, is to realistically translate those high expectations into measurable and attainable annual goals and objectives. The eligibility requirements for the AA-AAAS in 49 out of 51 states include a reference to the need for extensive individualized instruction and/or supports (Thurlow, 2019). The eligibility component in Maryland states that a student requires "extensive, direct, repeated, and individualized instruction and substantial supports to achieve measurable gains in the grade and age-appropriate curriculum" (MSDE 2022, p.25). (Appendix D shows the first page of Alternate Appendix A: Participation Criteria and Checklist).

Continued Requirements for Functional Skill Instruction

The *Endrew* decision and the IDEA continue the requirement that IEP teams develop goals to address functional skills if warranted by an individual student's assessment. Additionally, research on the instruction of SSCD continues to document the necessity of including functional skill instruction (Brown et al., 2020; Browder et al., 2014; Collins et al., 2018; Courtade et al., 2012; Spooner & Browder, 2015). The IDEA does not, however, provide any guidance or definition as to what constitutes a functional skill. As explained in a commentary to the requirements of IDEA, functional skills were intentionally not defined: "It is not necessary to include a definition of "functional" in these regulations because we believe it is a term that is generally understood to refer to skills or activities that are not considered academic or related to a child's academic achievement. Instead, "functional" is often used in the context of routine activities of everyday living." (Federal Register, 2006). The commentary goes on to

explain that examples are specifically not included in the regulations because “the range of functional skills is as varied as the individual needs of children with disabilities."

While this explanation regarding the lack of federal criteria determining instruction and assessment of functional skills is logical and consistent with what is appropriate for a student, it creates a challenge for educators and parents. Leaders in the field of special education research for SSCD have noted that the shifts in legislative and regulatory language, research, and guidance have confused parents, teachers, and administrators, with the unfortunate result of an inability to design or implement appropriate and effective instructional programs for SSCD (Agran et al., 2020; Ballard & Dymond, 2017; Root et al., 2017; Ryndak et al., 2014; and Spooner et al., 2017).

Summary of the Problem in District A

For over half a century, public education policy has been moving from the exclusion of students with the most significant cognitive disabilities from public schools to providing instruction aligned with grade level academic content standards. The programs and policies concerning how to educate this very small but very different group of students have evolved quickly from providing individualized and IEP driven functional skill instruction to requiring access to general education curriculum and instruction based on grade level content. Despite these requirements, longstanding practices and ideas about how to educate SSCD in District A have challenged the implementation of these changes in how SSCD are being educated.

In my role as Supervisor of Special Education in District A, I oversee the delivery of instruction for SSCD. My time observing in classrooms, working with teachers, providing professional development (PD), and reviewing IEPs has led me to identify two scenarios demonstrating the school system’s struggles with instructing SSCD.

1. Instruction primarily focuses on basic functional and vocational activities such as sorting, filing, and packaging; preparing and eating snacks; telling time, recognizing coins, etc. Some instructional time may be dedicated to activities loosely correlated to grade level content from District A's ELA, math, and science curricula (e.g.: an adapted version of the text *Esperanza Rising* by Pam Munoz Ryan read aloud with no additional instruction; identifying the current weather as "aligned" with the 5th grade science instructional unit of healthy ecosystems).
2. Instruction focused primarily on below grade level / foundational academic skills as determined by informal teacher assessments or observations and then translated into IEP goals. Individual skills for students may target grade level academic instruction which appear to be "cherry picked" from the curriculum to address one standard the student is likely to master (e.g., identifying the main idea of a passage when given a field of two choices). In this scenario, for the most part, instruction focuses only on IEP goals and objectives with instruction provided with no context to content. If functional skills are taught, they are done in a separate time with little, if any, opportunities for generalization.

These two scenarios illustrate a lack of consistency and confusion regarding instruction for SSCD. There are, of course, individual situations in which the instructional plan for a student with significant cognitive disabilities integrates meaningful functional skills with grade-level academic instruction. However, based on my observations, teachers of SSCD in District A are largely struggling to provide a cohesive and comprehensive instructional program that has a scope and sequence leading to realistic, meaningful, and attainable outcomes and which support long term goals and instructional planning.

Instruction for SSCD is almost always provided by multiple professionals, such as teachers (both general education and special education), instructional assistants and related service providers (e.g., speech-language pathologists, occupational therapists, physical therapists, vision and hearing specialists, and more depending on the individual needs of the students). However, as the special education teacher provides case management and is the central influence for the IEP and responsible for providing oversight of the instruction of SSCD, the focus of this dissertation will be on the instruction provided by special education teachers.

In the following sections, I will provide an overview of what is known about the number of students impacted by these relatively new policies as well as what might be evidence of impacts. I will then explore and analyze factors that are likely contributing to the problem identified followed by potential improvement strategies.

Scope of the Problem[3]

The National Center for Education Statistics (NCES, 2023) reported that in the 2021-2022 school year, 7.3 million or 15% of all public-school students ages 3-21 were identified as receiving special education services, because they meet eligibility requirements for one of 15 categories of disability[4]. As mentioned previously, Kleinert (2020) explained that students with a significant cognitive disability represent a cross - categorical group of students. Therefore, determining the number of students impacted from a national perspective is a challenge. According to current research in the field of alternate assessments and instruction for students

[3] The data reported in this section has been collected and reported from more than one source. The most recent publicly available data are cited, although school years may differ among sources.

[4] Appendix E provides definitions for all disabilities identified under IDEA.

with significant cognitive disabilities, three of the 15 categories of disability served under IDEA that are most likely to be considered as the primary disability for SSCD are: intellectual disability, multiple disabilities, or autism (e.g. Kleinert et al., 2015, Morningstar et al., 2017, Saunders et al. (2020) & Towles-Reeves et al. (2009). Table 1 shows data from the NCES for the 2021-2022 school year, displaying the distribution of students eligible for special education services in each of the three disability categories most likely to be considered when a student has a significant cognitive disability. This information, however, does not directly equate to eligibility as a student with a significant cognitive disability; however, because a student may be eligible for special education under one of these three categories and not meet their state criteria of significant cognitive disability or a student may meet IDEA eligibility criteria for a different primary disability and not meet the criteria for having a significant cognitive disability.

Table 1

Percentage Distribution of Students Ages 3-21 Served Under IDEA, School Year 2021-22 by Disability Type Associated with Significant Cognitive Disabilities

Disability Type	Percent of Students With disabilities	Estimated Number of Students
Intellectual Disability	**6%**	**413,984**
Autism	**12%**	**828,410**
Multiple Disabilities	**1.78%**	**122,215**

Note: This information was taken from NCES: https://nces.ed.gov/programs/coe/indicator/cgg

Since classification with a specific IDEA eligibility does not provide definitive information about the number of SSCD, participation rates in the AA-AAAS, are likely the best source of data to show the number of students impacted, because as indicated in the history sections above, participation in the AA-AAAS requires the determination of a significant cognitive disability. Annually, each state must file an Annual Performance Report (APR) to the

U.S. Department of Education's Office of Special Education Programs (OSEP). Two required data points related to the participation in the AA-AAAS are the number and percentage of students participating based on the total student population and the number and percentage of students participating based on students with disabilities (United States Department of Education, 2021 and Wu et al., 2022). For purposes of this reporting, a student with a disability refers to a student who is receiving special education services with an IEP and does not include students who may have a disability and receive services through a 504 Plan. Additionally, data reported do not include the territories and unique states. This section will provide a summary of the students at the national, state, and local level who are participating in the AA-AAAS. These data do not account for students who are being instructed through alternate standards but are not yet in a tested grade.[5]

National Participation Data for the AA-AAAS

As explained above, the ESSA places a 1% threshold on the number of students who may participate in alternate assessments (ESSA, 2015), creating a very concise number of students impacted by the problem identified in this dissertation. However, a provision of the law permits states to annually request a waiver if it is expected that they will exceed the 1% cap.

Participation Based on Total Student Population. AA-AAAS participation rates based on total student population for both reading and math are annually reported to OSEP for each

[5] Mandatory state assessments are not required for students until grade three, yet alternate academic standards may be developed for students as young as kindergarten. States may be determining students eligible for participation in AA-AAAS prior to reaching third grade. These students are not factored into the participation rate.

tested grade level, using the number of total tested students as the denominator and the number of students participating in the AA-AAAS as the numerator (United States Department of Education, 2021 and Wu et al., 2022). Table 2 shows the range between low and high participation rates based on the total population of students among regular states (excluding unique states and territories) at each tested grade level for the 2018-2019 school year[6]. Also reported in this table is the number of states reporting less than 1 percent of total participation, thus meeting the 1% cap required by ESSA. For comparison, Maryland's participation rates are included.

Table 2

Range of States' Participation for the AA-AAAS based on Total Population for 2018-2019

Grade level	**Reading**			**Math**			**# of states below 1% cap**	
	Low	High	MD	Low	High	MD	Reading	Math
3	.46%	2.11%	.93%	.46%	2.09%	.94%	16	15
4	.68%	2.05%	.88%	.68%	2.04%	.89%	16	15
5	.76%	1.99%	.98%	.76%	2.04%	.99%	13	12
6	.64%	2.05%	1.08%	.64%	2.03%	1.09%	14	14
7	.82%	2.00%	1.24%	.81%	2.02%	1.25%	14	14
8	.80%	2.03%	1.28%	.89%	2.02%	1.29%	10	10
High School	.69%	1.94%	1.28%	.72%	1.97%	1.29%	12	11

[6] Due to the continuing impact of the COVID-19 pandemic, the United States Department of Education waived reporting of statewide assessments in the 2019-2020 school year. States were encouraged to consider flexibilities regarding the timing, length, and type of administration of assessments in the 2020-2021 school year. While scores and participation rates are available for the 2020-2021 school year, due to these flexibilities and continued disruptions from the pandemic, the USDE warns that these results are likely not comparable to other school years and may not be an appropriate reflection of student achievement (USDE, 2023).Therefore, for purposes of comparing state participation data, 2018-2019 school year data will be used.

Note. Information derived from Wu, Y.-C., Lazarus, S. S., Liu, K.K., & Thurlow, M.L. (2022). *2018-2019 APR snapshot #27: AA-AAAS Participation and Performance.* National Center on Educational Outcomes.

Participation Based on Students with Disabilities. Participation in the AA-AAAS for students with disabilities is reported by OSEP based on total number of students with disabilities for all grades as well as broken down by grade level (United States Department of Education 2021). For the year 2018-2019, the USDE reports for the content area of reading / ELA, the average participation among states varied between 4.77% to 26.03% for all grade levels participating. In the content area of math, the average participation varied between 4.76% to 15.27%. The average AA-AAAS participation rate across states was 8.9% of students with disabilities. Historically, estimates regarding the overall approximation of students with disabilities who have a significant cognitive disability are approximately 9% (McGrew & Evans, 2004; Thurlow et al., 2017). These current data show most states reporting less than 10% of students with disabilities in assessed grades met participation criteria for the alternate assessment. Table 3 displays the range between low and high participation rates in the AA-AAAS as a percentage of students with disabilities among regular states (excluding unique states and territories) at each tested grade level for the 2018-2019 school year (see Footnotes 5 and 6).

Table 3

Range of States' Participation for the AA-AAAS based on Students with Disabilities:2018-2019

Grade level	Reading			Math			# of states below 10% of students with disabilities	
	Low	High	MD	Low	High	MD	Reading	Math
3	2.92%	14.18%	7.38%	2.92%	14.17%	7.42%	42	42
4	4.21%	14.20%	6.97%	4.21%	14.27%	6.95%	44	44
5	4.90%	13.71%	7.7%	4.90%	13.97%	7.68%	40	43
6	4.32%	15.24%	8.71%	4.19%	15.73%	8.73%	40	40
7	4.69%	15.22%	9.99%	4.69%	15.87%	9.98%	38	40
8	4.63%	16.87%	10.82%	4.63%	16.87%	10.80%	35	35
High school	4.20%	17.01%	13.54%	4.61%	18.03%	13.34%	31	30

Note. Information derived from United States Department of Education (2021)

The data displayed in Tables 2 and 3 indicate that the participation rates for the AA-AAAS increase as students get older (i.e. Table 2 reports that the number of states below the 1% cap decreased as grades increased and Table 3 reports a decrease in the number of states below 10% of students with disabilities participating as grades increased).

Maryland Participation Data for the AA-AAAS

The Maryland Comprehensive Assessment Program (MCAP) is the overarching term used for all state assessments administered to students in the state of Maryland in accordance with ESSA (MSDE, 2022b). The general education assessments include at the middle school level: mathematics and ELA assessments for students in grades 3-8, a science assessment in grades 5 and 8, and a social studies assessment in grade 8; and at the high school level: math assessments in algebra 1, geometry, and algebra II, ELA assessment for 10th grade English, a Life Science assessment, and a government assessment. The AA-AAAS is a component of MCAP and includes assessments in mathematics for grades 3-8 and 11, assessments in ELA for grades 3-8 and 11, and assessments in science for grades 5, 8, and 11. (The Dynamic Learning

Maps platform is the AA-AAAS used in Maryland and will be explained in more detail in later sections).

Participation Based on Total Student Population. Participation data reported for the 2018-2019 school year (see Footnote 4) show that 5,022 students, or 1.1% of the total number of students participating in all assessments for all grades participated in the ELA AA-AAAS and 5,009 students, 1.1 % of the total population, participated in the math AA-AAAS (MSDE, n.d.). The breakdown of participation per grade level is included in Table 2 above.

Participation Based on Students with Disabilities. Data reported for the 2018-2019 school year (see Footnotes 5 and 6) shows that 55,944 students with IEPs participated in some form of the Math MCAP assessment in grades 3-8 and 11. 5,083 of these students (9%) participated in Maryland's AA-AAAS. In the ELA MCPAP, 55,918 students with IEPs participated and 5,045 of these students (9%) participated in the AA-AAAS (USDE, 2021). The breakdown of participation per grade level is included in Table 3 above.

Maryland's participation rates for the AA-AAAS fell in between the lowest and highest scores for both participation among all students as well as among students with disabilities, tending to be closer to the lower range. As with the overall national data, there was an increase in eligibility as students got older.

District A Participation Data for the AA-AAAS

Participation Based on Total Student Population. Current local data from District A's internal student information system, PowerSchool eSchool Plus indicate that District A serves approximately 16,811 students with approximately 1,684 (9.9%) of these students receiving

services through an IEP. These data show that for the 2022-2023 school year,[7] 47 students enrolled in state assigned tested grades (3-8 and 11) participated in the alternate assessment in both ELA and math. Table 4 shows the number and percentage at each grade level, indicating that our overall percentage falls below the 1% cap issued by ESSA and continues to be below the state average at all grade levels.

Table 4

District A Participation in the AA-AAAS per Grade Level, 2022-2023

Grade	# of Students Participating	% of Total Student Population
3	3	.24 %
4	8	.66%
5	8	.68%
6	10	.75%
7	5	.40%
8	5	.40%
11	8	64%
Overall:	47	.54%

The participation rates for students participating in alternate standards in District A have, at least in my tenure as Supervisor of Special Education, always been below the federal 1% cap and below the state average. However, the rates for the 2022-2023 school year are lower than in past years, which may be indicative of cautionary guidance provided to IEP teams to not make decisions about eligibility if the impact of COVID-19 could not be ruled out.

The data presented in Table 4 do not include students determined eligible for participation in the AA-AAAS and instruction through alternate standards who are not currently in a tested grade. Current District A data from the MDIEP online database indicate that there are

[7] Comparison data for the 2018-2019 school year were not available at the time this dissertation study was conducted, as the Maryland Report Card suppresses any data less than 5% (MSDE, n.d.). and PowerSchool eSchool Plus does not have the information from 2018-2019.

an additional 36 students in non-tested grades. This becomes a total of 81 students at all grade levels, approximately .48% of the total population of students.

Participation Based on Students with Disabilities. As indicated above, 1,684 students in District A (10.2% of enrolled students) have a disability and receive services through an IEP. Eighty-one students, approximately 4.8% of students with disabilities, have been determined eligible for participation in alternate academic achievement standards and/or participation in the AA-AAAS.

Despite the fluctuation in participation of SSCD in AA-AAAS among different states and different grade levels, the information in this section provides evidence that the numbers of students who have been determined by their IEP teams to be eligible to receive instruction through alternate standards and be assessed by the AA-AAAS is extremely small representing approximately 1% of the total student population and 9-10% of students with disabilities under the IDEA. There are no data related to the IEP goals or types of instruction that is being provided to SSCD beyond participation in the AA-AAAS. In the following section I will discuss the limited evidence of the impacts of the decisions that IEP teams make in the provision of instruction to SSCD and the theoretical consequences of those IEP team decisions.

Impacts and Potential Consequences

The evolution of assessment policies including the most recent federal guidance pertaining to ESSA clarifying that AA-AAAS must be aligned to grade level academic standards has not standardized how states assess the academic performance of SSCD. As will be illustrated later in this section regarding performance on the AA-AAAS, there is considerable variation across states in how they assess and determine proficiency of this very heterogenous population. A critical defining characteristic of many students in the SSCD population is the inability to

communicate effectively. This presents a challenge to assessing what they know, and the likelihood that many will require a range of individualized supports throughout adulthood make it difficult to define what constitutes "proficiency". Additionally, research regarding best practices for SSCD continue to show that instruction of meaningful functional skills; primarily communicative competence, self-determination, and independent living skills, must be a component of the instructional programs for SSCD (e.g., Brown et al., 2020; Browder et al., 2014; Collins, 2022; Schillinger, 2017). These three areas can be considered pivotal and future oriented for the student to allow for the greatest levels of independence (Kurth et al., 2021).

Through the late 1990s and the early 2000s, a body of research contributed to our understanding of effective instructional practices for SSCD, particularly in the areas of daily living, communication, and academics using EBPs (Spooner et al., 2017). These practices will be explored in a later section; however, at this time it is important to note that much of the current research regarding the instruction of SSCD focuses on the strategies and approaches that support inclusion and placement in the general education classroom and less on the outcomes as measured by the AA-AAAS.

At the national level, the only data available that are intended to show students' performance or outcomes of instruction are the results of the AA-AAAS which states are required to report. The results clearly do not encompass all that should be taught to SSCD and are intended as accountability measures. Further, as will be described below, results do not provide reliable information on the performance of SSCD on academic content and instruction.

Performance on the AA-AAAS

The results of the AA-AAAS are included in each state's accountability system and therefore, levels of performance have been established in accordance with each state's

assessment program. According to the U.S. Department of Education's Assessment Peer Review Process (USDE, 2018), the alternate academic achievement standards must be consistent with the levels of achievement used for all assessments: "a state's academic achievement standards and, as applicable, alternate academic achievement standards, include (1) at least three levels of achievement, with two for high achievement and a third for lower achievement; (2) descriptions of the competencies associated with each achievement level; and (3) achievement scores that differentiate among the achievement levels" (p.66).

The only other stipulation in ESSA for AA-AAAS is the requirement that it must target grade level content standards with less depth and breadth than the general assessment (ESSA, 2015). There are no requirements for the format of the delivery of the assessment, format of student responses, expanse of content covered, the overall rigor of the assessment, nor the extent to which the assessment aligns to the general grade level curriculum. The regulations allow for a great deal of discretion among states and the variability casts doubt on the extent to which the scores are an indication of the instruction and curriculum being provided to SSCD.

The following comparison of Virginia's assessment system and California's assessment system for the 2018-2019 school year is offered as an illustration of the inconsistencies which exists among states: Over the past three or more years in which results of the AA-AAAS are available, Virginia consistently reports scores which show a high percentage of students receiving proficient scores and California consistently shows scores which show low percentage of proficient scores (NCEO,n.d.a). Virginia's AA-AAAS platform is the creation of a "Collection of Evidence" format with the development of individual student portfolios containing artifacts such as worksheets, data collection sheets, videos of the student performing a skill, etc. (Virginia Department of Education, n.d.). Conversely, California uses the California

Alternate Assessments (CAA), a computer-based, individually administered stage-adaptive assessment in which all responses are recorded electronically. (California Department of Education, n.d.). [8]

The information following will show the average performance of SSCD throughout the nation, within the state of Maryland, and specifically within District A. It will, unfortunately, not offer insight into the instructional programming for SSCD but will provide an overview of the current standard used to evaluate access of grade level instruction for SSCD.

National Performance on the AA-AAAS. Performance data are reported to the United States Department of Education (Wu et al., 2022) from each state showing the percentage of students grades 3-8 and a high school grade who received a proficient or higher score on the states' AA-AAAS for both reading and math. The percentages represent the number of students in a specific grade level who scored proficient or better on the state AA-AAAS compared to the total number of students who participated in the assessment for that grade level. (United States Department of Education, 2023). The variability among proficiency rates throughout the United States is extreme. To illustrate, Table 5 reports the lowest and highest scores for the 2018-2019 administration of AA-AAAS for 3 of the 7 grade levels in which assessments are conducted.

[8] This information shows comparison for the 2018-2019 school year. According to current website information, both Virginia and California have made changes in their alternate assessment systems. Virginia is no longer using a collection of evidence format. Scores were not available for the 2021-2022 school year for comparison.

These data show that Texas and Virginia consistently report the highest percentage of students scoring proficient, while Nevada and California consistently report the lowest. [9]

Table 5

2018-2019 Administration of the AA-AAAS for Reading and Math: Percent of Proficient Scores for States Scoring Lowest and Highest

Grade Subject	5th grade Math		5th grade Reading		8th grade Math		8th grade Reading		High School Math		High School Reading	
Low / High	low	high	low	high	low	high	low	high	low	high	low	high
	NV	VA	NV	VA	NV	TX	CA	TX	DE	TX	CA	TX
	2.46	93.09	2.5	91.55	1.13	93.2	9.48	93.24	3.87	92.52	15.3	93.67
Range	90.63		89.09		92.05		83.76		88.65		78.38	

Note: Adapted from: https://www2.ed.gov/programs/osepidea/618-data/static-tables/index.html#partb-ex.

The extreme variance in the scores is likely a result of the variance in the format of how the assessment is delivered (e.g., portfolio with activities chosen by teachers vs. standardized multiple choice) as well as differences in the cut scores to determine proficiency. This variance brings into question the relevance the assessment has on ensuring accountability for learning for SSCD.

[9] Through a letter to Chief State School Officers on February 22, 2021, the USDE issued guidance granting states flexibility in the administration of statewide assessments which may have resulted in shortened versions of the assessment or extending the test window, even into the summer or beginning of the 2021-2022 school year. Therefore, because rates of participation varied due to continued disruptions from the pandemic, overall results may not be representative, and the data may not be comparable with other years (USDE, 2023). For this reason, results of the 2018-2019 administration are reported.

Maryland Performance on the AA-AAAS. The alternate assessment platform in the state of Maryland has undergone multiple major changes to the format, presentation, and student response requirements over the years. Appendix F provides a detailed explanation of these changes, with the final change in February 2020, being a switch from the MSAA using Core Content Connectors developed by the NCSC to the DLM system using the Essential Elements as the alternate academic achievement standards. The design of the DLM platform is an online assessment with a paper and pencil option that includes approximately 30 test items assessing approximately ten prioritized content targets in each content area. The items have been intentionally designed to assess a range of ability and performance (MSDE, 2022a). The 2020-2021 school year marks the first administration of the DLM and as indicated in Footnote 6, likely not a good representation of the abilities of students. While a comparison is not available at the national level at this time, the state and local 2021-2022 results are now available and are included in Table 6 below, showing the percentage of students in three of the seven tested grades who scored proficient or advanced in ELA and Math on Maryland's AA-AAAS from 2011–2022, as reported by the Maryland School Report Card (MSDE, n.d.).

Table 6

Percent of Students Scoring Proficient on MD's AA-AAAS from 2011-2022

School Year	Version	5th grade		8th grade		High school grade [a]	
		Math	ELA	Math	ELA	Math	ELA
2011-2012	Alt-MSA	90.5	93.5	90.1	91.9	86	89.3
2012-2013	Alt-MSA	80.3	88.8	84.5	88.8	76.2	79.1
2013-2014	Alt-MSA	81.1	88.6	82.2	87.4	77.8	81.1
2014-2015	Alt-MSA	76.2	83.8	83	86.8	77.1	81.0
2015 - 2016	MSAA	36.3	32.4	41.2	26.6	48.2	49.4

School Year	Version	5th grade		8th grade		High school grade [a]	
		Math	ELA	Math	ELA	Math	ELA
2016 - 2017	MSAA	37.8	32.2	42.3	29.1	44.2	42.2
2017 - 2018	MSAA	41.1	31.9	49.8	39.1	59.0	50.4
2018 - 2019	MSAA	39.68	31.0	49.8	33.5	53.5	50.9
2019-2020	DLM	Assessment waived due to Pandemic					
2020-2021	DLM	7.20	16.27	11.23	16.55	52.78	47.55
2021 - 2022	DLM	15.20	13.70	6.80	14.90	20.90	23.1

[a] Guidance for high school administration of the AA-AAAS in MD changed from 10th grade to 11th grade as the format of the assessment changed.

Between the 2014-2015 school year and the 2015-2016 school year, with the change from the ALT-MSA portfolio system with individually chosen objectives and artifacts to the MSAA online format, there is a significant decrease in scores for all grade levels. As critics of the portfolio system explain, the portfolio typically demonstrates the teacher's ability to choose student examples which will easily be mastered (NCEO, 2010; Restorff et al., 2012). Therefore, the marked decline in scores is likely a more realistic measure of student progress toward mastering grade level content as more similarities exist between percent proficient scores of the alternate assessments and percent proficient scores of the general assessments (MSDE, n.d.). Overall, there has been minimal progress over the four administrations of the MSAA from 2015 through 2019, and the results in 2020-2021 and 2021-2022, the first administrations of the DLM, show a marked decline. While the impact of COVID-19, can't be ruled out as a factor, it is evident that the scores are not demonstrating student mastery of grade level content.

District A Performance on the AA-AAAS. The most recent alternate assessment data available for student performance in District A are from the 2022 administration of the DLM assessment. Eighth grade and high school are the only grades for which data can be reported as

the Maryland School Report Card (MSDE, n.d.) does not report data for fewer than 10 students participating in a category (i.e., content and grade level). The data show that 20% of 8th grade students scored proficient or greater (Level 3 or 4) for both ELA and math. Math scores were higher than the state average while ELA scores were lower. The 11th grade data show that 26.3% of students scored proficient or greater for ELA and 31.6% of students scored proficient or greater for math. This is above the state average for both ELA and math.

Summary of Performance of SSCD. The National Center on Educational Outcomes (NCEO) website states that participation in the AA-AAAS helps to ensure that the education system is accountable for the learning of students with the most significant cognitive disabilities so they will be considered when decisions are made about how to improve programs (NCEO, n.d.b.). Although there has been improvement in the format of the AA-AAAS, specifically in the state of Maryland, clarity in the use of these scores to improve programming for SSCD in District A is absent. Kingston et al.(2016) state two concerns with the design and practice of the AA-AAAS which are relevant to the problem in District A. The first is that due to the small and heterogenous populations of students participating in the AA-AAAS, the implementation of a standardized assessment may limit the ability to measure growth and to assess the technical quality of the assessment systems. The second, which will be explored in more detail in later sections is that perceived irrelevance of the results of the AA-AAAS by teachers and administrators limits the usefulness with instructional planning. A third concern is that the AA-AAAS does not address the educational programming required for students who have IEPs with goals related to functional skills.

Preparing for Life after School

The first stated purpose of the IDEA is "to ensure all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for further education, employment, and independent living" (IDEA, 2004, 1400 d1A). A major concern among families, advocates and researchers is that failing to provide a truly "appropriate" individually determined education to a student with significant cognitive disabilities will seriously impact the ability to lead a fulfilling life as a functioning and contributing member of society after exiting the public school system. This aspiration is no different for other students with disabilities, but the path to that goal for SSCD will be extremely individualized and will require instruction in areas for which many students will not require direct instruction. As noted earlier, the three areas that are considered pivotal functional skills (communicative competence, independent living skills, and self-determination) will be essential in preparing students for life after school.

Communicative Competence. In a literature review of the communicative competence for students with significant cognitive disabilities, Kleinert et al. (2016) noted ongoing and significant concerns with the development of communicative competency for students with significant cognitive disabilities, most notably, their lack of progression in communication skills as they get older, resulting in the very real possibility of exiting school without a reliable method of true communication.

Self-Determination. The acquisition of self-determination skills is arguably one of the primary indicators of a high quality of life for all individuals. LaChapelle et al. (2005) have shown a link between the development of self-determination skills and the acquisition of important academic skills to be carried into adulthood.

Independent Living Skills. In alignment with the criterion of ultimate functioning, if a person is to be as independent as possible, skills in the areas of self-care, home living, community, and vocational are extremely important. Billingsley and Albertson (1999) suggest that one of the factors of quality of life is competence in typical skills that are performed throughout typical days by typical individuals. SSCD will likely require direct instruction in these skills to achieve competence in these skills.

Data linking post school outcomes of SSCD to the instruction they received during school do not currently exist at the federal, state, or local level. Although, two longitudinal nationally representative studies, the National Longitudinal Transition Study (NLTS) and the National Longitudinal Transition Study – 2 (NLTS-2) did describe proportions of students with different disabilities who were living in the community and employed post-school and attempted to link particular outcomes to specific family or school characteristic (Newman et al., 2011) but the studies covered periods of time prior to the most recent ESSA regulations and generalizations cannot be made.

One important outcome for many students with disabilities is post-school employment. However, there are limited data available regarding the employment status of individuals with significant cognitive disabilities. The National Core Indicators® distributes annual surveys across states to assess the satisfaction, quality of life, and critical life outcomes for individuals served by Developmental Disability (DD) services (National Core Indicators, 2021). The surveys are sent to individuals with intellectual and developmental disabilities (IDD), aged 18 and older and their families, if they receive at least one paid service from their state's DD agency. In 2018-2019, 22,009 adults with IDD participated across 37 states. The survey found that only 19% of individuals responding to the survey were participating in a paid community job (e.g., a paid

individual job, group job, and/or a business that primarily hires individuals with disabilities) and 44% of those surveyed who did not have a job indicated they wanted one. In comparison, data from the Trading Economics website (2021) indicate a 58.5% employment rate for working aged individuals.

In preparing students for life after school, the dilemma faced by parents and teachers is how to determine the balance between precious instructional time in a student's school career spent receiving academic instruction and instruction towards functional skills. In 1984, Anne Donnellan, a researcher, advocate, and scholar specializing in working with students with autism, recognized this dilemma with her concept of the Least Dangerous Assumption. Donnellan challenged educators and parents to not presume they know the upper limits of a student's abilities and "in the absence of conclusive educational data, educational decisions should be based on assumptions which if incorrect, will have the least dangerous effect on the student" (Donnellan, 1984, p.142). More recently, a review of research conducted by Spooner and Browder (2015) attempted to understand what constitutes good education of SSCD. They concluded that because students with more complex disabilities may lack the ability to communicate their learning, changes to how research is conducted with these students need to be considered.

Donnellan (1984) urged educators to not rely on an absence of data when making decisions for students with disabilities and yet, our educational system strongly relies on data to prove students are getting the instruction they are promised through IDEA. The issues of data quality and lack of consensus regarding instruction of SSCD is apparent in my observations and consultation with educators in District A. Teachers of these students appear to be frustrated by

what they perceive as contradictory guidance about how best to educate SSCD. The unfortunate consequence is the inconsistent instructional programs for students.

Theory of Action: Causal System Analysis

The development and implementation of an integrated instructional program for SSCD is a challenge for school systems, primarily because of the heterogenous nature of the population; however, the traditions and beliefs about what is the best way to teach these students, which may not align with the mandates from federal and state legislation has a tremendous impact on the challenge. Most research surrounding academic instruction for SSCD typically concentrates on specific, individualized skill acquisition with a single-subject or small sample (e.g., Greer & Erickson, 2017; Hudson et al., 2018; Pennington et al., 2018; Spooner et al., 2012, and Spooner et al., 2017), and as Taub et al. (2017) explains does not focus on the breadth and depth of the grade level curriculum. This makes replicating the results in a school system challenging and when it can be, the results are minimal, strengthening the skeptical viewpoints of educators who don't believe SSCD should be provided with grade level academic instruction.

In the area of functional skill instruction, legislation, and guidance from experts in the field of disabilities (e.g., Agran et al., 2018; Brown et al., 2020; Browder et al., 2014, Hunt et al., 2012) continue to point to the need for instruction in the areas of functional skills, but limited guidance and/or oversight is mandated on how to do so. In the 9th edition of *Instruction of Students with Severe Disabilities,* Giangreco et al. (2020) detail four components of quality education for SSCD. The following highlights each of the four components:

1. Students should be provided meaningful access to inclusive environments.
2. Students require an individualized curriculum which allows for relevant access to both grade level instructional content and instruction towards individually

determined, chronologically age-appropriate functional skills provided with a balance of the assessed level of appropriateness with a measure of challenge.

3. Instruction should be purposeful using systematic instructional methods.
4. School teams must provide students with access to necessary related services and supports.

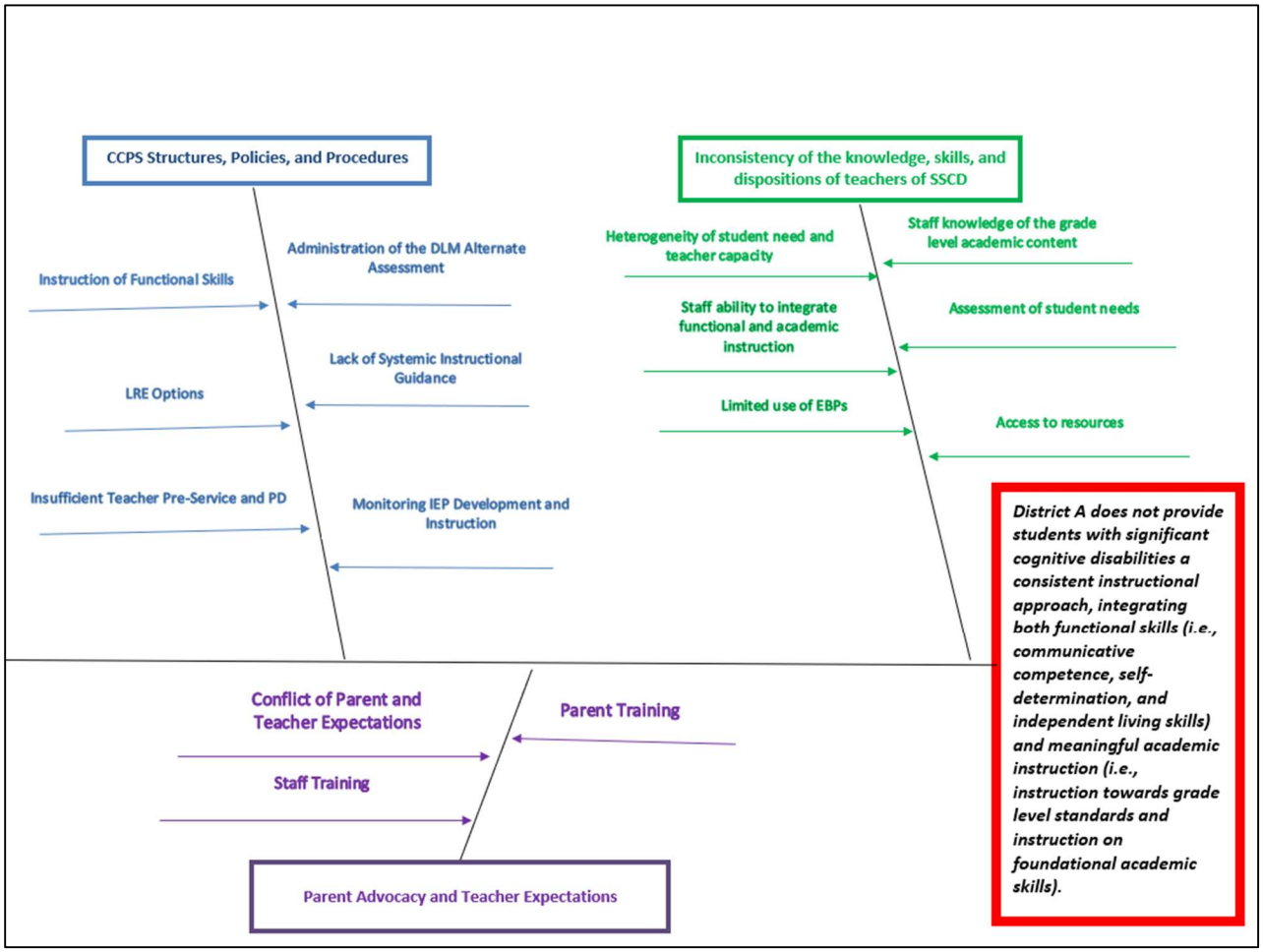
As discussed in the causal system analysis below, the barriers District A faces in providing the integrated instructional approach, similar to the approach described by Giangreco et al. (2020) above to SSCD are multi-faceted. The "fishbone diagram" in Figure 2 illustrates the causal system analysis (CSA) and what I assert are the major causes of the inconsistent instruction for SSCD in District A. As Bryk et al. (2015) explain, a CSA is a protocol used to examine the sources of an identified problem of practice. Going through this process will hopefully provide a thorough understanding of the problem so steps to improve the problem can be identified. I conducted my CSA based on existing research related to recommended instructional programming for SSCD and my role as Supervisor for Special Education. The CSA identifies and describes three causal factors impeding the instruction for SSCD:

1. *District A structures and procedures do not support the use of EVPs for academic and functional skill instruction in an integrated format.* This section provides an overview of the state of functional skills instruction in District A and then will review the impact certain county level procedures have on the effective instruction for SSCD. Structures such as the variance in placement decisions, the challenges with providing appropriate PD, monitoring of the development and implementation of IEPs, guidance towards instructional priorities, and the implementation of the DLM assessment will be discussed in detail.

2. *Teachers do not have the knowledge, skills, disposition, and resources to deliver instruction to SSCD to meaningfully integrate grade level academic and functional skill instruction.* This second "rib" of the fishbone CSA investigates the preparedness of District A teachers to provide instruction for SSCD. It may seem like a simple statement, but as the analysis of the fishbone will show it contains quite a lot of complicated parts.
3. *Parent advocacy for the expectations of their child may not align with expectations of the school.* While this last section is a causal factor in District A, it has a less impactful effect. The section will briefly review the challenges school teams face when parents /guardians have differing expectations for their child's success.

Figure 2

CSA of Inconsistent Instruction for SSCD in District A



As discussed in multiple places throughout this dissertation, the category "SSCD" encompasses an extremely heterogenous population of students. This is important to realize as the CSA is considered, as there are likely many more causes that could be identified for individual students. The causes identified are those that have the most impact on district practices. Through the process of the dissertation and in my role of Supervisor of Special Education regularly working with the school teams impacted by these problems, the causes identified are most within my purview to address.

District A Structures, Policies, and Procedures

In the strategic plan, District A identifies the goal of "enabling each and every student to be prepared for either college and/or career and to be a productive citizen in the 21st century" (District A, 2017, p. 6). This goal for District A clearly does not exclude students with the most significant cognitive disabilities, but many of the structures, policies, and procedures in place are likely contributing to the challenge of implementing effective instruction for these students. Specific challenges related to system structures are explained below.

Instruction of Functional Skills. As explained in previous sections, both IDEA and the Code of Maryland Annotated Regulations (COMAR) mandate functional performance be part of a comprehensive picture of any student's present levels of academic achievement and functional performance (PLAAFP) if it is required for the student to receive a FAPE (COMAR 34 §300.320 and IDEA 34 CFRβ 300.39 (b)(3)). Additionally, recent guidance from MSDE states that the IEP for a student eligible to participate in the AA-AAAS should "include, as appropriate, goals for communication, social interaction, self-care, and other non-academic areas that are needed to support the student's access to and participate in current and future environments" (MSDE, 2019b, p. 6). As there is no national or state oversight of what functional skills instruction consists of or looks like, no mandatory reporting of student performance on functional skill acquisition, or oversight that it is being completed, the individual IEP team makes all determinations about the inclusion of functional skills in the IEP. Without specific guidance and a curriculum that defines a scope and sequence of skills with embedded assessments, IEP teams have the autonomy to determine what goals and instructional objectives are included in the IEP and what teachers will teach. The result is that SSCD receive inconsistent "functional skills" instruction.

Despite the lack of overall oversight of the IEP goals, District A does place priority on teaching functional skills by providing guidance and examples during PD provided by the Special Education Department of District A which addresses the development of IEP goals and instruction for SSCD in the specific areas of areas of communication, self-determination, and independent living skills. However, at the present time, this PD is primarily available to the teachers in regional programs and is designed for students participating in the AA-AAAS.

A second example of the ways in which District A is prioritizing the teaching of functional skills is requiring that a percentage of the instructional time allocated to SSCD who are enrolled in special education regional programs must be dedicated to teaching independent living skills, vocational activities, and community-based instruction. At the middle school level, a specific course, *Community Access and Independent Living Skills: Alternate Standards Framework* is designed to "provide students regular and systematic instruction in everyday community settings using naturally occurring materials and situations with an emphasis on acquisition and application of meaningful and age-appropriate skills" (District A, 2023b, p.11). At the high school level, in addition to the *Community Access and Independent Living Skills* course, *Career Exploration and Job Skills: Alternate Standards Framework* is also offered. This course is designed to, "provide students with access to career preparation, employability skills, workplace readiness, personal growth and development, and employment experiences" (District A, 2023a, p.10).

A final example of District A initiatives represents a response to MSDE guidance requiring the monitoring of IEPs of students accessing alternate standards to determine if functional skill instruction is addressed. The District A Special Education Department: regularly reviews the MSDE requirement to include functional skills in the development of a student's IEP

with teachers and IEP chairpersons, provides PD to special education teachers on the development of these goal areas, and has instituted a monitoring system for IEP review. In a future section, specific data will be discussed regarding the extent to which functional skills instruction is being targeted based on a review of a limited number of IEPs belonging to SSCD.

Administration of the DLM Alternate Assessment. As previously stated, multiple times, SSCD participate in the AA-AAAS in accordance with their IEP. Also, as mentioned earlier, no statewide assessments have been conducted in 2020 or 2021 due to the pandemic. Therefore, the 2021-2022 school year marked the first-time SSCD in Maryland have accessed the DLM assessments for ELA and math. However, due to the delay in the administration of the assessments, teachers have had some time to become familiar with the Essential Elements and ways in which they can be used to scaffold instruction. In District A, a brief overview of some of the tools of the DLM platform has been provided during PD sessions. Unfortunately, despite positive feedback from teachers regarding the usefulness of these tools, I am not observing the use of these resources to successfully develop instructional plans for their students, either in IEP development or in the scaffolding of instruction.

There are several challenges to using the DLM. The testing format is time consuming, as only teachers who have participated in specific DLM instructional modules are able to administer the assessment and it must be done in a 1:1 setting. Additionally, the DLM assessment process takes instructional time away from the students who are not being tested. Despite concerns with the time required for administration of the assessment, anecdotal feedback from teachers regarding the relevance of the DLM platform and resources has been positive. This is hopeful as District A moves forward with the use of Essential Elements and DLM resources

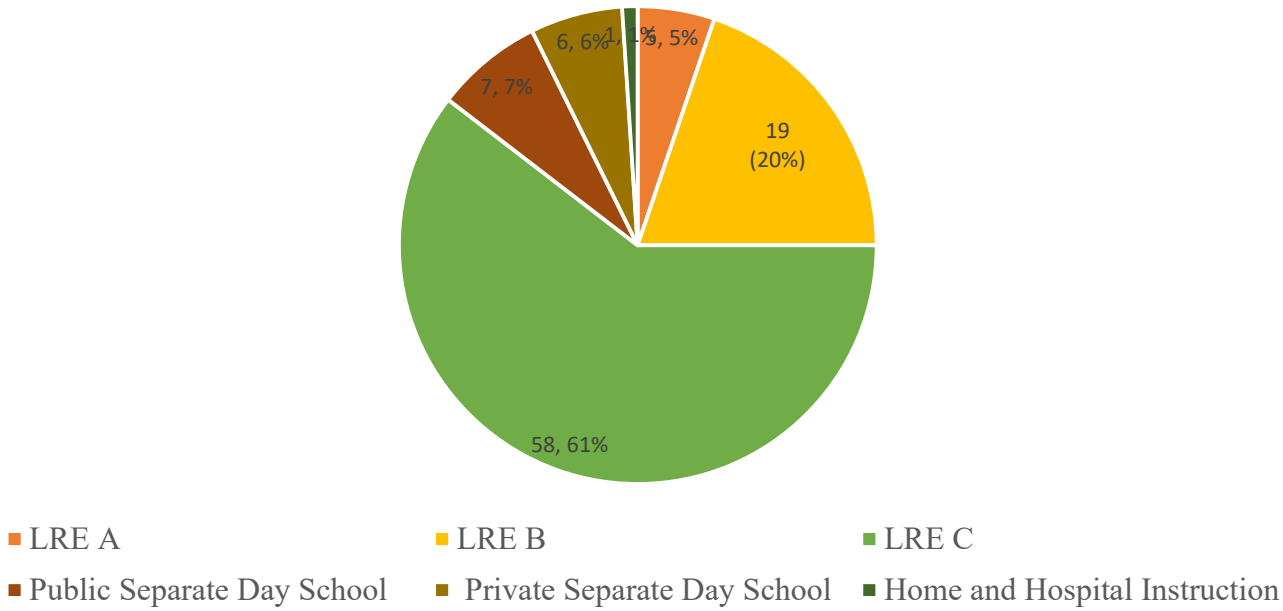
for relevant and sustainable PD. As will be explained in the section below, a related foreseeable challenge will be how to provide the necessary training to all staff working with SSCD.

LRE Options. For all students with disabilities, the determination of where a student's IEP will be delivered is individually determined by the IEP team. This placement decision becomes the student's LRE. IDEA requires each IEP team to consider first an educational program that can be provided within the general education environment. Any decision to remove a student from the general education setting can only happen after a team determines and can justify that the services the student requires cannot be provided in the general education setting with the use of supplementary aids and services (IDEA 2004).

As communicated to the District A Special Education Department from the MSDE's annual reporting of Special Education APR data (personal communication, May 23, 2022), data for the 2021-2022 school year indicate that 73.2% of all students with disabilities in District A receive 80% or more of their instruction within the general education environment, referred to as LRE A. However, according to Maryland Online IEP, only 5% of the students determined eligible to access alternate academic achievement standards and/or the AA-AAAS in District A during the 2021-2022 school year are receiving instruction within LRE A. Figure 3 provides a visual representation of where SSCD in District A are receiving their instruction, showing that most students receive their instruction in LRE C. Students with this LRE are typically included in the general education setting for related arts, lunch, and recess.

Figure 3

Number of District A's SSCD by LRE, 2021-2022 school year



Note: LRE A = Placement in general education, greater than 80% of the time. LRE B = Placement in general education, 40%-79% of the time; LRE C= Placement in general education, less than 40% of the time. Students placed in public or private separate day schools spend no time in general education. The online IEP database, *Maryland Online IEP*, was used to gather the data.

Students with disabilities who require a more intensive instructional program than that which can be provided in the students' home school may attend a regional special education program in which specific and deliberate instructional supports are provided based on common needs related to the student's disability. The Intensive Structured Learning Environment (ISLE) programs in District A are regional special education programs, in which instruction is only provided for students whose IEP teams have determined they require instruction in a small classroom environment with minimal stimulation, a low student to teacher ratio, and individualized instruction focused on an alternate education framework. These programs are

multi-grade, spanning 3-5 grade levels. All students in the ISLE programs are accessing alternate standards. The structure and instructional focus are on grade level academic content instruction using alternate academic achievement standards with the integration of functional skills. Students in regional programs are, for the most part, represented by LRE C in Figure 3.

The systemic challenge stemming from this regional program placement is that while, ideally, the regional program teacher has a passion to teach SSCD, has a greater expertise in the specific teaching strategies, and can do so with fewer children, this teacher is responsible for the instruction of all content areas for multiple grade levels. The structure of multi-grade classes resulted from both the small numbers of SSCD and the previous focus on purely functional skill instruction. Now, with the necessity to teach academic grade level content to all students, combined with the instruction of pivotal functional skills, teachers of multi-grade level classes are finding it untenable to provide instruction that is individualized and addresses all of the content across multiple grade levels.

Most researchers, advocates, and scholars in the field of instruction for SSCD advocate for the importance of providing instruction fully within the general education setting (Gee et al., 2020; Jackson et al.,2009; Kurth et al.,2015). Education in the Least Restrictive Environment is a key provision in the IDEA and states are monitored on the percentage of students across all categories of disabilities spending most or significant parts of their school day in general education classrooms. Specifically in the state of Maryland, districts are required to develop an improvement plan if the percentage of students with disabilities spending 80% or more of their time in general education does not meet the state target.

District A has been making concerted efforts to meet this target, by emphasizing the importance of creating more inclusive environments and increasing the number of students with

disabilities, to include SSCD, receiving instruction in the general education setting for most of their school day. However, the IEP team for each student has the responsibility and autonomy to determine both what will be taught (IEP goals) and where instruction will be provided (the placement). The IEP team decisions can be influenced by the experiences, knowledge, and dispositions of the team members, including parents. Therefore, the determination of where SSCD receive instruction can be based on factors other than the complexities or extent of a student's support needs. In other words, the IEP teams for two SSCD with similar support needs may make different LRE decisions, one documenting that the supports required will be delivered within the general education setting and the other documenting that the required supports can only be provided in a more restrictive special education setting.

While the issue of determining where a student will receive his or her instruction is beyond the scope of this dissertation, based on my review of IEPs and classroom observations, as well as the results of the AA-AAAS, the same challenges with providing an integrated instructional approach exist in both inclusive classrooms and in separate settings. As more SSCD begin to receive instruction in general education settings, the provision of PD, monitoring and administrative oversight of IEPs and instruction becomes an increasing challenge for which District A has not yet addressed.

Lack of Systemic Instructional Guidance. Related to the lack of consistency in IEP goals and the lack of consistency in the instruction provided to SSCD in District A is the relatively small impact these students have on the school system as a whole. Horner and Halle (2018) posit that as a nation, we continue to debate the role in our society of those with needs different from the norm. They suggest that SSCD may not be getting what they need. This may or may not be the case in District A, but one percent of the population is a very small number of

students and therefore, the impact on a system's academic achievement and accountability will also be minimal. Additionally, most school system staff (i.e., administrators, teachers, instructional assistants, related service providers, and specialists) have not been trained in the complexities of defining what instruction provided to SSCD should look like. Coupled with the highly individualized instructional programming of SSCD it is not surprising that there are inconsistencies with where and how these students are educated and the expectations for individual student success.

MSDE and District A have very specific requirements for the 99% of students who will obtain a high school diploma. District A graduation requirements state that to be awarded a diploma, a student must earn 23.5 credits, detailing the subjects which must be addressed (i.e., Math, English, Fine Arts, PE, Health Education, Science, Social Studies, Technology, Financial Literacy, and a Pathway requirement of either World Language, or a state approved Career and Technology Program). (District A, 2021). When a student with a significant cognitive disability has been determined eligible to be instructed using alternate academic achievement standards, he or she is not accessing credits towards a high school diploma. IEP teams: therefore, may also be determining that he or she will be pursuing a certificate of completion instead of a high school diploma. In that case, SSCD may not be required to achieve any of the graduation requirements and thus the monitoring of their instruction is not required and in most situations, non-existent.

Since no guidelines are provided for the courses SSCD are required to participate in, the implementation of the IEP becomes the next logical place where consistency in programming can be addressed. However, as Vandercook et al. (2021) explain, the IEP for a student is not the student's curriculum. In District A, despite training and guidance to the contrary, some teachers of SSCD continue to use the IEP as the only source of instruction that is provided to students,

seemingly as the curriculum for the student. In general, when this occurs, most goals from the IEP are chosen based on the student's skill deficits as determined by a checklist of developmental criteria and become the primary content addressed during the instructional day with no connection to the grade level curriculum for academics or no application of functional skills targeted within the meaningful context of a student's daily schedule in a natural environment.

Conversely, a second situation occurs when a teacher simply accepts that the general education curriculum determines instruction for the individual student and the development and implementation of the IEP is not a priority. When this happens, goals are typically "cherry picked" from the grade level ELA or math curriculum with little connection to the student's current abilities and needs or only target below level content. While the IEP must identify accommodations to instruction, the wide gap between where a student with a significant cognitive disability is functioning, and the expectations of the grade level curriculum makes this approach unsuccessful for the student and the instructional day consists mainly of activities the student participates in with little to no expectation for achievement.

Table 7 below provides examples of two students with different expectations. The instructional approach for student #1 uses the IEP to define what the student is taught and how but is not tied to long term goals or standards. The IEP as Instructional Approach most often occurs with students attending most of their instructional day within a regional program. The student #2 example, the General Education Curriculum Focus, primarily occurs for SSCD receiving most of their instruction in the general education environment. There are SSCD who have IEPs and instruction which combine both approaches. These examples highlight the inconsistencies in education of SSCD which exist in District A.

Table 7

Fourth Grade Example of Two Different Approaches to the Instructional Program for SSCD: Contributing to Inconsistencies in District A

	Student #1: IEP as the Instructional Focus	Student #2: General Education Curriculum as the Focus
Academic Goals	Reading: Phonics -matching and identifying letters Math: identifying shapes; identifying colors, identifying coins Writing: trace the first letter of her name	Reading: Comprehension - Identify details and events from a story read aloud Math: Add and subtract Writing: Dictate the events of a story
Functional Goals	Sit appropriately; follow a schedule; close a twist lid on a jar	None
Schedule	Individual list of activities and/or location where the activity will occur (e.g., 1:1 time at green table, sorting at blue table, I.D. letters)	List of the subjects (e.g., ELA, math, science, etc.)
Instructional Delivery	Multiple 1:1 instructional sessions targeting IEP objectives. Daily data collection on discrete skills.	Whole class instruction with various levels of prompting to participate in the whole class activity. IEP objectives are formally addressed on a weekly basis.

Insufficient Teacher Pre-service and PD. A major issue in preparing for the instruction of SSCD in classrooms is creating the time and space for both special and general education teachers in both special education and general education classrooms with the knowledge and expertise. In a survey of special education teachers who taught students with severe disabilities, Ruppar et al.(2016) found most respondents reported being only moderately prepared to provide the components of instruction required by students with severe disabilities such as: teaching skills in the areas of communication, self-care, self-determination, and skills that will lead to life-long involvement outside of school; identifying the appropriate assistive technologies; aligning IEP goals with state standards, conducting age-appropriate assessments to inform long term

planning, and using the principles of Universal Design for Learning (UDL) to develop lessons. Ruppar et al. conclude that the responses indicate that teachers lack the knowledge to create a cohesive instructional program that will lead to better outcomes for SSCD. In District A, many teachers of SSCD have not been provided training, either during their college pre-service training or through PD provided by the school system, to develop the knowledge of how to integrate academic and functional skill instruction both in developing new types of IEPs and designing activities.

There are generally two profiles of teachers in District A. The first are those teachers who are mostly providing instruction in the self-contained settings (students whose IEPs indicate LRE C) of regional programs. As noted earlier, many of these teachers received their initial preparation in programs based on the criterion of ultimate functioning model. The second profile of teachers are those who primarily provide instruction in a less restricted environment (LRE A and B) and did not intend on teaching SSCD. A major challenge for District A, and likely most other school systems around the country, is providing sufficient PD to enhance teacher knowledge and understanding of requirements and best practices for SSCD while also addressing their beliefs and mindsets. An additional challenge is to provide the training with relevant follow up, coaching, and application within the classroom for teachers who are providing instruction in two vastly different settings.

Additionally, the federal mandates in IDEA and ESSA require the use of EBPs for all students, including SSCD (National Council on Disability, 2018). Cook & Cook (2013) define EBPs as "practices that are supported by multiple, high-quality studies that utilize research designs from which causality can be inferred and that demonstrate meaningful effects on student outcomes" (p. 73). In 2017, Spooner et al. synthesized multiple effective studies that meet the

EBP criteria for SSCD in the areas of daily living, social communication, and academics and encouraged educators and parents to emphasize the use of these practices. In 2014, Browder et al. developed the Innovation Configuration: Evidence-Based Practices for Students with Severe Disabilities to guide teacher preparation professionals in the development of appropriate EBPs for SSCD. The authors reviewed research and concluded that SSCD should be provided academic instruction (specifically literacy/reading, math, and academic vocabulary), daily living skills, job and community skills, self-determination skills (e.g., choice making, self-management, and problem solving), and social and communication skills. To teach these skills, Browder et al. (2014) recommend using the process of systematic instruction, an instructional methodology originating from the principles of applied behavior analysis and documented as being an effective EBP to teach both academic and functional skills to SSCD. The authors created an observation matrix to be used to guide teacher preparation professionals in the development of appropriate EBPs for SSCD. The matrix from the Innovation Configuration (IC Matrix) (Browder et al., 2014) can be found in Appendix G.

Although there has been some PD on the use of EBPs provided to some District A teachers of SSCD, it has not been offered to all teachers, nor designed to be sustained and expected to be delivered to all students. This is not unique to the system. Evidence from multiple studies demonstrate that EBPs are not being implemented for many students with disabilities across the nation perpetuating what has been termed as the "research to practice gap" (Burns & Ysseldyke, 2009; Greenway et al., 2013; Greenwood & Abbott, 2001; Locke et al., 2021). Lack of instruction using EBPs for SSCD is specifically impactful because as Courtade et al. (2015) state, the selection and implementation of EBPs for learners with severe intellectual disability is

extremely challenging due to the highly variable learning needs requiring intensive and very individualized instruction.

The struggle to provide PD which will be sustainable for teachers is a challenge for likely all school systems. This is no exception in District A. The calendar for the 2022-2023 school year (District A, 2022) only provides 3 days of mandatory county wide professional development for staff, spread out throughout the school year. This time must also include a focus on system-wide priorities, procedures related to compliance, and administration of assessments. A related struggle in District A is determining how to ensure all teachers who require the PD are participating. Any training that is in addition to the system's scheduled mandated PD must be provided after school hours. There are some resources to pay staff to attend; however, as the trainings are not mandatory, all staff are not attending. As educational placements of SSCD in general education classrooms expand so does the number of teachers who will be required to provide the specialized instruction.

In an attempt to address the issues of lack of time and inconsistent attendance at PD sessions, the District A Special Education Department has created a variety of short online modules for all staff involved in instructing SSCD that focus on topics such as learning characteristics of students with cognitive disabilities, the importance of establishing structures and routines, behavioral expectations, developing communicative competence, and an overview of systematic teaching procedures. Staff may view the modules (either live or recorded) on their own schedule. Which can be followed by hands on support in the classroom setting from a behavior specialist or teacher specialist.. However, the training is not required and although staff will be paid for their time, participating in the modules requires time outside of the contractual

workday and many staff are unable to commit to this time. Therefore, only a small number of staff are accessing this training resource.

The District A Special Education Department staff, in collaboration with the District A math department created curriculum maps and pacing guides to align the DLM Essential Elements with grade level math content standards for all middle and high school grades. These guides provide teachers with scaffolded entry points to support the planning and learning for SSCD within the general education content. In addition to planning for meaningful instruction, these documents can assist IEP teams in determining appropriate goals and objectives aligned to grade level content. These curriculum maps were first rolled out in the fall of 2021 with an optional PD session offered to any teacher providing instruction for SSCD to introduce the maps. The session was not well attended. Currently, the maps are readily available to teachers, through District A web-based learning management system, but based on informal teacher and instructional specialist feedback, they are not being accessed by most teachers. The challenge the district faces is how to introduce and facilitate the use of these maps among any staff member who will be providing instruction to SSCD.

Monitoring IEP Development and Instruction. One strategy for increasing use of the DLM essential elements and other strategies discussed above is closer monitoring of IEP documents. As described in the introduction, the importance of the IEP as the vehicle for meaningful instruction has not wavered in the legislation since the inception of PL 94-142 (Blackwell & Rosetti (2014) and Turnbull et al. (2018)). Therefore, in moving forward with addressing the challenges District A faces in improving the instruction for SSCD, it is essential that the IEP remain at the forefront and systems of administrative monitoring be put in place to

monitor the quality of IEP development and the implementation of IEPs within classroom instruction.

Some of the recent activities that District A has taken to monitor IEP development and instruction include:

1. The use of the monitoring tools and guidance documents established by the MSDE for the required components of the IEP.
2. The development of a District A checklist of required IEP components for SSCD, based on guidance from the MSDE Alternate Framework Audit Tool.
3. Establishing a quarterly plan for internal monitoring of the IEPs for students eligible for the AA-AAAS to establish the inclusion of required IEP components.
4. Including in the monitoring plan, the observation and evaluation of both the school administrator and special education administrator; multiple times per year for non-tenured teachers and every three years for tenured teachers. The observation format used in District A is the Danielson Framework and it encompasses Professional Practice across the domains of Planning and Preparation, Classroom Environment, Instruction, and Professional Responsibilities (District A, 2016).
5. Conducting short 15–20-minute classroom visits, "walkthroughs", by a small team of general education and special education administrators using a checklist with the specific purpose of observing indicators of specially designed instruction.
6. Revising an instructional guide for the ISLE Regional Programs intended to provide consistency in the implementation of specific classroom structures and routines, instructional priorities of alternate academic standards with the integration of

functional skills (i.e., communication, self-determination, independent living skills, and vocational instruction) in all ISLE programs.

These six initiatives are positive steps in reducing the inconsistencies of instruction; however, until they become regular and consistent practice, a change in practice will be limited. A problem with most of these activities and tools is that they rely primarily on compliance which cannot take the place of quality instruction. Therefore, increasing the capacity of the teachers to provide instruction to SSCD is essential.

Insufficient Staff Knowledge, Skills, and Dispositions

According to a recent National Public Radio (NPR) report, 48 states reported a significant teacher shortage in special education, and many states are relying on teachers without licenses in special education to teach some of the highest-needs students (McCoy, 2022). This persistent special education teacher shortage is not new, nor is it any different in District A. Hagaman and Casey (2018) suggest that the special education teacher shortages are largely due to the volume of unique roles and responsibilities of these teachers, which require additional support and training (e.g., teaching, developing, and managing IEPs, crisis intervention, managing challenging IEPs). As identified in the Hagaman and Casey study, teachers of students with SSCD have increased challenges due to the intensive, specific, and individualized support needs of their students. The relatively high attrition rate for teachers of SSCD in District A may be, at least in part, due to the unique challenges. An unfortunate result is that our teachers do not become "experts" because, as McLeskey & Billingsley (2008) posit, they leave the role prior to developing a repertoire of research-based teaching practices.

Heterogeneity of Student Need and Teacher Capacity. The extensive variation of abilities and needs among SSCD has been referenced multiple times previously (e.g., Thurlow,

2019(a)). This variability impacts IEP development but also determines what teachers of SSCD need to know and be able to do. Individualization is the foundation of IDEA. As Brown et al. (2020) state, "IDEA provides a potent framework to enhance the lives of students with disabilities through special education and the development of an individualized education program (IEP)" (p.11). According to Brown, et.al., individualization for SSCD requires consideration of changes to multiple facets of an educational experience for the student to access and benefit from education. The many considerations include how best to address a student's individually determined learning outcomes that extend beyond the general education curriculum and the adaptations to the delivery of instruction needed to accommodate a student's communication, sensory, physical, and behavioral needs. This is a lot of individualization for which our special education teachers may not be coming into schools equipped to provide (Spooner & Browder, 2015).

Staff Knowledge of Grade Level Academic Content. As explained in the Summary of the Problem earlier in this section, significant inconsistencies have been observed in District A in the provision of academic instruction to SSCD. In general terms, the knowledge deficits can be summarized in three general areas:1. lack of understanding of the general curriculum; 2. lack of understanding of how to adapt general education grade-level curriculum to individual students, even with the use of the Essential Elements and 3. lack of knowledge regarding the use of appropriate individualized accommodations to mitigate the impact of a student's significant disability to access instruction. In many situations, these three things may be occurring at the same time, making it difficult to address the problem.

Staff Ability to Integrate Academic and Functional Skills Instruction. As explained above, state and federal guidelines do not define or provide criteria for what is needed in the

instruction of functional skills. As a result, in District A, most teachers and other staff who instruct SSCD consider functional skill instruction to be separate from academic-focused instruction or not important at all. The Center for Autism Research at the Children's Hospital of Philadelphia (Center for Autism Research, 2020) defines functional skills as "the skills necessary for daily living and for establishing quality of life. The skills that if not done by an individual him or herself, others will have to do. They are skills that are useful and can be immediately applied to the individual's environment" (p.1). Through this understanding, integrating the instruction of functional and academic skills is essential. As Hunt et al. (2012) share, quality of life outcomes (e.g., functional skills) for SSCD must be incorporated with the required core content academic goals and objectives, as "it makes little sense to teach functional routines or activities to students that are not directly linked to outcomes that will enhance an individual's quality of life. The same expectation must also be applied to IEP goals that are focused on academic knowledge and skills based on academic content standards" (p. 149).

Unfortunately, in District A, incorporating these quality-of-life functional skills with general content instruction appears to be rarely occurring. Some examples of this integrated learning may include providing instruction of choice-making within a social studies lesson to increase a student's self-determination skills; teaching a student to form a question to increase his or her independent communication skills during a math lesson; or teaching a student to use a tissue appropriately and efficiently to increase his or her independent living skills in any area.

District A has invested in the *Assessment of Functional Living Skills (AFLS),* a commercial package of protocols designed for teachers to use as an assessment of a student's functional, practical, and essential skills of everyday life such as home skills, community participation skills, basic school skills, independent living skills, and vocational skills (Partington

& Mueller, 2012). The AFLS is criterion -referenced and designed to identify which of the skills a student may not have achieved and for which instruction should be targeted. At the present time, the AFLS is primarily used by teachers of SSCD who are receiving their instruction in one of the regional special education programs, contributing to a belief that if a student requires instruction with these functional skills, it should not be done so in the general education context. While the individual determination of functional skills is necessary, as Courtade et al. (2012) state, mastery of functional skills should not be considered a prerequisite to academic learning nor should be a substitute for academics.

Assessment of Student Needs. As explained in the MSDE Guide for Implementing Specially Designed Instruction within an Integrated Tiered System of Supports, (MSDE, 2019) to determine the content of an IEP, teams must first understand where the student is currently performing and how the disability affects participation in the general curriculum and does the student lack functional skills needed to participate in instruction and school activities. The guide states, "these present levels of academic and functional performance (PLAAFPs) thus serve as the foundation upon which specially designed instruction is developed, implemented, and evaluated" (p. 15).

Guidance from McCabe et al. (2020) indicates that the PLAAFPs should: 1.be developed from a strengths-based perspective, 2. should be aligned to grade level standards, and 3. should reference clear measurable data of student performance. Kurth et al. (2021) suggest IEP teams create strengths-based, data driven, standards-aligned PLAAFPs to develop goals which support valued life outcomes, are personally relevant, and build on a student's strengths. In 2012, Hunt et al. offered a process for IEP teams to use to align the ecological framework for the instruction of functional skills with instruction related to grade level standards. Ideally, this process would

allow teams the ability to develop goals which will reflect meaningful outcomes to be taught in ways that promote generalization to a student's daily lives now and in the future. According to Brown et al. (2020), "highly effective instruction applied to irrelevant, nonfunctional, or chronologically age-inappropriate learning outcomes is a waste of both the student's and the team's time". (p.20) The result of minimal and invalid assessments of a student's true needs related to academic standards and individually determined functional skills lead to IEPs and classroom instruction based on random, disconnected, and/or meaningless goals and objectives.

Consistent with this belief, several years ago, a small committee of teachers, administrators, and specialists in District A created a document entitled, "Steps to Meaningful Instruction" (see Appendix H). This document was intended to offer guidance to IEP teams in determining priority instruction for SSCD. The first and second steps call for teachers to provide meaningful assessment and then to prioritize a student's needs based on those assessments. Step #2: prioritizing student needs seems to be a challenge for many teachers as they develop IEP goals and plan for instruction. The checklist includes a copy of a PLAAFPs checklist (Appendix I) created by the District A Special Education Department during a PD session on writing meaningful IEPs.

To assess the extent to which IEPs were reflecting the steps to meaningful instruction, in January 2021, a random sample of the IEPs for 35 SSCD were reviewed internally. Only 5 (14%) of the 35 IEPs reviewed met all three criteria points defined by McCabe et al (2020). Six (17%) of the 35 IEPs had PLAAFPs in just one area which met the three criteria points, and 20 (57%) of the IEPs did not provide an assessment of a student's level of performance based on grade level standards. The majority of PLAAFPs cited teacher observation and IEP goal progress as the

only sources of data, essentially offering only the teacher's opinion as evidence of where a student was performing and in which content area.

Limited Use of EBPs. The importance and legal mandates of using EBPs when providing instruction to SSCD has been discussed in multiple sections of this dissertation in addition to concerns with the limited use of them locally and nationwide. In District A, this can be attributed to the staff's lack of knowledge regarding what constitutes an EBP for SSCD and how they should be implemented. The consensus of research conducted over the last decade or so on the determination and implementation of EBPs for SSCD have found that the most effective approach for the instruction of daily living skills, foundational academic skills, instruction towards grade level content, and communication is that systematic instruction, an established EBP, has provided the greatest promise of success for students (see for example, Browder et al., 2014; Courtade et al., 2015; Hudson et al., 2018; Spooner et al., 2017). Systematic instruction incorporates the application of behavior analytic principles of stimulus control and positive reinforcement (Agran et al., 2018) and focuses on teaching skills that generalize to different settings, people, and/or materials (Spooner & Browder, 2015). A more thorough definition of systematic instruction from Collins (2022) is offered in Appendix A: Key Definitions.

Despite the heterogeneity of the SSCD population, students share the following five patterns of learning characteristics: 1. Students will learn much more slowly and/or inconsistently across content areas than their typically developing peers; 2. Students will learn a lot less than their typically developing peers; 3. Students will have difficulty generalizing information; 4. Students will have difficulty maintaining information learned to generalize to different situations; and 5. Students will have difficulty putting together component parts

(Ryndak & Alper, 2003). Systematic instructional strategies can provide a structured approach to instruction which accommodates the learning characteristics described above to teach both academic core content and functional skills that prioritizes teaching socially relevant, and measurable skills using precise instructional targets and ongoing collection of student performance and progress toward skill attainment (Spooner et al., 2017).

Despite the body of research showing that systemic instruction is an EBP for SSCD, in a survey of special education teachers of students with autism and/or intellectual disability, Knight et al. (2019) found that most of the teachers surveyed reported their own professional judgment, practices shared in in-services, PD workshops, and conferences and recommendations from fellow teachers as the most important factors when making instructional decisions and the extent to which a practice was evidence-based did not have a substantial impact on their choices. For the most part, based on my participation in IEP meetings, classroom walk throughs, classroom visits, and in conversations with teachers and administrators, the lack of implementation of EBPs used with SSCD in District A mirror the findings of the Knight et al. (2019) study and many teachers are basing their instructional decisions primarily on their own professional judgment.

Access to Resources. An important component of a teacher's ability to provide students with the individualized instruction they require is the access and use of appropriate resources. For teachers of SSCD, this involves access to both academic content resources that is modified or scaffolded and resources to teach functional skills. This section will explain the challenges faced when the appropriate resources are either not available or not able to be used effectively by the teacher due to lack of experience with the resource.

In the area of academic instruction, collaboration between general and special education staff has increased in some schools. The collaborative efforts are focused on providing equal

access of grade level instructional materials to support SSCD. Despite these efforts, discrepancies in the materials provided to students and/or the teachers use of these resources exists, often based on the placement of the student. Most students in regional Special Education programs do not have a scheduled time to meet with general education counterparts, are not included in school-based PLC meetings, and are not included in county wide PD for grade level content. In some cases, teachers may be provided with the materials (e.g., textbooks, access to instructional materials in Schoology, the learning platform in District A); however, without guidance, they are unable to successfully use them. Conversely, teachers in regional programs have access to educational materials not available to teachers in the general education environment. The primary example of this is student access to the Unique Learning Systems, an online instructional program designed to "deliver comprehensive standards-aligned learning for students in pre-k through transition differentiated specifically to help unique learners access their state's extended standards" (N2Y: Unique™ Learning System, 2022). Despite cautions that these materials may not be definitively aligned to the common core state standards scope and sequence (Taub et al., 2020) teachers in regional programs tend to use this as the only resource used to teach grade level academics.

Inconsistencies in the availability of resources in functional skills is not as prevalent as the concern for the academic resources, but discrepancies do exist. Some teachers in regional programs tend to have materials to teach functional skills such as money, time, vocational or pre-vocational activities (e.g., assembling nuts and bolts tasks). These materials tend not to be provided to students who are receiving much of their instruction in general education settings and the expectation is that functional skills should be taught in the context of the student's instructional day. The Special Education Department does not recommend using these

inauthentic materials in regional programs, unless they are done within a natural context; however, teachers continue to use these familiar and available resources. Another inconsistency is student access to instruction within the community. The SSCD in middle and high school who attend regional programs participate in community-based instruction (CBI) on a regular basis. However, except for some individualized work-based learning opportunities, most SSCD receiving instruction outside of regional programs do not have access to CBI.

With the initiatives for increasing the number of students with IEPs receiving instruction in the LRE, District A has provided a considerable amount of PD to all staff in various formats on the ideas of presuming competence, ableism, and equity for all students. The overall message is that educators should have, as Donnellan (1984) suggested, high expectations for all students, to include SSCD. It is my professional opinion that most teachers do believe students are competent and also maintain high expectations for their students; however, their expectations are challenged when a student is unable to demonstrate that they are learning in tangible ways because of their communication challenges or lack of appropriate instruction. Teacher inexperience with how to present grade level academic content with individualized accommodations or modifications are often viewed in terms of the student's deficits and inability to master the new content.

Parent Advocacy and Teacher Expectations

When reauthorizing IDEA in 2004, Congress indicated that IDEA has thus far, been successful in ensuring children with disabilities have access to a free public education; however, the implementation of IDEA has been impeded by low expectations and an insufficient focus on applying replicable research on proven methods of teaching and learning for children with disabilities (IDEA 1400: c4.). This vision of high expectations for students with disabilities was

subsequently highlighted specifically for SSCD through a Dear Colleague letter provided to state and local education agencies from the Office of Special Education Programs (OSEP) in 2015, stating that annual IEP goals for SSCD must reflect high expectations and that goals should be ambitious but achievable (Yudin & Musgrove, 2015).

The IDEA also ensures that parents are members of the IEP team for their child (IDEA, 2004) and should have a voice at the IEP table when decisions are made. The challenge occurs when the expectations of the parents don't match the expectations of the school team. In a survey of a random sample of parents of students with significant cognitive disabilities participating in the Massachusetts' alternate assessment, Diane Davis (2018) found parents/guardians of SSCD often felt left out of the decision-making processes regarding the outcomes for their children. Parents may find themselves at a disadvantage in the participation of IEP meetings if they do not understand the mandates or do not participate in the development of the IEP. Further, once the IEP has been developed, parents are not directly involved in the day-to-day implementation of the IEP.

Based on personal observations, parents of SSCD in District A likely experience the same feelings. I have had conversations with several IEP teams, been contacted by multiple parents regarding their concerns with the implementation of their child's IEP and participated in IEP meetings where I observed team members attempt to include a parent in determining or defining the level of expectations for the child. Increasing the involvement of parents in the IEP process is an extremely important mission for District A and determining how District A staff can more effectively partner with parents to achieve the desired outcomes for their children is important. This is important in achieving changes in what and how SSCD are to be educated because parent

advocacy and expectations can challenge the new approaches to the delivery of instruction for students.

Conflict of Parent and Teacher Expectations. In general terms, there are three scenarios in which a school team's potential misunderstanding of or disagreement to a parent's expectations may have a negative impact on the development and implementation of an IEP. The first is when a parent's expectations for their child are neither realistic nor supported by evidence. If the expectations are translated into IEP goals or objectives and compounded by lack of data, IEP teams are challenged with designing instruction that will enable the child to achieve the goals. The IEP teams want to work collaboratively with parents, and in so doing, may agree with the suggestions of the parent without aligning to the student's PLAAFPs, to grade level standards, and/or without a plan for instruction.

The second example is when a child's parents have lower expectations for achievement than the goals and objectives the IEP team is proposing. This occurs most often when goals or objectives reference specific grade levels for academic skills and parents want the IEP goals to emphasize functional skills with little or no inclusion of grade level academic content goals and objectives.

The third example is when parents believe that the IEP should include goals in every area of known or presumed deficit resulting in an IEP that has a disjointed set of objectives that may result in developing splinter skills but not real knowledge or competence. The third example is when parents do not provide any input to the IEP team and report or state that they do not have the knowledge to offer suggestions.

Staff Training. The District A Special Education Department is aware of these concerns and continues to promote training and understanding of the importance of school and parent

collaboration to special educators and school teams. Some specific examples include training annually to new special education teachers focusing on collaboration with parents and an online module on parent collaboration available for school teams to review. In addition, over the last few years, District A has put in place several initiatives to obtain more input and to work collaboratively specifically with parents of SSCD. One initiative is Making Action Plans for Students (MAPS) intended to help IEP teams make decisions based on meaningful information incorporating data and student and family interests. MAPS meetings are scheduled prior to IEP team meetings with the purpose of providing parents and school teams opportunity to have open conversations about a child's future. The meetings use data and allow for sharing useful information that will lead to meaningful and attainable IEP goals and objectives. At this time, MAPS meetings are held only for SSCD or other students with complex support needs entering a general education environment.

Parent Training. The Family Support Network (FSN) called Partners for Success, is a state funded grant program in which District A is able to provide training throughout the school year to target the needs of families of students with disabilities. Despite efforts to reach all families, the trainings have been poorly attended. Plans are in place for the 2022-2023 school year to conduct some of the trainings at specific schools with themes tailored specifically to the needs of families with SSCD.

Summary of Causal Factors

This analysis of the factors contributing to the inconsistent instruction provided to SSCD in District A shows a great deal of complexity and overlap of all three of the causal factors. For example, the ability for staff in District A to increase their knowledge and abilities will only be possible if impeding structures and procedures in District A are changed. An unfortunate reality

in our current post-pandemic times is the reality of educator shortages. Teachers, instructional assistants, and related service providers are at a minimum. Many staff come to our schools with limited to no experience teaching SSCD or in some cases, any students with disabilities. If we are to provide the instruction outlined throughout this dissertation that students need, the responsibility falls on the school system to make changes to the structures and procedures impeding PD and the provision of feedback to teachers through monitoring of IEPs and instruction. A secondary example is the overlap of the knowledge of teachers in their ability to successfully collaborate with parents in the development of the IEPs based on realistic and rigorous expectations. Staff knowledge of grade level academics, appropriate functional skills, and the ability to adequately assess a student's current abilities greatly impacts the ability to collaborate with parents. Brown et al. (2020) explain that the principles of IDEA establish a framework in which parents acquire rights to affect their child's education. A teacher's lack of knowledge will significantly impact this necessary partnership in creating an effective instructional program.

Theory of Action: Driver Diagram

In the following sections I describe my own theory of improvement to address the problem of inconsistent IEP goals and instruction which are not targeting the skills necessary for SSCD to increase their academic and functional skill knowledge. The aim is by the fall of 2024, 80% of the teachers who provide instruction to SSCD in District A will have the expertise to deliver consistent instruction to meet the diverse needs of their students. The plan will consist of two components: 1) the development of individually determined and relevant IEP goals and objectives targeting both grade level academics and pivotal functional skills in the areas of communication, self-determination, and independent living and 2) the delivery of instruction

integrating academic and functional skill instruction through the implementation of EBP. This aim would be measured by review and analysis of IEPs for SSCD, and observations of classroom instruction provided to those students.

Prior to discussing the drivers necessary to achieve the aim, it is important to understand that measuring progress toward this aim is complex because, as noted earlier, a major obstacle to developing consistent and coherent goals and instruction is the heterogeneity of the needs among SSCD, requiring individualization in determining present levels of performance, measurable outcomes for success, and instructional approaches (e.g., Ford, 2001; Kleinert, 2020; and Thurlow, 2019a). This heterogeneity complicates the standards for reviewing IEP content, beyond the level of presence of specific components. Table 8 provides a comparison of two 8th grade SSCD, both who have the same educational disability, but present with very different abilities and needs. In these examples, both academic and functional skills are crucial for each student's success but measuring the appropriateness of either student's IEP goals or instructional plans is subjective and requires a deep understanding of the student's PLAAFPs.

Table 8

Demonstration of the Heterogeneity of SSCD: A Comparison of Two Eighth Grade Students

Characteristics	Student A	Student B
Disability	Multiple Disabilities: Intellectual Disability and Other Health Impairment (Spina Bifida)	Multiple Disabilities: Intellectual Disability and Other Health Impairment (Angelman Syndrome and Seizure Disorder)
Communication	Communicates verbally using full sentences.	Essentially a non-verbal communicator; uses a voice output device to communicate using 1–3-word phrases.
Gross Motor	Requires the use of a wheelchair at all times. Able to ambulate the chair	Ambulatory requires adult support when transitioning through uneven surfaces.

Characteristics	Student A	Student B
	independently, with prompts and monitoring from an adult.	
Fine Motor	No fine motor concerns noted.	Requires adult support for all fine motor tasks.
Activities of Daily Living	Requires full adult support for toileting. Able to wash hands and eat independently when provided prompting for positioning and obtaining materials.	Completes all steps to use the bathroom, wash his hands, and brush his teeth with minimal physical, gestural, and verbal prompting.
Reading	Reads and comprehends between a 1st and 2nd grade level	Reading level identified as below a pre-primer level. Able to identify pictures of familiar objects.
Writing	Independently writes simple sentences.	Circles, marks, or points to items requested from a field of 3.
ELA Grade Level Goal	After reading a grade level text adapted to his independent reading level, Student will write the answers to literal questions from the text.	After listening to each page of an adapted grade level text with pictures, Student will point to a picture from a field of two representing the correct answer.
Functional Skill: Independent Living Goal	Student will communicate to staff when he requires support to use the bathroom.	Student will independently complete all steps to use the bathroom.

To provide more structure to measuring the success of the improvement aim, the IC Matrix (see Appendix G) created by Browder et al. (2014) will be used throughout this theory of improvement as a template for determining the required components of a consistent instructional program. The matrix includes three components: how to teach, what to teach, and how to support instruction. Figure 4 presents my Theory of Improvement to address the inconsistency in educational programs for SSCD.

Figure 4

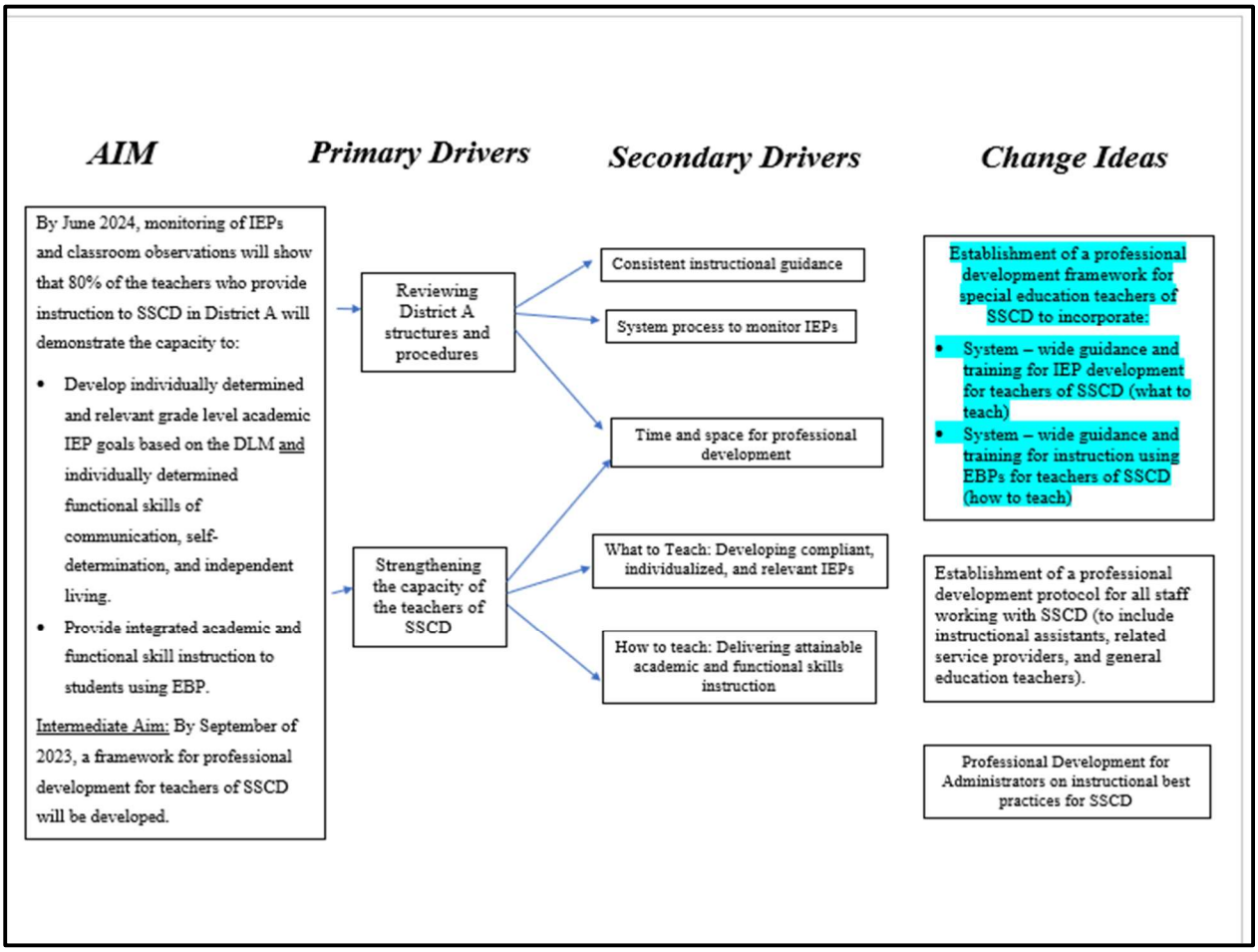
Theory of Improvement

If teachers of SSCD in District A demonstrate the knowledge and understanding of how to determine an individual student's current level of performance in both the areas of academic and functional skills ("what to teach") and the knowledge of EBPs to deliver effective instruction ("how to teach"), **then** District A will have the capacity to develop consistent IEP goals and deliver consistent educational programs for SSCD that lead to relevant attainable outcomes.

Figure 5 below provides a visual representation of the driver diagram representing the theory of improvement. To improve the instruction for SSCD, two primary and five secondary interrelated drivers have been identified. The two primary drivers are to: 1) review/revise the structures and procedures of District A as they relate to the instruction of SSCD and 2) improve the capacity of teachers responsible for instruction of SSCD. Three change ideas have been identified to reach the aim; however, the most relevant is the establishment of a professional development framework for special education teachers of SSCD. This section is highlighted in the driver diagram and is the focus of the change initiative. Each of the primary drivers and accompanying secondary drivers will be discussed below.

Figure 5

Driver Diagram



The following section provides information regarding each primary driver with more detailed information about the secondary drivers impacting them.

Reviewing/Revising District A Structures and Procedures

Three areas related to the structure and procedures of the District A which, if addressed would likely improve the delivery of instruction to SSCD are: providing consistent instructional guidance for teachers, implementing a process for monitoring the content of IEPs, and providing

a time and space for the provision of professional development to teachers of SSCD in the areas of IEP development and the application of sustainable EBPs.

Consistent Instructional Guidance. The first secondary driver related to District A structures and procedures is to provide all staff involved in instructing SSCD consistent and actionable guidance about what and how to teach academic and functional skills. Approximately 80% of the special education teachers of SSCD teach in comprehensive schools, either in a regional special education class or within the general education environment. Their direct supervisors are the principals and assistant principals of the school. Most of these school-based administrators do not have a background in special education and for those that do, it is very likely not in the instruction of SSCD. Therefore, the instructional leader of most schools is not well versed in what is necessary for the instruction of SSCD. As mentioned in the CSA, a Special Education Supervisor does participate in the evaluation and observation process of non-tenured teachers but is not required to do so for tenured teachers. District A also provides mentors for new teachers; however, these teachers may not be versed in the instruction of SSCD. Therefore, in order to provide coherent and cohesive instruction and IEP goals, all administrators of teachers of SSCD should be knowledgeable in best practices for the instruction of SSCD. Targeting this as a change initiative is well beyond the scope of this dissertation; however, the development of an instructional framework for teachers has the potential to be a tool school-based administrators can use to increase oversight of instruction.

System Process to Monitor the Quality of IEPs. As mentioned in an earlier section, the monitoring of IEPs of SSCD in District A typically focuses only on whether the IEPs are in compliance with the required components for determining eligibility to participate in alternate standards and the AA-AAAS. The most recent compliance monitoring results show improvement

in the IEPs through the 2021-2022 school year. In September of 2021, all IEPs of SSCD who had an IEP meeting within the previous quarter were monitored. 11% of these IEPs met compliance requirements. By April of 2022, 41% of the IEPs for SSCD with IEP meetings held the previous quarter met compliance requirements. Increasing the monitoring process to include more than specific elements but the quality of the components of the IEP would provide a systemic way of incentivizing staff participation in PD and improving instruction overall. However, as noted earlier this type of review is complex and time-consuming. Currently, the Special Education Department of District A needs more resources to provide this in-depth oversight. For this reason, monitoring IEPs from a system level is beyond the scope of the proposed improvement initiative.

Time and Space for Professional Development. Research regarding the PD needs of teachers provides evidence that instead of simply a one or two-day in-service, practical changes to teaching practices come through consistent and ongoing follow-up with teachers, targeting actual students in actual classroom situations (Greenwood & Abbott, 2001; Kretlow & Bartholomew, 2010; and Yoon et al., 2007). Based on this research and due to the extreme heterogeneity among students, training for special education teachers of SSCD in District A must be provided regularly throughout the year with a focus on individualized student needs.

As discussed in the CSA section earlier, District A special education staff have encountered challenges in providing PD to teachers of SSCD due to limited time to schedule during the school calendar, an increase in the teachers who require the training due to an increase in placement options for students, limited participation during trainings scheduled outside of the school day, and an absence of time and staff to provide any follow-up during the school day. The District A Special Education Department continues exploring options for providing additional

PD, including plans to provide teacher substitutes during the school day for initial and follow-up training, coaching sessions, and visits to master teacher classrooms. All of these options have limitations, but to make the necessary gains, ongoing PD and support are imperative for teachers of SSCD to change their approach to educating their students. Providing the necessary time and space for PD ultimately impacts increasing the capacity of teachers and is, therefore, a secondary driver in this area. This is beyond the scope of my improvement initiative but will likely be a factor that must be addressed to achieve the improvement aim successfully.

Strengthening the Capacity of the Special Education Teachers of SSCD

John Hattie (2015) states that "the greatest influence on student progression in learning is having highly expert, inspired and passionate teachers and school leaders working together to maximize the effect of their teaching on all students in their care" (p. 2). In District A, this second primary driver of strengthening the capacity of our teachers is likely the most important factor in improving the instruction of SSCD and will be the emphasis of the proposed improvement initiative and the purpose of the proposed investigation. This will be a complicated and multi-faceted undertaking; however, as has been demonstrated in multiple areas of this dissertation, SSCD require teachers with specialized expertise and skill (Brown et al., 2020; Ryndak & Alper, 2003; Ruppar et al., 2016, and Schillinger, 2017).

Improvement Initiative

The change idea tested in this dissertation addressed two secondary drivers: "what to teach" and "how to teach." As discussed earlier, increasing the capacity of the District A teachers of SSCD by offering adequate and sustainable PD has proven to be a significant challenge. Therefore, an intensive instructional change with a consistent and viable plan for sustainability is

imperative. As a Supervisor of Special Education, creating a reflective instructional framework for all special education teachers of SSCD that encompasses the "what" and "how" to teach falls in my zone of proximal influence. The "what to teach" explicitly focused on the development of the PLAAFPs and goals and objectives of IEPs, and the "how to teach" focused on the strategies and techniques needed to integrate the instruction of functional skills and grade level academic instruction. Both secondary drivers will be explored below.

What to Teach: Developing Compliant and Relevant IEPs. Blackwell and Rosetti (2014) remind readers that the IEP, as the cornerstone of the IDEA, should serve as the central point for educational planning for students with disabilities. The IEP should then define "What to teach." In my observations, many special education teachers of SSCD in District A are struggling to develop IEPs that are compliant, individualized, and relevant for each student. As the following paragraph will illustrate, this struggle is likely a result of teachers' incapacity to determine comprehensive, valid, and relevant assessments in creating appropriate PLAAFPs that should serve as the foundation for a rigorous and meaningful IEP.

In the Spring of 2022, a small review of IEPs for students determined eligible for participation in the AA-AAAS was informally conducted in preparation for comprehensive monitoring by MSDE. For this review, the IEPs of six randomly selected students (representing each grade band: elementary, middle, and high school) were reviewed to obtain information regarding prioritizing instruction for SSCD. The review showed that all six IEPs targeted goals and objectives in the academic areas of reading and math; however, only three of the six targeted reading content was based on grade-level standards, and four of the six targeted grade-level math standards. In the area of functional skills, all six IEPs have a goal addressing communication; however, all six were exclusively addressed by the Speech Language Pathologist in a separate

setting. Only three of the six IEPs had goals addressing the area of independent living. Five of the six IEPs reviewed had goals loosely related to self-determination. In deeper review, each of these five goals was specifically related to a student being compliant and not being self-determined. In a review of the PLAAFPs, five of six IEPs used data from sources other than teacher observation, yet the connection to goals and objectives was unclear. Additionally, only one of the six IEPs showed PLAAFPs based on a student's strengths. However, when reviewed by MSDE, these six IEPs met compliance requirements, demonstrating a seeming contradiction between compliance and a meaningful, individualized instructional plan.

In a literature review focusing on the beliefs of stakeholders of students with severe disabilities on the subject of the general education curriculum, Ballard and Dymond (2017) found that stakeholders struggle to understand how to address the general education curriculum without losing sight of other educational goals. These results support the challenges District A teachers face in determining a student's PLAAFPs in academic and functional skill areas. If teachers had a better understanding of how to define a student's PLAAFPs, the instruction would naturally improve. For this reason, the first component of the change initiative for this dissertation will be to increase the capacity of teachers in District A to develop IEPs of SSCD that reflect students' needs in the areas of academic and functional skills, focusing on increasing their knowledge and skill in creating PLAAFPs.

Academic PLAAFPs and the DLM. The DLM Alternate Assessment platform provides resources, which, if used consistently, will provide a starting point for teachers to understand the academic content about their student's individualized needs. The learning maps in the DLM system provide a pathway for each critical academic learning target, allowing teachers to determine individual access points by identifying interactions among the learner, the content, and

the context (Kingston et al., 2016). Providing teachers with training, time to practice, and continued support on using the DLM learning maps in conjunction with the District A-created curriculum maps is an actionable and realistic step for understanding and designing the academic goals to teach their students.

Functional Skill PLAAFPs and the AFLS. As noted in the CSA, the AFLS is available for teachers of SSCD in District A and can be used as an individualized tool to assess a student's abilities in the functional skill areas of communication, independent living, and self-determination (Partington & Mueller, 2012). Incorporating training, time to practice, and ongoing support in using the AFLS will strengthen teacher capacity to create valid and meaningful assessments to determine a student's PLAAFPs and subsequent goals and objectives.

Summary of "What to Teach." Once the foundation of a student's present levels has been established, developing goals and objectives will be more attainable and appropriate. The use of the MSDE tools for developing goals and objectives will follow; however, it is not expected that significant training will be needed in this area if the PLAAFPs are solid. Additionally, as mentioned earlier, the instructional day for SSCD should not consist solely of instruction on IEP goals and objectives, and the AA-AAAS will target all grade-level alternate standards. However, with training on determining a student's true abilities about the content, teachers' planning for the instructional day will be more meaningful.

As defined by the next secondary driver, the second step in the process focuses on how the goals and objectives will be taught through daily instruction. Teachers of SSCD must tailor instruction to a student's strengths and areas of need and accommodation as identified in the student's PLAAFP.

How to Teach: Academic and Functional Skills. To strengthen the capacity of District A teachers to deliver individualized instruction of grade-level academic and functional skills, teachers need to strengthen their knowledge of *how* to teach using EBPs. The use of EBPs is a required component of the federal ESSA regulation for all students. As explained in the introduction section, as well as in the CSA, systematic instructional strategies have been established through rigorous research as the predominant EBP for use with SSCD (e.g., Browder et al., 2014; Courtade et al., 2015; Hudson et al., 2018; Spooner et al.,2017). Therefore, the Innovation Configuration and corresponding matrix developed by Browder et al. (2014) (see Appendix G) will provide the foundation, structure, and outline for the professional learning experience. As the DLM (2022) and the AFLS will be used to inform the components of the knowledge and skills teachers need to convey, systematic instruction (e.g., Brown et al., 2020 & Collins, 2022) as guided by the IC Matrix will be used to inform the instructional strategies and resources that will be required. However, simply presenting the IC Matrix to teachers and developing guidelines for its use will not effectively address the complexities of the instructional students' needs sustainably. For this reason, targeting how PD will be presented to teachers will also be necessary.

A review of research conducted by Darling-Hammond et al. (2017) regarding the components of PD proven to demonstrate a positive link between teacher professional development, teaching practices, and student outcomes define seven essential elements which should be in place when teams establish plans for PD. The research shows that PD must: 1. be content-focused, 2. incorporate active learning, 3. support collaboration, 4. use models of effective practice, 5. provide coaching and expert support, 6. offer feedback and reflection, and 7. be of sustained duration. Yoon et al. (2007) reviewed more than 1,300 studies across many

areas of education that addressed the impact of PD on student achievement. Components common to those studies which rigorously address the link between teacher PD and student achievement are identified in this review. The action plan for this dissertation considered incorporated elements from the Darling-Hammond et al. (2017) and the Yoon et al. (2007) studies, specifically those variables specific to the role of the teacher (e.g., teaching primarily in a regional program or teaching in a general education setting).

Summary of Change Initiative and Proposed Investigation

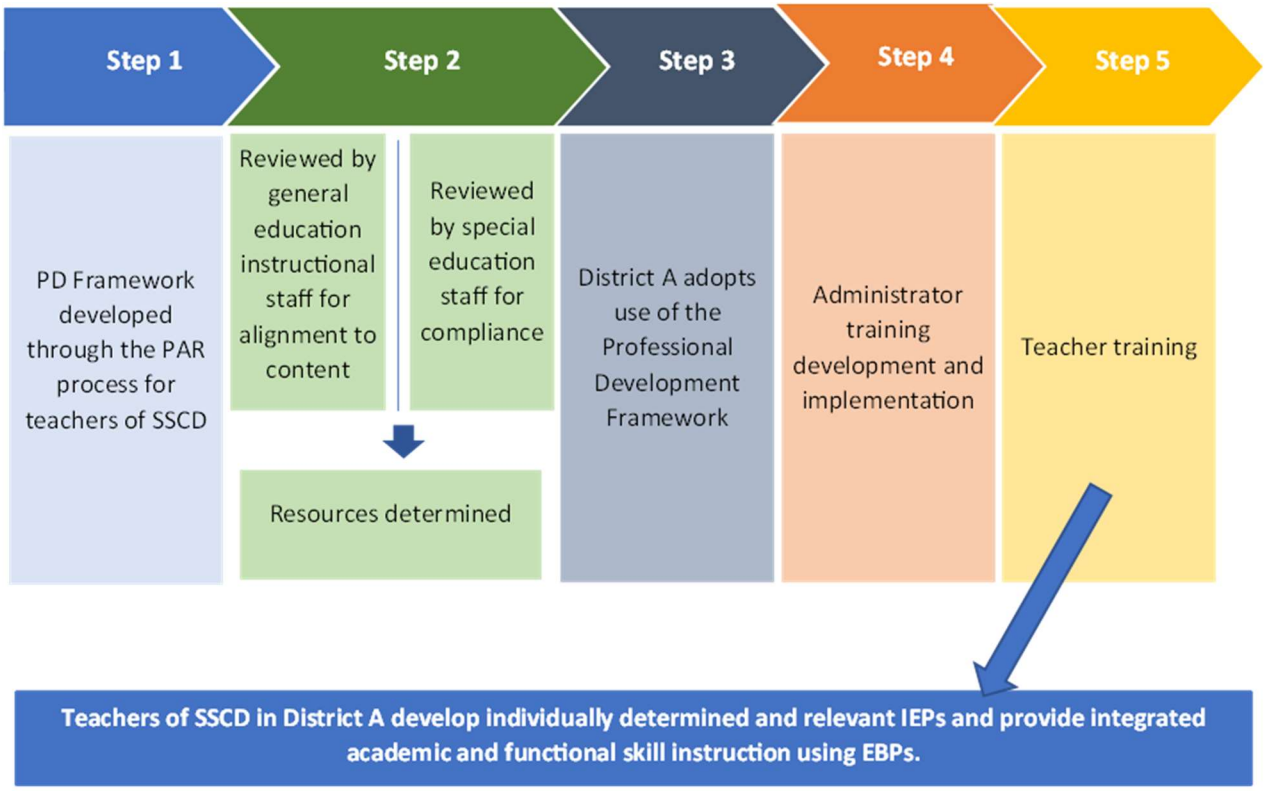
As the previous sections have shown, providing effective and relevant instruction for SSCD continues to be controversial and challenging throughout the nation and specifically within District A. Both the content of instruction and the manner in which the instruction is delivered is inconsistent and largely influenced by the individual teacher with limited reliance on guidance from county, state, or national sources. Solutions to these challenges are complex due to multiple issues such as requirements for compliance, the lack of guidance towards a consistent approach for educating SSCD, and discrepancies in the knowledge, beliefs, and expertise of teachers.

In my experiences working with teachers in the public school system, most educators who accept a special education teaching position working with SSCD are passionate in their desire to make a positive change in the lives of their students. For this reason, increasing the capacity of teachers of SSCD who come with the motivation to make change is the overall focus of this study. As the aim explains above, the change initiative and focus of this dissertation consists of the development of a specific framework to provide training and support regarding the content and delivery of instruction to SSCD in District A. Achieving the aim of increasing the capacity of all teachers of SSCD is beyond the scope of this dissertation; however, Figure 6

provides a visual representation of how the creation of this PD Framework in Step 1 will provide the momentum to increase teacher capacity efficiently and sustainably.

Figure 6

Long Term Plan to Increase the Capacity of Teachers of SSCD in District A



Purpose

As noted in Figure 6, the overall improvement goal is to increase the capacity of District A teachers of SSCD to determine what should be taught and how to consistently provide integrated academic and functional instruction across different classroom settings. To meet this improvement goal, a comprehensive PD Framework for teachers of SSCD needs to be developed and implemented consistently across the district. To develop such a plan, the central purpose of this investigation was to determine the current level of understanding among teachers of SSCD in District A of both "the what" and "the how" of instruction for SSCD. The ultimate goal is to

create a PD Framework through a consensus building process designed to increase teachers' knowledge and understanding of evidence-based instruction for SSCD. Using both a survey of District A teachers and participatory action research methods with a small work group of current special education teachers of SSCD in District A, the intent was to determine what teachers of SSCD understand about teaching using EBPs and how to increase teacher knowledge of, and capacity to, implement essential evidence-based components of instruction for SSCD.

Section 2: Investigation

Purpose Statement

As the previous section described, for almost 50 years, defining the most effective and relevant instructional programs for SSCD has been challenging. Legislation, research, and a strong commitment to inclusive education have resulted in changes in what these students should learn and how they should be taught. The changes present continued challenges to implementing effective instructional programming in District A. As a Supervisor of Special Education, I have observed that a critical problem has been the inconsistent and fragmented focused instruction provided to SSCD. I believe educators who accept a teaching position working with SSCD realize the challenges and desire to make effective changes in the lives of their students. However, for reasons discussed in the prior section, many of these educators are not implementing the current most evidence-based instruction that integrates grade-level academics based on alternate academic achievement standards with critical functional skills. To better understand why teachers in District A are struggling to implement evidence-based instruction, the purpose of this study was to collaborate with teachers of SSCD in District A to investigate the barriers to providing evidence-based instruction and using the IC Matrix from Browder et al., 2014 as a starting place to define the EBPs needed, create a framework of the PD required to increase teacher capacity to deliver the instruction.

This study followed a Participatory Action Research (PAR) process in collaboration with the input of a small group of District A special education teachers of SSCD. The IC Matrix (Browder, 2014), explained in Section 1, was used as the foundation of the PAR, and the goal was to develop a plan for the professional development of teachers of SSCD that address both the "what" and the "how" of instruction.

The PAR process was utilized as it supports the recommendations of individuals who research the PD of teachers. Kedzior & Fifield (2004) state that high-quality professional development should be based on teacher-driven efforts to identify and solve instructional problems embedded in their daily work. Specific to special education teachers of SSCD, Ruppar et al. (2016) suggest that teachers' experiences and perspectives are essential to include in the research on teacher preparation. Therefore, professional development for this study must be sustainable and ongoing. As explained in the sections below, the PD Framework design will allow SSCD teachers to use the knowledge (Guskey,1995) deliberately and wisely.

Research Questions

Four research questions guided this study. Research questions 1-3 asked District A special education teachers of SSCD about their current knowledge of effective instructional practices and how they incorporate them in developing IEPs and providing individualized instruction. A survey was used to address these questions. To answer research questions 4 and 5, a small workgroup of selected District A case managers[10] of SSCD in collaboration with me, to be referred to as the Collaborative Work Group (CWG), engaged in the process of interpreting survey results and providing input regarding future PD plans for all teachers of SSCD in District A. The final comprehensive PD plan addresses the required content and the strategies needed to provide integrated instruction towards the content, as defined by the IC Matrix in conjunction with state and district requirements. The four research questions are listed here:

[10] In District A, Special Education case managers are the special education teachers who provide and/or oversee the instruction and supports needed to implement a student's IEP.

1. What level of knowledge of the essential components of instruction for SSCD as defined by the IC Matrix (Browder et al., 2014) do special education teachers report they have?
2. To what extent do special education teachers of SSCD report that they incorporate components of the IC matrix in the delivery of instruction and development of IEPs for SSCD?
3. What priorities for future PD are recommended by a CWG of selected case managers of SSCD to build the capacity of all District A teachers of SSCD to deliver integrated instruction?
4. What are the top three barriers to implementing integrated instruction and IEP development as defined by the IC Matrix and local and state requirements identified by a CWG of selected case managers of SSCD, and what professional development activities and supports do they recommend to address the barriers?

Design

The study design was a mixed methods approach. It began with the gathering of preliminary quantitative data through an anonymous online survey presented to all special education teachers of SSCD in District A in February 2023 to obtain baseline information regarding their knowledge of the components of the IC matrix and the extent to which they use the components in IEP development and delivery of instruction. The survey results informed the qualitative portion of the study which followed the PAR process. The PAR process involved the CWG, consisting of a selected group of nine case managers of SSCD. The CWG collaborated under my direction to implement the steps of the PAR process to develop a framework for future PD activities for teachers of SSCD.

PAR was chosen for this study because, as noted by Creswell et al. (2007), the qualitative research design of PAR allows the researcher and the members (i.e., the CWG) to collaborate through a process to help find a suitable solution to a problem. The design was particularly appropriate for this study for two reasons. The first is due to the heterogeneous needs of SSCD, which require individualization in determining outcomes, methods for achieving the outcomes, and the assessment measure to determine whether the outcome has been successful. The heterogeneity also results in teachers having different experiences and expectations, thus making their reflection a valuable piece of the data, which, as noted by James et al. (2008), is one of the differences between PAR and other qualitative research designs. The PAR process requires that members reach a consensus on the most critical issues and how to address them. The second reason for selecting a PAR design is to engage teachers to address a problem with many contributing factors requiring significant changes in teacher mindset and practices.

As noted by Baldwin (2012), the driving force of PAR is the search for practical solutions likely to make a difference in members' lives. James et al. (2008) highlight four reasons why the PAR design was fitting for this study: critical reflection will help practitioners (participating teachers) develop their professional capacity; a level of focus on the topic will result in long-term engagement; the process will develop local expertise for District A; and the practitioner (participating teachers) will be left more motivated and energized about their work than when they began.

PAR Iterative Process

According to most researchers, PAR typically involves a process involving four iterative steps designed to increase members' knowledge and understanding of the issue, to prioritize elements of the issue, to implement change based on data findings, and to reflect on the process

(Ayaya et al., 2020; James et al., 2008; & Miller & Maguire, 2009). For the PAR process to be most effective, PAR practitioners engage in multiple cycles of the steps. As James et al. (2008) explain, members gain knowledge and understanding through the process, which allows for the implementation of change based on complexities that come up through the process.

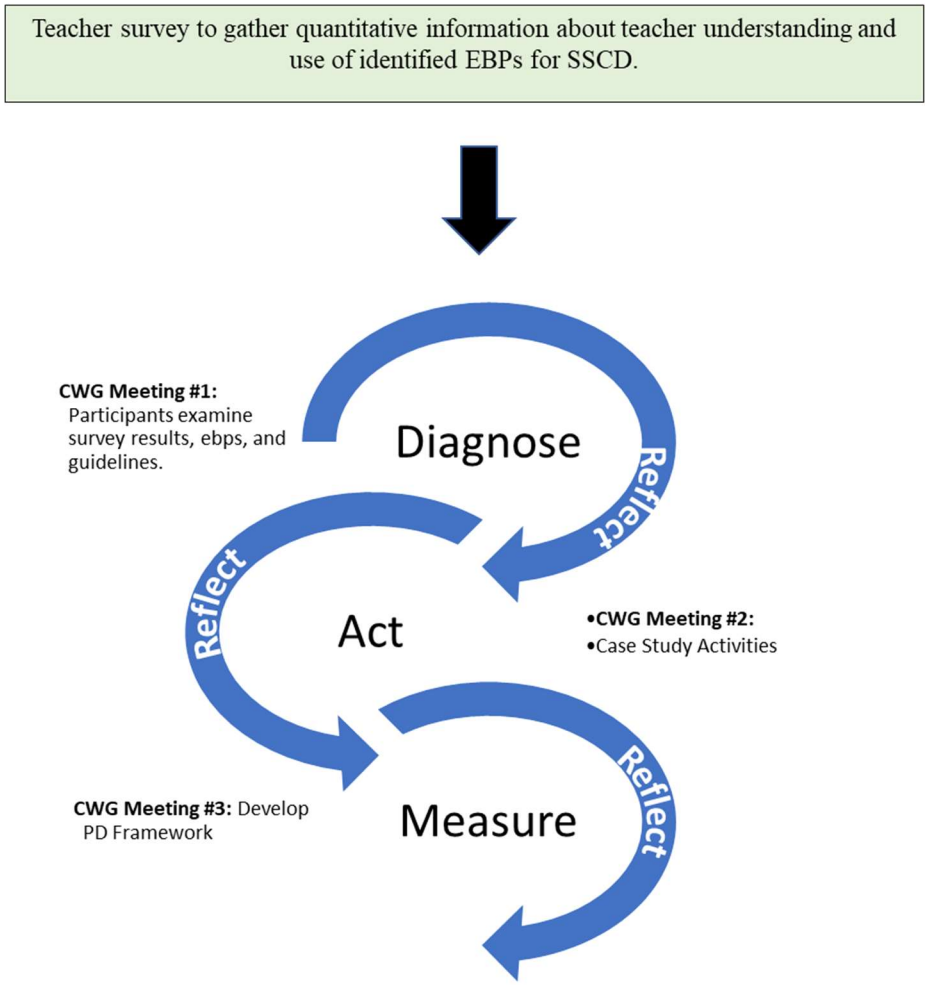
The terms and definitions of the PAR steps may differ depending on the researcher; however, the root purpose of the PAR process remains the same, emphasizing the importance of the researcher and members undertaking a reflective process leading to action (Baum et al., 2006). This iterative process of PAR has provided some confusion and skepticism in educational research, likely because of the firm reliance on the members' joint roles of subject and researcher; the reliance on reflection and anecdotal data, as opposed to concrete, quantitative data, to justify the change; and the flexible nature of the steps of the process (Jacobs, 2016). As the needs of SSCD are complex, heterogenous, and change regularly, the flexible and reflective approach of PAR was appropriate for this study, despite potential uncertainty with the outcomes of the process.

Four PAR iterative steps of diagnose, act, measure, and reflect, as defined by James et al. (2008), structured the organization of this study. The "Reflect" step allows members to reflect individually and collectively on the process, their actions, and the outcomes. For the current study, reflection was intertwined through all steps. The "Diagnose" step of the PAR process corresponds to research questions one and two and requires members to evaluate what is currently known about the topic. The next step of the process, "Act," involves all members collaboratively addressing common goals to improve a situation and plan possible courses of action and corresponding ways of measurement. The "Act" step addresses research questions three and four. "Measure," the third step of the PAR process, involves measuring how the

group's actions will achieve student-level outcomes. Although the "measure" step is crucial to the PAR process and the long-term goal of implementing effective and sustainable PD for teachers of SSCD in District A, its completion is beyond the scope of this dissertation. A plan for implementing the "measure "step, followed by a second cycle of the PAR process, will be discussed in the Next Steps component of Section 3. Figure 7 provides a graphic representation of the approach used in this study. The relationship between the PAR steps and the phases of the present study will be described below in the Methods section.

Figure 7

Visual Representation of the Study



Members

Two groups of members were involved in this investigation. One group participated in the survey and a smaller group in the CWG. Both are described below.

Survey Members

The survey was sent to any special education teacher responsible for providing instruction and implementing at least one IEP goal and corresponding objectives to a student with a significant cognitive disability in any setting within District A. Based on these criteria, in Fall 2022, an estimated[11] 25 teachers were eligible to participate and were sent the survey.

Collaborative Work Group Members

Eligible members for the CWG were tenured special education teachers in District A as of the Fall of 2022 who provided instruction and served as the IEP case manager (see footnote 9) for at least one student meeting eligibility criteria as a student with a significant cognitive disability eligible to access alternate academic achievement standards and/or participate in the AA-AAAS.

A total of 16 teachers were eligible, and nine were recruited to participate in the CWG. The nine teachers were chosen to represent the different roles special education teachers of SSCD in District A can have. Including members with differing roles increases the effectiveness of the study because understanding different opinions and experiences allows for in-depth insights into the problem (Bhanderi, 2022).

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[11]Due to the sometimes fluid co-teaching relationships for students in general education, this number may vary throughout the year.

The nine teachers selected for the CWG included three teachers serving as case managers for students at the elementary level (grades K – 5), three at the middle school level (grades 6-8), and three at the high school level (grades 9-12). At the elementary and middle school levels, one of the three members was a teacher of a student with a significant cognitive disability, receiving most of their instruction in the general education setting. The other two members were teachers of students receiving instruction in a self-contained regional program. At the high school level, one teacher provided instruction to SSCD in a regional program and the other two provided instruction to SSCD in both the general education and self-contained settings.

Recruitment and Selection of Survey Participants and CWG Members

Survey Recruitment. After receiving approval from the University of Maryland Institutional Review Board (see Appendix J) and the District A Superintendent's Office, I emailed all 25 District A teachers who are actively providing direct instruction to at least one SSCD, inviting them to participate in the online survey. The email explained that the research is being conducted as part of my dissertation, described the purpose of the study, and presented the short- and long-term goals. The email noted that participation would be voluntary and anonymous. It was explained that all results using the Google Forms platform would remain confidential and not be used for purposes beyond this dissertation. (See Appendix K for a copy of the text of the survey recruitment email). Through word of mouth, I was made aware of additional special education teachers who provided instruction to SSCD and forwarded the survey recruitment email to nine additional teachers.

CWG Recruitment. Prospective members for the CWG were teachers who served as the IEP case manager for at least one student with a significant cognitive disability in District A. As of the fall of 2022, 20 teachers met those criteria. However, four of these teachers were non-

tenured. They were eliminated from the pool for recruitment because, as a Supervisor in District A, I was responsible for observing and evaluating them throughout the 2022-2023 school year. To select the nine teachers, I reviewed the list of 16 teachers with one other Special Education Supervisor who has been an employee in the District A Special Education Department for many years and asked her to identify any teacher she felt did not demonstrate a solid commitment to providing instruction to SSCD. This Supervisor did not express concerns with any of the 16 teachers on the list. I then sent a recruitment email to each of the 16 teachers explaining the purpose of the CWG and asking that they contact me if they were interested in participating so I could explain the purpose of the study, briefly explain the PAR process, share the expectations for the role of a work group member/researcher, and provided an outline of the responsibilities and time commitment (See Appendix L for a copy of the text of the CWG recruitment email).

CWG Selection. Within one week, seven of the nine members (three from high school, two from middle school, and two from elementary school) responded to the original CWG recruitment email. A follow-up conversation with each member was scheduled within three days of their response. In addition to an explanation of the purpose, logistics, and expectations of the study, I stressed that their participation would remain entirely voluntary and that their involvement was to be kept anonymous. (See Appendix N for the script of this conversation). All seven expressed continued interest in participating in the CWG. Two additional teachers were recruited after a follow-up email was sent to eligible middle and elementary school teachers. Within two days, two additional teachers responded to the email, explaining their hesitation about the schedules of activities for their children and possible daycare considerations. I explained that the meetings would be scheduled at mutually agreeable times for everyone and that it would be OK to bring their children if that worked for them. With this flexibility, they

agreed to participate. All nine members were white females with at least five years of experience as a special education teacher. Three members teach in an elementary school, three in a middle school, and three in a high school. To attribute specific quotes, thoughts, or other ideas, they are identified as E1, E2, E3, M1, M2, M3, and H1, H2, and H3. The education, experience, and current position, as reported by each CWG member are detailed below in Table 9.

Table 9

CWG Member Characteristics

CWG Member	Member Characteristics		
	Education	Experience	Current Position
E1	• Bachelor's degree in Elementary and Special Education • Master's degree in Educational Leadership: Human Resource Development	• 9 years as a special education teacher • 7 in District A • 2 years teaching SSCD	Elementary school special education teacher supporting SSCD in general education or self-contained setting, not a regional program teacher
E2	• Bachelor's degree in Special Education • Master's degree in Special Education • Post Graduate Autism Studies Certificate	• 12 years as a special education teacher • 12 years in District A • 12 years teaching SSCD	Elementary School Regional Program special education teacher
E3	• Bachelor's degree in Elementary and Special Education • Master's degree in Special Education • Post Graduate Autism Studies Certificate	• 5 years as a special education teacher • 5 years in District A • 5 years teaching SSCD	Elementary School Regional Program special education teacher
M1	• Bachelor's degree in Social Work	• 6 years as a special education teacher • 6 years in District A	Middle School Regional Program special education teacher

CWG Member	Member Characteristics		
	Education	Experience	Current Position
	• Master's degree in leadership in teaching	• 6 years teaching SSCD	
M2	• Bachelor's degree in history • Master's degree in Special Education and Leadership. • Administrator 1 endorsement • Post Graduate Certificate in Applied Behavior Analysis	• 17 years as a special education teacher • 17 years in District A • 17 years teaching SSCD	Middle School Regional Program special education teacher
M3	• Bachelor's degree in History. • Master's degree in Science of Education.	• 18 years as a special education teacher • 14 years in District A • 5 years teaching SSCD	Middle School special education teacher supporting SSCD in general education or self-contained setting, not a regional program teacher.
H1	• Bachelor's degree in Early Childhood and Special Education. • Master's degree in Curriculum and Instruction • Educational Doctorate in Educational Leadership.	• 29 years as a special education teacher • 29 years in district A • 6 years teaching SSCD	High School Regional Program special education teacher
H2	• Bachelor's degree in Elementary and Special education • Master's degree in Early Childhood education	• 13 years as a special education teacher • 4 years in District A • 6 years teaching SSCD	High School special education teacher supporting SSCD in general education or self-contained setting, not a regional program teacher

CWG Member	Member Characteristics		
	Education	Experience	Current Position
H3	• Bachelor's degree in Elementary and Early Childhood Education • Master's degree in Curriculum and Instruction	• 12 years as a special education teacher • 5 years as an administrator • 5 years returned to special education • 22 years in District A • 10 years teaching SSCD	High School special education teacher supporting SSCD in general education or self-contained setting, not a regional program teacher

Methods

As previously indicated, the steps of the PAR process, as defined by James et al. (2008), guided this study. First, quantitative data was gathered through the anonymous online survey presented to all special education teachers of SSCD, followed by the qualitative data gathered through the CWG of selected case managers. Each step of the PAR process and each phase of the study is explained in the sections below.

Survey (Phase 1 of the Study)

The study's first phase involved administering an anonymous 11-item survey with 3-6 point Likert scale responses using Google Forms (See Appendix M for a copy of the survey). An anonymous survey was chosen because it allowed the teachers of SSCD to share their current practices, beliefs, and perceived barriers truthfully and without fear of evaluation or consequences and, as Kelley et al. (2003) point out, obtain real-world observations in a relatively quick and easy format. The survey was sent to all 25 special education teachers in District A who provided instruction to at least one SSCD to obtain information about teachers' understanding and use of instructional practices for SSCD in District A.

Section one of the survey asked participants to share their experience with education and with teaching SSCD. Section two of the survey asked participants to rate the extent to which they understand and use four evidence-based instructional practices identified in the IC Matrix (Browder et al., 2014). The four practices are systematic instruction, self-directed instruction, peer tutors, and technology interventions. Survey participants were also asked to indicate the areas for which they felt additional PD was necessary. Section three asked teachers to indicate approximately how many SSCD received instruction in various content areas and any specific areas for which they felt PD was needed. Section four asked teachers to indicate the instructional supports reported in place for their SSCD. The fifth and final section provided teachers with a forum to indicate any general comments about teaching using EBPs for SSCD. As a way of thanking teachers for their participation in a way that maintains anonymity, the recruitment email provided teachers the option of emailing me and providing a code found at the end of the survey if they were interested in being entered into a drawing for a $15 gift card to Wawa.

I intended to have the survey available for ten days and to send two email reminders. However, after ten days, there were minimal responses, and based on feedback received from several teachers who indicated they would complete the survey, it remained open for approximately one month. During that time, reminder emails were sent to potential participants after five days, ten days, and three weeks. Nineteen usable surveys were received, representing a 76% response rate. Ten out of the 19 participants also entered the drawing for the gift card, which was sent to the winner through District A's mail system.

Collaborative Work Group (Phases 2-5 of the Study)

Following the completion of the survey, the PAR process was applied to address research questions three and four through convening the CWG. Before the first meeting, all nine CWG

members were sent via email a summary of the survey results, the IC Matrix, and several documents that provided overviews of federal, state, and local requirements for the instruction of SSCD. The email explained that these documents would be a foundation for their work as a member of the CWG. The meetings would provide the time and space to engage in discussions and consensus building regarding the priorities for PD, the identification and possible solutions of barriers to implementing the prioritized PD, and to develop recommendations for the PD process moving forward. Also included in this communication was the expectation that members would actively reflect throughout the PAR process through individual reflection journals provided in advance of the study via the District A mail system. Table 10 below details each phase of the study and the connection to the corresponding step of the PAR process.

Table 10

Phases of the Study

Phase	PAR Step	Purpose	How	Participants	Time Frame	Meeting Logistics	Information Sources	Outcome
Phase 1: **Survey**	Diagnose	Evaluate what teachers of SSCD report to know about EBPs and how they use them	Survey	19 out of 25 teachers of SSCD in District A	2/4/23-3/4/23	N/A	Summary of survey responses and analytic memo	Identified teacher knowledge and use of EBPs in District A Provided context for CWG meetings
Phase 2: **CWG Ongoing Reflection**	Reflect	CWG members reflect on the process of the study and implications for their teaching	CWG members kept reflection journals throughout the study and shared at each meeting	All nine CWG members	Throughout study	N/A	Summary of participant reflection discussions	Strengthened CWG members' input in the study process
Phase 3: **CWG Meeting #1**	Diagnose	Provide an overview of the study and gain CWG member commitment to the study's outcomes	CWG members examine survey results, research of EBPs for SSCD, and federal / state guidelines	Researcher and all nine CWG members	3/7/23 4:30-6:00	90-minute meeting held virtually via Microsoft Teams at an agreed-upon date and time	Summary of CWG member discussion and analytic memo	Established CWG member understanding of the study and implications for their teaching

Phase	PAR Step	Purpose	How	Participants	Time Frame	Meeting Logistics	Information Sources	Outcome
Phase 4: **CWG Meeting #2: What to Teach**	Act	CWG members collaborate to explore "what to teach" EBPs	Applying the IC Matrix using a Case Study Scenario: *Instructional Lesson Plan*	Researcher and four CWG members	3/16/23 5:00-6:30 PM	90-minute meeting in researcher's office (one member participated via Microsoft Teams)	Summary of CWG member discussion, feedback on case studies, and analytic memo	Investigated and practiced the implementation of EBPs in the development of an IEP
Phase 4: **CWG Meeting #2: How to Teach**	Act	CWG members collaborate to explore "how to teach" EBPs	Applying the IC Matrix using a Case study scenario: *IEP Development*	Researcher and four CWG members	3/23/23 5:00-6:30 PM	90-minute meeting in the District A Administration building	Summary of CWG member discussion, feedback on case studies, and analytic memo	Investigated and practiced the implementation of evidence-based instructional strategies
Phase 5: **CWG Meeting #3 with follow-up participant feedback**	Act	Members collaborate to create the PD Framework.	Using the IC Matrix and knowledge gained from case study activities, members develop a PD Framework (to include barriers and solutions)	Researcher and eight CWG members	4/25/23 5-7 PM[a]	Two-hour meeting at a school in District A (One member participated via telephone and one participated via Microsoft TEAMS).	Summary of CWG member discussion, input into PD Framework, analytic memo, and member checking	Developed PD Framework

[a] Teachers were given access to a shared document in which they could provide additional feedback through 5/31/23.

Reflection (Phase 2). As represented in Figure 7, reflection was an ongoing and integral part of the PAR process. The CWG members were asked to use a reflection journal to record their thoughts throughout the process, during the actual meetings, and at any other time, such as when they were instructing their students. Approximately one week prior to the start of the first CWG meeting, members were sent an email informing them that I would be providing them with a journal they could use for reflection throughout the study. They were given a choice of either a bound journal with the picture of an etched tree in grey, red, blue, pink, green, or yellow or a spiral journal of either green, red, purple or black. A picture of the choices was included in the email. Members were directed to respond to the email with their choice and the journal was sent to them via District A's mail system. Participant journal entries were strongly encouraged but not mandatory. In addition, a reflection prompt was emailed to CWG members prior to each meeting to aid the reflection process. (See Table 11 for the reflection prompts.). The purpose of these reflection prompts was to encourage members to share reflections and allow for group discussion of individual reflections. At the beginning of each CWG meeting, time was allotted for discussion of reflection prompts, and individuals could volunteer to share additional thoughts as noted in their reflection journal. The findings from the reflection process will be discussed in Section 3, detailing how the members' reflections contributed to the development of the PD Framework.

Table 11

Reflection Prompts

Reflection Prompt	Delivered to members:	Discussed with members:
As you provide instruction to your students, reflect on how you determine the priority areas of instruction for grade-level academic skills and the functional skills of	In email sent prior to CWG Meeting #1	CWG Meeting #1

Reflection Prompt	Delivered to members:	Discussed with members:
communication, self-determination, and independent living skills. Do the IEPs of your students reflect all of these areas? What are the strategies you are using to provide instruction?		
Think about the evidence-based practices in the IC Matrix by Browder et al., 2014. Do you consider these to be essential components of instruction for your students? Are you using all, some or none of these as you provide instruction to your students? If you are using some or all, how is it going? If you are not using them, why not? Are there practices you don't feel are essential components for instruction? Why?	At conclusion of CWG Meeting #1 and in email sent prior to CWG Meeting #2	CWG Meeting #2
After completing the Case Study activity, how would you see this being implemented with your students? Is this an effective way to deliver professional development? What components do you think need to be included in a PD plan? What are the barriers to providing these?	In email sent prior to CWG Meeting #2	CWG Meeting #3

CWG Meeting 1 (Phase 3). The purpose of the first meeting of the CWG was twofold: to introduce the study and the IC Matrix and to diagnose the problem to be addressed. Prior to the meeting, members were provided with a link to a shared file with the following documents that would be shared (the agenda for the meeting, a summary of survey results, the Innovation Configuration article to include the IC Matrix (Browder et al., 2014), and several guidance documents provided by MSDE). The agenda can be found in Appendix Q and a list of the documents provided is included in the agenda. The meeting began with an explanation of the purpose of the CWG, including expectations for participation and teacher reflection time. Diagnosing the problem consisted of a review of the survey results and a discussion among CWG members about the challenges faced by special education teachers providing integrated instruction to SSCD. Following this discussion, I presented an overview of the components of

the IC Matrix. Lastly, I reviewed the federal, state, and local requirements for the education of SSCD in preparation for the CWG meetings. For each discussion topic, teachers were asked to share any questions verbally, provide input into how it fits into their instructional experiences, and preliminarily identify potential boundaries.

CWG Meeting 2 (Phase 4). The "Act" step of the PAR process for this study involved members working together, using the information gained in the "Diagnose" step to plan a course of action. During CWG Meeting 2, members used the IC Matrix to identify areas of knowledge that teachers of SSCD are likely to require through an activity that required teams to apply the components of the IC Matrix to one of two case study scenarios described below: "What to Teach" case study and "How to Teach" case study. Following the first CWG meeting, an email was sent to each CWG member, asking them to select one of the case study activities. Only 3 of the CWG members made a choice; the rest said they would do either, and thus, I assigned members to represent elementary and secondary teachers from regional programs and general education in both case studies. Four teachers and I arranged to participate in a face-to-face meeting for the "What to Teach" case study activity, and five teachers and I arranged to participate in a face-to-face meeting for the "How to Teach" case study activity. However, one participant in the "what to teach" group had to participate virtually at the last minute due to a sick child. Also, at the last minute, one teacher in the "how to teach" group could not participate, leaving that group with only four teachers and me. At the start of both case study meetings, I shared Darling-Hammond's (2017) components of professional development (content focused, incorporates active learning, supports collaboration, uses models of effective practice, provides coaching and expert support, offers feedback and reflection, and is of sustained duration) with CWG members, who agreed these were all important considerations as the PD Framework is

developed. Teachers were asked to reflect on these components as they worked through the case study and with the eventual development of the PD Framework.

Case Study #1: What to Teach. CWG members of this first case study meeting were provided a summary detailing specific information about a fictional student, including current abilities, needs, results of assessments, and an overall profile of the student's strengths and needs. After reviewing the student's information, members revisited the essential best practices for "what to teach" (using the information from the IC Matrix and the federal and state guidelines). They developed the PLAAFPs and goals and objectives for the student, focusing on grade-level academic skills (using DLM resources) and functional skills (using the AFLS or ABLLS-R resource). A planning template was provided to each member to document their work and provide them a space to record any barriers they feel would be encountered through this activity. The student's summary and planning template provided to each member to complete the activity can be found in Appendix S.

Case Study #2: How to Teach. The second case study activity provided CWG members with completed portions of an IEP for a fictional SSCD (specifically the PLAAFPs and goals and objectives in academic areas of ELA and Math and functional skill areas of communication, independent living, and self-determination). A basic lesson plan template was provided to CWG members to create an instructional plan for the student by referencing the IEP and the IC Matrix (Browder et al.,2014). I explained to CWG members that in completing this activity, they had flexibility to determine the content area for instruction, the number of other students who would be participating in the lesson, and the location of the lesson, but they were encouraged to consider the location of the lesson grounded on their current role in District A. The lesson plan format provided can be found in Appendix S.

At the end of each case study activity, members discussed the potential barriers facing teachers of SSCD who would potentially be required to apply the IC Matrix components to students they teach. The CWG members were also asked to suggest solutions, reflect on the case study process, consider how the activity might benefit other teachers and similar implementations for their SSCD, and record these reflections in their journals.

CWG Meeting 3 (Phase 5). In this study, the intended overall outcome was to develop a plan identifying what professional development is needed for special education teachers in District A to provide evidence-based instruction to SSCD. The "Act" step of the PAR process was continued during the third meeting of the CWG, having all members of the CWG work together to develop the PD Framework aligned to the components of the IC Matrix (Browder et al., 2014).

All nine CWG members were scheduled to participate in this last meeting and agreed that in-person participation was preferred. However, on the planned meeting day, two CWG members requested to participate via Microsoft Teams, and one teacher was sick and could not attend. One of the teachers who asked for virtual participation could not access Microsoft Teams and could only participate via telephone. The teacher who was ill did provide brief written input at a later date. An agenda was provided at the start of the meeting (see Appendix W). Members were tasked with using the resources provided to them at the first meeting (e.g., the IC Matrix, state and federal guidelines), their notes and experiences from the case study meeting, and their reflections to determine the necessary components for a PD Framework. They were then provided with a template to record what they believed were the essential PD components,(i.e. the content or strategy for which PD is needed), the specific activities to correspond to the component, the frequency for which PD would be provided, and potential barriers and suggested

supports. The PD Framework template included a separate section to include components in the areas of "What to Teach", "How to Teach", and "How to Support" (see Figure 6).

Figure 8

PD Framework Template

Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities (SSCD) in Calvert County Public Schools

PD Framework Template (CWG #3)

Component	Activities		Potential Barriers and Solutions
	Description	Frequency	
What to Teach:			

To structure members' discussion as they determined the components of the PD Framework, a planning routine protocol (see Figure 9) was used. The protocol served as an agenda, requiring members to work individually to prioritize their thoughts on the necessary components, then to work in pairs to establish agreement, and finally to work as a group to develop consensus to be documented on a master copy of the PD Framework template. The agenda for the third CWG meeting can be found in the outline of the study (Appendix L).

Figure 9

Planning Routine Protocol

Planning Routine Protocol
to Develop a PD Framework for the Instruction of SSCD in DISTRICT A

Step #1: Individual -10 minutes: Each member will independently reflect on the survey, the two previous CWG meetings and their reflections and identify the necessary components for each of the factors identified below.

Step #2: Partners – 10 minutes: Members will work as a pair to share their individual findings and agree to the necessary components.

Step #3: Group – 10 minutes: Members will work as a group to share their individual findings and agree to the necessary components.

The routine will be repeated for each of the three factors necessary for inclusion in the PD Framework:

- Identification of essential components of PD
- Identification of potential barriers
- Identification of PD activities and supports

During the course of the third meeting, the Planning Routine Protocol was modified in two ways. At members' request, there was a change in step #2 to allow for small group work instead of partner work. The second modification allowed CWG members to provide feedback in writing following the meeting so there would be more time for discussions and consensus building.

Following the third CWG meeting, after reviewing notes from the meeting, I incorporated any areas of PD into the PD Framework template that generated from comments and discussion points I noted, along with written notes provided to me by members. As a result of member discussions during the meeting, I determined that the Framework was lacking important elements, and therefore made modifications by including the additional components of "who will provide the training" and required "resources" . Figure 10 shows a blank copy of the first page of the modified PD Framework.

Figure 10

Modified PD Framework Template

Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities (SSCD) in Calvert County Public Schools

PD Framework Template (CWG #3): Group

Component	Activities				Potential Barriers and Solutions	
	Description	Frequency	Resources	Who will provide the training?	Barriers	Solutions
What to Teach:						
Foundational Reading						
Foundational Writing						
Grade Level Content English Language Arts						
Math Foundational Skills						
Grade Level Content Math						

This was sent to CWG members in an editable document with a request to review for accuracy, add anything they may not have shared at the meeting, and to provide any other feedback regarding the format or the information. The completed PD Framework will be presented and discussed in the results section.

Member Checking. After receiving feedback from some members of the CWG, the PD Framework was finalized in a draft format. This draft was sent to all CWG members to ensure accurate reflection of their input and understanding. As Birt et al. (2016) explain, member checking allows for the exploration of the credibility of the final product. The most important reason for completing the member check for this project is, as Birt et al. (2016) noted, to ensure that the researcher's voice does not dominate that of the members and to account for any researcher bias.

Analytic Memos

Throughout the study, I completed four analytic memos by capturing notes about my thoughts, ideas, questions, and ideas for the next steps. As Turner (2016) suggests, the analytic memos were used continuously throughout the PAR process for the following purposes: documentation of surprises and intrigue; descriptions of the process that I am unsure of; a paper trail of how decisions and procedures were made and justified; documentation of points found throughout the study that either challenge or confirm my theory of action; questions and critique of the involvement of the members; maintaining a record of any assumptions, preconceived notions, or prejudices I may have; and maintaining a record of my thoughts and ideas for future directions.

Analyses of Quantitative and Qualitative Information

This study's analyses involved quantitative descriptive findings from the survey and qualitative information obtained during the PAR process. The four research questions guided the analyses.

Research Questions #1 and #2

Information gathered through the survey and through CWG meeting #1 was intended to answer research question one: *"What level of knowledge of the essential components of instruction for SSCD as defined by the IC Matrix (Browder et al., 2014) do special education teachers report they have"?* and research question two: *"To what extent do special education teachers of SSCD report that they incorporate components of the IC matrix in the delivery of instruction and development of IEPs for SSCD?"*

To determine the level of knowledge special education teachers of SSCD have, the findings from the survey provide a general indication of what special education teachers of SSCD in District A report that they understand about EBPs as defined by the IC Matrix (Browder et al., 2014). To determine the extent to which teachers report the EBPs being implemented, the survey findings provide an indication for the frequency teachers report EBPs are used.

Information Collected From the Survey. Once the survey closed, I used the Google Forms platform to summarize the responses from each of the four survey sections. Results are presented as item frequencies, with some questions reporting the number of responses, others reporting the percentage of responses, and others reporting both. These results will be reported in Section 3.

After reviewing the survey summaries, I completed the first of four analytic memos. I noted expected or surprising responses, overall impressions, and preliminary conclusions and limitations of the survey. I then developed a plan to present the results to the CWG during its first meeting.

Information Collected and Analyzed From CWG Meeting #1. Members' reflections on the first reflection prompt (see Table 10 for the list of reflection prompts) were analyzed following CWG meeting #1, along with members' anecdotal input regarding the survey results.

Research Questions #3 and #4

As described above, the four meetings of the CWG constitute the qualitative part of the study and provide the forum to obtain stakeholder input regarding the PD needs of special education teachers of SSCD. The information gathered through each CWG meeting answers research question three: *"What priorities for future PD are recommended by a CWG of selected*

case managers of SSCD to build the capacity of all District A teachers of SSCD to deliver integrated instruction?" and research question four: *"What are the top three barriers to implementing integrated instruction and IEP development as defined by the IC Matrix and local and state requirements identified by a CWG of selected case managers of SSCD, and what professional development activities and supports do they recommend to address the barriers?"*

The culmination of the work done to address the two research questions is the Professional Development Framework created with all CWG members' input. As described earlier, the collaborative discussions and member reflections provided the core information for the Framework. However, additional information regarding the process and deliberations of the CWG were obtained through audio recordings using the Microsoft TEAMS platform or an audio recorder, my written meeting notes and analytic memos that documented my observations. After each CWG meeting, I first completed an analytic memo and then listened to the meeting recordings and reviewed the notes I took during the meetings and then revised my analytic memo to incorporate additional details and in some cases, change my perceptions about the meeting. In addition, some information specific to a CWG meeting was also collected and analyzed for each meeting as explained below and in Table 9.

Information Collected and Analyzed From CWG Meeting #2. In addition to members' reflections on the second reflection prompt (see Table 10), members' feedback on completing the case study activities was summarized.

Information Collected and Analyzed From CWG Meeting #3. In addition to members' reflections on the third reflection prompt (see Table 10), as explained above, the study culminated with developing the PD Framework. Although the actual construction of the Framework was not done by members, the ideas were generated based on their conversations.

Suggestions of resources were generated from previously used materials and activities in District A, as well as the research used to develop this dissertation. Members' discussion of the process was analyzed, prompting the change in the organization of the PD Framework as explained in the methods section above.

Follow-up Information (Member Checking) Collected. The document with the information generated from member conversations as well as the information added was sent to all members to obtain any additional information they wanted to add. Some members provided additional written input which was added to the PD Framework. Once it was complete, it was sent to members as a review to ensure it accurately captured their ideas.

Observation of Member Participation

Throughout the three CWG meetings, all members participated in discussions and shared their reflections, but Teacher M2 and Teacher M3 were the most vocal and most likely to offer a response. Teacher M2, a regional program teacher, was highly knowledgeable regarding the EBPs, identified in the IC Matrix (Browder et al., 2014), and was the only teacher who provided specific examples of how she implements these within her regional program. For example, when discussing the strategies used to provide instruction, she stated, "We use probing skills, discrete trial training, modeling, hands-on visuals, routines, task analysis, learning stations, task cards, peer modeling, generalization techniques, and modify the environment to reduce sensory input and distractions." Based on my knowledge of teacher M2's teaching through my role as a Supervisor of Special Education, she is a strong teacher whom I have observed to be consistently implementing the EBPs. As noted in Table 9, she also has an advanced degree in Applied Behavior Analysis and likely has received additional training outside of the school system on

these methods. I have not observed this implementation with the same level of consistency and expertise in the classrooms of any of the other members.

Teacher M3, a teacher outside of a regional program, often shared strong opinions, specifically about the challenges SSCD face when they are not receiving instruction through a regional program. She was less likely to share specific information regarding the current use of EBPs or the PD needs of special education teachers. For example, during the discussion of CWG Meeting #1, Teacher M3 indicated that there isn't time in the schedule for her to teach important independent living skills such as teeth brushing and foundational reading, writing, and mathematics skills because these are things that can't be taught in the general education setting because they are a "mismatch of skills and age."

Although not as quick to share her reflections, Teacher H1, a regional program teacher, provided strong opinions indicating disagreement with educating SSCD in the general education environment. For example, during the review of survey data in the first CWG meeting, through a discussion about the use of planned peer supports as an EBP to support SSCD, she stated, " At the high school level, there is too much inclusion. I know it's not the popular opinion, but too much inclusion can do way more harm than good." Through comments such as these, the focus of the discussion tended to drift away from the intended training for special education teachers and towards challenges with the general education environment due to training needs for staff supporting students in general education (e.g., general education teachers, IAs, and related service providers). Several times throughout meetings, I prompted changes to the trajectory of the discussion closer to the topic of this study by specifically asking how the understanding and use of evidence-based instruction provided by special education teachers can impact students. Teacher M1 was the most willing to refocus attention. One example, in the "What to Teach"

group of the second CWG, occurred when teacher M1, a teacher of a regional program, shared, "Because my students are included so much, the only way to ensure I teach activities of daily living, is to embed it into the daily structure of the class."

Teachers H2, H3, E1, and E2 did share specific comments about EBPs they use for the instruction of SSCD while also providing comments detailing frustrations with providing instruction to SSCD within the general education environment. While these three teachers did share frustrations about general education, their reflections appeared to have more information about what they could be doing to make changes, as opposed to teachers H1 and M3, who did not include any changes they may need to make. For example, Teacher E1 stated during the second CWG meeting for "How to Teach," "I need to remind myself to use these practices when creating lesson plans." In contrast, during the third CWG meeting, during a discussion about the supports needed for SSCD, specifically in the general education environment, Teacher M3 stated, "I share with the general education teacher that I'm here to plan if she needs me, even if I'm not in the classroom every day, but I rarely get asked to plan." The implication of this was that the general education teacher was solely responsible for the student's instruction.

Teacher E2 had the least amount of participation and was the least likely to respond to a prompt or question. When asked a direct question such as " What do you think?" she would offer a response, but it was typically a reiteration of what others had said. This was likely because her two small children were with her while she was participating virtually from home during all convenings.

Protection of Human Subjects

The identifiable nature of teacher subjects as part of the survey and the collaborative work group warranted the completion of an Institutional Review Board (IRB) process. (See

Appendix J for the University of Maryland IRB initial application). To ensure no identifiable subject data was used throughout the research process, the following procedures were followed:

1. All survey participants received an email describing the purpose and the format of the survey and explained that participation in the survey is entirely voluntary and anonymous.
2. Members of CWG were contacted personally via telephone, Microsoft TEAMS, or in person. During this conversation, the purpose and format of the study and the work group requirements were explained.
3. Members of the CWG are not identified by name or school location. Members were given a number to attribute quotes or ideas for reflection purposes (e.g., Teacher 1).
4. No reference to a CWG member's school was made.
5. Upon request, members will be provided with the results of any portion of the study they participated in.

Summary

The procedures used in this study are aligned with the PAR process and were selected as a collaborative way to obtain authentic teacher guidance in developing a framework for essential PD based on the IC Matrix (Browder et al., 2014) that could guide future development of a structured and sustainable way to provide training on content and instructional strategies for teachers of SSCD in District A. The steps established a foundation of current teacher knowledge and practice, and discussions with the CWG provided insight and potential solutions to the challenges teachers face when providing instruction to SSCD. The following section will discuss the results, conclusions, limitations, and potential next steps for District A.

Section 3: Results and Conclusions

Section 1 of this dissertation explores the history, current practices, and continued challenges faced by public schools nationwide, within the state, and in District A to provide effective and relevant instruction for SSCD. Section 2 outlines the methods and procedures of this research study, which was implemented through five phases using a PAR process with the goal of developing a plan for the PD of special education teachers of SSCD that includes the "what" and the "how" of instruction. The first phase of the investigation was the administration of a web-based anonymous survey of all special education teachers of SSCD in District A to explore the current level of teachers' understanding and use of EBPs for SSCD. The results of the survey informed discussions during the convening of four subsequent meetings of a CWG consisting of nine case managers of at least one SSCD. This section shares the results, key findings, conclusions, and next steps in creating a sustainable and effective PD plan for all teachers of SSCD in the district.

Results

In the following sections, the results of this study will be reported through the two PAR steps of "Diagnose "and "Act," which correspond to the four research questions and represent the findings from the five phases of the study (Figure 8 in Section 2 provides a visual representation of the study and Table 9 in Section 2 provides a description of each phase). The "Reflect" step in the PAR process was included throughout the CWG discussions, and information generated through this step will be incorporated into the results. As explained in Section 2, completing all steps in the PAR process was beyond the scope of this dissertation. Specifically, the "Measure" step of collecting data on the effectiveness of the final PD Framework in increasing the capacity of teachers of SSCD in District A (see Figure 6 in Section

1) was not completed. In my role as Supervisor of Special Education, I intend to revisit the process during the 2023-2024 school year. The Implications for District A section below will provide details regarding the plans to meet the long-term goal.

Diagnose

The "Diagnose" step of the PAR process included the survey of teachers of SSCD, followed by discussions among CWG members during the first CWG meeting. The information collected through the survey and discussions during CWG #1 addressed research questions 1 and 2: *What level of knowledge of the essential components of instruction for SSCD as defined by the IC Matrix (Browder et al., 2014) do special education teachers report they have?* and *To what extent do special education teachers of SSCD report that they incorporate components of the IC matrix in the delivery of instruction and development of IEPs for SSCD?* The results of the survey will be reviewed, followed by an explanation of the findings from the first CWG meeting. Answers to Research Question #1 and #2 will be detailed through combined key findings from the survey and CWG discussions.

Survey Results. As explained in Section 2, the survey was sent to 25 special education teachers in District A who provide instruction to at least one SSCD. The survey was completely anonymous and web-based, using the Google Forms platform. Nineteen teachers consented to and participated in the survey, resulting in a participation rate of 76%.

The survey had five sections: Section 1 contained four multiple-choice items about participants' teaching experience. Section 2 of the survey consisted of two questions. The first asked teachers to use a six-point Likert scale to rate their understanding of and practice with implementing four EBPs when providing instruction to SSCD. The second question asked teachers to identify the EBPs for which they would like additional PD. Section 3 was divided

into two sections. Survey participants who taught in a regional program were asked to complete the first part of Section 3, which provided 14 content areas, and directed participants to use a six-part Likert scale to estimate the percent of students on their caseload who received instruction in each area. Survey participants who taught outside of a regional program were asked to complete the second part of Section 3, which asked them to estimate the number of students receiving instruction in each of the 14 content areas using a three-point Likert scale. The third part of Section 3 asked all survey participants to identify which content areas for which they would like additional PD. Section 4 consisted of six instructional supports, and survey participants identified by answering yes or no if the support was in place for their SSCD (see Appendix M for a copy of the survey).

Section 1: Teaching Experience. In this first section, teachers responded to multiple choice questions asking them to report the number of years of experience being a special education teacher, the number of years teaching SSCD, the current grade level they are teaching, and their current role in District A. Figures 11 -14 below present the results. The majority of teachers participating in the survey had over 15 years of experience as special education teachers, but most teachers had less than ten years of experience teaching SSCD. Teachers participating in this survey primarily teach in elementary and middle schools, and slightly over three quarters of the teachers were providing instruction in self-contained classes in a general education school or a regional program.

Figure 11

Survey Participants' Years of Special Education Teaching Experience

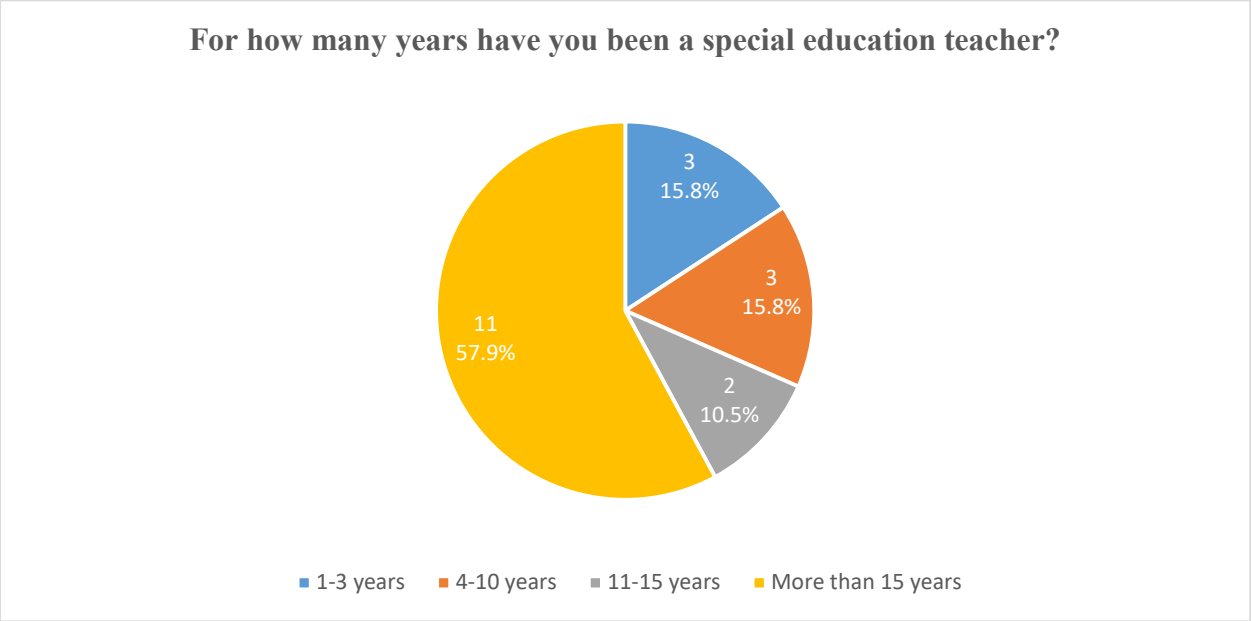


Figure 12

Survey Participants' Years Teaching SSCD

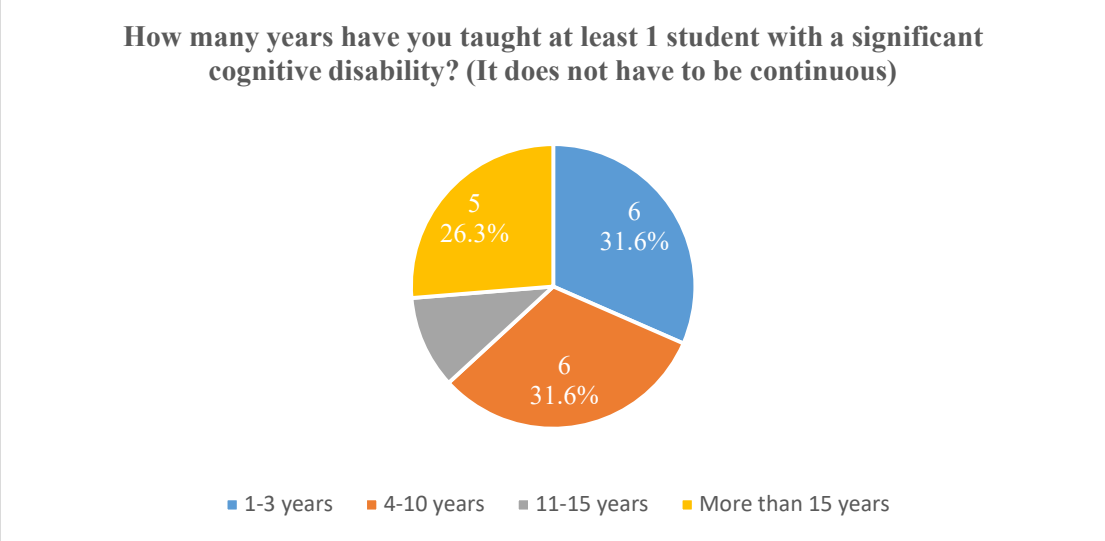


Figure 13

Grade level Survey Participants are Currently Teaching

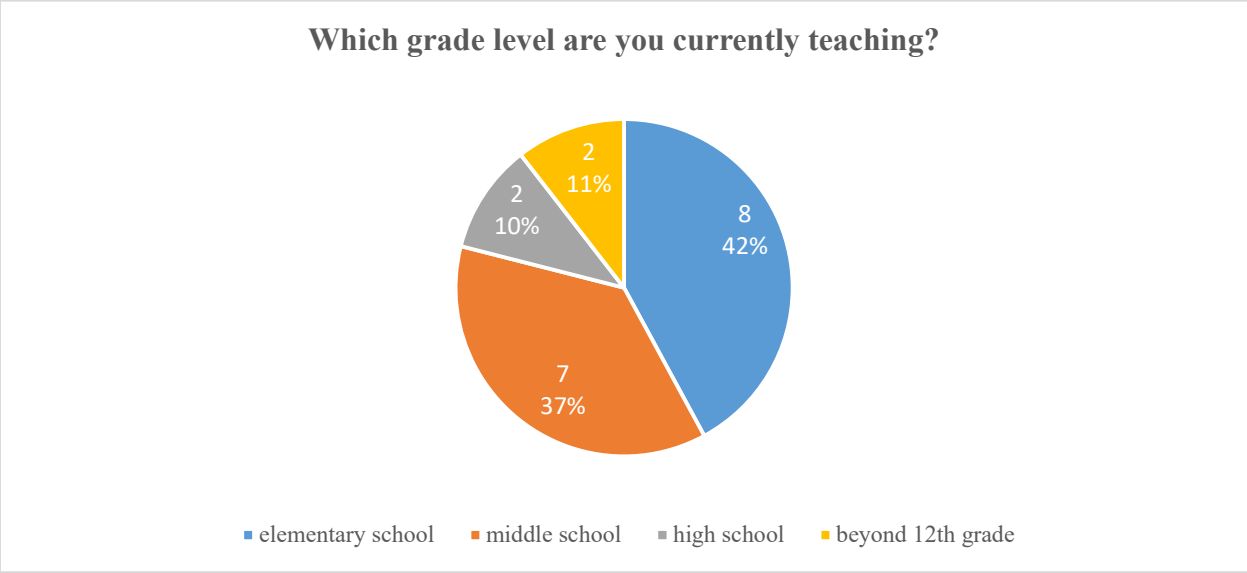
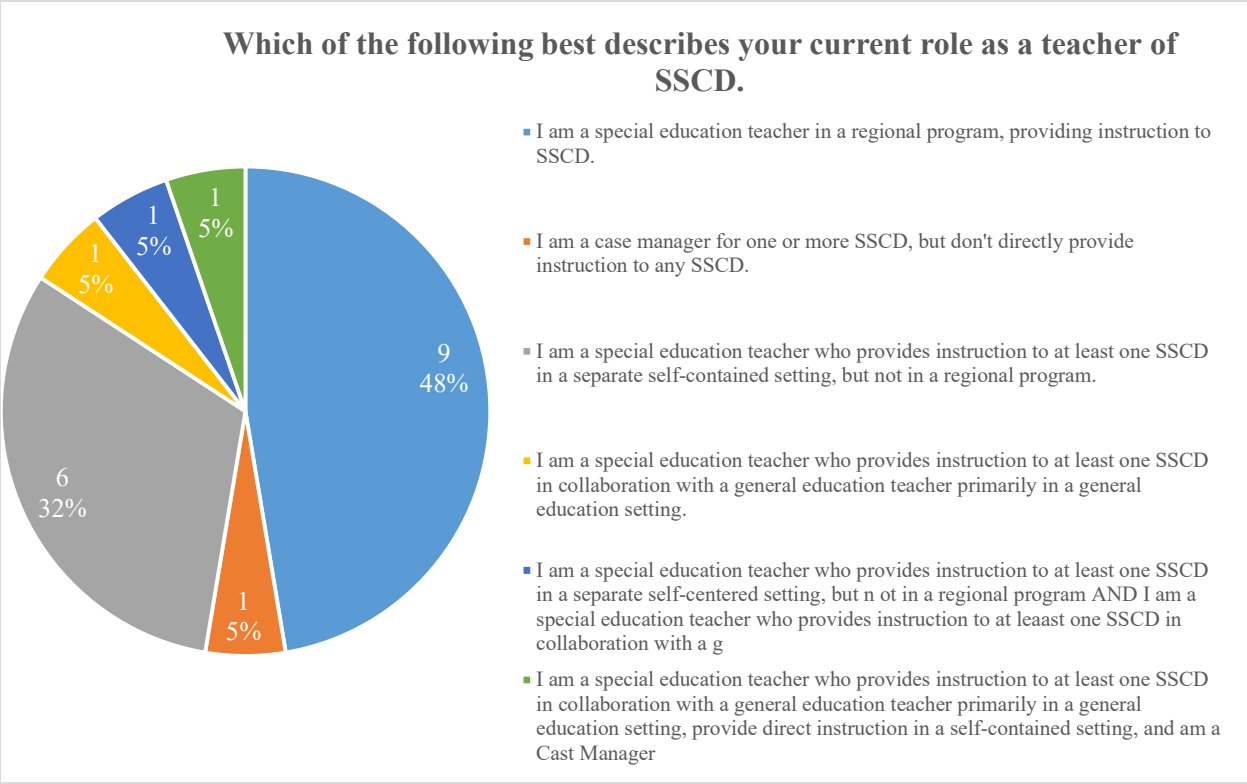


Figure 14

Survey Participants' Current Role in District A



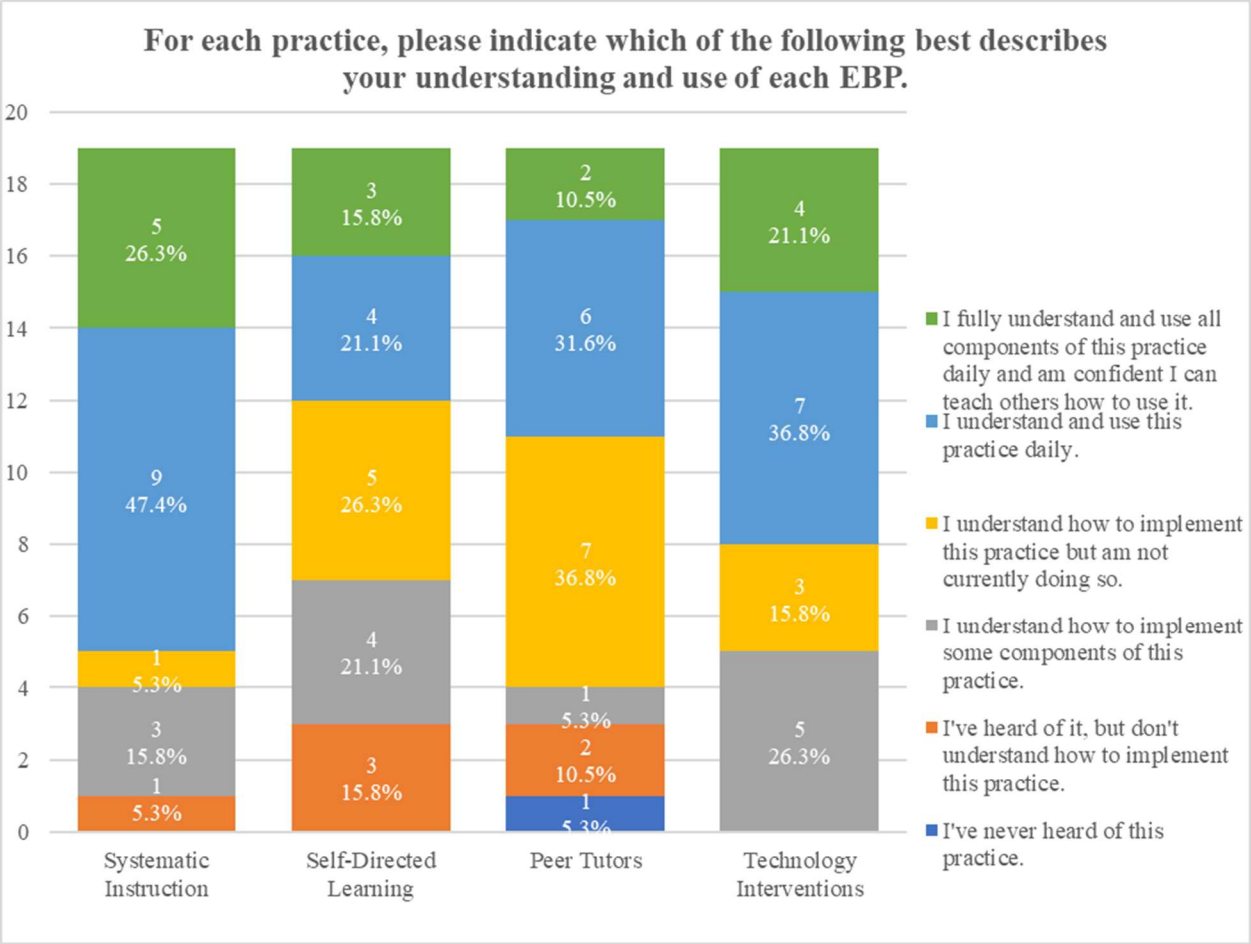
Section 2: Understanding and Use of Evidence-Based Practices. Section 2 of the survey asked participants to rate their level of understanding and use on a six-point Likert scale of four evidence-based instructional practices identified in the IC Matrix (Browder et al., 2014). The four practices are systematic instruction, self-directed instruction, peer tutors, and technology interventions. A definition of each practice was provided within the survey. Participants rated their understanding and use from 1= "I have never heard of this practice," to 6= "I fully understand and use all components of this practice daily and am confident I can teach others how to use it." Figure 15 below presents the responses.

As shown in Figure 15, most participants reported that they understood and/or consistently used systematic instruction daily, just over half of participants reported that they

understood and used technology interventions daily, and less than half of participants rated self-directed learning as used consistently and/or understood and used daily.

Figure 15

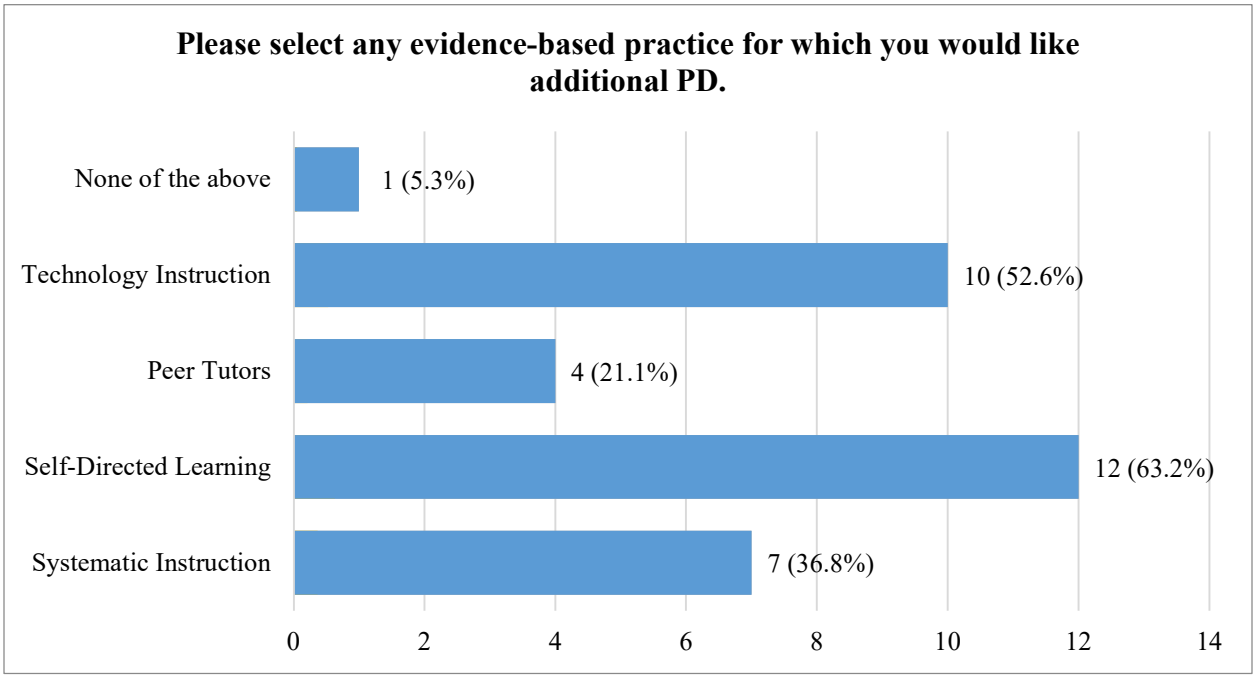
Survey Participants' Reported Understanding and Use of EBPs



A separate item asked teachers to indicate if they would like additional PD for each of the four practices (see Figure 16). Responses are consistent with the reported lower levels of understanding and use of self-directed learning, as most teachers indicated they would like PD for this EBP, followed closely by technology instruction.

Figure 16

Number and Percentage of Survey Participants Requesting PD For Each Identified EBP



After reviewing the survey data provided by Google Forms and following the discussion held during the first CWG meeting and to adequately answer Research Question 1 and 2, I felt it was important to try and separate the data showing the number of teachers who reported an understanding of the EBPs from the data showing the number of teachers reporting they are using the EBPs. Table 12 and 13 below break down the data. Table 12 shows the number of teachers who report at least some understanding and those who report an understanding of all components of the practice. This information will be explored more in the key findings section for Research Question #1. Table 13 shows the percentage of students for whom teachers report they are using each EBP. This information will be explored more in the key findings section for Research Question #2.

Table 12

Summary of Survey Participants' Report of Their Understanding of EBPs

EBP	Participants reporting at least some understanding [a]	Participants reporting understanding of all components [b]
Systematic Instruction	18/19 teachers – 95%	15/19 teachers – 79%
Self-Directed Learning	16/19 teachers – 84%	12/19 teachers – 63%
Peer Tutors	14/19 teachers – 74%	13/19 teachers – 68%
Technology Instruction	19/19 teachers – 100%	14/19 teachers – 74%

[a] As determined by survey responses of:" I understand how to implement some components of this practice; "I understand how to implement this practice but am not currently doing so; I understand and use this practice daily, and I fully understand and use all components of this practice daily and am confident I can teach others how to use it."

[b] As determined by survey responses of: "I understand how to implement this practice but am not currently doing so; I understand and use this practice daily, and I fully understand and use all components of this practice daily and am confident I can teach others how to use it."

Table 13

Summary of Survey Participants' Report of The Use of EBPs

EBP	Participants reporting daily use of EBPs [a]	Participants reporting the ability to teach this EBP to others [b]
Systematic Instruction	14/19 teachers – 74%	5/19 teachers – 26%
Self-Directed Learning	7/19 teachers – 37%	3/19 teachers– 16%
Peer Tutors	8/19 teachers – 42%	2/19 teachers – 11%
Technology Instruction	11/19 teachers – 58%	4/19 teachers – 21%

[a] As determined by survey responses of:“ I understand and use this practice daily, and “I fully understand and use all components of this practice daily and am confident I can teach others how to use it.”

[b] As determined by the survey response: “I fully understand and use all components of this practice daily and am confident I can teach others how to use it.”

Section 3: Instructional Content. The third section of the survey asked teachers to provide an approximate percentage of their students who received instruction in each of the 14 content areas identified as essential components of instruction for SSCD in the IC Matrix (Browder et al., 2014). Because teachers in a regional program have more SSCD on their roster than teachers outside of these programs, separate questions were created for each group. Teachers in regional programs were asked, “For each content area, select the option which most closely reflects the percent of SSCD on your caseload who receive instruction in this content area.” (See Figure 17.) Teachers providing instruction outside a regional program were asked: “For each content area, select the option which most closely reflects the number of SSCD receiving instruction in that area (the instruction can be provided by someone other than you).” (See Figure 18.) Based on participants' responses to the experience questions in section 1, there was one missing respondent for each question. A review of individual survey responses indicated that two teachers responded to the incorrect question (i.e., indicating they were in a regional program but answering the questions for non-regional program teachers and vice-versa).

Figure 17

Number of Regional Program Teachers Who Report SSCD Receive Content Instruction

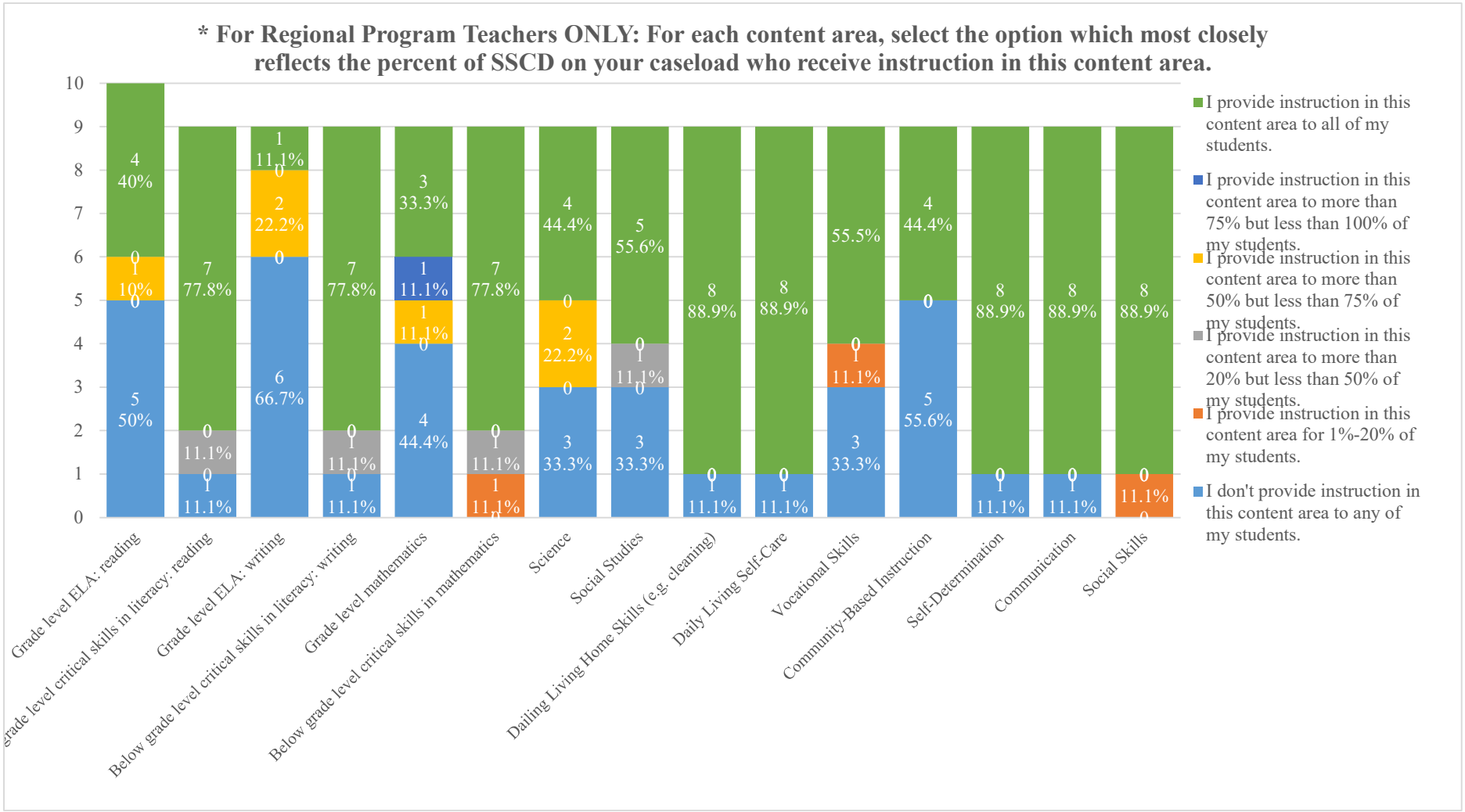
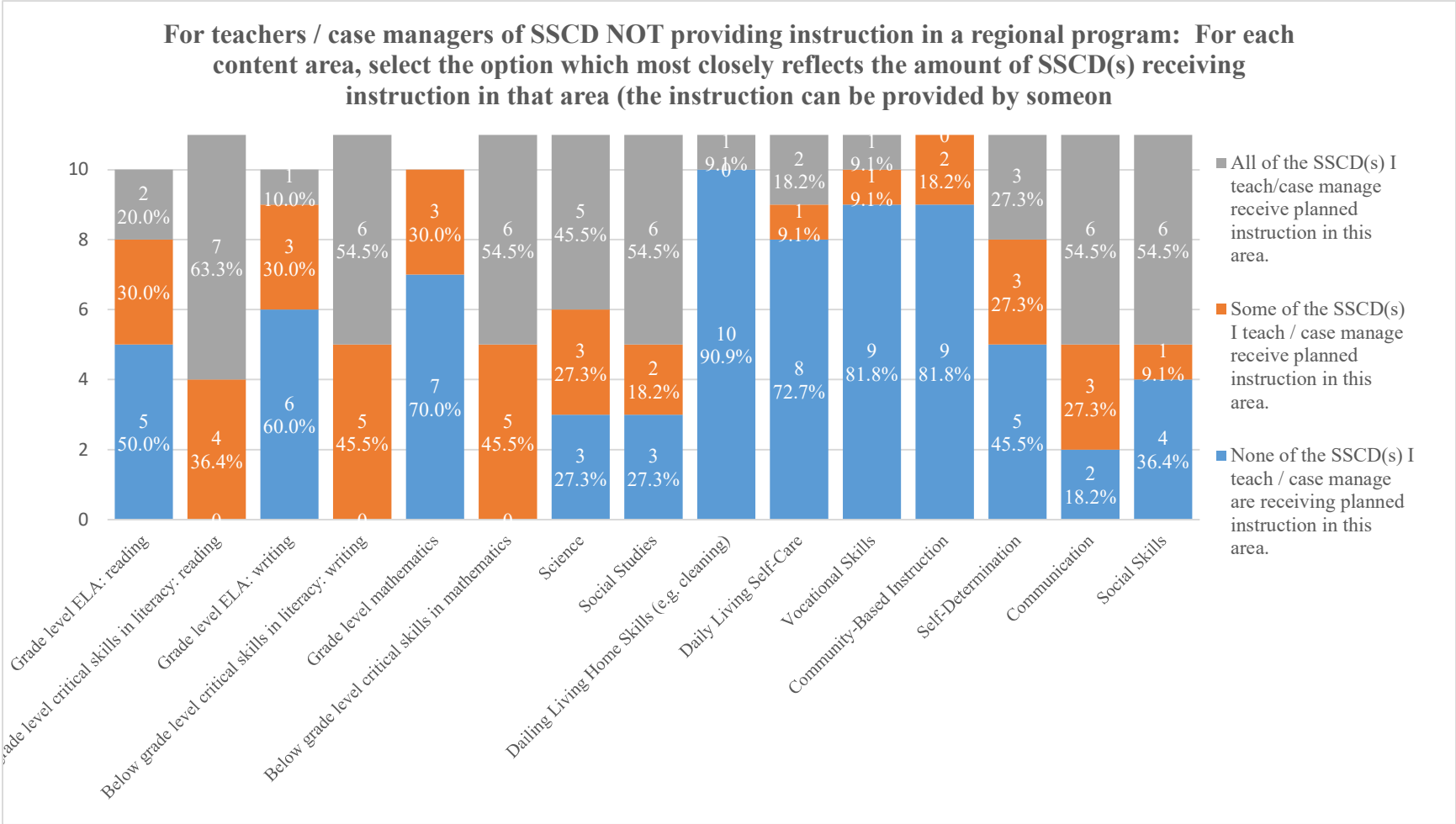


Figure 18

Number of Teachers Not in a Regional Program Who Report SSCD Receive Content Instruction

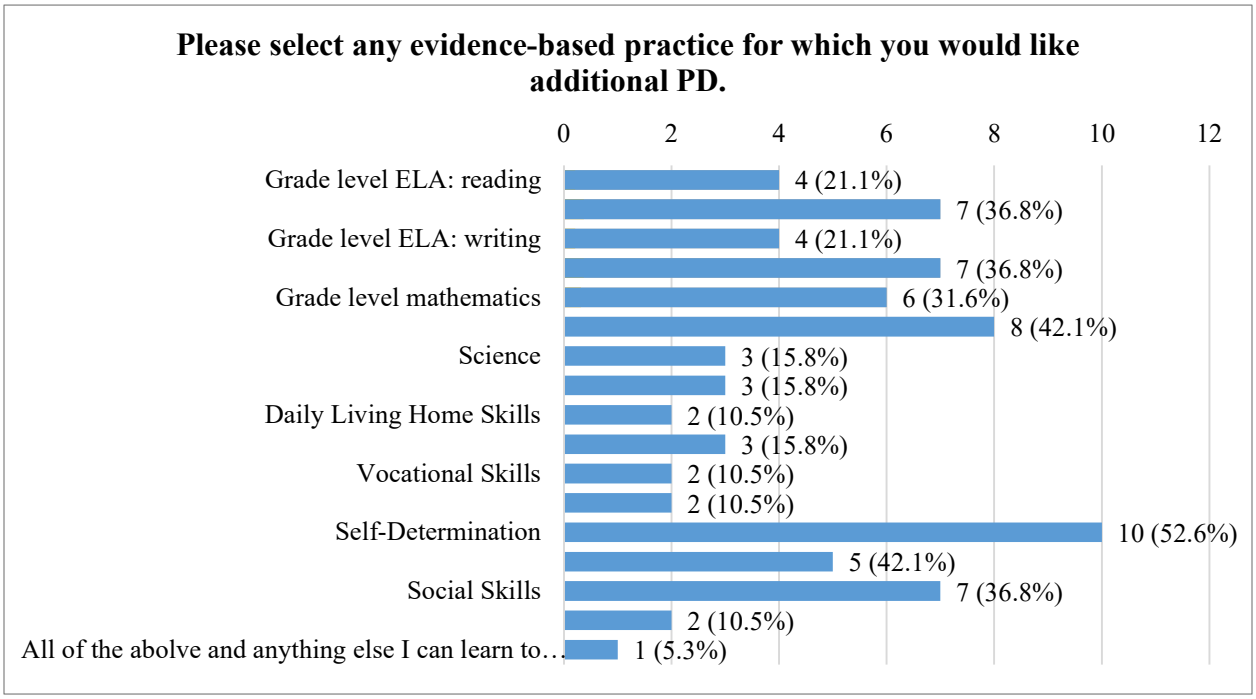


As displayed in Figures 17 and 18, more than half of participating teachers in both settings report that they do not provide grade-level reading, writing, or math instruction to any of their SSCD. One regional program teacher reported not to be providing below-grade-level instruction in reading, writing, and math to any students. All remaining teachers report providing below-level reading, written language, and math instruction to some or all of their students. In the area of social studies and science, across both settings, approximately half of the participants report that all SSCD receive instruction. The majority of regional program teachers participating in the survey report that their students receive instruction in daily living, vocational, self-determination, communication, and social skills, while the majority of teachers who provide instruction outside of a regional program report that their students do not receive instruction in all of these areas. As indicated in Section 1, teaching grade-level instruction to all students is mandated by the IDEA (IDEA, 2004). The implications of the results of this survey indicating that most SSCD are not receiving grade-level instruction will be discussed in the key findings section.

Section 3 also asked participating teachers to check all content areas for which they would like additional PD. Figure 19 shows the results of this question.

Figure 19

Number and Percentage of Survey Participants Requesting PD For Each Content Area



Most participants requested additional PD in the area of self-determination, while the least number of teachers chose daily living home skills, vocational skills, and community-based instruction for additional PD. More teachers requested additional PD in below-grade-level reading, writing, and math than those who requested PD for grade-level academic content instruction.

After reviewing the data from the survey and following the discussion with the members of the first CWG, I looked more carefully at the discrepancy between reporting of providing instruction in the areas of functional skills by regional program teachers vs. teachers not in a regional program. The data in Table 14 shows this comparison. The impact on instruction will be discussed in the key findings section and in the implications for District A section.

Table 14

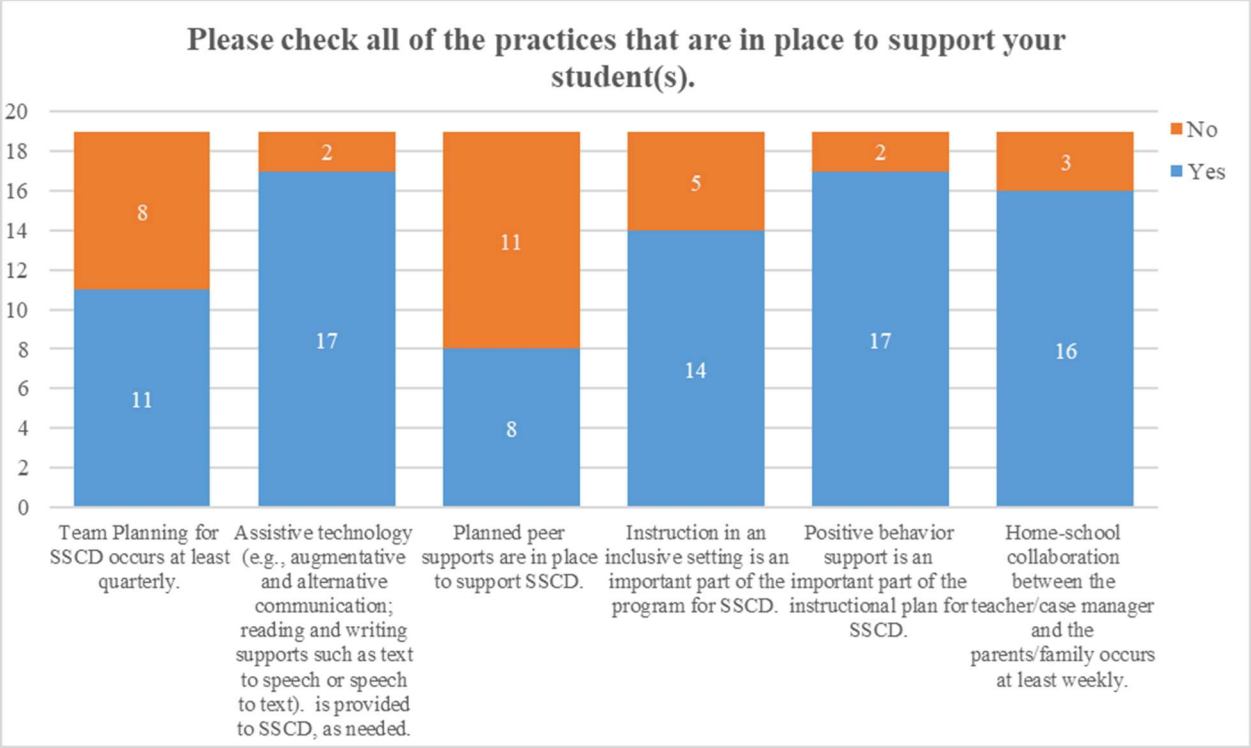
Percent of Survey Participants Reporting Functional Skill Instruction

Instructional Content Area	Regional program teachers reporting that all their students with SSCD receive instruction in this area.	Teachers not in a regional program reporting that all their students with SSCD receive instruction in this area.
Daily Living: Home	89%	9%
Daily Living: Self-Care	89%	22%
Vocational Skills	56%	18%
Community-Based Instruction	44%	18%
Self-Determination	89%	27%
Communication	89%	55%
Social Skills	89%	55%

Section 4: Instructional Supports. Section 4 of the survey lists the six evidence-based instructional supports identified in the IC Matrix (Browder et al., 2014). Teachers were asked to check "Yes" if the practice was in place to support their SSCD or to check "No" if the practice was not in place to support their SSCD. Figure 20 provides the responses.

Figure 20

Number of Survey Participants Reporting the Use of Instructional Supports



Among the six instructional supports, assistive technology and positive behavior supports were reported to be used by the most teachers (17 out of 19 or 89%). These were closely followed by home-school collaboration (16 out of 19 or 84%). Planned peer supports was the instructional support reported to be least used, as only 8 out of 19 (42%) reported that it was in place to support their SSCD.

Section 5: Comments. The final section of the survey asked participants to share comments by responding to: *"Please use this section to indicate any comments you would like to share regarding the instruction of SSCD."* Six of the 19 survey participants provided comments:

- *Would love to have more time to plan, especially PD days. We are given no classroom time anymore when the students aren't there.*
- *More professional development is needed to assist general education teachers to support these students in their classrooms. Special education teachers need more time to develop scaffolds and modifications for these students. They also need more professional development on teaching best practices for these students.*
- *I believe that it is extremely important to not leave "functional skills" out of the instruction of SSCD students. Often times we push for inclusion so much that they are missing out on functional / life skills. We have to find a balance to help prepare them for life after school.*
- *I think a study about how parents of affluent students are able to influence placement in certain programs versus students who are middle-class or socioeconomic disadvantaged.*
- *The student I teach and case manage with SSCD is currently included in all academic/school areas except ELA and Math. However there is an extreme push for full inclusion, at the detriment of the student. He is not a part of vocational nor community based instruction, which would greatly benefit him and give him a more holistic approach to education that he requires. Those needs are not based on my personal opinion but the result of testing. That portion of testing – social, communication, community-living, function academics and life, was ignored, I feel, because of the inclusive push that education has today. It is "all or nothing "yet we could be creative and have him be included in both general education classrooms as well as those that provide CBI and functional skills, if allowed creative license.*

- *I believe that all educators, general, special, related services, and support staff need more PD to better meet the needs of our SSCD population in the general education setting. Training and planning are key to the success of these students.*

Among the six comments, the predominant topic related to needing more dedicated planning and preparation time. The need for more professional development and comments about the struggle with teaching functional skills in an inclusive setting were also noted in more than one comment.

CWG Meeting #1 Results. The first CWG meeting was devoted to diagnosing and beginning the process to reach a consensus on key issues and needs for the development of the PD Framework. As explained in the Methods portion of Section 2 and outlined in Appendix Q agenda items for the first meeting consisted of a discussion of their reflections to a prompt sent via email prior to the meeting, a review of the survey results, a review of current research on EBPs for SSCD, and a review of federal and state guidelines. Teachers also provided their insight into the results of the survey. One day after the meeting concluded, I wrote Analytic Memo #2. The summary of these discussions was obtained by listening to the recordings and from reviewing Analytic Memo #2.

Reflection Prompt Discussion. The reflection prompt for the first CWG meeting was: "*As you provide instruction to your students, reflect on how you determine the priority areas of instruction for grade-level academic skills and the functional skills of communication, self-determination, and independent living skills. Do the IEPs of your students reflect all of these areas? What are the strategies you are using to provide instruction?"* Teachers were given the option of sharing their reflections in any order they wished. There appeared to be some initial reluctance to participate. Only Teachers M2, H1, and E1 chose to share information during the

meeting regarding their reflections, although several others did offer affirmations to comments by nodding their heads and saying "yes" or "right" during the discussion.

All three teachers who shared indicated that to enable access to grade-level instruction, the Dynamic Learning Maps (DLM) resources are the most helpful when planning for instruction. Teachers M2 and E1 stated that they were successful in developing lessons and providing instruction toward grade-level academics. Teacher M2 stated, "To determine priority areas, I look at those that are continuously tested throughout the content, like concepts that are continued through many areas of that math curriculum like number sense and ratios; the DLM is very useful for us." Teacher H1 stated she likes the Dynamic Learning Maps resources to provide that at the high school level, adapting the material is difficult because of the larger gap between the ability of her students and the grade level expectations. She shared, "I just love how the DLM is so organized and breaks things down. Most of my kids are at the initial level, but because everything is supposed to be grade level at the high school when in the regional program, linking something to a high school level is far-fetched".

When discussing how instruction towards functional skills is prioritized, teacher M2 started the conversation by sharing that she uses the Assessment of Functional Living Skills (AFLS) as a starting place and then determines an instructional plan based on how the areas of weakness in the assessment fit into her students' ability to be independent and advocate for themselves in ways that will challenge them while helping them continue to grow. Teacher E1 agreed, stating, "Teaching students to advocate for themselves is the most important thing… even just learning how to navigate the school with more independence."

In relation to the inclusion of information on IEPs, teacher E1 shared, "I need to remember to put some of these things on the IEP. I have it as a goal for a student, but it isn't

always reflected on the IEP." Teacher M2 shared that in both academic and functional skills, she prioritizes skills that will impact as many areas of learning as possible. She shared the following, "So, for instance, advocating for yourself is much more important to us than tying your own shoes when you can just buy slip-on shoes or Velcro shoes. So we really look for the skills that will continue over time for them and hit all areas."

Regarding the instructional strategies used, teacher E1 shared, "I really enjoy the DLM because it kind of breaks it down and you can find the successful strategies for each student." Teacher M2 shared specific strategies she has built into her program for each student and how they align with the development of the IEP.

Commentary on Results of the Survey. For this part of the meeting, CWG members were prompted to look at the survey summary that was sent to them via email (a link to shared documents was included). When no one responded to two open-ended questions, "Does anyone have any thoughts about the results of the survey?" and "did anything in the survey surprise you?" it appeared that the CWG members had not had the opportunity to look at it before the meeting. As this was not a requirement for participation, I reviewed the purpose, the questions, and the results for each section separately and then asked participants to share their thoughts, questions, or surprises. All teachers, with the exception of Teacher E2, provided some type of response. Teacher M2 provided the most specific feedback, referencing the information used in the survey that was pulled from the IC Matrix (Browder, 2014). Teachers M1 and H2 provided feedback that did not have the same level of specificity that the feedback from Teacher M2 but demonstrated their attention to the survey. The feedback from teachers M3 and H1 shared was related to instruction in general education and the PD needs of general education teachers. Teachers E1 and E2 did not participate in this part of the discussion at all, likely because they

were addressing the needs of their children. The discussion can be summarized into three major themes: Confusion surrounding the term "grade level instruction" for ELA and mathematics, affirmation that a PD Framework is necessary, and the need for increased training, support, and collaborative planning for instructing SSCD in the general education environment.

The first of three themes of the discussion about the survey was that confusion surrounding the term "grade level instruction" for ELA and Mathematics likely exists. I started this conversation by sharing that I was surprised that approximately half of the survey respondents reported that they are not providing grade-level ELA instruction and grade-level math instruction, as this is an area for which PD has been provided, and the state guidelines are clear that it has to occur. Several teachers shared that teachers may not realize that instruction based on the essential elements (alternate standards) is grade-level instruction. Teacher M3 explained that there may be confusion that if a student receives a myriad of accommodations such as reading aloud, chunking, and scaffolding, this may not be considered grade-level instruction. Teacher M2 shared:

> "Regional program teachers are writing grade-level aligned goals from the DLM, but it clearly needs to be defined what that means. Like we are teaching grade-level content, but we're scaffolding it. We're modifying the way they do it, but we're not modifying the content skills. There is a lot of misunderstanding because we are giving them these DLM standards that are connected to grade level, but is it really grade level? Are we really teaching it?"

Teacher H2, who did not teach SSCD last year, explained her perspective when completing the survey by stating,

> "When I filled out the survey, I looked at it kind of as grade level was what I came out of last year, coteaching. I was not providing instruction on alternate standards, and the instruction was so, so different. This year, everything we are doing is modified. So I think that might have been why the results are different because the instruction is very, very different than what I did last year, even though it's the same big picture."

The second theme that came out of the survey discussion was an affirmation that a PD framework is necessary, as well as an affirmation that alternate standards are necessary for SSCD. Teacher M1 shared, " I think that the survey shows how badly a framework for teaching all of us, what we need to be teaching and how to do that is really important and needed." Head nods indicating agreement was noted by most teachers, and teacher E2 wrote in the chat, "I completely agree." Teacher M3 shared, "Yes, a framework is needed. And for those of us who have been in this, I mean for years, having the Alt. standards finally is a step in the right direction to make sure this group of students is getting, you know, rigorous instruction."

The third major theme coming from the CWG's discussion about the survey was a need for increased training, support, and collaborative planning for instructing SSCD in the general education environment. While reviewing the survey results about special education teacher understanding and use of evidence-based instructional supports, the CWG began to discuss the need for collaboration with general education staff. Teacher M3 expressed a large and pressing need to provide training and obtain "buy-in" from general education teachers because special education teachers can't do it alone. She stated, "If you don't have the right general education teacher that is accepting and supportive and willing to kind of put themselves out on a limb and try to modify things on their own and make their classrooms more accepting, it's really, really tough." Teacher E3 expressed a major need for additional planning, collaboration, and support

for using resources with general education teachers, even if students are in regional programs. She stated, “They [general education teachers] have individual planning daily and collaborative planning at least once a week with their grade level and Professional Learning Communities (PLCs) monthly. There are so many resources per grade level per subject. I know it’s easy to hear that it’s available to us, but we need to have time to review and understand it to be able to modify it”.

Key Findings: Research Question 1. As explained in Section 2, Analytic memos were completed after each phase of this study. The survey, the discussion among the CWG members during the first meeting, and analytic memos #1 and #2 provided the information to answer the first research question, *What level of knowledge of the essential components of instruction for SSCD as defined by the IC Matrix (Browder et al., 2014) do special education teachers report they have?*

The majority of special education teachers teaching SSCD in District A report a full understanding of the essential components of instruction, as identified by the four EBPs (systematic instruction, self-directed learning, peer tutoring, and technology interventions) outlined in the IC Matrix (Browder et al., 2014). The practice for which the greatest number of teachers understand all components is systematic instruction, while self-directed learning has the fewest number of teachers reporting understanding of all components. Members of the CWG did not dispute the information presented in the survey, but only one teacher, teacher M2 demonstrated her understanding of EBPs, specifically the EBP of structured teaching.

This information is promising for District A as we move forward with plans to increase the level of instruction provided to SSCD. For several reasons, however, I remain skeptical that teachers have the level of understanding that they claim to. The first is that each of the practices

is complex, including multiple components, each of which will likely require specific training. For example, Browder et al. (2014) identifies four steps to implementing systematic instruction for a specific skill. How the skill is identified in the first step leads to multiple choices for how each subsequent step is accomplished. I know that District A has not provided training for teachers in all of these areas.. The second reason for my skepticism is that in my visits to schools, I am not not seeing the instructional practices being implemented with the intensity defined by Browder et al., 2014.

Key Findings: Research Question 2. As with research question #1, the survey, discussion with the CWG members, and analytic memo #1 and #2 provided the information to answer the second research question, *To what extent do special education teachers of SSCD report that they incorporate components of the IC matrix in the delivery of instruction and development of IEPs for SSCD?* To fully answer this question, in alignment with the three sections of the IC Matrix (Browder et al., 2014), it is necessary to break the information into three parts: How to Teach (focused on survey participants use of EBPs), What to Teach (focused on the instructional content used by survey participants), and How to Support (focused on the instructional supports reported to be provided by survey participants).

Key Findings: How to Teach. The How to teach section of the IC Matrix (Browder et al.,2014) focuses on the specific EBPs reported in Figure 13 and Tables 13 and 14. Systematic instruction is the EBP that most teachers report using daily. Technology interventions are reported to be used daily by just over half of the survey participants, while self-directed learning and peer tutors are reported to be used daily by less than half of the survey participants.

A comparison of the data in Table 12 and Table 13 shows that more teachers report understanding the EBPs than the number of teachers who report currently using them to provide instruction to their students.

While the CWG did not directly discuss this discrepancy between the understanding and use of the EBPs, repeated discussions brought up by CWG members about the general education environment suggest that providing these EBPs to SSCD outside of a regional program is not happening because they believe the structure of the general education environment does not allow for the intensity of instruction necessary to implement the EBPs. Teacher M3 shared, "We've been including special education students for a long time, but this new step forward with students with significant supports that are needed… it's not just that we can't do it on our own; it's just not possible. I only have one SSCD on my caseload… and most days of the week, I don't get planning time because I am providing extra support."

The number of teachers in the survey reporting their use of peer tutors was low; however, this was a topic of repeated discussion with members of the CWG. Teacher M2 discussed how she provides training at the beginning of the school year to a group of students who become the "Buddies" for her students. She stated,

> "I do a training with them at the beginning of the year without our kids around and make it known that any question they have is OK. We discuss how to communicate with students, how to help them without doing for them, you know, stuff like that, and then, those kids go and teach their peers."

Teacher E3 shared how peers come to her class to walk with her students to the cafeteria every day and then eat lunch with them and that she provides in the moment training. For example, she said,

"The second-grade friends come and sit with us and ask if they can come in with the special Ed kids. I try not to correct in too strong of a way, so I redirect by encouraging them to use the student's name and explain it is a room, not the Special Ed room." She went on to say, "These are conversations we need to have proactively with peers at the beginning of the year." She shared the importance of using peers to support students by saying, " When students leave school, their peers will be their community."

According to the IC Matrix (Browder, 2014), the difference between peer tutors and peers to support SSCD is that peer tutoring involves training peers to provide the instruction and peer supports should be used to develop a social network for SSCD. If the feedback from Teachers M2 and E3 are reflective of District A teachers of SSCD, peers are used to establish the social network for SSCD and not as peer tutors.

Key Findings: What to Teach. "What to teach" referred to the content or topics of instruction as identified in the IC Matrix (Browder, 2014). Based on the survey results (see Figures 13 and 14 above) and CWG discussion, the key findings can be divided into instruction towards grade-level content and instruction towards functional skills.

Instruction towards grade-level content: Data from the survey shows that a minority of teachers report providing grade-level ELA: reading, grade-level ELA: writing, and grade-level math instruction to all of their students. However, the CWG noted, as explained above, that teachers might be confused by what is considered grade-level content and also questioned if the instruction can be considered grade-level if it has been significantly modified. While this confusion may be true, the indication that so few teachers report that they are not teaching instruction that is federally mandated, and as Figure 17 points out, most teachers are not requesting PD in this area, teachers may not be aware of their responsibilities.

Instruction of Functional Skills: Survey participants reported that instruction of the functional skills identified in the IC Matrix (Browder et al., 2014) is much more likely to occur for students who are in a regional program (see Table 14 in the survey results section). Members of the CWG confirmed this. Teacher M2 shared that as a teacher of a regional program, she can teach functional skills and maintain a student's dignity, but this becomes challenging when a student is receiving instruction in the general education environment. She stated,

> "I think another thing we have to think about when we look at those self-care skills or any of those lower functional skills that most middle schoolers have obtained by this point is the dignity of the kids that we're teaching, right? Because we are lucky enough to have time in our schedule (in the regional program) and the space across from us to be able to work on teeth-brushing skills. Are we going to send a kid into the general ed bathroom to brush their teeth when that's not a skill they know, and they have to use a task analysis? We really have to think about the time and space of where we're going to teach them and let them do that so we're maintaining their dignity with their same-aged peers."

Teacher M3, as a teacher of SSCD not in a regional program, agreed with this comment stating that the one student on her caseload who has a significant cognitive disability receives instruction in reading in a self-contained setting with her first period. She stated, "I can work on some of those hygiene self-management skills because it's just he and I. So we're kind of saving face, but the goal is to, you know, have him included because he is able to be in a general education setting, but then he won't be able to do that in the morning as part of his morning routine anymore because it wouldn't be appropriate to." She also stated that independent living skills are not included on his IEP because "we don't have time to teach it."

More information from CWG Meeting #3 will be discussed in the review of data for the Act stage, however, a related discussion about the topic of independent living skills occurred that is relevant to this discussion. As members discussed components related to independent living to be included in the PD Framework. I shared the following,

> "The majority of regional program teachers participating in the survey indicated they teach independent living skills, yet in a very informal and random sample review of IEPs of students in regional programs, only one IEP out of 10 had specific goals related to independent living skills."

During a discussion about writing IEP goals for independent living skills, most members of the CWG indicated they don't write them for their students. Teacher M2, a regional program teacher, shared that most of her students don't have independent living skills as goals because " we're teaching it, but it's not big enough to be an IEP skill. For example, a student who needs to learn how to brush his teeth is provided a task analysis for instruction, he learns it, and then it just becomes part of his schedule." Teacher E3, also a regional program teacher, shared, "I don't like to limit myself to having hygiene or toileting goals, but the bathroom and independence in the bathroom is my number one thing that I want to make sure they can be independent with, but I don't have them as IEP goals." Teacher M2 continued by stating, "For a lot of us, it is just ingrained in the program and it's not part of the standards that are tested that we have to meet. So we don't add it to the IEP."

Community-Based Instruction was also a topic brought up by the CWG as an area of instruction that SSCD do not receive. During CWG Meeting #3, Teacher M3 stated, "But my guy (referring to her student), he doesn't get to go into the community because he's not in a regional program, but he would really benefit from it…. He doesn't have a lot of support at

home, and he has a hard time articulating, so if he got out there (referring to the community), he'll go up to anybody. So why can't he get community based instruction?".

Based on this discussion and the results of the survey, to answer research question #2 specifically in relation to the areas of functional skills, the majority of teachers in regional programs are providing instruction in independent living skills but not including them in the IEP, and the majority of teachers who are not in regional programs are neither providing instruction nor including the skills in the IEP. Three areas for further consideration, which will be explored in the Implications for District A section, have arisen from these discussions. The first is that teachers of SSCD believe that a student who is not in a regional program and requires instruction towards functional independent living skills will not be provided with that instruction. The second is that SSCD in a regional program are spending a significant part of their day receiving instruction on learning skills that are not included in an IEP. The third area is confusion and/or discrepancy in how teachers determine if instruction is warranted for a skill identified as a weakness.

Key Findings: Instructional Supports. Instructional Supports, as explored in the survey in Section 4, the "How to Teach" component of the IC Matrix (Browder et al., 2014), is also a component of EBPs to be addressed when reviewing Research Question 2. With the exception of planned peer supports, the majority of teachers reported that all of the identified instructional supports are in place to support their SSCD. Two specific areas of note arose.

During CWG meeting #1, members of the CWG discussed how peers are a part of the instructional programs for SSCD. Based on this information, it was surprising that planned peer supports was not a support used by more teachers. In my visits to schools, I often see peers interacting with SSCD and thought the number would be greater. I wonder if the reason that not

more teachers are reporting the use of peer supports is because they are interpreting it to be for instructional purposes instead of to "form a social network," as Browder et al., 2014 define the support. As indicated above, in the key findings for how to teach, the use of peer tutors is also an area in which a minority of teachers are reporting it is being used. In the CWG meetings, only Teacher M2 reported specific ways in which peers are successfully supporting SSCD. To address these EBPs efficiently for all SSCD, members of the CWG Agreed that the PD framework should specifically include these.

The second area of note stems from the instructional support "team planning." According to the survey, it is reported to be in place quarterly by 58% (11 out of 19) of survey participants. Second to peer supports, this was the instructional support, with the smallest number of teachers reporting its use, yet based on discussions during the CWG meetings, one of the greatest areas of need. For example, Teacher E3 stated,

> "They (general education teachers) have so many resources per grade level per subject. They have collaborative planning time, they have PLCs, and I know it's easy to be like, OK, yes, we have this available to us, but we need to have something…. I guess it's more planning time with the general education teachers to understand what the resources are."

Considering that all of the other identified instructional supports (i.e., assistive technology, planned peer supports, instruction in general education, positive behavior supports, and home school collaboration) require other staff or family members to be involved, the fact that team planning is not occurring for more students is troubling.

Summary of Key Findings for Research Question #1 and Research Question #2.

Answers to research question #1 and research question #2 have been answered through the Diagnose Step of the PAR process through the Survey (Phase #1 of the study), CWG members'

reflections (Phase #2 of the study) and CWG Meetings (primarily CWG Meeting #1 [Phase #3 of the study], but carryover discussions in CWG Meeting #2 and #3 [phase #4 and #5 of the study] contributed to the findings. The information will be summarized below.

Act

The "Act" step of the PAR process involved the second and third CWG meetings and the completion of the PD Framework (Phases 4 and 5 of the Study as indicated in Table 9 in Section 2). The information collected through participant reflection, discussion, and the completion of the PD Framework provided the information to answer research questions #3 and #4: *"What priorities for future PD are recommended by a CWG of selected case managers of SSCD to build the capacity of all District A teachers of SSCD to deliver integrated instruction?* Research question #4 is: *What are the top three barriers to implementing integrated instruction and IEP development as defined by the IC Matrix and local and state requirements identified by a CWG of selected case managers of SSCD, and what professional development activities and supports do they recommend to address the barriers?"*

As explained in Section 2, for the second meeting of the CWG (phase 4 of the study), members were assigned to one of two groups: Teachers E1, E2, M1, and H2 participated in the "What to Teach" group and teachers E3, M1, H1, and H3 participated in the "How to Teach" group. Each group met separately with the objective of completing a case study activity related to either the IC Matrix (Browder et al., 2014) components of "What to Teach" or the components of "How to Teach." The agenda consisted of a discussion of the second reflection prompt (*Think about the evidence-based practices in the IC Matrix by Browder et al., 2014. Do you consider these to be essential components of instruction for your students? Are you using all, some, or none of these as you provide instruction to your students? If you are using some or all, how is it*

going? If you are not using them, why not? Are there practices you don't feel are essential components for instruction? Why?) and the completion of the case study activity. The agenda for the meeting can be found in Appendix S. The "What to Teach" group was asked to develop an IEP for a fictional student with a significant cognitive disability. They were provided with assessment information, present performance in the areas of math, reading, daily living skills, self-determination skills, and communication, and input from parents and teachers. The "How to Teach" group was given an IEP for a fictional student with a significant cognitive disability and was asked to develop an instructional lesson plan using the EBPs defined in the IC Matrix (Browder et al., 2014). The materials for each group were reviewed. Members were given approximately five minutes to look through the materials and ask any questions before beginning the work of either creating an IEP or developing a lesson plan.

The third and final CWG meeting continued the "Act" step to answer research question 3 and research question 4 with a focus on the development of the PD Framework. Eight of the nine original CWG members participated in this meeting. Six were in person, one participated via telephone, and one participated via Microsoft TEAMS. As explained in the Methods portion of Section 2, CWG Meeting #3 consists of two components. The first was a discussion about the third reflection prompt (*After using the evidence-based practices identified in the IC Matrix by Browder et al. (2014) to begin to either develop an IEP or create a lesson plan through the Case Study activity, how would you see this being implemented with your students? Would the Case Study activity be an effective way to deliver professional development to all teachers? If not, can you think of other ways PD could be provided? What components do you think need to be included in a PD plan? What are the barriers? Can you think of solutions to the barriers?)* and the second was the development of the PD Framework. Members chose to participate in one of

two groups. Each group provided a copy of their notes following the meeting. After approximately one week, I combined the recommendations from both groups along with the recommended changes to the PD Framework template. Teachers were given access to a shared working document of the framework and asked to provide clarification, add additional components, and give feedback. The document was live for approximately three weeks. Appendix Y has the completed PD Framework. Three CWG members provided minimal feedback. This information was incorporated into the framework and sent to teachers as a member check. Only teachers M1, M2, and H1 added information to the live document. Teacher M1 scheduled a separate time to talk with me and shared recommendations orally. We discussed them and added some to the document.

The findings from CWG Meetings 2 and 3 and the PD Framework were analyzed by reviewing the recordings, my notes, and analytic memos #2 and #3. From this, priorities for PD (research question 3) and the barriers to implementing integrated instruction (research question 4) were established. Key findings are explained below.

Key Findings for Research Question #3. The members of the CWG discussed PD for teachers of SSCD at every convening. The priorities determined by this team fell into two categories: the content for which PD is required for teachers of SSCD and the format of the PD. Table 15 provides a list of focus areas from each discussion that established the priority categories. Findings for each category will be explored below.

Table 15

Content Discussed at Each Meeting to Establish Themes for Research Question #3

Meeting Discussions	Priority Category: PD Content *The content for PD For Special Education Teachers of SSCD should include:*	Priority Category: Format of PD
CWG Meeting 2: Reflection Prompt #2	• EBPs of IC Matrix • Self-Determination: differentiated at each age level; including more than the skill of choice-making	
CWG Meeting 2: "What to Teach" Case Study	• Self – Determination – how to assess and determine goals and objectives • Balance between teaching functional skills and academics • teaching generalization	• The case study activity is an effective format for PD
CWG Meeting 2: "How to Teach" Case Study	• Grade-level content instruction focused on discerning and teaching "the most important thing" for that content/grade level	• The case study activity is an effective format for PD
CWG Meeting 3: Reflection Prompt #3	• EBPs of IC Matrix in an inclusive setting • training in ongoing collaboration strategies	• A structured PD Framework is essential • Differentiated PD is needed to account for differences in teacher knowledge and experience • The case study activity is an effective format for PD
CWG Meeting 3:PD Framework Development	• Independent Living Skills: teaching in general education, determining essential skills, and adding to the IEP • Family collaboration • Health grade level content	• PD needs to be ongoing throughout the year • PD should include examples and models of what is expected • Consideration for online modules • Reconsider the mandatory PD provided to ALL teachers (i.e., reviewing the overall DISTRICT A PD requirements for all teachers and determining potential areas for which special education teachers of SSCD may not require)

PD Content. CWG members agreed that the EBPs designated in the IC Matrix are essential components of PD for teachers of SSCD. During the reflection prompt discussion of CWG Meeting #2, most members indicated they are currently using the instructional strategies

identified in the "how to teach" section, but several stated they could be using them more efficiently. Teacher E1 shared that she would do better with reminders to use the EBPs, and she felt the format of the IC Matrix was a good reminder of the important things to incorporate. She shared," I would like to see a visual or a poster of these components to keep in the classroom and reference as a reminder to use them. During the discussion regarding the reflection prompt in CWG Meeting #3, teacher E3 shared that she feels the IC Matrix lays out the elements that need to be included in a student's IEP. Several teachers responded with affirmative comments (e.g., "yes, uh-huh) or nodding heads. Teacher H1 (who was not able to attend the third meeting but provided written feedback to reflection prompt 3) wrote, "Using the IC to develop an IEP or to create a lesson plan seems essential for focusing on the specific needs of students with severe disabilities." Teacher M2 shared that having a PD framework will help to set the conversations with general education staff that the things needed for SSCD must occur. Teacher H1 corroborated this by writing, "With more inclusion being used for these severe students, it is more important than ever before to keep lessons/goals/objectives as specific to the needs of the students as possible. Then implement the lessons/goals/objectives as prescribed." Teacher H2 shared that she thinks it will be important to revisit many of the components of the IC Matrix throughout the school year for herself and for the general education teachers.

The content areas of self-determination, team planning, inclusive settings, and all areas related to functional skills (specifically daily living and job and community) were discussed in more detail by members of the CWG, seemingly not because they are more significant than other content areas but because CWG members believe current PD plans for teachers of SSCD in District A do not account for these areas of need.

The first area was the instructional content area of self-determination which corresponds to the evidence-based instructional practice of self-directed learning. Teachers discussed that as the students get older, there is a change in the self-determination needs of students, prompting differentiation in the instruction that is provided. Through a discussion primarily with Teachers M2, H3, and E3, the following summary of student needs in the area of self-determination and/or self-directed learning was proposed by me:

> "In elementary school, students need to learn how to be in school, in middle school, goals are being set for students based on their current profile and students are choosing how to achieve goals based on their interests and strengths, and in high school, there is an expectation that students will learn to set their own goals. If we agree to this, then differentiation in the PD that is provided to teachers needs to occur."

The three teachers above nodded in approval. During the discussion of the How to Teach Group of CWG Meeting #2, teachers M2 and H2 expressed that it was challenging to develop relevant and measurable goals related to self-determination. For example, Teacher H2 stated, " It's difficult to teach self-determination at a high school level because of the different expectations in every class." Teachers went back to the section in the full document of the Innovation Configuration (Browder et al., 2014) about self-determination and shared that choice and following directions were components of self-determination they have included on IEPs, but most of the other self-determination areas were not.

The second content area members of the CWG discussed in more detail was the Instructional Support of team planning, specifically to include collaboration with general education teachers. During the reflection prompt discussion for CWG Meeting #2, Teacher M2 stated, "It is so important for teams to analyze data together to determine how effective the

instruction has been and when to determine if it should change." During the reflection prompt discussion in CWG Meeting #3, teachers M3 and H3 discussed with the group their belief that instruction for SSCD should not be provided solely by special education teachers. Teacher H3 stated, "It works best when the general education content teacher has an understanding of what the big idea for the lesson would be, and then I can provide the modifications for my student to access." During this discussion, barriers to providing this collaboration were discussed and will be examined in the Key Findings for Research Question 3; however, members of the group agreed that training on ways to best collaborate with general education teachers is an important component to be included in the PD Framework.

Inclusive Settings was an instructional support identified in the "How to Support" section of the IC Matrix (Browder et al., 2014) for which members of the CWG had additional discussion, offering clarification for how it should be clarified in the PD Framework for special education teachers supporting SSCD. Teacher H1 wrote, "As we move to a more inclusive environment for schools, it seems this is the most logical component to be included in a PD plan. The reality is that students with severe needs are sitting in grade level inclusive classrooms doing activities that are not related to the lessons that general education students are doing.". The challenges brought up about the general education environment will be discussed in the Key Findings for Research Question 4.

The functional skills of daily living and community based instruction were discussed in all meetings. CWG members shared that it is a challenge to know how to prioritize functional skills and academic skills. The reasons they gave for this challenge are a perceived directive to only push academics and a limited amount of time during the day. Both of these will be explored in the Key Findings for Research Question #4. Teacher M1 stated, "Academics are important,

but it is a detriment to students when they are not provided instruction on the functional skills." CWG members commented on their appreciation that functional skills are targeted in the IC Matrix affirming that including these skills on the PD Framework is essential but including training on how to fit it into the school day. Teacher M1 shared that "embedding the functional skills into academics is the only way students will learn the skills, because they are included so much more frequently."

Members of the CWG also discussed the inclusion of the content area of health, which was not included in the IC Matrix. CWG members felt that it was important to be able to work with general education staff to modify the specific grade level Health content, and there are things that may not fall in the area of independent living.

PD Format. CWG Members felt that the format of PD was very important. Several members shared that a onetime PD was never effective. During the reflection prompt discussion in CWG Meeting #3, when asked about their reflections regarding the case study model for providing PD, three teachers affirmed that the use of a case study was effective. Several other teachers affirmed by nodding in agreement, and no one indicated that it wasn't. Teacher H1 wrote, "I think the case study activity is an excellent way to deliver PD to teachers. The inconsistency across all classes leaves data reflected on IEPs left up to interpretation rather than a concrete understanding of student ability. Using a case study will help teachers think about the way they interpret, then record information related to student achievement/progress".

After reviewing the components of PD defined by Darling -Hammond (2017) during the development of the PD Framework in CWG Meeting #3, members agreed that the PD Framework should incorporate all of these components and that the framework be structured and specific yet flexible to address individual teacher needs. Teacher E3 shared, "You can't do

anything of service when being provided with PD on lots of topics that just scratch the surface every year or trying to jam in as much as you can. If we had a two or three-year module or framework…will provide a more in-depth understanding of the concepts." Teacher M2 suggested that the PD Framework include examples and models. She stated, "like here's an ELA unit with prompting and fading and here's a task analysis to go with it." Teacher M3 suggested creating online type asynchronous training modules for special educators on some of the essential components that wouldn't necessitate in-person training, similar to the online modules District A requires for all staff to complete at the beginning of the school year. Teachers M2 and E1 suggested the importance of differentiating training for new teachers vs. experienced teachers.

Summary of Research Question #4. The priorities identified as priorities for future PD for teachers of SSCD in District A have been incorporated into the PD Framework (See Appendix Y.

Key Findings for Research Question #4. The members of the CWG discussed the barriers to providing integrated instruction based on the EBPs of the IC Matrix at every convening. After analyzing the information from each meeting discussion and the analytic memos, the identified barriers, while distinct as examples, fell under three categories of barriers. Table 16 shows the relationship between CWG members' specific concerns related to the identified barrier. The findings for each barrier will be explored below.

Table 16

Barriers to Providing Instruction Aligned to the IC Matrix, as identified by the CWG members

Meeting Discussions	Supports not in place in Gen. Ed. environment	Confusion with Determining Instructional Priorities	Time and Space for PD
CWG Meeting 2: Reflection Prompt #2	• SSCD not receiving instruction in a regional program, do not receive the same support as SSCD in a regional program.	• Determining instructional priorities when students have multiple areas of need.	
CWG Meeting 2: "What to Teach" Case Study	• General education teachers do not have the knowledge to instruct SSCD and are not part of the planning for instruction.		
CWG Meeting 2: "How to Teach" Case Study	• Supports are not as readily available in the general education environment. • Implementing EBPs in the general education environment is difficult. • Special education teachers in the general education setting do not know how to support SSCD. • Collaboration between student's special education case manager and general education teachers is not happening.		• Coaching, modeling, and follow-up are essential to PD, but there is limited time for central office staff to provide it and for teachers to receive it.
CWG Meeting 3: Reflection Prompt #3	• Collaboration is not happening effectively with team members. • In the general education environment, students must attend multiple classes with multiple teachers, all with different rules and expectations. • General education teachers don't know how	• There is not enough time to provide instruction.	• There is not enough time to receive all the training and still provide appropriate instruction to students. • Central office staff are not available to provide ongoing training.

Meeting Discussions	Supports not in place in Gen. Ed. environment	Confusion with Determining Instructional Priorities	Time and Space for PD
	to provide instruction to SSCD.		
CWG Meeting 3:PD Framework Development	• General education teachers (including grade-level content teachers, elective teachers, related arts teachers, and elective teachers) have not received training on how to work with SSCD. • Independent living skills cannot be taught well if a student is not in a regional program.	• There is not enough time to teach students everything they need to be taught in either setting.	

Supports are not in place in the general education setting to provide instruction to SSCD using the identified EBPs. In every meeting discussion, no matter the topic, most CWG members quickly began discussing the challenges SSCD face when in a general education setting. Some of the CWG members seem to be challenged to not resort to wanting to blame instructional challenges on District A's initiative to increase inclusive opportunities. An example of a concern with the general education setting came during the case study work time for the "How to Teach" part of CWG #2. Teacher M2 shared concerns with conversations had with central office staff to discuss increasing the time her students were in the general education environment. She stated, "They want to put all of my students into general education in one class, one grade, no matter what. I had to be the devil's advocate and say no." As I was a part of the meeting she was referring to, I know that this was not how the meeting was discussed. It was a planning meeting with two teachers of students in regional programs to discuss what would be needed for their SSCD to be successfully included in general education for grade-level

academics. That meeting ended with a plan to look at each student individually and determine what would be needed. Teacher M2's decision to use this as a topic of concern with the group and by misconstruing the nature of the conversation leads me to think significant confusion and frustration are prevalent in how to include SSCD in the general education setting. This will be discussed in more detail in the Implications for District A section.

Several members of the CWG felt that SSCD who were not in a regional program were not provided the same support as students who are in regional programs. For example, during the reflection prompt discussion of CWG Meeting #2, teachers E1 and H2 shared that they are often unsure of how to determine essential instruction for their students and voiced concerns that by not being regional program teachers, they don't have the same access to training and resources. Teacher M1 shared how the incorporation of a PD Framework for all special education teachers of SSCD, regardless of placement, can help with this challenge.

The IC Matrix (Browder, 2014) lists team planning as an essential element in the "How to Support" section. Through discussions in all meetings, it is clear that CWG members believe this is an important component for the instruction of SSCD. Unfortunately, members have identified the lack of collaborative planning with general education teachers as a reason why SSCD are not more successful in the general education setting because of challenges arising from staff in general education environments not knowing how to work with students and /or not understanding the importance of presuming competence. During the How to Teach case study discussion, Teacher H3 stated, "The first thing I need is planning time with my teachers, actual collaborative planning time. To be 100% honest with you, I don't have that with any of the seven teachers I work with to support SSCD." She went on to say that for one student she supports, she is able to meet with the instructional assistant before school because the person chooses to come

in early. However, planning with the general education teacher happens "on the sly during a quick second in-between class." She continued by stating,

> "If the IA didn't volunteer her time and if I didn't have a good relationship with the general education teacher, I don't know what I would do. And this is just for one student. I don't know how I would do it with multiple SSCD with multiple subjects with multiple teachers. Most general education teachers just don't know. They are so rigid and black and white and say, this is the content, this is what we have to do, but it's not. We have to build that time within the course of the day to meet with them."

Teacher H1 brought up the need for planning for her students who do attend a regional program when they are in a general education elective. She stated, "My students go to a ceramics class that isn't a co-taught class; there isn't a co-teacher. The IAs are not being used effectively. They are just sitting there babysitting because the teacher doesn't really know what to do."

During the reflection prompt discussion during CWG Meeting #2, members discussed the difficulty of providing evidence-based instructional strategies within the general education setting. Teacher M2 stated, "How am I going to do discrete trial instruction when a student is sitting in a science class and the teacher is trying to teach the concept? Or how am I going to give that four or five-minute reinforcement break without the kid missing something else? How do I provide instruction in a setting that isn't built for it?" While skeptical of how this could be done in a general education setting, members agreed it should be a component of the PD Framework for special education teachers. Teacher H2 also shared that most special education teachers assigned to support general education settings are unfamiliar with these EBPs, so collaborative planning would not be helpful if all teachers didn't have the training first.

Confusion with Determining Instructional Priorities. During several discussions of the CWG, teachers shared concerns that with so many things students need to learn, as identified by the IC Matrix (Browder et al., 2014) that there is not enough time to teach everything, and it is difficult to know how to prioritize thus being, as teacher M3 shared during the third CWG Meeting, "forced to choose academics over functional skills" despite the fact that her student has information from an assessment indicating he has deficits in independent living skills. During the reflection prompt discussion of CWG Meeting #2, when asked for feedback about the components of the IC Matrix, Teacher H2 stated, " It's refreshing to see these things [job skills and independent living skills] and know there is more than academics since I feel the inclusion academic push is so very strong right now." Teacher E1, a teacher supporting students who are not in a regional program, shared, "I think sometimes we don't know what is expected of us. Like, I don't know how much of that [functional skills] is allowed to be taught or incorporated. I'm so curious about what I am supposed to be doing." Teacher M2 stated, "I'm a regional program teacher, and I don't know either." She continued by sharing that because her students are attending general education on a more regular basis, she is not able to spend as much time teaching daily living and self-determination skills and had to, therefore, "determine what the priorities for instruction are every day." By doing this, she stated that she doesn't feel she is addressing the skills on her students' IEPs as regularly as when they were in the self-contained setting for the majority of their day. Teacher H1 shared that she co-teaches with a general education teacher in a high school government class, with two students with SSCD accessing alternate standards. She shared, "I'll be honest because these students do not have to pass the same tests as their peers, and I don't know exactly what the goals should be for them; these are the last students I am planning for."

In summary, CWG members shared that they are experiencing confusion about how to prioritize instructional content for both the development of IEPs and the delivery of instruction.

Time and Space for Training and Planning. Members of the CWG agreed during all meetings how important the creation of a PD Framework will be. Teacher M2 summarized this thought during the reflection prompt discussion of the third CWG meeting by stating, "Having a document such as the PD Framework ensures that there are no surprises in what has to be done for SSCD, and both general education and special education staff are aware." Through discussions through all CWG convenings, teachers shared concerns that in the current structure of District A, finding the time and space for the necessary training to be conducted will be a significant challenge. At the start of the PD Framework development discussion of CWG meeting #3, during the discussion of the Darling-Hammond et al. (2017) definition of PD (refer to Appendix A for this definition), teachers agreed that the fact that the elements in this definition are not in place is a significant barrier to providing effective and integrated instruction to SSCD. They agreed that collaboration was the most important component, followed by coaching and modeling, and agreed that none of these three things are effectively in place in District A. There seemed to be an overall belief that the challenge was less about special education teachers learning how to implement the EBPs, but to learn how to implement them in the various settings students are in, specifically in the general education setting, in collaboration with the general education staff. Teachers H3 and H2 brought up a concern that at the beginning of the year, teachers are hit hard with training for so many things that it isn't effective. Teacher H3 suggested, "There's so much provided to all teachers in the beginning, it's so much and that becomes too much. Having to go to the same PD as general education teachers is not effective because it is often not relevant, and/or I support students in multiple content, so can't make it to

every PD. Focusing on special education would be a better use of time." Teacher H3 summarized by suggesting, "General education teachers need to be a big part, but the framework should incorporate training for special education teachers on how to support ongoing collaboration, communication, and to provide regular check-ins with general education teachers."

Summary of Research Question #4 Key Findings: Through discussions in all of the CWG meetings, members agreed that the lack of supports in the general education environment, confusion on how to determine instructional priorities, and the time and space for receiving ongoing PD were the top three barriers. Through discussion, however, members were hopeful that many of the identified barriers would be addressed through recommendations incorporated into the PD framework.

Conclusions

As explained in Section 2, the intention of this study was to collaboratively work through a PAR process to create guidance for the PD of special education teachers in District A as the first step towards increasing the capacity of special education teachers to provide meaningful instruction to SSCD. Together, the quantitative data from the survey and the qualitative information obtained through the convenings of the CWG provided the information to address each of the research questions. Conclusions and evidence are presented in this section.

Research Question #1

The first research question asked: *What level of knowledge of the essential components of instruction for SSCD as defined by the IC Matrix (Browder et al., 2014) do special education teachers report they have?*

Conclusion 1. The majority of special education teachers of SSCD in District A report having a full understanding of all of the essential components for instruction as defined by the IC Matrix (Browder et al., 2014).

Evidence. Based on the survey responses provided by the special education teachers of SSCD in District A, 79% of respondents reported having a full understanding of systematic instruction, 63% reported a full understanding of self-directed learning, 68% reported a full understanding of peer tutors, and 74% reported full understanding of technology instruction. These percentages are based on the responses of either *"I understand how to implement this practice but am not currently doing so,"* "*I understand and use this practice daily,"* or *"I fully understand and use all components of this practice daily and am confident I can teach it."*

During CWG Meeting #1, the survey data was reviewed, and members were asked to provide feedback about their thoughts after reviewing the survey data. Very little feedback was provided by CWG members, so it is not possible to conclude their level of understanding of the practices. However, no member shared any surprises with the data in the survey, which gave me the impression that they would have rated themselves as having a full understanding, as they are all experienced special education teachers, and most have worked with SSCD for much of their career, as indicated in Table 9 in Section 2. Throughout the remainder of CWG Meeting #1 and in Meetings #2 and #3, some members offered comments stating they use elements of systematic instruction, peer tutoring, and self-directed learning, but only one teacher, Teacher M2, used specific vocabulary and examples showing an understanding of the practices. The lack of specificity in the discussion shared by CWG members gave me the impression that they may not have a full understanding of the practices, as indicated by the majority of teachers who participated in the survey.

Research Question #2

The second research question asked, " *To what extent do special education teachers of SSCD report that they incorporate components of the IC matrix in the delivery of instruction and development of IEPs for SSCD?"*

Conclusion 2: Incorporating "How to Teach" Components. The extent to which the "How to Teach" components of the IC Matrix are reported by special education teachers of SSCD to be incorporated into the delivery of instruction varies based on the component; however, teachers report using the instructional components much less frequently than they report understanding them.

Evidence. As detailed in the results section, specifically Table 13, data collected through the survey show that systematic instruction was the component of the IC Matrix reported to be used by the largest number of teachers of SSCD (74%), and self-directed learning was reported to be used by the smallest number of teachers of SSCD (37%). Peer tutors were reported to be used by 42% of respondents, and technology instruction by 58%. In contrast, 95 % of survey participants report some understanding of systematic instruction, 84% report some understanding of self-directed learning, 74% report some understanding of peer tutors, and 100% report some understanding of technology instruction. During the convenings of the CWG, members were only asked to share their reflections on the use of the instructional components of the IC Matrix (Browder et al., 2014), so information on their use of the practices is not available. Although very little specific discussion was held on each member's use of each of the components, only one member discussed the use of portions of systematic instruction and peer tutors in the first meeting and three teachers discussed the use of elements of self-directed instruction during the second meeting. No discussion regarding their use of technology was held. As a result of CWG

members' identification of the general education setting as one of the largest barrier to integrated, meaningful instruction, the discrepancy in the data and the CWG members' limited discussion about the components, I am concluding one of two things. The first would be that teachers believe the lack of supports in the general education setting is too large of a barrier for the instructional practices to be implemented. The second is that teachers don't have the level of understanding that was indicated in the survey. Approximately a week after the CWG meetings concluded, I had a brief conversation with Teacher M1 as she reviewed the PD Framework, which indicated this may be correct. When reviewing the barriers section, she stated, "Teachers don't want to admit they don't know something, or they are confused, like when someone uses a schedule for a kid, they think it's discrete trial."

Conclusion 3: Incorporating "What to Teach" Academic Components. The majority of survey participants report that all of their students are receiving instruction in below-level academic content, but less than half report that all of their SSCD receive instruction towards grade level academics in ELA: Reading, ELA: Writing, and Mathematics, and approximately half of all survey participants are reporting SSCD receive grade-level instruction in Social Studies and Science. The amount of SSCD receiving instruction in each content area varied only slightly based on the student's placement (i.e., in a regional program or outside of a regional program).

Evidence. Summarizing the survey data for both teachers of regional programs and teachers providing instruction outside of regional programs (see figures 10 and 11) shows the extent to which academic instruction is being provided to SSCD.

Grade level Academic Content: 30% of survey participants report that all of their SSCD receive grade-level instruction in reading, 15% report that all of their SSCD receive grade-level

instruction in mathematics, and 11% report that all of their SSCD receive grade-level instruction in writing. The data for Social Studies and Science is significantly higher showing 55% of survey participants reporting all of their students receive grade-level instruction in social studies and 45% of survey participants reporting all of their students receive grade-level instruction in science.

Below grade level Academic Content: 5% of teachers report that none of their SSCD receive below-level instruction in reading and math, and 0% report that none of their SSCD receive below-level instruction in writing.

Several members of the CWG, through discussion during the first meeting, indicated that survey participants may have been confused with the term "grade level instruction."

Conclusion 4: Incorporating "What to Teach" Functional Skill Components. SSCD receiving instruction in a regional program, as reported by their teachers, are significantly more likely to receive instruction in all areas of functional skills (daily living skills, vocational and community skills, self-determination, and social and communication skills) than students receiving instruction outside of a regional program.

Evidence. Daily living skills (home skills and self-care) was the instructional area for which teachers reported a significant difference based on the location they teach. Survey data show that only 11% (1/9) of participants who are regional program teachers report that their SSCD do not receive instruction towards these two skills, while 90% of survey participants who are not regional program teachers report that none of their students are receiving instruction towards these skills. CWG members discussed this discrepancy throughout multiple meetings of the CWG, indicating their belief that students will not get instruction in this area if they are not placed in a regional program.

In the area of job and community skills (vocational skills and community-based instruction), survey data show that 33% of participants who are regional program teachers report that their SSCD do not receive instruction towards vocational and 56% report their SSCD do not receive instruction towards community-based instruction. Contrastingly, 82% of survey participants who are not regional program teachers report that their students do not receive instruction towards either vocational skills or community-based instruction. During CWG meeting discussions, this discrepancy was confirmed as teachers discussed that students who are in a regional program at the secondary level have regular instructional trips planned in the community.

In the area of self-determination, a discrepancy still exists between the instruction provided to students in each location, but it was not as wide. Survey data show that only 11% (1/9) of participants who are regional program teachers report that their SSCD do not receive instruction in this area, and 45% of survey participants who are not regional program teachers report that their students are not receiving instruction in this area. The CWG members who were not teachers of regional programs all made comments indicating they provided components of self-determination instruction to their students.

In the area of social and communication skills, survey data show that all participants who are regional program teachers are reporting that their SSCD receive instruction towards social skills, and only 11% (1/9) report their SSCD do not receive instruction in the area of communication. 36% of survey participants who are not regional program teachers report that none of their students receive instruction in social skills, and 19% report that none of their SSCD receive instruction in communication.

Research Question #3.

Research question #3 asks the question, "*What priorities for future PD are recommended by a CWG of selected case managers of SSCD to build the capacity of all District A teachers of SSCD to deliver integrated instruction?"*

Conclusion 5. Members of the CWG agreed that the EBPs identified in the IC Matrix (Browder et al., 2014) were all priority areas of PD necessary to build the capacity of District A teachers of SSCD. Using a case study format is an effective way to provide PD for incorporating the EBPs of "what to teach" into the development of an IEP and the EBPs of "how to teach" into the development of a lesson plan.

Evidence. During CWG meeting #2, members participated in two separate case study activities as a demonstration of providing PD. The first was the development of an IEP to guide the "what to teach" components of the IC Matrix (Browder et al., 2014), and the second was the development of a lesson plan to guide the "how to teach" components of the IC Matrix. Through discussion, members indicated that the case study format will be an effective way for teachers to receive PD. The PD Framework (see Appendix Y) breaks down the elements of the IC Matrix to provide a detailed summary of the CWG members' recommendations for future PD priorities to include the description, suggested frequency, potential resources, the intended presenter of the PD, and specific barriers and solutions for each component. The CWG's identification of barriers is identified below in Research Question #4.

Research Question # 4.

The final research question inquired: "*What are the top three barriers to implementing integrated instruction and IEP development as defined by the IC Matrix and local and state*

requirements identified by a CWG of selected case managers of SSCD, and what professional development activities and supports do they recommend to address the barriers?"

Conclusion 6. The top three barriers to implementing integrated instruction and IEP development and corresponding professional development activities and supports recommended as identified by the members of the CWG are:

1. Barrier: Supports are not in place for instruction using the identified EBPs to be provided to SSCD in the general education setting.

   PD Activities / Support: CWG members recommended increasing support from the Special Education Department to provide coaches who are specifically trained in providing instruction to SSCD.

2. Barrier: SSCD have multiple areas of need, and special education teachers are challenged to determine and implement instructional priorities.

   PD Activities / Support: Each PD session should focus specifically on how to prioritize instructional areas as well as prioritizing how and when to develop IEP goals. The recommendation of a coach, as explained above, would provide more regular and tangible support to teachers.

3. Barrier: In District A, the time and space to provide essential PD to special education teachers of SSCD are lacking.

   PD Activities / Support: CWG members recommended a proposal to have special education teachers of SSCD increase their position from a 10-month employee to a 10.5-month or 11-month employee to allow more time for training. Additionally, the recommendation of a coach, as explained above, would provide more regular and tangible support to teachers.

Evidence. The barriers facing special education teachers in the implementation of IEPs and the delivery of instruction were discussed during the various discussions of CWG Meeting #2 and #3. Members were less likely to discuss solutions to the barriers but, with prompting, were able to do so. In addition to the large-scale recommendations listed above, each component of the PD Framework has a section for potential barriers and solutions. CWG members agreed that the implementation of the PD Framework was the most tangible solution to the barriers listed above.

Relation of Findings to Theory of Improvement

The long-range theory of improvement that drove this study was as follows: *If special education teachers of SSCD in District A demonstrate the knowledge and understanding of how to determine an individual student's current level of performance in both the areas of academic and functional skills ("what to teach") and the knowledge of EBPs to deliver effective instruction ("how to teach"), then District A will have the capacity to develop consistent IEP goals and deliver consistent educational programs for SSCD that lead to relevant attainable outcomes.* For District A to reach this improvement, as illustrated in the driver diagram (see Figure 5 in Section 1), the primary driver for this study is to strengthen the capacity of teachers of SSCD, and the current change idea is to establish a professional development framework. The results of this study, using a PAR process involving the engagement with current teachers of SSCD in District A, a framework for PD has been established. Exploring each of the research questions through the survey and the convenings of the CWG, I have gained a deeper understanding of how the needs of teachers will vary based on their teaching position. The results of this study also pointed to several areas that require further investigation and action before the long-term plan to increase the capacity of teachers, as demonstrated in Figure 6 of Section 1, can be realized. These will be

discussed in the implications section. First, however, several limitations to the study need to be noted.

Limitations. There are several limitations that should be noted for this study. The first limitation identified is the scheduling challenges involved with having nine members of the CWG. Accommodating everyone's schedules by having some members participate in person and others participating via telephone and /or virtually through TEAMS took time away from the meeting due to technology challenges and reduced the members' participation with the group. For equal participation and input, it may have been more effective to either have everyone in person or everyone participate virtually.

A second limitation was a lack of diversity in the areas of gender, race, and teaching experience of the CWG. All members were female, identified as Caucasian, and were experienced teachers. Having the input of a new teacher of SSCD to District A may have provided a different perspective. However, members did represent each of the grade ranges (i.e., elementary, middle, and high school) and different roles in their teaching (i.e., teaching students in or outside of a regional program).

Using the PAR process in which CWG member reflections, diagnosis, and actions were obtained were an important aspect of this study because the input of people for whom the results truly mattered was received. A limitation brought on by this process, however, was the relatively unstructured format of the workgroup. Despite agendas for each meeting, the open-ended reflection prompts and unlimited opportunities for members to share their thoughts resulted in off-topic and tangential conversations. Additionally, the discussion format did not require members to back up statements with facts or share specific data when referencing a specific situation. There were several instances during the meetings that, because of my involvement with

schools, teachers, and individual student situations, as a Supervisor of Special Education, I suspect that some information shared may have been exaggerated.

A related limitation was that I participant norms were not fully established at the first meeting. All members were respectful, participated in all components of the study, and were collaborative. However, setting the stage with norms such as staying to the time frame of the agenda, using strengths-based language when speaking about students (e.g., avoiding referring to students using terms such as “my two alternate standards kids” and “these severe students”), and establishing roles (e.g. timekeeper, note taker) would likely have made the meetings more productive.

Finally, researcher bias is likely a limitation of this study. As a Supervisor of Special Education in District A, I work with these teachers, their students, their administrators, and the parents of their students on a regular basis. I found it difficult not to interject with solutions to the problems they brought up, to correct or clarify situations they mentioned with which I had been involved, and to correct their misunderstandings about instruction within the general education environment.

Implications for District A

In the previous sections, the results, conclusions, and limitations of this study were discussed. As indicated above, the PAR process was the foundation for the study. The reflect step was conducted throughout the study, and information obtained was used in both the Diagnose and Act steps. The responses collected from the survey and CWG member discussions during CWG Meeting #1 were used to obtain information from the Diagnose portion of the PAR process. The case study activity and the development of the PD Framework constituted the Act step. Due to the time constraints of this study, the Measure portion of the PAR process was not

able to be completed but is the necessary next step for this process to take effect and begin to increase the capacity of special education teachers in District A. Additionally, for a PAR process to be effective, it should be iterative, with steps being repeated as new information is uncovered. As James et al. (2008) explain, educational issues are complex, requiring steps of the PAR process to be repeated and potentially requiring researchers to address issues that were not originally intended.

Before addressing the implications of this study for District A, as outlined below, obtaining input from members of the CWG is essential. Their feedback about what they think of the PAR process will be invaluable. I plan to informally contact each member individually and obtain their perspective on whether the experience helped reframe their thinking about the instruction for SSCD if they came away with more knowledge, and if they feel the process used for this study will be effective for District A.

Implication 1: Implementation of the PD Framework

The PD Framework developed by members of the CWG will only be helpful to District A if it is implemented. To accomplish all of the priority areas identified by the CWG, measuring its effectiveness will likely have the most impact if it is started in small strategic steps. Starting small is important, as to implement this plan effectively, input from multiple departments in District A will be required. Therefore, this would likely require the convening of a group of people to engage in a continuation of the PAR process. The members of the group should include district-level staff in the Department of Instruction, the Department of Special Education, as well as including one or two members of the existing CWG. After components of the PD Framework are implemented, the iterative nature of the PAR process will start again. The group will need to reflect on the effectiveness of the specific component, diagnose any changes that should be

made, act on those changes, and measure again through changes for the next component. District A may consider the formation of an ongoing work group that will meet regularly to proactively support teachers of SSCD.

An additional area that should be considered as the PD Framework is implemented is how teachers of SSCD will receive mandates for PD. Several members of the CWG and participants of the survey rated their understanding of the EBPs as higher than I would have expected based on my visits to their classrooms. If they do not believe they require PD, it will have to be presented carefully.

Implication 2: Investigate the Time and Space Required for Special Education Teachers of SSCD to receive PD and Complete Expected Responsibilities

Providing instruction for SSCD is complex, as indicated by much research documented in Section 1 (e.g., Agran et al.,2020; Spooner & Browder, 2015). The PD Framework developed through this study indicates that specific PD is required for teachers of SSCD in multiple different areas. The amount of ongoing PD required for special education teachers of SSCD is arguably more intensive and requires more time than the PD required for general education teachers. This, in addition to a significant amount of collaborative planning with related service providers, general education teachers, and parents, and a significant volume of individualized materials which require preparation, cannot be realistically accomplished within a 35-hour work week. District A may need to look into ways to compensate special education teachers of SSCD for this additional work. One possible solution is to increase the number of days a teacher is required to work and will be paid for. There is precedent for this in District A, as some teachers are hired as 11-month employees. According to District A procedures, some of the duties assigned to 11 month employees consist of providing additional program services for children

and to allow for preparation and needed professional development outside typical school hours and the school calendar, both during the school year and summer months. Teachers would be required to work the equivalent of an additional 20 days (or 140 hours) each year. This additional time would allow for PD to be provided without sacrificing instructional time for students, would provide teachers with paid time to do required paperwork and potentially schedule planning meetings outside of the school day. Of course, there are many considerations, the most impactful would be the increased cost this would incur to District A and teachers may not be able to work during the summer.

One other potential solution to providing the time and space for PD would be a change in the job responsibilities of some of the special education instructional specialists to move to a coach who is able to be in classrooms and provide more regular hands on support to teachers, as they provide instruction to their students or to meet with teachers as they are developing IEPs.

Both of these options would take significant planning involving multiple stakeholders. These discussions would be well served during the PAR process work group described in Implication 1.

Implication 3: Need for Further Investigation of Staff Training on Inclusive Education for SSCD

The focus of this study was to define best practices for improving the instruction provided to SSCD in any educational placement. Determining that the placement for students should be in general education or outside of general education was outside of the scope of this dissertation; it is an area for which District A must continue working to create inclusive environments for all students, specifically SSCD.

As mentioned in Section 1 of this dissertation, much research exists to indicate that the general education setting is the most effective place for SSCD to receive instruction (e.g., Gee et al., 2021; Jackson et al., 2010; Kurth et al., 2015); providing instruction in the LRE is a key provision of the IDEA; and District A continues to work through plans to increase the number of students with disabilities included in general education. However, throughout the convenings of the CWG, several members shared strong opinions about the inability to address EBPs for SSCD in the general education setting. Based on members' statements of concern, I am left feeling skeptical that the correct supports were in place for these students, and District A must expand its training and support to schools so that there is an expansion of understanding of what can be expected in a general education setting. For example, CWG members shared concerns that systematic instruction cannot be provided in a general education setting. However, in the introduction to the book *Systematic Instruction for Students with Moderate and Severe Disabilities* (2022), the author Belva Collins states,

> "Systematic instruction should be a much more dynamic process in which instructional trials are not limited to one–on–one instruction at a desk or table but are inserted into the ongoing natural routines of students throughout the day. In addition, my purpose in revising this book will be accomplished if readers discover that systematic instruction is not limited to teaching functional skills in a segregated setting."

District A should continue to prioritize training and support for school-based teams to start with administration and include all stakeholders (teachers, support staff, related service providers, parents, and peers) as they plan for meaningful and relevant instruction to be provided in the general education setting for all students.

Summary

This mixed-method PAR study aimed to begin a process to improve the instruction provided to SSCD in District A. The CSA guiding this study, as explained in Section 1, identified the inconsistency of the knowledge, skills, and dispositions of the teachers of SSCD as one of three causal factors for the inconsistent instruction provided to SSCD. As this area was most aligned with my zone of influence as Supervisor of Special Education, the primary driver of improvement was to increase the capacity of special education teachers of SSCD in District A to design and implement instructional programs for SSCD that reflect individual students' current level of performance in both academic and functional skill areas. The measures of a teacher's capacity would be both the development of individually determined and relevant IEP goals and the observed delivery of relevant instruction using the EBPs identified in the IC Matrix developed by Browder et al.(2014).

The PAR process was used to engage a small group of engaged educators (CWG) to validate the need to build capacity among District A's teachers of SCCD and identify barriers to reaching that goal. Through the PAR process, the group designed a PD framework that included the critical content and addressed the identified barriers. An important first step in the process was to establish a foundation for what special education teachers of SSCD need to know and be able to do. An online survey was administered to obtain information about the current knowledge and instructional practices of teachers of SSCD related to the IC Matrix. Results from the survey, along with guidance documents provided by MSDE (2021), focused the work of the CWG and served as the starting point for the development of the PD Framework. Having the research-based IC Matrix established by Browder et al. (2014) to ground the work of the CWG was essential because of the detail and specificity it provided. Most district-level PD plans are geared

toward the larger population with the expectation that special education teachers will " fit " instruction for SSCD into it. Because of the IC Matrix's relatability, the CWG could move forward consistently and precisely instead of becoming stagnant when a barrier was presented.

The PD Framework developed by the CWG was not intended to fix all instructional challenges facing teachers of SSCD. It is intended to provide a comprehensive blueprint that defines in one document the instruction that teachers of SSCD are responsible for providing and recommendations for how to structure the PD for those teachers. However, even the most comprehensive plan will only be a starting point for ensuring SSCD receive high-quality and relevant instruction. If the EBPs identified through the PD framework are to be implemented consistently, effectively, and systemically, District A cannot rely on teachers alone but must seriously consider four systemic issues that were not explicitly addressed during the scope of this study. These are instruction provided to SSCD within general education classrooms, collaborative planning at the school level, teacher agency, and increased partnerships with central office staff.

Browder et al. (2014) identified inclusive settings as one of the EBPs necessary to support SSCD. This is supported by research cited throughout this dissertation (e.g., Agran et al., 2020; Gee et al., 2020; Kurth et al.,2018; and Ryndak et al.,2014) as well as the mandate in IDEA, specifying that general education must be the first placement option considered for any student with a disability (IDEA, 2004, 1400 d1A). The CWG agreed and included “inclusive supports” as one of the components of the PD Framework but also listed the lack of supports for SSCD in the general education environment as one of the top three barriers to implementing integrated instruction for SSCD, indicating the strong partnerships are not commonplace in District A. It should be noted that the CWG’s intention of including inclusive supports in the PD

Framework does not prescribe full inclusion for all SSCD, as most of the research cited calls for, but provides instead for the provision of essential and specific supports in the general education environment for any amount of time the IEP team for each SSCD recommends. Although the context of full inclusion for SSCD is beyond the scope of this dissertation, an estimated 90% of SSCD in District A are included in general education for some portion of their school day. Therefore, strong partnerships between special and general educators are essential and must be systemically addressed for District A to improve the instruction for SSCD. To meet the heterogenous and complex needs of SSCD (e.g., Ryndak et Alper, 2003; Ruppar et al., 2016; and Schillinger, 2017), the current organization and structures of "general education" will need to be thoroughly investigated to determine what processes (e.g. special educator and general educator teacher schedules, training for general education teachers and instructional assistants, revisions to the grading policy, etc.) may need to be adjusted in order to accommodate collaboration and teacher support. Ideally, addressing inclusive supports where SSCD currently are educated will create a culture in District A where instruction in general education for SSCD is the norm and not the exception.

Structured collaborative planning opportunities for the staff who provide instruction to SSCD must be a regular component of all school schedules. Collaboration between general and special educators, instructional assistants, administration, and related service providers requires collaborative planning and support. Schools need to support schedules and structures that promote a team approach to education SSCD that proactively includes other specialists as appropriate for each student. This collaboration is necessary for all SSCD, despite their placement in general education, as all students must be accessing general education content, and the expertise of general educators is essential. Although some schools in District A have created

schedules that provide dedicated time for collaboration, many have not. When the school schedule does not allow for this collaborative planning time, options include meetings held outside of the workday and the provision of substitutes on select days during the school year. Due to financial constraints on paying staff to work outside of school hours, staff availability after school, and lack of trained substitutes, neither can be a sustainable nor comprehensive approach.

Incorporating teacher agency into all PD development should be a non-negotiable component for all PD provided in District A. Imants and Van der Wal (2020, p.2) state: "Agency is associated with individuals who, alone or in groups, in a given situation, make decisions, take initiatives, act proactively rather than reactively, and deliberately strive and function to reach a certain end." According to an article from Edutopia (O'Brien, 2016), teacher surveys from several sources have repeatedly shown that teachers view PD opportunities as disconnected from their daily work and believe that PD often does not help them improve their practice. Citing a white paper from Learning Forward and the National Commission on Teacher and America's Future, the article reported that for many educators, PD is irrelevant or meaningful to their position or their students and does not provide them with ways to support themselves or their students. The report suggests that greater attention to teacher agency is necessary to provide PD, which can be meaningfully incorporated into the school day and promote increased student learning. Calvert (2016), in an article for Learning Forward, states, "Rather than responding passively to learning opportunities, teachers who have agency are aware of their part in their professional growth and make learning choices to achieve their goals" (p.52). The PAR process, as implemented in this study, was intended to address teacher agency in that the CWG was tasked with providing input and direction for the PD and validating the IC Matrix's value. In

order for District A to successfully adopt the PD Framework and design specific content and activities, individual teachers of SSCD must be given a voice in the development of an individualized PD plan and the flexibility to determine how they will implement the EBPs defined in the PD Framework, based on the needs of their students. Hopefully, this will result in a system policy change for how PD is structured and provided to teachers. One recommended strategy is to embed PD within the context of teachers' daily instruction. Teacher agency must be a central consideration in ensuring future successful and effective teacher development initiatives.

Related to increasing teacher agency and restructuring District A's PD is to increase collaboration and partnerships among central office staff beyond the office of special education in providing PD to teachers of SSCD. Many of the components identified in the PD Framework are reliant on the expertise, input, and, most importantly, collaboration of District A staff beyond the special education department. For example, effective training on "the most important things" in grade-level content could not be reasonably provided without content supervisors, specialists, or strong general education teachers at the school level providing the training.

In conclusion, the results of this study support the use of a PAR process or a similar but more robust design-based model, such as the concept of a networked improvement community (NIC) as defined by Bryk et al.(2016) that engages relevant stakeholders in identifying specific problems and causes followed by the development and testing of solutions to engage in continuous improvement. District A might consider establishing a team, similar in format to the CWG but with members in various roles, to continuously examine a variety of information such as input from all teachers, review of the development, implementation, and student progress on IEPs, student progress with grade-level content, and membership within the general education

setting to gauge what is working or not working to address the complex educational needs of SSCD.

Appendix A

Key Terms and Acronyms

Term	Acronym	Definition
Alternate Assessments based on Alternate Academic Achievement Standards	AA-AAAS	Assessments designed for students with the most significant cognitive disabilities who are unable to participate in general assessments even with accommodations. These assessments are aligned to grade level content but with reduced complexity, breadth, and depth (NCEO, 2021).
Alternate Academic Achievement Standards	N/A	Expectations for performance that differ in breadth, depth, and complexity, but not content, from a grade-level academic achievement standard (Sabia et al., 2020).
Collaborative Work Group	CWG	For the purposes of this study, the collaborative work group is the group of special education teachers of SSCD who are serving as the participants of the PAR study.
Communicative Competence	N/A	"A relative and dynamic, interpersonal construct based on functionality of communication, adequacy of communication, and sufficiency of knowledge, judgment and skill in four interrelated domains: linguistic competence, operational competence, social competence, and strategic competence" (Light, 1989, p. 137).
Criterion of Ultimate Functioning	N/A	The skills a student requires to function as productively and independently as possible in socially, vocationally, and domestically integrated adult community environments (Brown et al. 1976).
Dynamic Learning Maps Alternate Assessment System	DLM	The AA-AAAS using the Essential Elements as the alternate academic achievement standards to assess SSCD in their knowledge of English language arts, mathematics, and science. Twenty-one states are currently members of the DLM Consortium (DLM, 2022).
Evidence Based Practices	EBPs	Practices that are supported by multiple, high-quality studies that utilize research designs from which causality can be inferred and that demonstrate meaningful effects on student outcomes (Cook & Cook, 2011).
Free Appropriate Public Education	FAPE	One of the major tenets of IDEA. All students receiving services as a student with a disability under IDEA are entitled to receive an education they can benefit from, regardless of the nature of their disability. To be considered, "appropriate", the education must be designed to meet the individual education needs of the student (Understanding Special Education, 2019).
Functional Curriculum	N/A	A functional curriculum has been referred in the literature as an instructional approach to teach functional skills. In the 1980s and 1990s, the intention of a functional curriculum was to provide different instruction to students with significant cognitive

Term	Acronym	Definition
		disabilities, as they were determined to not have the innate ability to access the general education curriculum. Starting in the late 1990s and continuing today, the expectation of a functional curriculum is to integrate the elements that are uniquely appropriate for individual students. Published curriculum guides include the Activities Catalogue by Wilcox and Bellamy (1987), the Syracuse Community-Referenced Curriculum Guide by Ford et al. (1989), and the COACH (Choosing Outcomes and Accommodations for Children) by Giangreco et al. (1998).
Functional Skills	N/A	Those non-academic skills which if mastered would affect the student's access and progress in current and future environments (MSDE, 2019). These skills are best taught using contextualized instruction in a real setting that is natural to the skill (Brown et al., 2020). Consist of skills needed to participate in daily family life and day-to-day routines, to be involved in their communities; and to acquire autonomy and self-direction for adulthood (Brown et al., 2020).
Individual Education Program	IEP	A written document developed for each public-school student who is eligible for special education. The components of the IEP are explained in Appendix C.
Independent Living Skills	N/A	Functional skills which include self – care (e.g., dressing, bathing, toileting); home living (e.g., cooking, cleaning); leisure (e.g., hobbies and fitness); community (e.g., shopping, traveling, use of community resources); and vocational (e.g., job- and job-related skills).
Innovation Configuration Matrix	IC Matrix	A matrix of the EVPs for students with severe disabilities, developed by Browder et al.(2014). For this study, the IC Matrix will serve as the foundation of EVPs.
Least Restrictive Environment	LRE	A principle of IDEA guaranteeing that a student with a disability should be educated in the same classrooms as their typically developing peers to the greatest extent possible.
Participatory Action Research	PAR	A qualitative research design in which researcher and participants collaborate to help find a suitable solution to a problem (Creswell et al., 2007).
Present Levels of Academic Achievement and Functional Performance	PLAAFP	The section of an IEP which provides a description of the student's current performance in all areas targeted as a concern related to the student's disability.
Professional Development	PD	Building or refining skills relevant to the teaching profession. Effective PD must: 1.be content focused, 2. incorporate active learning, 3. support collaboration, 4.use models of effective practice, 5. provide coaching and expert support, 6. offer feedback and reflection, and 7. be of sustained duration (Darling-Hammond et al., 2017).
Self-Determination	N/A	Wehmeyer (2005) defines self-determined behavior as volitional behavior that makes one capable or able to act as the causal agent in

Term	Acronym	Definition
		one's life. People who are "self-determined" act in such a way as to show evidence that their actions and behaviors are self-caused, as opposed to *other* caused. The ARC's Self-Determination Scale (SDS) identifies four essential characteristics of self -determination: autonomy, self-regulation, psychological empowerment, and self0realization (Wehmeyer, 1996).
Standards–based IEPs	N/A	(Also referred to as standards – aligned). An IEP developed with the general education content standards providing the framework to build the individualized goals and objectives. (Sarathy, 2017).
Students with Significant Cognitive Disabilities	SSCD	"Students with significant cognitive disabilities are defined as having, 'a disability or multiple disabilities that significantly impact cognitive functioning and adaptive behavior'. Adaptive behavior is defined as a collection of behaviors, including conceptual, social, interpersonal, and practical skills, essential for someone to live independently and to function safely in daily life. A significant cognitive disability is pervasive and affects learning across all content areas, independent functioning, community living, leisure, and vocational activities." (MSDE, 2019a, p.3).
Systematic Instruction	N/A	"The theoretical foundation behind systematic instruction is applied behavior analysis (ABA). At the heart of the theory is the three - term contingency which consists of a stimulus (an event, object, or condition that sets the occasion for the response performed by the student) a response (the specific behavior that the teacher wants the student to complete), and a consequence (the contingent delivery of a reinforcer selected to increase the likelihood that the student will complete the correct response again or an error correction procedure design to decrease the likelihood of the student making an incorrect response in the future)" (Brown et al.,2020).
Zero Reject	N/A	The requirement of the IDEA explaining that an individual identified with a disability cannot be denied access to special education and necessary related services in the United States (Powers, 2013).

Appendix B

Summary of Changes to Alternate Assessments in Federal Law

Component	IDEA: 1997 Amendment	NCLB	IDEA 2004	ESSA
Assessment Provision	Alternate Assessment	Alternate Assessment based on alternate achievement standards (AA-AAS)	No Changes from NCLB	Alternate Assessment based on alternate academic achievement standards (AA-AAAS)
Content Standards	None Defined	Grade level extensions	Aligned with the state's challenging academic content standards	Grade level
Achievement Standards	None Defined	<u>Alternate Achievement Standards:</u> • differ in complexity from grade level achievement standards • state determined	No Changes from NCLB	Alternate Academic Achievement Standards
Criteria for Alternate Assessments		• aligned to grade level academic content and alternate achievement standards	No Changes from NCLB	Additions: • designated in the student's IEP

Component	IDEA: 1997 Amendment	NCLB	IDEA 2004	ESSA
		• appropriate for student's grade level of enrollment • promote access to general education curriculum		• aligned to the individual needs of a student so he or she is on track to pursue postsecondary education or employment
Participation Guidelines	students who do not take part in the general state or district assessments	• students with the most significant cognitive disabilities • no cap for participation; only 1% of population counted as proficient	No changes from NCLB	Added: no more than 1% of the total population of students
Source	(Yell & Shiner, 1997)	(McGrew & Evans, 2004; United States Department of Education, 2005)	(IDEA, 2004)	(ESSA, 2015)

Appendix C

The Components of an Individualized Education Program (IEP)

An IEP is a written statement for each child with a disability that is developed, reviewed, and revised at least annually in a meeting in accordance with the Individuals with Disabilities Education Act (IDEA) (§§300.320 through 300.324). IDEA stipulates that the following components must be included:

Meeting and Identifying Information – This section of the IEP includes the identifying information about the student, information regarding determination for eligibility for Special Education, relevant dates, student participation and performance on district and statewide assessments and graduation information.

Present Levels of Academic Achievement and Functional Performance (PLAAFP) – This section of the IEP provides a description of the student's current performance in all areas targeted as a concern related to the student's disability. The PLAAFP explains how the disability impacts the student's progress in the general education curriculum. Formal assessments, anecdotal information, feedback from the student's teachers, and information regarding a student's strengths and interest areas are all included in the PLAAFP section. A designated section for parental input is also a component.

Special Considerations and Accommodations – This section of the IEP includes the documentation of adaptations and supports to allow the student to access and participate in instructional and non-instructional contexts of the general education curriculum, despite his or her disability. Components of this section consist of: communication supports; assistive technology devices or services; services for students who are blind or visually impaired; services

for students who are deaf or hearing impaired; behavioral interventions; services for students who are English learners; instructional and testing accommodations; supplementary aids, services, program modifications, and supports; extended school year services; and transition goals, activities, and services.

Goals – This section of the IEP includes annual goals and their accompanying objectives which define the focus of the specially designed instruction required for the student to make progress in the general education curriculum. Goals are determined based on the information in the PLAAFPs to address the underlying skill deficits that prevent the student from meeting the standards. In functional skill areas, the team considers age and grade appropriate expectations and prioritizes skills to increase the student's engagement and independence. The goals must be ambitious but achievable.

Special Education Service - This section of the IEP identifies the special education and related services the student requires to achieve the goals. IEP teams identify the nature of the service (classroom instruction, physical education, speech / language therapy, or travel training); the location of the service (in general education or outside general education); a description of the service (number of sessions, length of time, frequency, begin and end date, duration, and the providers of the service.

Placement – This section of the IEP considers where the student's special education instruction will occur based on the student's IEP. The IEP team must consider the LRE when determining placement data. As part of the determination of placement, the team must also consider a student's transportation needs and document and justify any time the student will not be participating with typical peers.

Appendix D

Alternate Appendix A

The complete copy can be found at:
https://marylandpublicschools.org/programs/Documents/Special-Ed/AltEducationFrameworkGuidanceDocument-2082023_A.pdf

Alternate Appendix A: Participation Criteria and Checklist
(must be completed annually)

IEP teams are required to use this *Participation Criteria and Checklist* when determining eligibility for students with a "significant cognitive disability" for participation in the alternate assessments and/or alternate instructional standards. In order for the student to be eligible to participate, the IEP team must AGREE to ALL of the criteria items. If the IEP team disagrees, responding with a DISAGREE for one or more questions, the IEP team should consider the student eligible for participation in the general assessments with or without accommodations. The IEP team must use multiple sources of information, such as the current IEP, results from formal and informal assessments, data gathered from classroom assessments, and information gathered from parent/guardian/student that document academic achievement to guide the decision-making process for participation in the appropriate instructional framework and statewide assessment. This form must be stored in the student's electronic file.

IEP Team Date _____

Student Name_____ **Disability Code**_____ **DOB**_____

Residence School_____ **Service School** _____

Service County_____ **Grade** _____

SASID#_____ **LEA Number** _____

IEP Team Chairperson_____ **Signature** _____
(IEP Team Chairperson signature verifies that all established criteria were considered.)

Team Members: Each participant should print name, provide title, and sign/date below:

Name (please print)	Title	Signature	Date

***If the parent does not attend the meeting and does not sign this form, attach documentation parent notification and informed consent for the meeting along with notification of the decisions of the IEP team that were provided to the parent.**

Appendix E

IDEA Disability Definitions (IDEA Sec. 300.8 (c))

Disability	IDEA Definition
Autism	• A developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. • Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance. • A child who manifests the characteristics of autism after age three could be identified as having autism.
Deaf blindness	Concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.
Deafness	A hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, that adversely affects a child's educational performance.
Emotional Disturbance	A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance: • An inability to learn that cannot be explained by intellectual, sensory, or health factors. • An inability to build or maintain satisfactory interpersonal relationships with peers and teachers. • Inappropriate types of behavior or feelings under normal circumstances. • A general pervasive mood of unhappiness or depression. • A tendency to develop physical symptoms or fears associated with personal or school problems. Emotional disturbance includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance under paragraph (c)(4)(i) of this section. * Maryland uses the term Emotional Disability (COMAR 13A.05.01.03)
Hearing Impairment	An impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance but that is not included under the definition of deafness in this section.
Intellectual Disability	Significantly subaverage general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a child's educational performance. The term "intellectual disability" was formerly termed "mental retardation."
Multiple Disabilities	Concomitant impairments (such as intellectual disability-blindness or intellectual disability-orthopedic impairment), the combination of which causes such severe educational needs that

Disability	IDEA Definition
	they cannot be accommodated in special education programs solely for one of the impairments. Multiple disabilities does not include deaf blindness.
Orthopedic Impairment	A severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by a congenital anomaly, impairments caused by disease (e.g., poliomyelitis, bone tuberculosis), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns that cause contractures).
Other Health Impairment	Having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that— • Is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome; and • Adversely affects a child's educational performance.
Specific Learning Disability	• General. Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken, or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. • Disorders not included. Specific learning disability does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of intellectual disability, of emotional disturbance, or of environmental, cultural, or economic disadvantage.
Speech or Language Impairment	A communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, that adversely affects a child's educational performance.
Traumatic Brain Injury	An acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. Traumatic brain injury applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. Traumatic brain injury does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma.
Visual Impairment	An impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

Appendix F

Changes to MD Alternate Assessment Program

Timeframe	Alternate Assessment Title	Description	Standards Assessed	Format	Eligibility
1994 - 2001	Independence Mastery Assessment Program (IMAP)	Developed as an alternative to the Maryland School Performance Assessment Program (MSPAP) and the Maryland Functional Testing Program which assesses a student's basic minimum competency in the areas of reading, mathematics, citizenship, and writing (Ysseldyke et al., 1996).	No formal standards assessed.	• Format consisted of an alternative set of life- skills oriented outcomes similar to those established by Brown and colleagues in the 1970s. • Comprised of three components: performance tasks, parent survey, and a student portfolio. • The demonstration of student mastery on the performance tasks was videotaped and sent to the state department for scoring. The student's portfolio consisted of identifiable	A student with a disability could be exempted from participation in the MSPAP if the student's IEP team determined "content areas of the MSPAP (e.g. reading, mathematics) are not part of their instructional program and in which the Maryland Learning Outcomes are not those students' identified instructional outcomes" (MSDE, 1995, p. 10).

Timeframe	Alternate Assessment Title	Description	Standards Assessed	Format	Eligibility
				information about the student (e.g. demographic data, description of the student's opportunities to learn, information from the student's IEP, and work samples, additional videotapes of the student performing tasks, reports, job evaluations, and other reports deemed appropriate to show a student's progress (Haigh, 1996). • Included a parent survey.	
2001 – 2003	IMAP	Revisions made to comply with NCLB: • include an individualized score in reading, mathematics, and writing • students in grades 3-8 and a high	Individually determined below grade level skills in reading and math.	In addition to the above, specific tasks required for reading, math, and writing.	No changes

Timeframe	Alternate Assessment Title	Description	Standards Assessed	Format	Eligibility
		school grade must be assessed (MSDE, 2004).			
2003	Alternate Maryland School Assessment (Alt-MSA)	Changes from acquisition of functional skills to an assessment of individually selected objectives in mathematics and reading based on student's instructional level (MSDE, 2004).	Individually determined mastery objectives designed by teachers to be aligned to Maryland Standards.	• Portfolio assessment consisting of performance tasks demonstrating mastery of the individually selected objectives. • Evidence of mastery consisted of documentation of baseline and mastery of selected objectives via data collection, video recording, or original work samples.	• Students with significant cognitive disabilities who cannot participate in the Maryland School Assessment (MSA). • The student is learning extended Maryland Content Standards in reading and mathematics and • The student is participating in a Fundamental Life Skills curriculum that includes instruction in "functional academics, personal management, community, recreation/ leisure, career/vocational, and communication/decision making / interpersonal skills". (MSDE, 2004, p. 9).

Timeframe	Alternate Assessment Title	Description	Standards Assessed	Format	Eligibility
2015-2019	Multi-State Alternate Assessment	Assessment of the Core Content Connectors (alternate academic standards for English Language Arts and Math) developed by the National Center and State Collaborative (NCSC). *piloted in 2015 and administration began 2015-2016 school year.	Alternate Academic Achievement Standards: Core Content Connectors	Online testing platform which adapts the complexity and psychometric difficulty of the task based on the student's performance.	• Student with a significant cognitive disability • Intellectual functioning that is significantly below average and exists concurrently with deficits in adaptive functioning • Affects students across all life domains • 1% of the population • Student is learning content derived from Maryland College and Career Ready Standards • Student requires extensive, direct, repeated, and individualized instruction and substantial supports to achieve measurable gains. • Parental consent
2020	Dynamic Learning Maps	Assess students on the DLM essential elements in ELA, mathematics, and science.	Alternate Academic Achievement Standards:	changes were again made as Maryland determined that the Essential Elements would be the alternate	Same as above

Timeframe	Alternate Assessment Title	Description	Standards Assessed	Format	Eligibility
			Essential Elements	standards also used for ELA and Math and the alternate assessment would be conducted solely through the Dynamic Learning Maps platform.	

Appendix G

Innovation Configuration Matrix

The full document of the Innovation Configuration can be found at:
https://ceedar.education.ufl.edu/wp-content/uploads/2014/09/IC-3_FINAL_03-03-15.pdf

Appendix

Innovation Configuration for Evidence-Based Practices for Students With Severe Disabilities

Essential Components	Implementation Levels				
Instructions: Place an X under the appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	**Level 0**	**Level 1**	**Level 2**	**Level 3**	**Rating**
	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
1.0 How to Teach - Systematic Instruction					
1.1 - Prompting and fading. 1.2 - Reinforcement. 1.3 - Task analysis; discrete trial. 1.4 - Generalization.					
2.0 How to Teach - Self-Directed Instruction					
2.1 - SDLMI. 2.2 - Pictorial self-instruction. 2.3 - Directed inquiry.					

Essential Components	Implementation Levels				
Instructions: Place an X under the appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	**Level 0**	**Level 1**	**Level 2**	**Level 3**	**Rating**
	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
3.0 How to Teach - Peer Tutors					
4.0 How to Teach - Technology					
4.1 - Video modeling. 4.2 - Computer-based instruction.					
5.0 What to Teach - Academics					
5.1 - Language arts. 5.2 - Mathematics. 5.3 - Science. 5.4 - Social Studies.					

Essential Components	Implementation Levels				
Instructions: Place an X under the appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	**Level 0**	**Level 1**	**Level 2**	**Level 3**	**Rating**
	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
6.0 What to Teach - Daily Living (can embed in school routines)					
6.1 - Home skills. 6.2 - Self-care.					
7.0 What to Teach - Job and Community (increase in importance for older students)					
8.0 What to Teach - Self-Determination (can embed with academic instruction)					
8.1 - Choice making. 8.2 - Self-management. 8.3 - Problem solving.					
9.0 What to Teach - Communication and Social Skills					

Essential Components	Implementation Levels				
Instructions: Place an X under the appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	**Level 0**	**Level 1**	**Level 2**	**Level 3**	**Rating**
	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
10.0 How to Support - Team Planning					
11.0 How to Support - Assistive Technology					
12.0 How to Support - Peer Supports					
13.0 How to Support - Paraprofessionals					
14.0 How to Support - Inclusive Setting					

Essential Components	Implementation Levels				
Instructions: Place an X under the appropriate variation implementation score for each course syllabus that meets the criteria level from 0 to 3. Score and rate each item separately.	**Level 0**	**Level 1**	**Level 2**	**Level 3**	**Rating**
	There is no evidence that the component is included in the syllabus, or the syllabus only mentions the component.	Must contain at least one of the following: reading, test, lecture/presentation, discussion, modeling/ demonstration, or quiz.	Must contain at least one item from Level 1, plus at least one of the following: observation, project/activity, case study, or lesson plan study.	Must contain at least one item from Level 1 as well as at least one item from Level 2, plus at least one of the following: tutoring, small group student teaching, or whole group internship.	Rate each item as the number of the highest variation receiving an X under it.
15.0 How to Support - Positive Behavior Support					
16.0 How to Support - Home-School Collaboration					

Appendix H

Steps to Meaningful Instruction

(Used with special education teachers of SSCD in District A)

Step #1: Assess the student:

- Functional – using the AFLS/ABLLS-R
- Academic – Unique Learning Systems, intervention data, classroom-based assessments, standardized assessments

Step #2: Prioritize student's needs to develop the Present Levels of Academic Achievement and Functional Performance (use PLAAFPs checklist at the end of this document)
Considerations:

- Age
- Transition plan / expectations
- Communicative competency
- Self- Management abilities
- Parental input
- Determining the appropriateness of discontinuing instruction on a skill
- Student attainment of Basic Living Skills (AFLS- Brown Protocol)
- Math, Reading, Written Language competency
- Attainable within 1 year

Step #3: Write goals and objectives based on priorities *(Use Suggested Goal Areas)*
Step #4: Plan for Implementation of Goals and Objectives

What: Materials
When: Activity throughout the day
Where: Environment (e.g., small group / general education setting / community)
Who: Who will be delivering instruction? (e.g., teacher, IA, job coach)
How: Type of Instruction (e.g., TA, DTT, prompt level); Data Collection Method, inclusion of communicative competency information

Step #5: Systematic Instruction
Step #6: Analyze data
Step # 7: Modify Instruction based on analysis of data

Appendix I

PLAAFPs Checklist – Alternate Standards

Present Level of Academic Achievement and Functional Performance

Each PLAAFP area (e.g., Reading Comprehension, Math Calculation, Self-Management, etc.) must contain the following applicable information for the specific area:

Academic Areas	Functional Areas
☐ Date of meeting (use the corresponding IEP meeting date when PLAAFPs are updated) ☐ Standard assessment reports (if recently (re)evaluated; not older than 1 year) o Cite sources and dates of assessment reports o A narrative summary of performance rather than a detailed report of assessment procedures and results. (**NOT** a copy-and-paste of the evaluation report results and/or recommendations) ☐ Measures of academic performance related to grade-level alternate learning standards. o Curriculum-based measures, teacher data probes on academic skills, progress on IEP goals, work samples, rubric of knowledge/skill proficiency, etc. o (e.g., ABLLS-R, AFLS, Brigance, ULS, system-wide assessments, MAP RIT scores, quarterly reading and math fluency assessments, DIBELS, Beginning/Advanced Decoding Survey, running records, portfolios, quizzes, student work, other informal assessments) o ALL data should indicate a reference point for comparison to the class expectation o For MAP Growth, the Norm Grade Level Mean RIT should be used in PLAAFPs when reporting the student's overall RIT Score to provide a comparison of student performance to the normative sample ☐ Focused observations o General educator's summarized input when applicable, running records of student performance, error pattern analysis, instruction fidelity checks, discrete trial/probe data o Accommodations, modifications, supports that were or were not successful ☐ Intervention progress monitoring data (if applicable) ☐ Strengths and areas of need in relation to the Essential Elements and/or MCCRS o Strengths and needs are specific to the PLAAFPs area	☐ Date of meeting (use the corresponding IEP meeting date when PLAAFPs are updated) ☐ Standard assessment reports (if recently (re)evaluated; not older than 1 year) o Cite sources and dates of assessment reports o A narrative summary of performance rather than a detailed report of assessment procedures and results (**NOT** a copy-and-paste of the evaluation report results and/or recommendations) ☐ Measures of functional performance (**Functional areas - Behavioral, Health, Physical, Communication**) o (e.g., Brigance, behavior points summary, ABLLS-R, AFLS, progress on IEP goals, etc.) ☐ Focused observations o General educator's summarized input, frequency or duration of behavior, time sampling observations, observations of performance on CBI trips o Accommodations, modifications, supports that were or were not successful ☐ Behavior intervention progress monitoring data (if applicable) ☐ Strengths and areas of need in relation to developmentally appropriate skills o Strengths and needs are specific to the PLAAFPs area o Functional skills are not included in academic PLAAFPs ☐ Level of Performance o Functional areas should indicate "Not Applicable"

Academic Areas	Functional Areas
○ Functional skills are not included in academic PLAAFPs ☐ Instructional Grade Level Performance must be entered for academic content areas ○ NOTE: RIT scores compared to student status norms do not equate to grade levels and should not be used to determine grade or instructional levels for the Level of Performance in PLAAFP ○ Academic areas must indicate the actual instructional grade level performance in that area. If student demonstrates a scattering of skills, a range of grade levels may be used. ○ An alternate performance level may be considered for individual students. ☐ PLAAFP is written in a narrative form ○ Language is parent/non-educator friendly and is **objective**, not subjective ○ Abbreviations defined or written out (a *non*-educator can understand terms)	☐ PLAAFP is written in a narrative form ○ Language is parent/non-educator friendly and is **objective**, not subjective ○ Abbreviations defined or written out (a *non*-educator can understand terms)

Area Discussion Checklist

- ☐ Parent and student input and concerns.
- ☐ Student strengths, interests, personal attributes, accomplishments.
- ☐ An impact statement, specifically answering three questions:
    - What areas are affected by the student's disability?
    - How does disability impact their involvement in the general education curriculum?
    - How does the student's disability affect membership in the classroom and in other school environments?
    - How does the student's disability affect participation in school activities and social interactions? For pre-school children, how does disability affect access to and participation in age appropriate activities?
    - Which academic and/or non-academic areas are affected/impacted?

Appendix J

University of Maryland IRB Approval

UNIVERSITY OF MARYLAND
INSTITUTIONAL REVIEW BOARD

1204 Marie Mount Hall
College Park, MD 20742-5125
TEL 301.405.4212
FAX 301.314.1475
irb@umd.edu
www.umresearch.umd.edu/IRB

DATE:	February 9, 2023
TO:	Janet Stephanson
FROM:	University of Maryland College Park (UMCP) IRB
PROJECT TITLE:	[1991529-2] Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities in Calvert County Public Schools
SUBMISSION TYPE:	Amendment/Modification
ACTION:	APPROVED
APPROVAL DATE:	February 9, 2023
REVIEW TYPE:	Expedited Review
REVIEW CATEGORY:	Expedited review category # 7. Waiver of Consent Documentation - 45 CFR 46.117(c).

Thank you for your submission of Amendment/Modification materials for this project. The University of Maryland College Park (UMCP) IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

Prior to final approval of this project scientific review was completed by the IRB Member reviewer.

This submission has received Expedited Review based on the applicable federal regulations.

This project has been determined to be a MINIMAL RISK project.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Unless a consent waiver or alteration has been approved, Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate Amendment forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others (UPIRSOs) and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. Please use the appropriate reporting forms for this procedure. All FDA and sponsor reporting requirements should also be followed. All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Please note that all research records must be retained for a minimum of seven years after the completion of the project.

Generated on IRBNet

Appendix K

Survey Recruitment Email

To: Teachers of SSCD
Subject: Doctoral Research Survey

Dear Teachers,

I hope this email finds you all well! I am writing to you to invite you to participate in a research project I am conducting to complete my Doctorate of Education in School System Leadership through the University of Maryland. The dissertation study, "**Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities in the District A Public School System"** will focus on the delivery of instruction to students with significant cognitive disabilities (SSCD) and how educators navigate the integrated academic and functional skill instruction students require.

This multifaceted study will include a survey of as many District A teachers of SSCD as possible and a collaborative work group, with a select number of teachers who will develop a framework for the essential components of professional development necessary for all teachers of SSCD.

You are being invited to participate in the survey portion of the study because of your role as a special education teacher currently providing instruction to a SSCD. Your name was generated from the list of teachers who have been invited to participate in trainings for either the alternate assessment based on alternate academic achievement standards (AA- AAAS) or the trainings on alternate academic standards. Any special education teacher who provides instruction to a SSCD in a general education setting, a pull-out special education setting, a regional program self-contained special education setting within a comprehensive school, or a public separate day school is invited to participate in the survey.

The survey is provided through the Google Forms platform which can be accessed via the link below. It should take you no longer than 15 minutes to complete and is completely anonymous.

Participation in this study is completely voluntary and your decision to participate or not participate will not have any effect on your employment, reputation, or standing with District A.

The results of the study may help inform District A on the current challenges faced by teachers of SSCD and offer suggestions on how to provide sustainable professional development for teachers to deliver individualized and integrated academic and functional skill instruction to any student with a SSCD.

If you wish to participate in the survey, the link to the survey can be found here: https://forms.gle/xXy4Fp5BuBYhHqYM6.

To thank you for your participation and assistance with my study, I will be conducting a drawing for a $15 gift card to Wawa. At the end of the survey, upon completion, a code will be provided. If you wish to be entered into the drawing, please send an email with your name and the code to stephansonj@calvertnet.k12.md.us, by February 15, 2023.

Please contact me at stephansonj@calvertnet.k12.md.us or 301-752-9254 with any questions.

Respectfully,
Janet Stephanson

Appendix L

CWG Recruitment Email

To: Teachers of SSCD
Subject: Doctoral Research Survey

Dear Teachers,

You are receiving this email because you have been recommended by District A Supervisors of Special Education to potentially participate in a collaborative work group (CWG) as part of the research project I am conducting to complete my Doctorate of Education in School System Leadership through the University of Maryland. The dissertation study, "**Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities in the District A Public School System"** will focus on the delivery of instruction to students with significant cognitive disabilities (SSCD) and how educators navigate the integrated academic and functional skill instruction students require. I will be seeking nine participants for the work group (three teachers teaching at the elementary level, three at the middle school level, and three at the high school level). The CWG will involve three sessions to be held at a mutually agreeable time outside of your workday.

It is my hope that the results of the study may help inform District A of the current challenges faced by teachers of SSCD and offer suggestions on how to provide sustainable professional development for teachers to deliver individualized and integrated academic and functional skill instruction to any student with a SSCD.

If you are interested in learning more about participation in this study, please reply in the affirmative to this email and I will schedule a mutually agreeable time to talk with you. The conversation should take no more than 10 minutes and can be conducted via telephone, Microsoft Teams, or in person. If you would prefer to read the outline of the study, it is attached. Please also let me know if you are not interested. I can be reached by e-mail at stephansonj@calvertnet.k12.md.us or by phone at 301-752 9254.

Thank you very much for your consideration. Please know that your participation throughout the process will be completely voluntary, you may stop participation at any time, and your decision to participate or not participate will have no impact on your employment, reputation, or standing with DISTRICT A.

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Respectfully,

Janet Stephanson

Janet Stephanson

Appendix M

Script for CWG Recruitment Phone Call or Conversation

Hello! I am reaching out to you because you agreed to hear more information regarding your participation in a collaborative work group (referred to as the CWG) I will be facilitating as part of the research towards my Doctorate in Education (EdD) in School System Leadership through the University of Maryland. As a reminder, the dissertation is titled, "**Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities in the District A Public School System"** and will focus on the delivery of instruction to students with significant cognitive disabilities (SSCD) and how educators navigate the integrated academic and functional skill instruction students require.

To be eligible to participate in the CWG, teachers must be the case manager for at least one SSCD, provide direct instruction to at least one SSCD, be tenured in District A, and not be receiving support through an Intensive Development Plan. The original list of teachers of SSCD was generated from the list of teachers who were provided training in District A on the Alternate Assessment based on Alternate Academic Achievement Standards (AA-AAAS) and/or instruction using the Alternate Academic Achievement Standards. After the survey was sent, I reviewed the list and removed any teacher who was non-tenured from a list provided to me, as a supervisor of special education, from HR. I then contacted the IEP clerks to confirm which teachers provided case management for a SSCD. This was followed by a meeting with the supervisors of special education who recommended teachers from this list who are committed to provide relevant and effective instruction to students with significant cognitive disabilities as a great candidate for this study.

The study will be conducted through a Participatory Action Research (referred to as PAR) plan. There are four iterative components to PAR: diagnose, act, measure, and reflect. It is different than most research projects because of the collaborative relationship between me, as the researcher, and the participants (you and 8 other special education teachers of SSCD in our county). In a nutshell, we will be working together to explore the barriers in providing relevant and effective instruction to SSCD and determining what teachers need to be able to provide the necessary instruction. To do this, we will be reviewing current best practices for the instruction of SSCD, reviewing the local, state, and federal legislation guiding the instruction for students, and will explore your current experiences and knowledge about the needs of students. The ultimate goal of this project is to create a Professional Development Framework to be used for all teachers in District A who are providing instruction to a SSCD. The intention of the framework is to outline the essential components for providing instruction to SSCD, prioritize the barriers preventing this instruction from happening. and create a plan to address the barriers.

The first part of the study is a survey which will be sent to all teachers of SSCD in our district, asking teachers to indicate their knowledge and use of instructional best practices, as defined by current research (Browder et al., 2014) for SSCD. The data from the survey will inform the work of the CWG, through the PAR process by providing baseline information on teachers' report of where they are in the process.

The remaining portion of the study will consist of three CWG meetings (The first and third will be via Microsoft Teams) and the second meeting will be divided into two groups and each group will meet in person. All meetings will be held at times outside of your workday, at times

mutually agreed upon by participants and will last between 60 and 90 minutes in length. Participation in this study will involve the following:

Reflection: You will be asked to keep notes of your reflections throughout the process and will be provided with a decorative journal in which you can write reflections if you choose. Prior to each meeting (or at the conclusion of the previous one), a reflection prompt will be provided to be discussed with the CWG at the subsequent meeting. The use of the journal is optional; however, a discussion of the reflection prompt will occur at the beginning of every CWG meeting, and it will be expected that you orally share your reflection or part of your reflections with the group. If you prefer to type reflections in a document on a computer, use speech to text to document them in the notes section on your phone, write them on sticky notes, or simply just reflect on them without writing, that would be acceptable. Copies of your reflections will not be collected, but the reflections will be summarized by me. The journal is yours to keep whether you choose to write in it or not. I will be using your reflections to ensure the creation of the PD Framework has complete information.

Review of Documents: The Innovation Configuration Matrix (IC Matrix) developed by Browder et al. in 2014 which outlines the evidence-based practices determined essential for the instruction of SSCD will be used as a basis for much of this study. The IC Matrix consists of elements related to the "what to teach", "how to teach", and "what supports are necessary for teaching". You will be asked to review this document and share your input regarding how our district can ensure these components are included in the programming for SSCD. Additional documents we will review include federal, state, and local guidelines regarding the instruction of SSCD, as well as the materials we have available for instruction in our school system.

Participation in a Case Study Subgroup: This review will be followed by an overview of the steps of the second meeting. You will be assigned a case study subgroup for participation in the second meeting. During the second meeting, after reflection, you will be provided the case study of a fictional student and either independently or with a partner, you will be asked to complete one of the tasks listed below(the case study activity you complete will have been determined at the first meeting):

Subgroup #1:– "How to Teach" - you will be provided the IEP for a fictional SSCD. Based on the IEP, you will be tasked with developing a lesson plan which will include the evidence based practices to teach the student content based on his / her IEP.

Subgroup #2: "What to Teach" – you will be provided information from assessments, observations, and parent and teacher input for a fictional SSCD. Based on this information, you will be tasked with developing an IEP, using the best practices of the IC Matrix and MD state guidelines.

Participation in a Planning Routine Protocol to develop a Professional Development Framework. During the third meeting, you will be tasked with using the knowledge you've gained through this process and your experiences to collaborate with me and the other members of the CWG and participate in a planning routine to develop the professional development framework.

Participation in a "Member Check". Following the third CWG meeting, I will be finalizing the PD Framework based on everyone's input during the third session and then will incorporate any reflections that may not have been addressed during the third CWG meeting. I will send a draft of the final PD Framework to you to check that all important components are included and reflected accurately.

An outline of the study is shared with you now so you can see the process in writing.

Throughout the process, anything you share will be kept completely confidential and you may stop participation at any time. The entire process is non-evaluative, and your participation has no bearing on your current or future work as a District A employee.

With the permission of all members of the CWG, I would like to record the sessions (video recorded for the first and third meeting and audio recorded for the second meeting, the two subgroups). The recordings will be used simply as a support to me as I review our discussions and document the plans and consensus determined. Once the study is complete, the recordings will be deleted. If anyone disagrees with recording, I will rely on the notes taken during each session.

To maintain confidentiality for your students, I will ask that during any discussion and reflection that you don't mention them by name.

Please take time to review the outline to see if this is something you would be interested in participating in. Please know that your participation is absolutely voluntary.

My hope is that this will have a lasting impact on our school system as we work together to make productive changes for SSCD.

If you have any questions, please let me know now or after you've had a chance to review the documents. I ask that you please let me know by _____ (2 days following the conversation) if you are interested in participating. I will send a reminder email tomorrow.

(If I am meeting in person, I will provide the outline to the teacher and if it is a phone call, I will email the outline immediately following the phone conversation).

Thank you so much for your consideration in participating in this project and for all you do for your students every day.

Appendix N

Outline of the Study

Phase #1: Survey of all special education teachers of SSCD in DISTRICT A

Purpose: To determine the level of teacher knowledge of the essential components of instruction for SSCD as defined by the IC Matrix.

Step(s) of the PAR process: Diagnose

Participants: Any teacher of SSCD in DISTRICT A.

Time Frame: The survey will be available for teachers to complete for 10 days.

Logistics:

- An anonymous survey created through Google Forms
- Introduction email sent to any special education teacher in DISTRICT A who provides instruction to a SSCD
- Reminder emails sent after 4 and 7 days
- All potential participants will be offered the opportunity to enter into a drawing for a $15 Wawa gift card.
- Data Collection:
    - Summary of survey responses

Phase #2: Collaborative Work Group (CWG) Meeting #1

Purpose: To provide an overview of the CWG process, to review the results of the survey, to review current research findings and federal and state legislation, and to obtain participants' reflections.

Step(s) of the PAR Process: Diagnose and Reflect

Participants: Nine case managers of SSCD. Representing elementary school, middle school and high school in various instructional settings. (e.g., primarily in general education, primarily in a regional program). The selection process will occur during the time the survey is open.

Meeting Logistics:

- Scheduled approximately 1 week after the survey closes.
- 60-90 minutes in length
- Scheduled virtually at a mutually agreeable time via Microsoft Teams after the teachers' workday.

Materials: All materials will be provided to participants at least three days prior to the meeting

- Agendas for all three CWG meetings
- Intended Outcomes of the Study
- Explanation of the PAR process
- IC Matrix
- Summary of the results of the Survey
- Summary of Federal, State, and Local Requirements regarding the instruction of SSCD
- Case Studies
- Reflective journal with explanation for how it will be used and the first reflection prompt

CWG Meeting #1 Agenda:

- Reflection Prompt Discussion

- Introduction of the Study
- Purpose
- Expected Outcomes
- Participants' role as researcher
- Results of the Survey
- Review
- Participant ideas of implications for action
- Overview of the IC Matrix
- Review of the components
- Explanation of the research base and process for the development of each component
- Overview of federal, state, and local requirements
- Outline of the CWG #2 case study activity and assignment to subgroup
- Purpose
- Subgroup A: What to teach – IEP goals and objectives
- Subgroup B: How to teach – lesson plan development
- Reflection prompt for next meeting

Data Collection:

- Summary of participants' ideas following the review of survey results
- Summary of notes of reflective journal prompts
- My analytic memo following the workgroup

Phase #3: CWG Meeting #2

Purpose: To examine the identified best practices for the instruction of SSCD through a case study review.

Subgroup A: Focus on What to Teach: IEP Development

Subgroup B: Focus on How to Teach: Creating a Lesson Plan

Step(s) of the PAR Process: Measure and Reflect

Participants: Each group will have at least 4 participants

Meeting Logistics:

Each subgroup will meet separately.

Scheduled 1-2 week after CWG #1.

60- 90 minutes in length to be held after teachers' workday.

In person at a time and location mutually agreed upon by the participants of the subgroup with a meal provided.

Materials:

Materials will be sent electronically 2-3 days prior to the meeting. In addition to materials presented at CWG #1:

- Revised agenda (if necessary)
- Template to complete task with hyperlinks to electronic resources such as:
- Dynamic Learning Maps Resources
- DISTRICT A Grade level Curricular ELA and Math Documents
- DISTRICT A checklists for IEP development
- Unique Learning Systems
- MDIEP resources

- ABLLS and AFLS resources

Agendas:

Agenda for Subgroup A:

- Reflection Prompt Discussion
- Participants' consensus of essential components of "what to teach"
- Overview of expected outcomes:
- Develop the IEP PLAAFPs and the goals and objectives for the hypothetical student identified in the case study using the tools and template provided.
- Brainstorm a list of PD needs teachers of SSCD will have to complete this process for any SSCD.
- Overview of materials to be used (case study, instructional resources)
- Work Session (individually or with a partner)
- Collaborative Discussion to brainstorm a list of PD needs.
- Reflective journal prompts

Agenda for Subgroup B:

- Reflection Prompt Discussion
- Participants' consensus of essential components of "how to teach"
- Overview of expected outcomes:
- Develop an explicit lesson plan for how to provide required instruction to the hypothetical student in the case study using the tools and template provided.
- Brainstorm a list of PD needs teachers of SSCD will have to complete this process for any SSCD.
- Overview of materials to be used (case study, instructional resources)

- Work Session (individually or with a partner)
- Collaborative Discussion to create a list of PD needs.
- Reflective journal prompts

Data Collection:

- Summary of notes of reflective journal prompts
- Participants work with the case study
- Summary of participant reflections
- My analytic memo following the workgroup

Phase #4: CWG Meeting #3

Purpose: Develop a PD Framework for all teachers of SSCD, to include barriers and potential solutions.

Step(s) of the PAR Process: Act and Reflect

Participants: CWG participants identified in phase #2.

Meeting Logistics:

- Scheduled approximately 1 week after the CWG #2 meetings are concluded.
- 60- 90 minutes in length
- To be scheduled virtually at a mutually agreeable time via Microsoft Teams after the teachers' workday

Materials:

- Summary of subgroup work
- Planning routine protocol for determination of PD components, potential barriers, and activities and supports

Agenda:

- Reflection Prompt Discussion
- Sharing of subgroup meeting outcomes
- Overview of thinking routine process to be completed for each portion
- Individual process
- Partner process
- Group process
- Create PD Framework using the planning routine protocol
- Explanation of the upcoming Member Check
- Thank participants for their participation.

Planning Routine Protocol
to Develop a Framework for PD for the Instruction of SSCD in DISTRICT A

Step #1: Individual -10 minutes: Each participant will independently reflect on the survey, the two previous CWG meetings and their reflections and identify the necessary elements for that phase.
Step #2: Partners – 10 minutes: Participants will work as a pair to share their individual findings and agree to the necessary elements.
Step #3: Group – 10 minutes: Participants will work as a group to share their individual findings and agree to the necessary elements.

The routine will be repeated for each of the three factors necessary for inclusion in the PD framework:

1. Identification of essential components of PD
2. Identification of potential barriers
3. Identification of PD activities and supports

Data Collection:

- Summary of notes of reflection prompts
- Draft PD Framework template
- Notes from Member Check
- My analytic memo following the workgroup

Appendix O

Survey of Special Education Teachers of SSCD in District A

(Note: The formatting of these questions looks different when they are presented in the online survey.) To visit the online survey: https://forms.gle/r5fcyZW9Zk2P9NV6A

Providing Instruction to Students with Significant Cognitive Disabilities

Thank you for your interest in this anonymous and confidential survey. I am conducting this survey to obtain information about current instructional practices for students with significant cognitive disabilities (SSCD) in the District A Public School System.
**For purposes of this survey, a SSCD is defined as a student currently accessing alternate academic standards and/or participating in the alternate assessment.
You are receiving this survey because you have been identified as a teacher who is currently providing instruction to at least one SSCD. Your knowledge of the unique instruction these students require is important to understanding current practices.
This survey, consisting of five sections, will take you no more than 10-15 minutes to complete.

Section 1 asks a few questions about your teaching experience.
Section 2 presents a list of evidence-based practices for SSCD. For each practice, you will be asked to rate your level of understanding, level of use; and if you would like additional professional development (PD) on that topic.
Section 3 presents instructional content areas (e.g., reading, math, etc.) and asks you to indicate about how many SSCD you teach who receive instruction in that content area. You will also be able to indicate if you would like PD in any of the areas.
Section 4 presents a list of educational supports and asks you to indicate which are available when providing instruction to SSCD.
Section 5 offers you the opportunity to anonymously share any comments about the instruction of SSCD you feel are important to share.

I encourage you to be honest and thoughtful in your responses. All information you submit will remain completely anonymous and results will be summarized and presented in the aggregate so your identity and that of your school will be unknown.

There are no known risks nor no known benefits to you if you participate in the survey, as there is no means of linking responses to participants.
It is my hope that the results of the study may help inform of the current challenges faced by teachers of SSCD and offer suggestions on how to provide sustainable professional development for teachers to deliver individualized and integrated academic and functional skill instruction to any student with a SSCD.
To thank you for your participation and assistance with my study, I will be conducting a drawing for a $15 gift card to Wawa. After completing the survey, if you wish to be entered into the

drawing, please send an email to me at stephansonj@calvertnet.k12.md.us, with your name and a code found at the end of the survey.
Participation in this study is completely voluntary and your decision to participate or not participate will not have any effect on your employment, reputation, or standing with District A.

If you have any questions about your rights as a research participant, please contact:
University of Maryland College Park
Institutional Review Board Office
1204 Marie Mount Hall
College Park, Maryland 20742
E-Mail: irb@umd.edu
Telephone: 301-405-0678
For more information regarding participant rights, please visit:
https://research.umd.edu/irb-research-participants.
This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.
Please reference IRBNet Package number 1991529-1.

Thank you again for your participation. If you have any questions about the survey, please contact me.

Janet Stephanson
stephansonj@calvertnet.k12.md.us
301-752-9254
By clicking yes below, you acknowledge that your participation in this study is voluntary, you are 18 years of age, and you are aware that you may choose to terminate your participation at any time for any reason. You may wish to save/print a copy of this consent form for your records.

Section 1: Teaching Experience: Please provide information about your teaching experience.
For how many years have you been a special education teacher?
() 1-3 years
() 4-10 years
() 11-15 years
() more than 15 years
How many years have you taught at least 1 student with a significant cognitive disability? (It does not have to be continuous)
()1-3 years
() 4-10 years
() 11-15 years
()More than 15 years
Which grade level are you currently teaching?
() elementary school
() middle school
() high school
Which of the following best describes your current role as a teacher of SSCDs?
() I am a special education teacher in a regional program, providing instruction to SSCD.
() I am a case manager for one or more SSCD, but don't directly provide instruction to any SSCD.
() I am a special education teacher who provides instruction to at least one SSCD in a separate self-contained setting, but not in a regional program.
() I am a special education teacher who provides instruction to at least one SSCD in collaboration with a general education teacher primarily in a general education setting.
() Other:

Section 2: Understanding and Use of Evidence Based Practices
This section will ask you to rate your understanding and use of evidence-based instructional practices for SSCD. You may also indicate whether you believe PD is needed related to the practice.
Definitions of each practice are provided below for your convenience:
Systematic Instruction: Teaching focused on specific, measurable responses that may either be discrete or a chained task, and that are established through the use of defined methods of prompting and feedback based on the principles and research of applied behavior analysis (ABA). (Brown et al. ,2020 and Collins, 2022). Specific techniques include prompting and fading procedures such as time delay and the system of least prompts, reinforcement, task analysis, discrete trial, and generalization.
Self-Directed Instruction: Teaching students to set goals, self- monitor, self-evaluate, and self-reinforce both behavioral and academic performance.
Peer Tutors: A same aged peer without disabilities delivers instruction to a SSCD.
Technology Interventions: Using a variety of assistive and instructional technologies to teach academic and functional skills to SSCD. Some examples include video modeling, video prompting, and computer assisted instruction (e.g., use of e-books, use of mobile devices).
For each practice, please indicate which of the following best describes your understanding and use of each EBP:
() I've never heard of this practice.

() I've heard of it, but don't understand how to implement this practice.
() I understand how to implement some of the components of this practice
() I understand how to implement this practice but am not currently doing so.
() I understand and use this practice daily.
() I fully understand and use all components of this practice daily and am confident I can teach others how to use it.
Practices: Systematic instruction, self-directed learning, peer tutors, and technology interventions.

(NOTE: In the electronic survey, this is presented in a table with the practices on the vertical axis and the descriptions of teacher experiences on the horizontal axis. Participants check the appropriate description for each line of the table).

Please select any evidence-based practice for which you would like additional PD.
() Systematic Instruction
() Self-directed learning
() Peer Tutors
() Technology Interventions
() None of the above

Section 3: Instructional Content:
In this section, you will be presented with instructional content areas and asked to indicate how many of the SSCD you teach receive instruction in each of the listed content areas.
* If you are a teacher in a regional program (i.e., ISLE or Functional Skills), only complete the first question.
** If you provide instruction to a SSCD outside of a regional program, only complete the second question.

For Regional Program Teachers ONLY: For each content area, select the option which most closely reflects the percent of SSCD on your caseload who receive instruction in this content area.
() I don't provide instruction in this content area to any of my students.
() I provide instruction in this content area for 1%-2% of my students.
()I provide instruction in this content area to more than 20% but less than 50% of my students.
()I provide instruction in this content area to more than 50% but less than 75% of my students.
() I provide instruction in this content area to more than 75% but less than 100% of my students.
() I provide instruction in this content area to all of my students.

Content Areas: Literacy: Reading; Literacy Writing; Mathematics, Science, Social Studies, Daily Living Home Skills (e.g., Cleaning), Daily Living Self-Care, Vocational Skills, Community Based Instruction, Self-Determination, Communication, Social Skills.
(NOTE: In the electronic survey, this is presented in a table with the content areas on the vertical axis and the descriptions of teacher experiences on the horizontal axis. Participants check the appropriate description for each line of the table).
For teachers / case managers of SSCD NOT providing instruction in a regional program: For each content area, select the option which most closely reflects the amount of SSCD(s) receiving

instruction in that area (the instruction can be provided by someone other than you). For each row, select only one response.
() None of the SSCD(s) I teach/case manager are receiving planned instruction in this area.
() Some of the SSCD(s) I teach/case manager are receiving planned instruction in this area.
() All of the SSCD(s) I teach/case manager are receiving planned instruction in this area.
Content Areas: Literacy: Reading; Literacy Writing; Mathematics, Science, Social Studies, Daily Living Home Skills (e.g., Cleaning), Daily Living Self-Care, Vocational Skills, Community Based Instruction, Self-Determination, Communication, Social Skills.

(NOTE: In the electronic survey, this is presented in a table with the content areas on the vertical axis and the descriptions of teacher experiences on the horizontal axis. Participants check the appropriate description for each line of the table).
Please check each instructional area for which you would like additional PD.
() Literacy: Reading
() Literacy Writing
() Mathematics
() Science
() Social Studies
() Daily Living Home Skills (e.g., Cleaning)
() Daily Living Self-Care, Vocational Skills
() Community Based Instruction
() Self-Determination
() Communication
() Social Skills

Section 4: Supports

In this section, you will be asked to indicate if you are utilizing identified supports for the SSCD you teach/case manage.
Please check all of the practices in place to support your students.
() Team planning for SSCD at least quarterly.
() Assistive technology (e.g., augmentative and alternate communication, reading and writing supports such as text to speech or speech to text) is provided to SSCD, as needed.
() Planned peer supports are in place to support SSCD.
() Instruction in an inclusive setting is an important part of the program for SSCD.
() Positive Behavior Support is an important part of the instructional plan for SSCD.
() Home School Collaboration between the teacher/case manager and the parents / family occurs at least weekly.

Section 5: Comments

Please use this section to indicate any comments you would like to share regarding the instruction of SSCD.

*** This will only be shown to participants upon completion of the survey.*
Thank you for completing this survey!
If you are interested in being entered into a drawing to win a $15 gift card to WaWa, please email me at stephansonj@calvertnet.k12.md.us with the code: SSCD2023.
If you would like a summary of the results or have any questions, please contact me at **stephansonj@calvertnet.k12.md.us**.

Appendix P

Analytic Memo #1

Survey

Background and Overview

The survey was designed to answer two of the four research questions for the study. The first was to understand the level of knowledge of the essential components of instruction for SSCD special education teachers report they have and the second is to determine the extent to which special education teachers of SSCD report they incorporate best practices into the instruction provided to SSCD, as identified through the Innovation Configuration developed by Browder et al., 2014.

The survey was sent to 34 teachers known to be providing instruction to at least one SSCD in DISTRICT A. The email with information about the survey was sent three times to this group of teachers between February 4, 2023 and March 4, 2023. This was longer than I had intended for it to be available; however, I continued to hope for additional participants. Additionally, I had interactions with several teachers through the course of the month who indicated they intended to complete the survey, but "kept forgetting". Nineteen teachers completed the survey, for a 56% completion rate. As much as I would have liked to have a larger completion rate and contemplated sending a fourth email asking teachers to complete, I understand the amount of work teachers have and worried about adding one more thing to their already overflowing plates. I did a quick "google search" looking for an acceptable response rate to a survey and several sites indicated 25% is good and 50% or more is considered an excellent response rate

(educationscientists.com, smartsurvey.co.uk, surveymonkey.com,), so I am choosing to move forward with this number.

I chose to make the survey completely anonymous because I did not want teachers to be hesitant to share true responses due to a possible perception that their lack of knowledge of the evidence-based practices or capacity to use them would result in judgement or repercussions for their job.

Analysis of the Survey Responses

The following themes stand out for reflection.

Understanding and use of Systematic Instruction - Teachers reporting that they have a stronger understanding of evidence -based practices than they truly do. For example, the majority of participants (74%) indicated they understand and use systematic instruction daily; however, during classroom visits as the Supervisor of Special education, I am not seeing things such as task analytic instruction, planned prompting systems such as simultaneous prompting, time delay, or system of least to most prompts. Additionally, although some training on systematic instruction has been provided to staff of regional programs, there has not been a comprehensive training in which each of the techniques have been reviewed, practiced, and followed up with. Within my tenure in DISTRICT A, training for teachers on systematic instruction outside of regional programs has not occurred. So, if 74% of teachers are understanding and using this practice daily, where did they learn to provide it? The concern I am left with is that teachers may be thinking of systematic instruction in general terms, as opposed to the research-based instructional approaches originating from the principles of applied behavior analysis (e.g., Collins, 2022).

Peer Supports – Peer tutors were an EVP for how to teach. Only 47% of teachers indicated this is something they both understand and use to provide instruction to their students; but an

additional 37% indicate they understand the practice but are not currently using it, and only four of the 19 teachers felt this was an area of need for future PD. Additionally, planned peer supports is identified as an important form of how to support SSCD. Only 42% of teachers indicate they are using peers to support the instruction of their students. My reflection of this is that teachers do not feel they have access to use peers as part of the instructional program for their SSCD, despite the research, as identified by Browder et. al (2014) showing the effectiveness for SSCD and the ability for peers without disabilities to either improve or maintain their academic performance while still providing supports to peers with significant cognitive disabilities.

Self-Directed Learning and Self-Determination – 63% of teachers indicated they understand how to implement self-directed learning strategies and 74% of teachers (combined between regional program and non-regional program) indicate they teach self-determination to their students (89% of regional program teachers provide instruction to all of their students and 54.6% of teachers not in regional programs report that their SSCD receive self-determination instruction). In a quick review of IEP goals and objectives for students accessing alternate standards in DISTRICT A, the goals potentially related to self-determination, focus on providing instruction on task completion, which may focus more on "compliance" as opposed to self-determination. A very small number of IEPs have goals related to "goal setting", "self-management" or "choice making" and none of the IEPs addressed any of the other areas of self-determination defined by Wehmeyer (2005) and outlined in the survey (i.e., decision making, choice making, self-advocacy, self-awareness, and problem solving). Additionally, self-directed learning and self-determination strategies are the areas for which the largest number of teachers indicate they would like additional training. This information gives me pause, thinking that teachers require

significant professional development on what self-determination is and how to effectively incorporate into the daily instruction for students. I am also thinking there is a difference between regional program teachers and teachers not providing instruction in a regional program, as teachers in regional programs report they are teaching self-determination, yet teachers who are not teaching regional programs feel they don't have the ability because their students are not in a "program" for which instruction outside of academics could occur, as only 27.3% of teachers outside of regional programs report that all of their SSCD are receiving instruction in self-determination. This is actually concerning for special education in general, as research shows the importance of teaching self-determination for all students with a disability.

Grade-level academic instruction - There has been a requirement for all students to receive grade-level academic instruction ever since the initiation of alternate assessments, dating back to the 1997 amendments to IDEA. For the past several years, in professional development, guidance on IEP development for teachers, and guidance on IEP development for administrators, the DISTRICT A Special Education Department has reviewed this requirement many times and we have even provided individualized guidance to IEP teams after monitoring for non-compliance in this area. I was, therefore, very surprised to see that the majority of teachers report they aren't providing grade level academic instruction. Combining the reports from regional program teachers and teachers outside of regional programs: 6 of the 19 (32%) teachers report they are providing grade level ELA: reading instruction to all of their SSCD; 2 of the 19 (11%) teachers are providing grade level ELA: writing instruction to all of their SSCD; and 3 of the 19 (16%) teachers are providing grade level math instruction to all of their SSCD. Additionally, only 4 teachers (21%) indicated they require PD in grade level reading and writing and only 6 teachers (31.6%) indicate they require PD in grade level math instruction. I would

have predicted that based on the guidance and training indicating the requirement for grade level ELA and math instruction, and the fact that so few teachers report they are providing it, there would be a larger number of teachers asking for training in this area. I'm anxious to bring this discussion up during the collaborative work group meetings to determine if the teachers have thoughts about this.

Daily Living Skills – Based on a couple of comments in the survey and comments teachers have made to me over the years, there may be a belief in DISTRICT A, that for students to receive instruction in skills related to daily living, that placement must be in a regional program. Results of the survey confirmed this, as the majority of teachers in regional programs (89%) report they are teaching daily living self-care and daily living home living to all of their students while the majority of teachers not in regional programs report that none of the SSCD they case manage are receiving instruction in these skills: daily living home (91% report their students aren't receiving this instruction), daily living self – care (73%), vocational (82%) and community based instruction (82%). Additionally, very few teachers indicated they would like training in these areas.

In a quick review of IEP goals and objectives, what I found was that only 16% of the 56 IEPs I reviewed had goals related to daily living – home skills and 1% of the 56 had goals related to daily living- self-care skills. Could this misconception be that teachers are confusing the supports they provide to students (e.g., creating a bathroom routine, assisting students with toileting) as instruction provided to them? This will be something to explore in the collaborative work groups.

Limitations of the Survey

After reviewing the results of the survey, I realized a few limitations.

For teachers not in regional programs, it may be helpful to know how many students they are case managing (for example, there is only one student in elementary who is not in a regional program). Many teachers only have one student.

I was somewhat surprised that more teachers didn't indicate a need for more professional development. I wonder if the question would have been more effective if instead of what areas would you like additional PD, if it asked, " What additional PD areas do you feel you need to better serve your students?"

The survey didn't ask teachers in which areas they are implementing evidence-based practices. For example, for teachers who are implementing systematic instruction, are they implementing it for academics and daily living?

Two teachers provide instruction to students who are 18-21 in a more vocationally based program. The focus for the students in this program is different than the programs for our students in school-aged programs. The information they provided may have skewed the data just a little.

Action Plan / Follow up Questions for Work Group

The Collaborative work groups will hopefully provide additional information on the analysis of the survey. At the first meeting, I will be providing a summary of the results for each question and will be asking for reflections and how the results provide implications for the development of the PD framework. To stay true to the Participatory Action Research format of the study, I will be careful to simply add to the observations and hopefully get clarity on the questions raised through the analysis. Specifically in regard to the themes outlined above.

Appendix Q

CWG Meeting #1 Agenda

Collaborative Work Group Meeting #1: March 7, 2023

Purpose: To provide an overview of the CWG process, to review the results of the survey, to review current research findings and federal and state legislation, and to obtain participants' reflections.

Reflection Prompt: *As you provide instruction to your students, reflect on how you determine the priority areas of instruction for both grade level academic skills as well as the functional skills of communication, self-determination, and independent living skills. Do the IEPs of your students reflect all of these areas? What are the strategies you are using to provide instruction?*

Agenda:

Time	Topic
5:00-5:15	**Reflection Prompt Discussion**
5:15-5:25	**Introduction of the Study:** Research Study Synopsis.docx • Purpose • Expected Outcomes • Participants' role as researcher
5:25-5:40	**Results of the Survey** Survey Summary.docx • Review Survey results • Discussion: Implications for Action
5:40-5:55	**Overview of the Innovation Configuration: Evidence Based Practices for Students with Severe Disabilities** • Full Document: Innovation Configuration - Evidence Based Practices for Students with Severe Disabilities.pdf • Matrix: Innovation Configuration Matrix.pdf
5:55-6:10	**Overview of Federal and State Guidelines** • MSDE Technical Assistance Bulletin #19-07: Improving Outcomes for Students with Significant Cognitive Disabilities: Eligibility, Instruction, and Assessment: TAB-19-07-2.23_A.pdf • Alternate Education Framework: Guidance for IEP Teams Working with Students with Significant Cognitive Disabilities: Assessment, Instruction, and Placement: Alt. Ed. Framework Guidance for IEP Teams.pdf • TIES Center Tip #14: Academic Standards for Students with Significant Cognitive Disabilities in Inclusive Classrooms: Same Content Standards, Alternate Achievement Standards: TIES Tip #14.pdf • MSDE: Early Intervention and Special Education Services: Alternate Education Framework Audit Tool: Audit Tool.pdf
6:10-6:20	**Overview of Case Studies for CWG #2**
6:20-6:25	**Reflection prompt for Next Meeting**
6:25-6:30	**Process the Meeting**

All documents for CWG Meeting #1 can be found here: CWG #1

Appendix R

Analytic Memo #2

CWG #1

Overall Reflection of the Meeting

In this second phase of my study, the Collaborative Work Group (CWG), my intended purpose is to collaborate with nine special education teachers, currently serving as the case manager for at least one SSCD to create a Professional Development framework for any teacher of a student with a significant cognitive disability. The first meeting was very challenging to schedule at a time that was convenient for all teachers due to participant schedules. It was held via Microsoft Teams and with participant permission was recorded via the TEAMS platform. The purpose of this meeting was specifically to provide a review of the results of the survey, provide an overview of the CWG process, expectations for participation, and arguably most importantly, to get participant reflection on how their current teaching aligns with the research surrounding best practices and legal requirements.

Going into the meeting, I was a little worried that having teachers with different experiences (e.g. teachers of regional programs and teachers providing much of their instruction in the general education environment would be a challenge, as they would have different understandings and beliefs; however, the dialogue among participants was rich and collaborative and for the most part, it affirmed my thoughts about the needs of students, the understanding of the teachers, and the barriers they are facing with providing students with the instruction they need. In reflection, I think having both perspectives allowed for even richer discussion.

Logistically, despite the challenge of finding a date, the meeting went very well. Due to daycare needs, one participant attended the meeting from her telephone and kept her camera off

due to the need to be with her children. While this is understandable and allowed her to still participate, it was not as effective as it would have been if she were able to fully attend.

The meeting lasted just a few minutes over 90 minutes. Due to the rich discussion, I feel the meeting could have continued for much longer, but to honor the time commitment of participants, we ended after about 95 minutes. I provided teachers with the opportunity to reach out to me with any additional thoughts or concerns.

Before going into each agenda item, one overarching conversational tangent that continued to be present was discussion about concerns with inclusion. While the purpose of this dissertation is specifically about the instruction that is provided, I am finding that it will be important to highlight potential differences in how PD is targeted for teachers, depending on the specific environment their students are being instructed in. Based on some of the staff comments, a likely consideration in moving a PD framework forward is to acknowledge that the school's master schedule, teacher' instructional assignments, the planning and the time and place for collaboration must be a continuous discussion with each school's administration.

Analysis of Each Agenda Item:

Reflection Prompt: The reflection prompt was provided three days prior to the meeting with the hope that teachers would take time during their daily instruction to think about it while they were actually providing the instruction. The reflection prompt for this meeting asked for general reflection about the content that is administered, the strategies used to provide instruction, and the content of IEPs. Some teachers used the journals that were provided to them, and others did not. I was slightly disappointed that only three of the nine teachers chose to share anything during this reflection time. There did seem to be agreement or affirmation as people spoke, but little discussion during this part. It may be that it was the first time they were all

together and therefore staff may have been slightly uncomfortable sharing. All three teachers shared they using the Dynamic Learning Maps resources to plan for instruction aligned to grade level content. Teachers M2 and E1 presented positively with how to determine academic instruction for her students, while teacher H1 was slightly more negative in her explanation of how grade level academic instruction can occur, stating that at the high school level, it becomes more difficult to adapt the material because of the larger gap in the ability of students to the expectations of grade level material. In the explanation of instruction toward functional skills, teacher M2 shared how she uses the Assessment of Functional Living Skills as a starting place to determine instruction, and then bases the determination of what to teach on how it practically fits into her students ability to be independent and to advocate for themselves. Teacher E1 agreed with the prioritization, but shared her struggle to prioritize what is important to add to the IEP. This makes me think perhaps we are not providing teachers who are not regional program teachers with the resources and guidance to effectively provide instruction of non-academic skills. It may also be that outside of a regional program, teachers don't believe they are able to dedicate time to teach these skills. It was affirming to hear that all three teachers did agree independence and self-advocacy were the important things to address. Teacher M2 was the only teacher who shared anything about the strategies used. She was specific about the types of instructional strategies, most being elements of systematic instruction, and she spoke with knowledge about the procedures, the terminology, and how to apply with students. This teacher is working towards obtaining BCBA certification, leaving me to wonder if other teachers would have the same ability to speak about the instruction they are providing and actually provide the level of instruction. Since she was the only one who shared, I can't verify if that is accurate.

Review of the results of the survey: I provided the summary of the survey to participants three days in advance of our meeting via email, explaining that it was not an expectation for them to review before we met, but it was available to them if they wanted to. In our discussion, it did not appear that teachers had looked at the survey ahead of time. This made me wonder if perhaps I should have made reviewing materials ahead of time an expectation of the study. The feedback they provided was valuable, but it took some time for them to orient to the document and specifically to what the information was explaining. After this discussion, two major points were worth noting:

1. Confusion surrounding the term "grade level instruction" for ELA and math. As indicated in Analytic Memo #1, I was surprised that about ½ of respondents indicated they are not providing grade level ELA instruction and grade level math instruction. When this was discussed with the CWG, two teachers explained that teachers may not realize that instruction based on the essential elements (alternate standards) provides grade level instruction. Teacher M2 shared that there does exist misunderstanding in the fact that alternate standards are not different content standards and teachers need training to understand that the expectation for instruction is that the content is the same, but the teaching is scaffolded and modified. Teacher H2 explained that in the high school, there is such difference between the way instruction is provided to students who are not accessing alternate standards and those who are, that it does not seem to be the same thing at all. This conversation leaves me with the understanding that teachers require a great deal of training on what the difference between content and achievement standards are, but more importantly, the need to provide instruction that is modified and scaffolded in a way that does provide real access to grade level content.

2. Agreement and affirmation that a professional development framework is necessary. Teacher M1 stated that her reflection of the inconsistency between teacher responses shows how badly a framework is needed for all teachers, even those like her, who have been doing it for a while. Nods of agreement were noted by many teachers and at least two teachers affirmed this orally and one did so in the chat of the TEAMS meeting.
3. The need for increased training, support, and collaborative planning for instructing SSCD in the general education environment. I explained at the beginning of the meeting that student placement was not the topic of this dissertation; however, I acknowledged that it can't be ignored, and we may find that the PD needs of teachers may vary based on where they are providing the primary instruction for their students. There was consensus among the CWG teachers that this is true. Teacher M3 expressed a large and pressing need to provide training and obtain "buy-in" from general education teachers is essential, as special education teachers can't do it alone. Teacher E3 expressed a major need for additional planning, collaboration, and support for the use of resources with general education teachers, even if students are in regional programs. Teacher M1 agreed with this, sharing that it wasn't happening to her until a reading specialist invited her into the planning, but it needs to be happening more deliberately.

Overview of IC Matrix: Teachers agreed with the components of the IC Matrix as being important elements to move forward with. The only two areas of the matrix which generated conversation were teaching independent living skills and the support of peers / peer tutors.

1. Teaching independent living skills. Teachers appeared to agree that these are skills that require deliberate instruction for SSCD; however, concerns were brought up in two areas:

a. Parents may not agree that instruction needs to occur. Teacher M1 shared that she has had parents become defensive when it is brought up that students need to learn these skills and don't want them addressed on the IEP. This brought up a conversation about the need for teachers to be able to develop partnerships with the parents of their students to be able to address these skills in a productive manner. In reflection, this may need to become a part of the PD framework. All teachers have not had experience or training in how to develop those collaborative relationships.

b. Difficulty addressing certain independent living skills in a general education environment. Teacher M2 shared how being a teacher of a regional program, she is able to provide students with instruction on independent living skills in a separate environment which maintains their dignity. She expressed that it is stigmatizing for instruction on things like teeth brushing to occur in an environment with peers. Teacher M3 shared that the one student on her caseload who is accessing alternate standards does not receive instruction in a regional program and because of that, his opportunities to receive instruction on independent living skills are minimal because it isn't appropriate to teach them in a general education setting, to allow him to "save face". Teacher M2 shared that she feels her students are able to be more independent because the time to teach these skills are built into the daily instructional plan of a regional program. Teacher M3 elaborated by saying that IEP teams don't often include goals related to independent living skills on their students' IEPs because they know they don't have the ability to provide instruction on it. I believe the teachers were inclined to

debate the pros and cons of inclusion for this reason; however, I see it as two additional training pieces. The first being that we need to ensure the IEPs are addressing these essential skills and we need to provide training on how to incorporate into the schedule for students.

c. Prioritizing Skills. Additional discussion occurred around how teams need to determine how all skills can't be taught and it may be necessary to provide some training on how teachers should prioritize skills related to independent living.

A side note reflection on my part is that the students in Teacher M2's class in which she has a designated time for teaching independent living skills such as teeth brushing, don't have any independent living skills on their IEPs. They do have skills aligned with community based instruction; however, which is not currently provided to students who are not receiving instruction through a regional program.

2. Peers. All teachers agreed that the use of peers is an effective way of providing instruction and support for students. There was also agreement that training for peers should be a part of the day to encourage age appropriate relationships. One of the areas that was most concerning to teachers was how peers refer to the students as "the ISLE students" . Teacher E3 shared that one of the general education teachers in her school directs "the ISLE students" to sit in the back of the classroom. Teacher H3 shared that she and other staff at her school have provided some training to peers on how to proactively engage with kids, how to respond to inappropriate behaviors, and when they need to get the help of an adult to intervene. Teacher M2 shared that she also does a training with peers in the established "Best Buddy" program which is an actual class that

occurs in the regional program daily, in which students without disabilities interact with the SSCD in social games and then go to lunch together.

3. Inclusive Environment – The inclusive environment is one of the elements in "how to support". Several teachers brought this up as a need to provide training in collaboration with general education staff on how best to support students. Teacher H2 shared that as a case manager, she believes training would have to be provided to her on how to best provide the general education teachers with what they need and set up processes for how to collaborate. She stated that everyone is well – intentioned, but it is just not clear how to do this so everyone can be successful. Teacher H1 expressed her concern for offering inclusion when the school society is not ready. She shared that it is difficult for SSCD who may have been in self-contained environments since they were very young who are able to accept and deal with their disability to then begin to access a general education setting and have to experience teasing and bullying relationships with peers.

The debate about whether students should be in general education or shouldn't be in general education is broader than the intent of this dissertation. The intent is to determine the needs of teachers to provide the best instruction for students in whichever environment they are currently in. However, as inclusive environments is a component of the IC Matrix, this conversation provides an understanding that special education teachers of SSCD need to be trained in the important elements of what supports in the general education environment are imperative so students can be as successful as possible.

Action Plan / Next Steps

I think it was difficult to ensure everyone's voice was heard with a virtual TEAMS meeting. I'm hoping that the next meetings being in person will allow for all teachers to participate. I think

one area of reflection for the next meeting is that I may have tried to present too much information in too short of a time period. I will have to keep that in mind for the next meetings and try and stick to the time frame set in the agenda and to be realistic about just how much can be accomplished. To summarize the conversations above, the following considerations should be included with the PD Framework:

- What IS grade level instruction
- Importance of collaboration and how to do it
- Prioritization of independent living skills
- Teaching independent living skills in the general education environment
- Best practices (EBP) for inclusion of SSCD

My last note to reflect on is the continued discussion on the benefits of providing instruction in the general education environment. All teachers indicate that it is so important for training to occur with general education staff. The differences between instruction in the general education environment and the regional program came up several times in the discussion, leading me to realize that it will be more difficult than I was hoping to set up a PD plan that can effectively separate instruction from placement.

Appendix S

CWG Meeting #2 Agenda

Collaborative Work Group Meeting #2: How to Teach: March 23, 2023

CWG Team Members:

Purpose: To examine the identified "How to Teach" best practices for the instruction of SSCD through a case study.

Steps of the PAR process: Measure and Reflect

Reflection Prompt: *Think about the evidence-based practices in the IC Matrix by Browder et al, 2014. Do you consider these to be essential components of instruction for your students? Are you using all, some or none of these as you provide instruction to your students? If you are using some or all, how is it going? If you are not using them, why not? Are there practices you don't feel are essential components for instruction? Why?*

Time	Topic
5:15-5:30	**Reflection Prompt Discussion and Dinner**
5:30-5:40	**Reminders:** • PAR Process and Participant's role as researcher • Confidentiality • Definition of Professional Development: Definitions and Commonly used terms.docx

5:40-5:45	**Overview of the Case Study Activity and Review of Materials**
	• Purpose
	• Expected Outcomes:
	  ○ Develop an explicit lesson plan for how to provide required instruction to the student of the case study.
	  ○ Brainstorm a list of PD needs to complete this process for any SSCD.

5:45-5:55	**Review and Discussion of IC Matrix Best Practices for What to Teach** Full Document: Innovation Configuration - Evidence Based Practices for Students with Severe Disabilities.pdf Matrix: Innovation Configuration Matrix.pdf • Clarifications • Questions
5:55-6:00	**Possible Instructional Resources:** • DLM Essential Elements: Maryland | Dynamic Learning Maps • Grade level Curricular Schoology Resources • Math Alignment Documents (Secondary) - Schoology • ELA Alignment Documents (Secondary) - Schoology • Unique Learning Systems • MSDE: Alternate Education Framework: Guidance for IEP Teams • Alternate Standards Framework Schoology • Special Education PD Schoology • ABLLS (elementary) • AFLS (secondary)
6:00-6:30	**Work Time**

6:30-6:40	**Discussion:** • What are the barriers? • What are the PD needs?
6:40-6:45	**Process the Meeting and Reflection Prompt #3**

All documents for CWG Meeting #2: How to Teach can be found here: CWG #2 - How to Teach

Collaborative Work Group Meeting #2: What to Teach: March 16, 2023

CWG Team Members:

Purpose: To examine the identified "What to Teach" best practices for the instruction of SSCD through a case study.

Steps of the PAR process: Measure and Reflect

Reflection Prompt: *Think about the evidence-based practices in the IC Matrix by Browder et al, 2014. Do you consider these to be essential components of instruction for your students? Are you using all, some or none of these as you provide instruction to your students? If you are using some or all, how is it going? If you are not using them, why not? Are there practices you don't feel are essential components for instruction? Why?*

Agenda:

Time	Topic
5:00-5:15	**Reflection Prompt Discussion and Dinner**
5:15-5:20	**Reminders:** • PAR Process and Participant's role as researcher • Confidentiality • Definition of Professional Development: Definitions and Commonly used terms.docx
5:20-5:25	**Overview of the Case Study Activity and Review of Materials** • Purpose • Expected Outcomes: o Develop PLAAFPs and goals and objectives for the student identified in the case study. o Brainstorm a list of PD needs to complete this process for any SSCD.
5:25-5:35	**Review and Discussion of IC Matrix Best Practices for What to Teach** Full Document: Innovation Configuration - Evidence Based Practices for Students with Severe Disabilities.pdf Matrix: Innovation Configuration Matrix.pdf • Clarifications • Questions
5:35-5:40	**Possible Instructional Resources:** • DLM Essential Elements: Maryland | Dynamic Learning Maps • Grade level Curricular Schoology Resources • Math Alignment Documents (Secondary) - Schoology • ELA Alignment Documents (Secondary) - Schoology • Alternate Standards Framework Schoology • Special Education PD Schoology • ABLLS (elementary) • AFLS (secondary)

	• Unique Learning Systems • MSDE: Alternate Education Framework: Guidance for IEP Teams • MSDE Audit Tool	• PLAAFPs_CHECKLIST_Rev._Feb_2020_Alternate (1).docx
5:40-6:05	**Work Time**	
6:10-6:25	**Discussion:** • What are the barriers? • What are the PD needs?	
6:25-6:30	**Process the Meeting and Reflection Prompt #3**	

All documents for CWG Meeting #2: What to Teach can be found here: CWG #2- What to teach

Appendix T

"What to Teach" Case Study Activity and Notes Template

"What to Teach" Case Study
Elementary

Student: Alaine
Grade: 4th grade
Disability: Intellectual Disability
Background: Alaine has been receiving services as a student with autism since she went through the Infants and Toddlers Program when she was 2 years old. She was determined eligible to access alternate academic achievement standards and participate in the AA-AAAS as a Kindergarten student.
Scores on the 2022 administration of the AA-AAAS (See attached test report for details):

- ELA: Emerging
- Math: Emerging

Highlights from Most recent formal and informal assessments (February 2023):

Math:

- **Formal Assessment (Woodcock Johnson IV Tests of Achievement)**
  - All math scores (calculation, math facts fluency, and applied problems) were below 40. No strengths or weaknesses were noted.
- **Informal Assessments (ABLLS-R)**
  - Strengths
    - Names numbers by pointing to numerals 1-20 out of a field of 2
    - Receptively identifies examples of "more"
    - Receptively identifies penny out of a field of 2
  - Difficulties:
    - Matching numbers to sets
    - Obtaining a specified number of objects
    - Basic addition and subtraction
    - sequencing numbers from least to greatest
    - counting objects to 10 with 1:1 correspondence
    - Understanding the conceptual concepts of: "less", "some", "all", "zero"
    - Concept of time
    - Concept of money (coin id, bill id, completing a purchase routine)
    - identifying and understanding fractions
- **Classroom Observation**
  - Strengths:
    - Sorts 10 objects by size (big/small), color (up to 5 colors), and shape (square, circle, triangle, and rectangle).
    - Matches numerals 1-5 in the correct sequential order with no prompts.

        - Points to shapes (circle, rectangle, triangle, square, oval, heart, star, diamond) using a variety of materials out of a field of 2.
        - Places 1-5 objects, when requested, onto a 5 frame with verbal and visual prompts when told to "put on 1".
    - Difficulties:
        - sequence numerals 1-5 without a visual prompt
        - Points to numerals 1-20 out of a field larger than 2
        - Points to shapes (circle, rectangle, triangle, square, oval, heart, star, diamond) using a variety of materials out of a field larger than 2.

Reading:

- **Formal Assessment (Woodcock Johnson IV Tests of Achievement)**
    - All reading scores (letter-word identification, passage comprehension, spelling of sounds) were below 40. No strengths or weaknesses were noted.
- **Informal Assessments (ABLLS-R)**
    - Strengths:
        - Receptively identifies upper and lower case letters from of a field of 2
        - Receptively identifies sounds of letters from a field of 2 (e.g., selects the corresponding letter when given the sound)
    - Difficulties:
        - Matching words with pictures
        - Matching pictures to words
        - Matching words to same words
        - Read simple words
- **Classroom Observation**
    - Strengths:
        - Receptively identifies the letters of her name from a field of 3
        - Sorts letters, pictures, shapes, words, and numbers into the correct category (2 at a time)
        - Turns the pages in a simple book
    - Difficulties:
        - Receptively identifying community signs
        - Receptively answering who and what questions about a simple story

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Daily Living Skills

- **Informal Assessments (ABLLS-R) and Classroom Observation**
    - Strengths:
        - Self-Care Skills:
            - With prompting, pulls up and down pants for toileting
            - Puts shoes on independently (no laces)
            - Puts on and removes pullover shirts

- Unzips jacket and backpack
- Eats food from a spoon and fork when given cut food
- Drinks from a cup
- Carries a prepared lunch to table
- Washes hands with prompting to do each step
- Completes bathroom routine with prompting

▪ Home Skills:
- With physical prompting will clean table after eating

o Difficulties:
▪ Self-Care Skills:
- Fastening buttons and snaps on clothing
- Zipping jacket and backpack
- Adjusting clothing when needed
- Cutting food
- Independently wash hands
- Complete bathroom routine without prompting

▪ Home Skills:
- Independently clean table after eating

Self-Determination Skills
(choice making, decision making, self-management, self-advocacy, self-awareness, goal setting, problem solving)

- **Informal Assessments: (ABLLS-R)**
  - Strengths:
    - Social Interactions section:
      - Initiates interactions with others, with prompting.
      - When prompted, will use communication device to ask peer for a single item.
      - Approaches peers and joins an activity.
    - Expressive Language section (see above)
  - Difficulties:
    - Social interactions section:
      - Initiate interactions without prompting
      - Initiate a greeting
      - Request a break when needed
    - Expressive Language section (see above)
- **Classroom Observations**
  - Strengths:
    - Makes a choice of preferred items when presented with 2 picture choices

        - With prompting, completes the morning routine (e.g., unpacking her bookbag, getting materials ready, etc.)
        - Independently completes simple familiar hands-on tasks (e.g., sorting objects by color) when they are set up for her.
        - When provided a direction to do so, goes to her schedule, locates the picture icon and moves to the appropriate area independently.
    - Difficulties:
        - Indicating what she wants is not a presented choice
        - Increased independence with completing the morning routine

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Communication:

- **Formal Assessments (ABLLS-R and Functional Communication Profile)**
    - Strengths:
        - responds to own name
        - follows instructions to do an enjoyable action in context
        - follows instructions to look at reinforcing objects
        - follows instructions to touch reinforcing objects in various positions
        - follows instructions to touch common objects in various positions
        - follows instructions in routine situations (is able to do this, not always consistent)
        - follows instructions to give named common object
        - follows direction to do a simple motor action (emerging – stomps without a model)
        - selects one of two pictures – emerging
        - follows instructions to touch item vs. a distractor (emerging)
        - follows instructions to select one of two common objects (emerging)
    - Difficulties:
        - follows instructions to do enjoyable actions out of context
        - follows instructions to select one reinforcing object from an array of two objects
        - selects one of two pictures of common items (for 25 or more pictures)
        - touches named body parts on self and others
        - selects one of six or more objects or pictures on a table
        - Acquires new selection skills without intensive training

Expressive Language:

- *Vocal Imitation* – she is not currently demonstrating any vocal imitations
- *Requests*
    - Strengths:
        - requests by indicating
        - controlled requests (given a model of the presented reinforcer)
        - requests with the reinforcer present when asked "what do you want?" (emerging through pointing/gesture)
        - spontaneous requests with reinforcers present (by indicating)
        - requests with eye contact
        - requests others to perform actions – emerging

- Difficulties:
    - requests when asked "what do you want?"
    - spontaneous requests with/without reinforcers present (only requests to eat with/without food present)
    - requests with eye contact (consistently)
    - requests others to perform actions
- *Labeling*
    - Strengths: Alaine is beginning to label some food items by sign language ("chocolate" for chocolate chip and "fish" for goldfish cracker)
    - Difficulties:
        - labels reinforcers
        - labels common objects
        - labels common people
        - labels pictures of common items
- *Intraverbals*
    - Strengths:
        - fills in words from songs (emerging – Alice will sign "head" when singing the 10 Little Monkeys Jumping on the Bed)
    - Difficulties:
        - fills in blanks regarding fun items/activities
        - signing words when provided the verbal word (ex: sign cookie)
        - gives animal sounds when looking at pictures of animals
- *Spontaneous Vocalizations*
    - Strengths:
        - vocalizes identifiable speech sounds – emerging
    - Difficulties:
        - spontaneously says word approximations
        - spontaneously says words

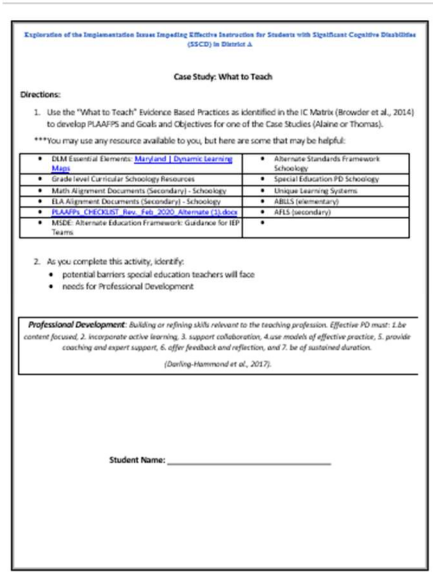
Classroom Observation

Strengths:

- Follows directions to complete a motor task
- Touches the pictures of 3 common objects
- Touches the pictures of 3 body parts
- Uses sign language consistently to communicate eat
- Purposely uses eye contact to gain attention

Difficulties:

- Expand the number of signs used to communicate
- Expand her communication of common objects



Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities (SSCD) in District A

Case Study: What to Teach

Directions:

1. Use the "What to Teach" Evidence Based Practices as identified in the IC Matrix (Browder et al., 2014) to develop PLAAFPS and Goals and Objectives for one of the Case Studies (Alaine or Thomas).

***You may use any resource available to you, but here are some that may be helpful:

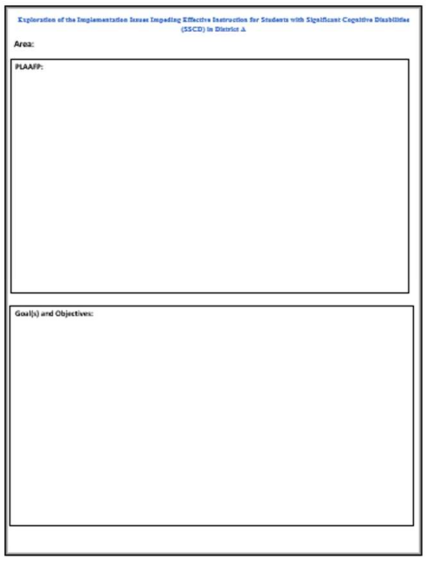
• DLM Essential Elements: Maryland	Dynamic Learning Maps	• Alternate Standards Framework Schoology
• Grade level Curricular Schoology Resources	• Special Education PD Schoology
• Math Alignment Documents (Secondary) - Schoology	• Unique Learning Systems
• ELA Alignment Documents (Secondary) - Schoology	• ABLLS (elementary)
• PLAAFPs_CHECKLIST_Rev._Feb_2020_Alternate (1).docx	• AFLS (secondary)
• MSDE: Alternate Education Framework: Guidance for IEP Teams	•

2. As you complete this activity, identify:
   - potential barriers special education teachers will face
   - needs for Professional Development

Professional Development: *Building or refining skills relevant to the teaching profession. Effective PD must: 1.be content focused, 2. incorporate active learning, 3. support collaboration, 4.use models of effective practice, 5. provide coaching and expert support, 6. offer feedback and reflection, and 7. be of sustained duration.*

(Darling-Hammond et al., 2017).

Student Name: _____

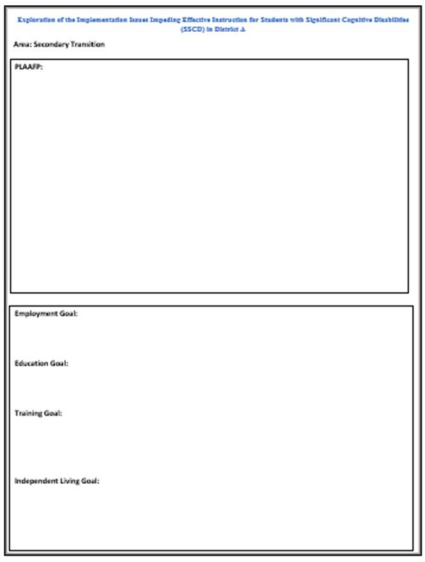


Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities (SSCD) in District A

Area:

PLAAFP:

Goal(s) and Objectives:



Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities (SSCD) in District A

Area: Secondary Transition

PLAAFP:

Employment Goal:

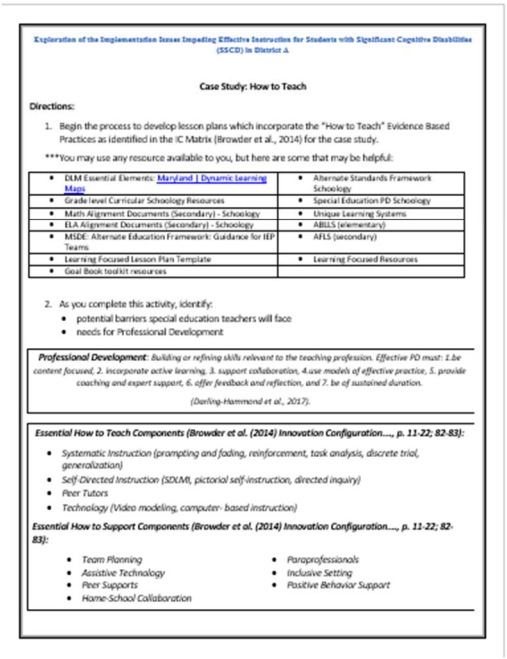
Education Goal:

Training Goal:

Independent Living Goal:

Appendix U

"How to Teach" Case Study Activity and Notes Template



Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities (SSCD) in District A

Case Study: How to Teach

Directions:

1. Begin the process to develop lesson plans which incorporate the "How to Teach" Evidence Based Practices as identified in the IC Matrix (Browder et al., 2014) for the case study.

***You may use any resource available to you, but here are some that may be helpful:

• DLM Essential Elements: Maryland | Dynamic Learning Maps	• Alternate Standards Framework Schoology
• Grade level Curricular Schoology Resources	• Special Education PD Schoology
• Math Alignment Documents (Secondary) - Schoology	• Unique Learning Systems
• ELA Alignment Documents (Secondary) - Schoology	• ABLLS (elementary)
• MSDE: Alternate Education Framework: Guidance for IEP Teams	• AFLS (secondary)
• Learning Focused Lesson Plan Template	• Learning Focused Resources
• Goal Book toolkit resources	

2. As you complete this activity, identify:
   - potential barriers special education teachers will face
   - needs for Professional Development

Professional Development: *Building or refining skills relevant to the teaching profession. Effective PD must: 1.be content focused, 2. incorporate active learning, 3. support collaboration, 4.use models of effective practice, 5. provide coaching and expert support, 6. offer feedback and reflection, and 7. be of sustained duration.*

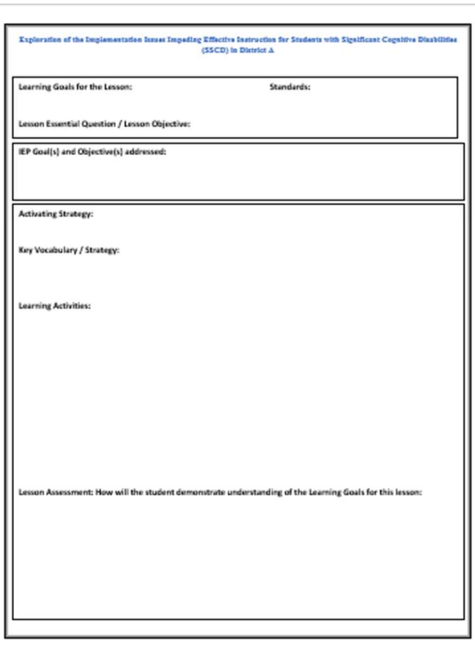
(Darling-Hammond et al., 2017).

Essential How to Teach Components (Browder et al. (2014) Innovation Configuration…., p. 11-22; 82-83):

- *Systematic Instruction (prompting and fading, reinforcement, task analysis, discrete trial, generalization)*
- *Self-Directed Instruction (SDLMI, pictorial self-instruction, directed inquiry)*
- *Peer Tutors*
- *Technology (Video modeling, computer- based instruction)*

Essential How to Support Components (Browder et al. (2014) Innovation Configuration…., p. 11-22; 82-83):

- *Team Planning*
- *Assistive Technology*
- *Peer Supports*
- *Home-School Collaboration*
- *Paraprofessionals*
- *Inclusive Setting*
- *Positive Behavior Support*



Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities (SSCD) in District A

Learning Goals for the Lesson: **Standards:**

Lesson Essential Question / Lesson Objective:

IEP Goal(s) and Objective(s) addressed:

Activating Strategy:

Key Vocabulary / Strategy:

Learning Activities:

Lesson Assessment: How will the student demonstrate understanding of the Learning Goals for this lesson:



Exploration of the Implementation Issues Impeding Effective Instruction for Students with Significant Cognitive Disabilities (SSCD) in District A

What barriers will teachers of SSCD face when creating IEPs in accordance with the IC Matrix Best Practices AND the guidelines as defined by MSDE?

What PD needs come to mind in reflection of this activity?

Appendix V

Analytic Memo #3

CWG #2

Overview

The intent of this third phase of the study was to have teachers simulate using the best practices. Participating teachers were divided into two groups. The "What to teach" group took the profile of a fictional student and were tasked with developing the Present Levels of Performance and Goals and Objectives for the fictional student in alignment with the best practices, as identified by the IC Matrix. The "how to teach" group took IEP components of a fictional student (the PLAAFP and Goals and objectives in one area) and were tasked with developing a lesson plan, incorporating the best "How to teach" practices identified in the IC Matrix. Both meetings were held in person and dinner was provided. One participant in the "what to teach" group participated via TEAMS due to childcare issues. Her input was valuable, but rather minimal due to her having to take care of her children and honestly, forgetting to include her in conversation and asking for her feedback. One participant of the "how to teach" group was unable to participate due to activities for her children. She was provided with all of the information presented but was unable to provide feedback. In both meetings, all teachers willingly participated, were passionate about the subjects, and seemed to enjoy being together with their colleagues to talk about this subject of interest to them. I think starting with their reflections over dinner helped to create a relaxed environment in which participants felt comfortable sharing information with the group.

Analysis of the What to Teach Meeting:

Reflection Prompt: We started with a discussion regarding their thoughts on the reflection prompt which had teachers reflecting on their thoughts on the components identified in the IC

matrix based on their current teaching situation with their students. In general, teachers felt the practices identified were what their students need. Teacher E1 shared that this was a nice reminder of the important things to incorporate. She stated that creating a visual or a poster that could be referenced as a reminder all the time would be so helpful. The majority of the conversation during this portion was about the instruction of the non-academic components and how to balance this instruction with the continuous push for academics. Teachers stated they believe the academics are important; however, they are very concerned that it is a detriment to students when they are not provided instruction on the "functional" skills. Teacher H2, who is not a teacher of a regional program, but does provide instruction to her students in a self-contained setting for both English and Math shared an example of a parent who asked at a meeting when her child was going to learn his phone number and how to use a microwave and she was told by someone in the meeting, "We don't teach that anymore". Participants shared that there is an understanding that if a decision is made for a SSCD to not attend a regional program, that the focus of instruction must be on academics alone. Therefore, teachers seemed to be very pleased to see items on the IC Matrix that are typically considered "functional skills" and to their experiences, not things that can be addressed outside of a regional program. Teacher M1, a teacher of a regional program, shared that, because her students are being "included" in the general education setting more frequently, that the only way to ensure how to address daily living and self-determination is to embed them into the daily structure of the classroom and to determine what the priorities are every day. Teacher H2 also added that she is able to work on specific functional skills within a resource class, a self-contained setting with just her SSCD. As I thought about this conversation, I began to realize how challenging it is going to be to come up with a guidance document that addresses the two different environments students are placed in. I

was excited about the comment made by teacher M1 regarding embedding the "functional skills" into the academics, because that is the most sustainable way of learning the skills, despite the fact that her reason for doing so was related to scheduling. The other comment teacher M1 made that gave me reflection was the idea of focusing on the most important things. This is not a bad thing that comes out of not having enough time in a day, but by determining specific and attainable goals for each student. Teacher E1 and H2 shared that they are often unsure of what the most important things for their students are. The discussion was that this challenge may be attributed to the fact that they are not teachers of regional programs and don't have the same access to training and resources. I do concur with this as a concern, but think it is also a broader issue, that our schools are not accustomed to doing so and that the only way to make it work is to provide a self-contained environment.

Case Study Activity: The case study document participants were given had the highlights from the student's most recent formal and informal assessments and classroom observations. An elementary and secondary example was provided, and a template was provided, giving teachers a place to write PLAAFPs and goals and objectives and then to identify the barriers. Teachers chose to work in a group (one for elementary and one for secondary). I explained to teachers that the intent of this activity was not to really create the IEP, but to work through the process and see how the components of the IC Matrix fit into the development of an IEP. Both groups spent the majority of their work time discussing the components and less time actually developing the IEP components. While I could have intervened and asked groups to get back on track or scheduled more time to meet, I believe the conversation was productive in that it provided specific areas in which we may be lacking in resources, understanding, and training. The majority of the discussion for both groups centered on self-determination and how important it is for students to

be taught these skills, and the challenges involved in how to develop goals and the corresponding instruction. In review of the self-determination resources, participants expressed that where choice and following directions were components of self-determination that were taught, most of the other areas were not. Teacher H2 shared how teaching self-determination is difficult at a high school level because of different expectations in every class. This brought up a discussion about the need to teach students to generalize skills they learn in different environments and/or the need to ensure a student's IEP indicates the supports that are necessary for success in all environments. Teachers of students in and outside of a regional program agreed that both needed to be addressed but focused more on the very real need for teaching staff to presume competence and to have age appropriate expectations. Teachers M1 and H2 shared how their students are often thought of as either a "celebrity" or a "mascot".

Additional conversation centered on the fact that many of these skills were not specific to SSCD and should therefore be a part of PD for all teachers, especially as inclusion for all students is becoming an expectation in DISTRICT A. As a Supervisor of Special Education, I surely don't disagree; however, that may be outside the scope of this dissertation, although could be a suggestion in how PD is delivered.

Analysis of the How to Teach Meeting:

Reflection Prompt: The focus of the reflection discussion centered on instruction for self-determination, specifically goal setting. What came of this was that the needs in the area of self-determination change as students get older and there is a progression of what needs to be taught. In elementary school, students need to learn how to be in school, in middle school goals are being set for students based on their current profile and students are choosing how to achieve their goals based on their interests and strengths, and in high school, we should be expecting

them to set their own goals. Teacher M2 shared how she helps students link their instruction to interests, specifically discussing a student who is very interested in police and fire and motivating him to learn his letters and numbers, so he can respond appropriately to a dispatch call.

Additional discussion during the reflection prompt time focused on the challenges of providing all of the evidence-based practices within the general education environment. Teacher M2, a regional program teacher, stated that her students do receive instruction using all of the evidence based practices outlined in the IC Matrix when they are in her classroom; however, she posed the question, "but how do I apply that in a setting that is not built for that?" Teacher H3, who provides instruction to SSCD who are spending the majority of the time in general education stated, "It is done on the sly, on the side, in a quick second, but the planning is so important. Planning with the general education teachers is important, but there is no time to plan with the instructional assistants. Planning has to be built in every day." In general, teachers agree that for these evidence-based practices to be successful, there has to be ongoing training for instructional assistants. A discussion on the different experience and skill level of IAs was held, with agreement centering on the fact that the strongest IAs work with all students. Teacher M2 shared how important it is for teams to be able to analyze data together to determine how effective the instruction has been and how does it need to be changed. Teacher E3 shared a barrier with providing the planning and training needed for these evidence-based practices as being the lack of time available in staff contracted time to meet, "the contract start time is 8:10 and my first student comes in at 8:30 and at the end of the day, we have duties right up until the end of the contracted day. There is no time to meet". Teacher M2 shared that for this type of plan to work, all school team members need to buy-in, be part of the planning, and have the

training needed to instruct and support through all components. This conversation also focused on how all staff need to be a part of accepting the responsibility to teach all students and to teach peers how to support their classmates with disabilities. The discussion focused on having all staff members be a part of teaching and accepting all students. The concept of self-determination was brought up again, with the possible expectation that all school staff are responsible for teaching this to all students. Teacher H1 asked to play devil's advocate by stating that it isn't fair for students without disabilities who "understand and are compassionate towards students with special needs" to have their instruction disrupted by SSCD in the general education environment. I shared how this problem would be mitigated once training and support are put in place. It appeared that there was affirmation from members on this point.

Case Study Activity: On the MDIEP training site, an IEP for a fictional student, "Sean Secondary" was created for participants to use to create a lesson plan. They were given flexibility on what they wanted to target their lesson on, if they wanted to do it alone or as peers or in a group. Teachers chose to work as a group. As with the "what to teach" group, there was more discussion about the elements of the IC Matrix and limited work on developing the lesson plan. It may have been a better use of the time to have them work individually for a few minutes and then share, or to work in pairs. The participants had a lot of discussion about the differences between services within general education and services outside of general education. Teacher H1 shared that by having to create a lesson plan that is specific to a student in general education is not inclusion. Further explanation was provided, explaining that the intent of this activity was for teachers to work through this as it related to their students, and they could pick any content area to develop a lesson plan. After quite a bit of conversation, the group came away with the concept I am referring to as "the Most Important Thing". Teacher M2 stated that identifying "the most

important thing must be done first Teacher H3 shared the following example, “Who cares if you can do 29 to the 10th power and expand it in a visual graph? The big picture for this is I can do it on a calculator?” Teachers agreed that content teachers need to be able to identify the big idea and the special educator identifies the instructional approaches and strategies and creates the supports to make it happen.

Barriers:

In both groups, all teachers identified two major areas as barriers. The first was a lack of collaborative individual student planning with general education staff / content experts is a huge barrier to providing effective instruction for SSCD in either the general education setting or the self-contained setting. The second was a lack of a bigger understanding of what professional development means and how coaching and follow up is part of the plan for training.

Action Plan / Next Steps:

I think this activity was important and provided useful information about some of the barriers to why the evidence based practices identified in the IC Matrix are either not being addressed or are not being addressed with as much fidelity as they should in DISTRICT A. In moving towards the next meeting, it is going to be necessary to bring all of these components into the framework.

Appendix W

CWG Meeting #3 Agenda

Collaborative Work Group Meeting #3: April 25, 2023

CWG Team Members:

Purpose: To develop a PD Framework for all special education teachers of SSCD in DISTRICT A, to include barriers and potential solutions.

Steps of the PAR process: Act and Reflect

Reflection Prompt: After using the evidence-based practices identified in the IC Matrix by Browder et al. to begin to either develop an IEP or to create a lesson plan through the Case Study activity, how would you see this being implemented with your students? Would the Case Study activity be an effective way to deliver professional development to all teachers? If not, can you think of other ways PD could be developed? What components do you think need to be included in a PD plan? What are the barriers? Can you think of solutions around the barriers?

Agenda:

Time	Topic
5:00-5:15	**Reflection Prompt Discussion and Dinner**
5:15-5:20	**Summary of Subgroup Work and Sharing of the Process**

5:20-5:25	**Overview of the Thinking Routine Process to Create the PD Framework and Review of Resources**
	• Expected Outcomes:
	  ○ Identify essential components of PD
	  ○ Identify potential barriers
	  ○ Identify activities and supports

5:25-5:55	**Thinking Routine: Part 1**
5:55-6:25	**Thinking Routine: Part 2**
6:25-6:30	**Next Steps**

All documents for CWG Meeting #3: can be found here: CWG #3

Appendix X

Analytic Memo #4

CWG #3

Overall Overview

The intent of the final meeting of the CWG was to develop a framework of professional development needs for all teachers of SSCD in DISTRICT A to include an identification of the components of the PD, the activities and supports necessary to address these components, and an identification of potential barriers. At the presentation of the study, the intent was for this meeting to be held via Microsoft TEAMS. However, through discussions at the previous CWG meetings, several members indicated that they enjoyed meeting in person. Teachers all agreed to an in person meeting; however, a day before the meeting, both Teacher M1 and Teacher E2 indicated they were only able to participate via Microsoft TEAMS and Teacher H1 was ill and not able to attend at all. Technical issues prevented Teacher E2 from participating virtually, but she was able to participate via telephone. Unfortunately, despite attempts from other teachers to ensure they were both included and offered input, their input was minimal.

To structure the work, I created a template for what the framework would look like, ensuring the components above were addressed. The process created to do this involved the use of a thinking protocol so teachers would think through the process individually, with partners, and then as a group. Individual work was not as productive as I'd hoped, as teachers really wanted to talk with each other. Instead of the partner work, teachers worked in small groups and then information was brought back to the whole group. It was also my intention to type information presented while we were all together, but due to technical difficulties, and the setup

of the room we met in, this was not feasible. Instead, I took notes from the whole group meetings and asked members to provide me with the notes they took.

I was disappointed with what I perceived as a lack of completeness at the end of this session. There are several reasons that I attribute to this. The first was difficulty with technology brought on by trying to do an in person meeting while incorporating others virtually. Secondly, one person dominated the conversation and often brought up specific examples which derailed the conversation and seemed to bring out negative comments from others which led away from the actual problem solving. I am referring to this as "honoring the problem". In hindsight, I could have started the meeting with a disclaimer that we know the problems, which is why we are here. However, I do think the information and discussion presented was worthwhile and I look forward to the information staff may provide after the meeting.

Analysis of the Meeting

Reflection Prompt: The reflection prompt asked members to reflect specifically on how PD should be provided to implement components of the IC Matrix and to discuss the barriers and possible solutions. I was disappointed that a large part of this discussion was not on the PD needs of special education teachers, as I had intended, but on the identified barrier of general education. Several teachers shared their belief that SSCD do not receive the instruction they need because general educators either didn't know what to do and /or the things needed to provide these supports are either not provided or not efficiently provided. Examples included not implementing supplementary aids and services of the IEP, individual team meetings either not occurring or not effectively occurring, and having teachers not understand the reason why instruction needs to be individualized and different. Teacher M3 shared that often the newest general educators are pliable and more willing to provide individualized support than teachers

who have been teaching for a long time, as they are either resistant to support at all, or don't hold students to high levels of rigorous work. When pushed a little to think about what special educators need, there appeared to be agreement with the need for a structure to how PD is provided ongoing throughout the school year and not just at the beginning of the school year. Teacher H3 indicated that they are often required to go to the same PD opportunities as their general education teacher peers which was often not relevant, and the time could be better used to focus on special education. Several teachers affirmed that the use of a case study model for providing PD was effective and no one indicated that it wasn't. There seemed to be agreement on the need for a PD plan to include a focus on training general education teachers and incorporating ongoing collaboration, communication, and regular check-ins with general education teachers to determine how the supports are being provided.

Thinking Routine Process to Complete the Framework: The template I provided to teachers asked them to identify for "what to teach", "How to teach", and "how to support" the component, a description of the activities and the frequency of the activities, and the potential barriers and solutions. My biggest reflection on this process was that I wished I had more time to allow more specific discussion about the individual components. I think the discussion and feedback from teachers was rich and helpful, but it ended up being more general than I intended. I took a great deal of notes, asked one person from each small group to provide me with their notes and will listen to the recording to gather more information, and will incorporate all into the PD Framework. I realized during the meeting that the template of the framework did not have enough structure and therefore I will change the structure of the template to include resources, person responsible for providing that component of the PD, and separate the barriers into a barriers and solutions column. As there was not enough time in this session to complete

everything, I asked teachers if they would be willing to offer more information once I sent the framework. All stated they would. Some of the general ideas teachers presented were very helpful in coming up with a more systematic and structured approach to PD. For example, teacher M3 suggested creating online type training that would be required for all teachers to participate in, in addition to the "safe schools" that are provided for all teachers at the beginning of the school year. Teacher M2 suggested the importance of differentiating training for new teachers vs. experienced teachers. Several teachers talked about the need for specific instruction in the area of health. This was not included in the IC Matrix, but it seemed there was an agreement of participants about how important it is for specific instruction to be provided to SSCD. Another conversation of value surrounded the discussion of direct instruction on the IEP regarding self-help skills. Several teachers felt that because a student was in the ISLE regional program, they didn't need to have this as an IEP goal / objective because it would be naturally taught through the course of the program and didn't need to be added to the IEP. Teacher E1, who case manages a SSCD outside of a regional program indicated that she provides instruction and structure related to independent living skills for her student, and includes the information in the student's PLAAFP, but not as a goal because of limited time to provide instruction. TeacherM3 stated that there are several things she believes her student needs, but doesn't provide because there is no opportunities to do it. The example she used was brushing his teeth and accessing community based instruction. She stated he needs to learn how to brush his teeth and to learn by being in the community, but she is not able to pull him out of the general education environment to teach things. Teacher M2 asked how many other students in general education didn't have their teeth brushed and everyone laughed. This left me thinking that there is still some disconnect between what is a functional skill and what is not. It also wasn't clear

how teacher M2 knows her student needs to learn how to brush his teeth. While this wasn't shared during the meeting, I looked at the student's most recent assessments and through the psychological assessment completed in January 2022, the Adaptive Behavior Assessment System (ABAS) was completed. While the student did present with an overall adaptive skill rating in the low range, his scores in the subset areas of self-care and community use were considered by the assessor as a personal strength. The information was gathered from teachers, and none was provided by the parents. I am left with two thoughts. The first is that school teams aren't basing decisions for what students need on data and the second is that school teams aren't working with parents and families in ways that are helpful.

Action Plan / Next Steps:

Professional Development Framework: Following this session, I put everything together in a document and sent it to teachers and asked for them to provide additional information by directly typing onto the document, emailing me, scheduling a phone call or in person meeting with me. Only three teachers provided any feedback, and, to my disappointment, it was minimal. However, a framework was created based on the information received during CWG #3, as well as incorporating information from reflections in the first and second meetings. The completed framework will be sent to all participants as a "member check". Another thought I keep thinking on based on the discussion about what is needed is that much of what was identified as needs for PD are not specific to SSCD and are needed for all special education teachers.

Language we use: There was one thing that was not identified by the teachers as an area of need but kept surfacing in my mind. It is the way we refer to students. My concern is bigger than "people first language", as I do think teachers were conscious of this. I'm not truly sure what to call my concern. It probably is a sense of ableism presented by the apparent need for labeling.

Language such as “non-diploma bound”, “inclusion kids”, “regional kids” “alternate standards kids”. I am not sure how this can be incorporated in PD, but it seems to be something that we need to address.

Appendix Y

PD Framework

What to Teach						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency and Time Frame**	**Potential Resources and Notes**	**Who will provide the training?**	**Barriers**	**Solutions**
Foundational Reading	<u>Basics of Reading (Structured Literacy)</u> Training on the five areas of reading with a focus on incorporating the learning needs of students with significant cognitive disabilities • Include IEP goal development	<u>Initial</u> – five full days of training (spread throughout the school year) with real-time classroom-based coaching/modeling between each session <u>Refresher</u> – ½ day yearly and as needed	• Comprehensive Literacy for All: Teaching Students with Significant Disabilities to Read and Write (Erickson and Koppenhaver, 2019). • Incorporate with District-wide training on the Language Essentials for Teachers of Reading and Spelling (LETRS) for all elementary teachers.	• Reading Specialists • Literacy Coaches • Special Education Teacher Specialists • Special Education and General Education Supervisors	• Time and space to receive training • Time and space to provide training • Funding for materials for reading interventions	• Increase the number of teachers in a building who provide instruction to SSCD, allowing for specialization of content. • Online asynchronous modules for portions of the training. • "Train the trainer model." • Training provided jointly with central office staff from instruction and special education • Identify a general education "content expert" at each school. • Book study to provide MSDE credit. • Summer workgroup to create some trainings
	<u>Reading Intervention training</u> Teachers of SSCD will receive training on specific reading interventions based on the individual needs of students • Include IEP goal development	As prescribed by each reading intervention	• Prescribed training materials for reading interventions. Some may include: - Early Literacy Skills Builder - Early Reading Skills Builder - Language for Learning, Thinking, and Writing - Corrective Reading • Determination for specific reading interventions should be based on data and consultation with District A reading specialists	• Reading Specialists		

What to Teach						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency and Time Frame**	**Potential Resources and Notes**	**Who will provide the training?**	**Barriers**	**Solutions**
Foundational Writing	Expansion of Writing Training to reconsider what writing looks like. Incorporating alternative writing strategies so all students can express themselves	Initial – half-day training; overview of multiple options Follow-up- specific training based on individual student needs to include modeling and coaching	• Alternative Pencils | Center for Literacy and Disability Studies (unc.edu) • Comprehensive Literacy for All: Teaching Students with Significant Disabilities to Read and Write (Erickson and Koppenhaver, 2019). • Co-Writer Software and current training modules	• Assistive Technology (AT) Specialist • Special Education Teacher Specialists • Literacy Coaches • Occupational Therapists (OT)	• Time to develop the training in a "new" topic • Time and space to receive training • Time and space to provide training	
Grade Level Content English Language Arts	District A ELA Curriculum and Alignment to DLM Essential Elements Training and Overview of the Dynamic Learning Maps (DLM) Essential Elements • Training for the alignment of EE with curricular scope and sequence • Incorporate "How to Teach" EBPs • IEP goal development • Overview of all resources	• Initial- half-day training • Refresher - as needed • Ongoing - quarterly planning • Monthly work time to adapt and modify materials	• Dynamic Learning Maps Essential Elements Instructional Resources for YE Model States | Dynamic Learning Maps • District A grade-level ELA resources • District A Essential element and grade-level aligned materials • separate training for elementary, middle, and high	• Supervisors and Teacher Specialists for Elementary ELA and Secondary English • Literacy Coaches • Special Education teacher specialists • Inclusive Education Facilitators	• Time and space to receive training • Time and space to provide training • Trainers not familiar with EBPs for teaching SSCDs	
Mathematics Foundational Skills	Basics of Math • Standards of Mathematical Practices • Early Numeracy • Math calculation concepts • IEP goal development	• Initial – half-day training at the beginning of year • Refresher as needed	• District A intervention resources • All Learners Network (Home (alllearnersnetwork.com) • Teaching Math to People with Down Syndrome and Other Hands-on Learners	• Special Education and General Education Math Teacher Specialists	• Time and space to receive training • Time and space to provide training	• Increase the number of teachers in a building who provide instruction to SSCD, allowing for specialization of content

What to Teach						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency and Time Frame**	**Potential Resources and Notes**	**Who will provide the training?**	**Barriers**	**Solutions**
						• Online asynchronous modules for portions of the training. • "Train the trainer model." • Training provided jointly with central office staff from instruction and special education • Identify a general education "content expert" at each school • Book study to provide MSDE credit • Summer workgroup to create training
Grade Level Content Math	District A Math Curriculum and Alignment to DLM Essential Elements • Training and Overview of the DLM Essential Elements • Training for the alignment of EE with curricular scope and sequence • Incorporate "How to Teach" EBPs • Include IEP goal development • Overview of all resources	• Initial- half-day training • Refresher as needed • Ongoing - quarterly planning • Monthly -work time to adapt and modify materials	• Dynamic Learning Maps Essential Elements Instructional Resources for YE Model States | Dynamic Learning Maps • District A grade-level math resources • District A Essential element and grade-level aligned materials • Separate training for elementary, middle, and high	• Supervisors of Elementary and Secondary Math • Special Education and General Education Math Teacher Specialists • Special Education Teacher Specialist • Inclusive Education Facilitator	• Time and space to receive training • Time and space to provide training • Trainers not familiar with EBPs for teaching SSCDs	
Grade Level Content Social Studies	The Most Important Thing: breaking down Social Studies content to determine concepts that are attainable, are most interesting to the student, and relate to daily life)	• Initial – 1-2 hours - overview of most important concepts • Quarterly- review of concepts in collaboration with general education staff	• District A Grade Level Social Studies Materials • Separate training for elementary, middle, and high • Creation of shared electronic resources	• District A Social Studies Supervisor and instructional specialists • Supervisor of Special Education • Special Education Teacher Specialist	• Time to develop the "Most important thing resources" • Time and space to receive training • Time and space to provide training	• Summer work group with general education teachers, special education teachers, and content specialists to adapt materials. • Planned time for collaboration with

What to Teach						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency and Time Frame**	**Potential Resources and Notes**	**Who will provide the training?**	**Barriers**	**Solutions**
		• Monthly work time to adapt and modify materials		• Inclusive Education Facilitator		general education teachers at each school
Grade Level Content Science	The Most Important Thing: breaking down Science content to determine concepts that are attainable, are most interesting to the student, and relate to daily life)	• Initial – 1-2 hours - overview of most important concepts • Quarterly- review of concepts in collaboration with general education staff. • Monthly work time to adapt and modify materials	• District A Grade Level Social Studies Materials • DLM Essential Element Resources for Science Instructional Resources for YE Model States | Dynamic Learning Maps • Separate training for elementary, middle, and high • Creation of shared electronic resources	• District A Science Supervisor(s) and instructional specialists • Supervisor of Special Education • Special education alternate standards teacher specialist • Inclusive Education Facilitator	• Time to develop the "Most important thing resources" • Time and space to receive training • Time and space to provide training	• Summer work group with general education teachers, special education teachers, and content specialists. • Planned time for collaboration with general education teachers at each school.
Grade Level Content Health	The Most Important Thing: breaking down Health content to determine concepts that are attainable, are most interesting to the student, and relate to daily life)	• Initial – 1-2 hours - overview of most important concepts • Quarterly- review of concepts in collaboration with general education staff. • Monthly work time to adapt and modify materials	• District A Grade Level Health Materials • Separate training for elementary, middle, and high • Creation of shared electronic resources	• Health and PE Teacher Specialist • Supervisor of Special Education • Special Education Teacher Specialist • Inclusive Education Facilitator	• Time to develop the "Most important thing resources" • Time and space to receive training • Time and space to provide training	• Summer work group with general education teachers, special education teachers, and content specialists. • Planned time for collaboration with general education teachers at each school.

What to Teach						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency and Time Frame**	**Potential Resources and Notes**	**Who will provide the training?**	**Barriers**	**Solutions**
Self – Determination	• Overview of the 7 components (decision-making, choice-making, self-management, self-advocacy, self-awareness, goal setting, and problem-solving). • Training to address in school. • Training for supporting families • Incorporate "How to Teach" EBPs • Incorporate IEP Goal determination and development	Initial – 1-2 hours overview of all Quarterly – focus on two components Refresher - Self-paced access to online modules for specific components	• Self-Determined Learning Model of Instruction (Shogren et al., 2019) • ARC's Self-Determination Scale (Wehmeyer et al., 1995) • After initial training, should incorporate into academic training • Incorporate how to share this information with general education teachers, instructional assistants, related service providers, etc. (training and support) • Separate trainings by grade level	• Special Education Secondary Transition Specialist • Supervisor of Special Education • Special education Teacher Specialist • Inclusive Education Facilitator	• Time to develop the training in a "new" topic • Time and space to receive training • Time and space to provide training	• Summer work group. • Partnering with general education central office staff (e.g., SS and Science content specialists) to embed self-determination strategies into content PD. • Online modules for each component.
Independent Living Skills	• Instruction within the regular school day schedule while maintaining student dignity (specific topics would include: hygiene, self-care, care of materials, etc.) • Individualization • Incorporate "How to Teach" EBPs • Incorporate IEP Goal development	Initial – 1-hour overview Refresher – Self-paced access to online modules Monthly -Planning, coaching, and /or modeling	• District A Resources: o November 2019 – face to face training: "Integrating functional Skills instruction with academic core content" o Resource document: Examples of Embedding Instruction of Essential Skills (District A, 2019). • Curricular Philosophies, Kurth et al., (2021) • AFLS and ABLLS-R	• Supervisor of Special Education • Special Education Teacher Specialist • Inclusive Education Facilitator • Teacher mentors	• Time and space to receive training • Time and space to provide training • Time to provide the assessment and monitor the data	• Summer work group to develop modules • Train the trainer and online modules • Ongoing coaching

What to Teach						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency and Time Frame**	**Potential Resources and Notes**	**Who will provide the training?**	**Barriers**	**Solutions**
Communication	• Overview of communication foundations • Fostering independence through communication • Use of AAC devices, core language boards, etc. • Working with families	Initial – 1- 2 hour Refresher – Self-paced access to online modules Ongoing - Collaborative Planning, coaching, and /or modeling with SLPs and/or AT Specialist	• Communication Competence in the Inclusive Setting (Kleinert et al., 2019) • Communication Matrix https://communicationmatrix.org/ • Embed in all other training	• Speech /Language Pathologists • AT Specialist • Supervisor of Special Education • Special Education Teacher Specialist • Inclusive Education Facilitator	• Time to develop the training • Time and space to receive training • Time and space to provide training • Time for ongoing collaboration between teachers and SLPs	• Initial Summer Training • Development of online modules
Behavior	Behavior was an area the CWG determined to be an essential part of PD for teachers of SSCD. However, all District A staff receive school-wide behavioral training each year. Specific behavioral needs for students would be addressed through individual student Behavior Intervention Plans, and District A Behavior Specialists provide ongoing training. Additionally, setting up instruction using the how-to teach and how-to support components will likely reduce the level of additional behavioral support needs.					
Social Skills	• Overview of social skills components (i.e., giving and receiving feedback, listening, appropriate self-disclosure) • Specific strategies: modeling, role-playing, social reinforcement, and generalization	Initial – 1-2 hour Ongoing – Collaborative planning, coaching, and/or modeling with School Social workers and/or Behavior Specialists/BCBA. Refresher – Self-paced access to online modules; mini modules, as needed.	• District A Social Skills Curricular Resources • https://do2learn.com/disabilities/CharacteristicsAndStrategies/IntellectualDisability_Strategies.html • Incorporate specific student needs into school-wide social skills curriculum, as appropriate	• District A Mental Health Professionals (e.g., School Social Workers, School Psychologists, School Counselors, Behavior Specialists, BCBA) • Supervisor of Special Education • Special Education Teacher Specialists • Inclusive Education Facilitator	• Time to develop the training • Time and space to receive training • Time and space to provide training • Time for ongoing collaboration between teachers and mental health professionals	• Incorporate with training already provided for all staff • Planning for "teachable moments" within the student's naturally occurring schedule

What to Teach						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency and Time Frame**	**Potential Resources and Notes**	**Who will provide the training?**	**Barriers**	**Solutions**
Job and Community / Secondary Transition	Community-Based Instruction (CBI) • Middle and High School - Understanding and applying individually designed CBI • School as community Work Based Learning Experience (WBLE) • High School: Collaborating to understand and apply individually and appropriately designed WBLE training for high school staff. • Understanding of Community Services	• Initial /Annual – one-hour training • Ongoing -Modeling and coaching in the community • Refresher – as needed	• District A CBI guidelines • District A WBLE guidelines • MSDE Transition Technical Assistance Bulletin	• Special Education Secondary Transition Specialist • Supervisor of Special Education • Special education teacher specialists • Inclusive Education Facilitators • Special Education Job Developer	• Time to present the training • Time to implement the instruction • Staff to provide the training	• Summer Planning and collaboration with District A staff and community employers • Summer Training

How to Teach						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency**	**Resources**	**Who will provide the training?**	**Barriers**	**Solutions**
Components of Systematic Instruction	Overview and practice of each component and type and how to know when to use which type • Response Prompting Strategies: ○ Graduated Guidance ○ Most-to-Least Prompting ○ System of Least Prompts ○ Time-Delay ○ Simultaneous Prompting Procedures • Task Analysis • Natural Environment Teaching • Generalization	• Initial Training for each type includes overview and practice, modeling, and coaching w/in the classroom setting. • 3-year refresher or more as needed.	• Collins, B. (2022). *Systematic Instruction for students with moderate and severe disabilities.* Baltimore, MD: Paul H. Brookes Publishing. • Previous District A special education PD on Systematic Instruction.	• Special Education Teacher Specialists • Special Education Supervisor • BCBA	• Time and space to receive training • Time and space to provide training	• Online asynchronous modules for refreshers • A book study to provide MSDE credit
Self-Directed Instruction	• Training on the Self-Determined Learning Model of Instruction. • Pictorial Self-instruction (how to develop, how to teach)	• Initial training with examples and sharing resources • Coaching and modeling, as needed. • Yearly refresher	• The Self-Determined Learning Model of Instruction and Students With Extensive Support Needs in Inclusive Settings - PubMed (nih.gov)	• Special Education Secondary Transition Specialist • Special Education Teacher Specialists • Teacher mentors	• Time and space to receive training • Time and space to provide training	• Create online asynchronous modules • Incorporate with self-determination in What to Teach above
Technology	• Use of Video modeling to provide instruction in multiple content areas. • How to teach basic computer and app usage (e.g., logging in	• Initial training • Follow up in conjunction with content-specific training.	• https://hussmanautism.org/implement-video-modeling/	• Instructional Technology (IT) Specialists • AT Specialist	• Time and space to receive training • Time and space to provide training	• Incorporate with content-specific training • Online asynchronous modules

How to Teach						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency**	**Resources**	**Who will provide the training?**	**Barriers**	**Solutions**
	and out, searching the internet, accessing email, etc.) • Computer-based instruction in any area			• Special Education Teacher Specialists		
Peer Tutors	Training for teachers on: • what peer tutors are and are not • how to select peers • how to train peers • how to work with and train school staff to support (e.g., IAs, administrators, general education teachers)	• Initial training for teachers. • Coaching and modeling, as needed. • School team yearly refresher	• TIES Peer Engagement Practice Guides | The Power of Peers: Introduction to the Peer Engagement Implementation Guides | Institute on Community Integration Publications (umn.edu) • Peer Tutoring - Accommodation Central (acentral. education) • Peer Tutoring | Council for Learning Disabilities (council-for-learning-disabilities.org)	• Inclusive Education facilitators • Special Education Teacher Specialists • Teacher mentors	• Mindset: The belief that supporting students with disabilities will take away from the students' instructional time. • Time and space to receive training • Time and space to provide training • Time during the day for this to occur	• Create online asynchronous modules • Develop School Teams: incorporating other staff (e.g., IAs) to train the peers, support the peers, and model the instruction

How to Teach						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency**	**Resources**	**Who will provide the training?**	**Barriers**	**Solutions**
Accommodations, Modifications, and Adaptations *	Training on practical strategies to modify or adapt curricular materials such as: • Flipbooks • Color coding • Visuals • Different levels of reading material • Adapted books • Reduce number of questions • Assistive technology	• Initial training to provide examples and share resources • Quarterly work time for teachers to create materials • Coaching and modeling, as needed	• Eredics, N. (2018). *Inclusion in Action: Practical Strategies to modify your curriculum.* Baltimore, MD: Paul H. Brookes Publishing • Jiminez, B., Courtade, G., and Browder, D. (2013). *Six Successful Strategies for Teaching Common Core State Standards to Students with Moderate to Severe Disabilities.* Verona,WI: Attainment Company, Inc. • Previous District A PD	• Supervisor of Special Education • Special education teacher specialists • AT Specialist • Teacher mentors	• Time and space to receive training • Time and space to provide training	• Create online asynchronous modules for refreshers • Shared folder of resources and examples

How to Support						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency**	**Resources**	**Who will provide the training?**	**Barriers**	**Solutions**
IEP Development*	• PLAAFP and Goal and Objective development – review and practice using the checklist. ○ PLAAFP ▪ prioritize skills to be taught and included in IEPs based on PLAAFPS ▪ Data system review – how to organize; how to plan and schedule for data collection ○ Goals and Objectives ▪ Aligned to student's specific needs ▪ Using the "what to teach" components to break down into sample goals and objectives ▪ Examples of instruction that match each goal • Determination of Services	• Initial one time • Annual refreshers, reminders, and updates • Coaching throughout the year • Collaboration time with general educators, related service providers, and administration	• Sample IEPs • MSDE: Alternate Education Framework Guidance for IEP teams • MSDE: Technical Assistance Bulletin (19-07) • Schoology resource to access whenever is needed	• Special Education Teacher Specialists • Supervisor of Special Education • Teacher mentors	• Lack of time for teams to collaborate if it is not built into the school schedule. • Lack of consistency between schools with IEP development, implementation, etc. • Student arrival and dismissal times may be an effective way to implement collaborative planning; however, many special educators have duties.	• Offer teachers a choice of during the school day (substitute coverage) or after school (workshop pay to be provided) • Virtual option allows for more independent access
Peer Supports	Promoting Peer Engagement • Class-Wide • Cooperative Learning • Instructional Assistant Facilitation	• Initial one time • Annual refreshers, reminders, and updates	• TIES Peer Engagement Practice Guides | The Power of Peers: Introduction to the Peer Engagement Implementation Guides | Institute on Community	• Inclusive Education Facilitators • Special Education Supervisors	• Mindset: The belief that supporting students with disabilities will take away from other students	• Implementation should shift to a school-based team that does not rely on special education teachers • Online modules

How to Support						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency**	**Resources**	**Who will provide the training?**	**Barriers**	**Solutions**
	• Peer Partner Programs	• Coaching and modeling to establish a school-based team	Integration Publications (umn.edu)	• Special Education Teacher Specialists	• Time and space to receive training • Time and space to provide training • Creating the "buy-in" to establish a team • Time during the day for this to occur	
Positive Behavior Supports	Positive Behavior supports was an area the CWG determined to be an essential part of PD for teachers of SSCD. However, all schools in District A have school-wide behavioral supports in place and all staff will receive school-wide training each year. Specific behavioral supports for individual students would be addressed through individual student Behavior Intervention Plans or Support Plans, and District A Behavior Specialists provide ongoing support and / or training. Additionally, setting up instruction using the how-to teach and how-to support components will likely reduce the level of additional behavioral support needs.					
Collaborative Planning	CWG members felt collaborative planning was an essential piece to support SSCD; however, current school-based training through the Inclusive Education facilitators is already a part of school planning. Therefore, the training and supports needed for this are already in place and District A needs to ensure the special education teachers of SSCD, no matter their position in a school, are included. Additionally, in addition to administrators and general education teachers, collaborative planning teams need to be expanded to include related service providers and instructional assistants.					
Assistive Technology	Incorporated into all other training					
Working with Instructional Assistants (IA)*	• Teamwork Training • How to share student information by highlighting strengths • Supporting IA training in all areas (e.g., data collection, modifying/adapting instruction, peer support, etc.) • Fade plans for all students	• Initial training. • Online modules, as needed. • Modeling and coaching to support planning meetings, as needed.	• Previous district A training: online modules. • The Paraprofessional's Handbook (Causton & MacLeod, 2020). • PD 4 Paras – PreK-12: Causton &Pretti-Frontczak (2021)	• Inclusive Education Facilitators • Special Education Supervisors • Special Education Teacher Specialists • Teacher mentors	• Time and space to receive training • Time and space to provide training • Lack of longevity in staff remaining in IA positions	• Online modules • Joint training with special ed teachers and IAs.

How to Support						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency**	**Resources**	**Who will provide the training?**	**Barriers**	**Solutions**
Home School Collaboration	• Why: Understanding Parent Perspectives • How to establish effective collaboration	• Initial training • Online modules, as needed • Modeling and coaching to support planning meetings, as needed	• Previous district A training resources: online modules and in-person training supports • Shared resources of parent communication methods	• Family Systems Support Network Coordinator • Supervisor of Special Education • Special Education Teacher Specialist • Teacher Mentors	• Families who don't have different expectations for the success of their children	• Sharing of resources for families ; joint training for families and teachers
Inclusive Supports	• Initial Training (occurred previously with school-based teams for most schools in District A) • Meaningful Participation for SSCD – provide teachers with guidelines for how to specifically provide for the needs of their students in general education • Providing physical, sensory, social, academic, and behavioral supports in any environment	• Initial at the beginning of the year • School-based training, as needed • Modeling and coaching, as needed	District A has created over the years a wealth of great resources; however, what is needed are practical ways to use these resources.	• Inclusive Education Facilitators • Special Education Supervisors • Special Education teacher specialists • School-based administrators	• Lesson plans not provided in a timely manner for special education teachers to develop instructional modifications and adapt lessons	• Training for general education and special education teachers together • Regular collaborative Planning Time between special educator and general educator
Organization *	• Creating individual, class, and caseload schedules: ○ Staff-to-student schedules (Assigning IAs to support students)	• Initial one time • Annual refreshers, reminders, and updates	• District A Regional Program Expectations • Schoology Resources: Online Sample schedules	• Special Education Supervisors • Special Education teacher specialists • Teacher Mentors	• Time and space to receive training • Time and space to provide training	• Teacher mentor program will help new teachers. Special education teacher specialists can meet

How to Support						
Component	**Activities**				**Potential Barriers and Solutions**	
	Description	**Frequency**	**Resources**	**Who will provide the training?**	**Barriers**	**Solutions**
	• Classroom set-up in any environment • Data collection systems • Classroom expectations (development and implementation)	• Modeling and coaching, as needed				with teacher mentors regularly to establish appropriate guidelines and access to support.

* These components were not addressed specifically in the IC Matrix (Browder et al., 2014) used to guide the development of this Framework. However, members of the CWG felt that teachers of SSCD in District A required specific and ongoing training in these areas.

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