Teacher self-efficacy and standards aligned instruction for students with significant cognitive disabilities

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Abstract

Teachers of students with significant cognitive disabilities (SWSCD) face multiple barriers when attempting to provide standards-aligned instruction (SAI) in special education classrooms. Self-efficacy, or believing that one has the ability to accomplish difficult things, is the anchor of the conceptual framework through which this phenomenological research study was completed. Teachers identified between two and four barriers to providing SAI to their SWSCD, with a lack of professional development identified by all participants. Recommendations for teacher preparation focus on attention to the instructional skills associated with high self-efficacy and explicit connection of the need and requirement of SAI to SWSCD. Recommendations for future research include the frequency and effectiveness of professional development for teachers and administrators in this area.

About the Authors

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Introduction

The 1997 reauthorization of the Individuals with Disabilities Education Act (IDEA) required schools to provide access to the general education curriculum for all students, including students with significant cognitive disabilities (SWSCD). The IRIS Center defines SWSCD as having "one or more disabilities that significantly affect their intellectual functioning and adaptive behavior (e.g., social skills, activities of daily living). These students require intensive, individualized instruction and supports" (The IRIS Center, n.d.). Prior to IDEA 1997, these students were often exclusively taught life skills or functional skills. The instructional gaps experienced by these students are impacted by not only a lack of accessible content, but also a lack of teacher knowledge and expertise in aligning their instruction with the standards (Browder et al., 2006).

Teachers and special education case managers of students with significant cognitive disabilities (SWSCD) face a multitude of challenges with the charge to provide standards-aligned instruction (SAI). These include students whose learning process by nature is complex, as well as the need to balance academic instruction and functional skills. With a typical school day being roughly seven hours, there is much to teach and little time to teach it all. Special education is also a highly litigated field. During the 2020-2021 school year, the state of Pennsylvania recorded 73 written complaints, 303 mediation requests, 840 due process complaints, and 4 expedited complaints (Pennsylvania Department of Education, 2021). Special education teachers are charged with extensive data collection and the implementation of evidence-based programming with fidelity. Finally, special education teachers have general pedagogical training and training in disability-related strategies and are not content experts. Therefore, planning SAI is an additional task for which many quite simply do not have the training and expertise (Petersen, 2015).

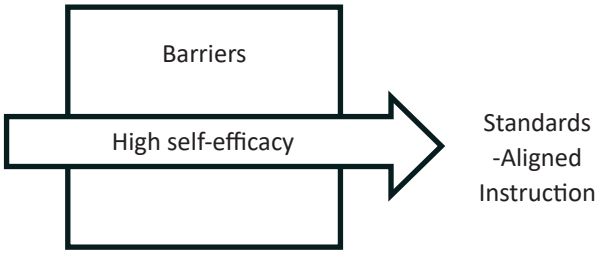
IDEA requires IEP teams to consider instruction in the least restrictive environment in which a child can receive meaningful educational benefit, which starts with the general education classroom with no additional supports (Individuals with Disabilities Education Act, 2004). However, it is common practice for students with disabilities to receive goal-based instruction within a special education classroom, and SAI within a general education classroom (Soukup et al., 2007). There is little research on general education content in special education classes, and there are only a few ready-made curricular materials that provide SAI in a format that is readily accessible for SWSCD (Taub et al., 2019).

Teachers with high self-efficacy are better equipped to provide SAI. Although it is an expectation by law that all students will receive SAI, Albert Bandura indicated that "expectation alone will not produce desired performance if the component capabilities are lacking" (1977, p. 194). He goes on to say, "given appropriate skills and adequate incentives, however, efficacy expectations are a major determinant of people's choice of activities, how much effort they will expend, and of how long they will sustain effort in dealing with stressful situations" (p. 194). Self-efficacy influences instructional choices and student placement decisions, but little research exists on its role in special education settings.

Adapted from the work of Hagan and Olivier (2022), the conceptual framework applied to this study illustrates how high self-efficacy enables teachers to work through barriers and provide SAI to their SWSCD. In facing many barriers to providing SAI to SWSCD, special education teachers with high self-efficacy are believed to have the skills required to work through the barriers and accomplish the task, which is illustrated in Figure 1.

Figure 1

Conceptual Framework



Research Questions

1. What barriers do special education teachers with high self-efficacy face when attempting to provide standards-aligned instruction to students with significant cognitive disabilities?

2. What enables special education teachers with high self-efficacy to provide standards-aligned instruction to SWSCD?

Literature Review

There are three things that need to happen in order for alignment of standards and instruction to truly occur. Those are: 1) matching the standards to the instruction; 2) matching the standards to the assessments; and 3) matching the instruction to the assessment (Kleinert Ed.D., Harold L. & Jacqueline, 2010). In some states, there may be additional extensions or translations of the standards; in Pennsylvania, there is the Alternate Eligible Content, also known as the Essential Elements.

It is important to identify the academic curricula taught to SWSCD, where the gaps in instruction are, and what methods and materials are used. Regarding ELA instruction, only a few sub-skills receive intensive focus by teachers of SWSCD (Karvonen et al., 2011). These skills are discussion (Language) and beginning reading (Reading and Literature). Most of the sub-skills receive moderate to intensive focus by half or less of teachers of SWSCD. When it comes to math, most teachers of SWSCD spend a considerable amount of instructional time focusing on skills related to number sense. Likewise, they spend very little time on everything else in the math domain. In other words, foundational math and ELA skills are the primary areas of focus for these teachers, and subsequently, their students.

SWSCD often receive academic instruction in both general and special education environments. Students who are included most in the general education classroom are more likely to work on grade level content as opposed to the other students who work on non-graded content for the subjects (Soukup et al., 2007). Conversely, though, students who are included most in the general education environment only worked on IEP goals a small portion of the time there, while students included in the general education environment less frequently work on IEP goals more frequently. This dichotomy does not need to exist, but it does and is prevalent throughout schools. Expectations for SWSCD in the general education environment are often not the general education content, nor are those the expectations for these students in the special education environment (Hanreddy & Östlund, 2020). Rather, the focus tends to be IEP goal work. The alternative curricular materials that are being developed can even be considered as perpetuating the segregation. Such is also the case with an educational program that focuses primarily on functional skills (Courtade et al., 2012). While it is true that SWSCD can benefit from learning functional skills, that is not a legitimate reason not to provide SAI. Likewise, an IEP that provides SAI can also provide instruction in functional skills, perhaps in unison but certainly in tandem. Improvements in educator preparation, pedagogy (universal design for learning, project-based learning, embedded instruction, culturally responsive teaching, and formative assessment strategies) and policy could be made to work toward consistency (Hanreddy & Östlund, 2020)

Special educators often have the autonomy and independent decision-making that leads to academic access for their SWSCD (Timberlake, 2014). While there is an IEP team, the special education teacher drafts the majority of the IEP document. They are certainly the primary person making decisions for the student on a daily basis as those decisions relate to their IEPs. Teachers often decide that SWSCD require instruction within their special education classrooms because their classrooms run differently, which they believe is necessary; however, having this autonomy and control with a lack of data driving the decision should be observed with caution. Autonomy is not synonymous with validity, nor should it be all-encompassing.

Teachers view student behaviors such as academic response, task management, and competing response as variables that contribute to accessing the general education curriculum (Lee et al., 2008). Student behavior is also specifically seen as a barrier to participation in the general education environment (Agran et al., 2002). When considering student behavior in relation to access, teachers look at instructional behavior, management behavior, and teacher focus. In reality, there are five variables that impact student access to the general education curriculum: student academic response, student competing response, teacher instructional behavior, teacher management behavior, and teacher focus. Teachers tend to focus less on SWSCD when they areteaching the curriculum, and more when they are addressing IEP goals. However, when special education teachers are given more responsibility for the curricu-

lum itself, they tend to be able to provide SAI to their SWSCDs (Dymond et al., 2006).

Special education teachers are often confused about what curricular access really means. They are overwhelmed by the logistics that surround it, and do not have the opportunity to work with other colleagues to ensure equitable and meaningful access occurs (Petersen, 2015). They identify resistance to general education curriculum access by various stakeholders (Agran et al., 2002). They lack professional development, and do not have a solid understanding of the need for general education access, Common Core State Standards, the Essentialized Elements of the DLM, the purpose of alternate assessments, as well as the connection of all of those to IEPs. These are all barriers to being able to provide SAI to SWSCD (Lee et al., 2008; Petersen, 2015; Taub et al., 2019).

Strong self-efficacy drives an individual to persist in difficult tasks because ultimately, they believe they will succeed (Bandura, 1977), and the task of aligning instruction for SWSCD to the standards has been identified as a difficult task (Petersen, 2015). Thus, not every teacher of SWSCD provides SAI (Karvonen et al., 2011) and it is hypothesized that self-efficacy is a characteristic that enables teachers to do so. Teachers with high self-efficacy have in-depth knowledge of their students, an effective approach to engaging with students, and strong knowledge of explicit teaching and behavior management techniques. When they feel confident with the content and their own knowledge of the student, they can assist students in achieving success with the instruction (Shaukat et al., 2018).

Albert Bandura says that "efficacy expectations determine how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences" (p. 194). Many studies have focused on the effects of teacher self-efficacy on instructional practices, student performance, and teacher attitudes toward their work (Zee & Koomen, 2016). Higher efficacy of teachers of students with learning, emotional, and behavioral difficulties is due to in-depth knowledge of their students, having an effective approach to engage with the students, and having strong knowledge of explicit teaching and behavior management techniques (Kuronja et al., 2018). Specific to teaching science to students with disabilities, special education teachers who felt confident with the content and their own knowledge of the student, could assist the student in achieving success with the instruction (Ateş et al., 2019). Teachers with high self-efficacy are also more likely to try new methods, implement new programs, be organized, and be confident (Allinder, 1994).

Regarding the general teaching of students with disabilities, teachers who had a greater sense of self-efficacy also had higher levels of job satisfaction (Shaukat et al., 2018). When their background and training were sufficiently matched to their job expectations, they were happier with their abilities to teach students with disabilities. Being supportive of inclusion is also significantly correlated to higher self-efficacy (Saloviita, 2019). With inclusionary practices, there is a significant relationship between self-efficacy and inclusion efficacy (Ozokcu, 2017). Specifically, this was more prevalent with a number of specific categories: females, experienced educators, those with special education training, and those who had experience with students with disabilities. However, young teachers also had more inclusion efficacy in particular. The self-efficacy beliefs of general and special education teachers influence the decisions paraprofessionals make about where they support SWSCD for daily class activities (Ruppar et al., 2018). The self-efficacy of special education teachers is influenced by district expectations and teacher preparation, including their knowledge of content.

Methods

This qualitative, phenomenological study explores the lived experiences of Pennsylvania special education teachers with high self-efficacy in providing standards-aligned instruction (SAI) to students with significant cognitive disabilities (SWSCD). The study seeks to identify patterns in these experiences and understand the factors enabling teachers to overcome barriers. The research was conducted using individual interviews of special education teachers with high self-efficacy who provided SAI to SWSCD. Participants were recruited from school districts and intermediate units (IUs) based on their instructional roles and self-efficacy scores. The six participants provided SAI to SWSCD in at least one core subject and rated themselves on the instructional self-efficacy questions to reflect a total of 53 or more points. They taught students from kindergarten through 12th grade and had a range of 14 – 22

years of total teaching experience, with 8 – 16 years of experience teaching SWSCD.

All participants were required to rate their instructional self-efficacy. The questions used for the self-efficacy rating were taken with permission from the Teacher Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001). The long form identifies eight questions that target efficacy in instructional strategies. The responses available ranged from 1 (nothing) to 9 (a great deal), with the options of 3 (very little), 5 (some influence) and 7 (quite a bit) in between. The researcher identified 53 points as the lowest total number of points required to participate in the study. The six participants included in this study believed they had anywhere from quite a bit to a great deal of influence when responding to the questions from the self-efficacy scale. They felt they could respond well to difficult questions from their students, could gauge student comprehension of what they taught, could craft good questions for their students, and could do a lot to adjust their lessons to the appropriate level needed by their students. They believed they could use a variety of assessment strategies, provide an alternate explanation when students need it, assist families in helping their children do well in school, and use alternative teaching and learning strategies in their classrooms. These are all markers of high self-efficacy; teachers like these are more likely to try new methods, implement new programs, be organized, and be confident (Allinder, 1994).

The data collected for this study was done through virtual interviews. The meetings were recorded and transcribed, and the researcher coded the transcripts for common themes that emerged. This began with a review of each individual transcript to identify the major themes aligned with the research questions and conceptual framework. Responses were highlighted on the transcript and organized in a spreadsheet with the various codes as headings for each column. Once all transcripts had been reviewed thoroughly from both an individual and comparative lens, and all codes were identified and assigned, themes were then gleaned. Finally, within the information identified as evidence of high self-efficacy, there was an exploration for connection to the conceptual framework of how high self-efficacy enables teachers to work around or through the previously identified barriers.

Findings

Despite the complexity of providing SAI, teachers with high self-efficacy successfully navigated challenges. Four major findings emerged:

1. Teachers with high self-efficacy face between two and four barriers to SAI.
2. Teachers with high self-efficacy possess skills that help them navigate barriers.
3. There is a lack of professional development opportunities for SAI and SWSCD.
4. These teachers find purpose and value in providing SAI.

A key barrier cited by two participants was the lack of standards-aligned curricular materials. While others had access to some resources, they still struggled with consistency. Some teachers modified general education resources, yet materials for science and social studies were particularly scarce. Participant 6 noted that their class schedule did not even include these subjects. Participant 2 echoed this, stating that no alternative science or social studies programs were available.

Administrative support was another challenge. Five participants reported limited proactive assistance from their administrators. While some had supportive supervisors, resources were often provided only upon request. Participant 3 recalled struggling to develop a curriculum alone until a supervisor eventually provided materials. Participant 5 expressed frustration with administrators' lack of understanding, stating they often praised efforts without providing concrete support. In contrast, Participant 6 appreciated the efforts of one central office administrator who actively facilitated training and resources but felt building-level administrators lacked engagement.

Teaching students across multiple grade levels added complexity. Participant 3 described the challenge of piecing together various instructional programs to accommodate different students. Similarly, Participant 4 noted the difficulty of covering appropriate standards when students function at different grade levels, requiring supplementary instruction to bridge gaps.

Professional development (PD) was identified as a con-

sistent area of concern. All six participants reported a lack of PD specific to teaching standards. Participant 3 stated they had never received PD directly related to standards. Many mentioned the Dynamic Learning Maps (DLM) program, which provides state-mandated training (Accessible Teaching, Learning, and Assessment Systems, 2023). However, participants found these resources cumbersome and minimally beneficial. States began using the Dynamic Learning Maps (DLM) assessment in 2015. The DLM website provides two sets of guidance depending on a state's participation: the year-end model, which is the typical spring assessment, and the instructionally embedded model, which teachers can use to provide instruction and assess learning throughout the year (ATLAS, 2023). Fifteen states, including Pennsylvania, use the year-end model, and six states use the instructionally embedded model. As part of the development of the DLM website, the authors also created guides for Essential Elements, which are content-specific skills that are linked with the Common Core State Standards. This provides for greater ability to link instruction to assessment, and instruction to standards, as required by ESSA and IDEA.

All participants exhibited confidence in their teaching abilities and a strong belief in their capacity to support students. They described themselves as patient, creative, flexible, and self-motivated. Participant 1 confidently stated, "When it comes to content… I can make it work…I know how to teach." Others expressed determination to work around barriers, with Participant 3 highlighting how they designed an entire program based on what they had learned worked best. Participant 5 candidly asserted their ability to engage students in high-level work aligned with general education.

Problem-solving was a critical skill. Four participants emphasized modifying general education curricula to align with students' needs. Participant 4 detailed a structured process of aligning instructional levels with appropriate content standards while supplementing where gaps existed. Participant 6 linked SAI with functional skills to maximize instruction time. Participants 3 and 5 integrated multiple supplemental resources when core materials proved inadequate. Collaboration also played a role; five participants highlighted working with colleagues to enhance their instructional effectiveness.

Evidence-based instructional strategies were commonly employed. Teachers used differentiated instruction, flexible groupings, formative assessments, pre-teaching, and re-teaching. Participant 3 viewed student behavior as communication, using it to identify instructional gaps for students exhibiting behaviors during instruction. Participant 5 discussed the use of tiered instructional materials to allow for student progression.

Organization and planning were indicated as essential. Five participants stressed the importance of maintaining structured routines and advance preparation. Participant 2 emphasized leveraging classroom assistants to ensure lessons were well-executed. Participant 3 highlighted the significance of routines for student success, while Participant 5 noted that breaking complex projects into manageable components supported engagement.

Strong relationships with students also played a pivotal role. Participant 1 openly expressed love for their students, while Participant 3 emphasized how understanding student interests enhanced teaching effectiveness. Participant 5 refused to impose limits on student potential, tailoring instruction to accommodate different learning styles.

Job satisfaction emerged as a defining characteristic. Participant 1 described feeling excited to work daily, believing that dedication and care defined an effective teacher. Participant 3 expressed deep commitment, calling their job rewarding. Participant 5 viewed teaching as more than a job, emphasizing the importance of core values in education.

Teachers viewed SAI as instrumental in preparing SWSCD for broader learning opportunities. Participant 1 believed SAI facilitated age-appropriate interactions and socialization. Participant 2 saw it as a framework for guiding student growth. Participant 3 emphasized that SWSCD, given time and practice, could achieve significant milestones. Participant 4 linked SAI to increased inclusion opportunities, while Participant 5 noted its role in promoting independence and peer connections. Participant 6 observed overall academic and social growth in students receiving SAI.

Participants also shared personal experiences that

contributed to their instructional approaches. Some had additional certifications in related fields, while others had co-teaching experience in general education or personal connections to special education through family members. These experiences informed their perspectives on student learning and instructional effectiveness.

Discussion

Participants in this study identified four primary barriers to providing SAI to SWSCD. A common challenge among all teachers was the lack of administrative support. In this research, the primary concern was the absence of proactive leadership encouraging or equipping teachers to provide SAI. While some participants had administrators who responded to requests for resources, they did not receive preemptive guidance. This suggests a possible connection between the lack of curricular materials and weak administrative expectations. Because administrators play a key role in reviewing materials and recommending instructional programs, addressing this barrier would require prioritizing SAI resources.

Another shared barrier was the lack of professional development. Professional development is often determined by district-wide priorities, and because special education teachers serving SWSCD represent a small fraction of the workforce, they may not receive specialized training. Most district-wide professional development focuses on general education initiatives, making it difficult to provide targeted training for teachers of SWSCD.

The teachers in this study self-identified as having high self-efficacy and provided SAI despite challenges. None described the process as simple, but their responses reflected confidence, perseverance, and adaptability. Research indicates that teacher self-efficacy is a key factor in students' access to general education curriculum, with experienced teachers generally reporting higher self-efficacy (Ruppar et al., 2018; Kazanopoulos et al., 2022; Ozokcu, 2017). However, the extent to which experience directly influences self-efficacy remains inconclusive.

Teachers with high self-efficacy believe in their competency, which enables them to persist despite difficulties (Allinder, 1994). They focus on problem-solving rather than questioning their ability to succeed. Teachers with confidence in their instructional skills are more likely to explore different strategies until they find effective methods for their students.

Organization was another key characteristic identified. The ability to align cross-grade level standards within a single lesson requires careful planning. Teachers with high self-efficacy apply organizational strategies to streamline their instruction and ensure continuity across academic years. Developing core instructional units allows teachers to refine and improve their methods rather than constantly starting from scratch.

Study participants employed evidence-based teaching strategies known to improve student outcomes. The focus was not only on what they taught but how they delivered instruction. While SAI for SWSCD is complex, using high-fidelity instructional practices ensures that instruction is effective and research-supported (Zee & Koomen, 2016). Seeing measurable student growth further reinforces teacher motivation and commitment to providing SAI.

Teachers in this study also expressed strong job satisfaction, which research links to higher self-efficacy (Shaukat et al., 2018). They reported that providing SAI was meaningful and contributed to student success. Teachers with high self-efficacy tend to have a more inclusive mindset and are more effective in implementing inclusive practices (Ozokcu, 2017). Despite the challenges of SAI, these teachers viewed their work as purposeful and fulfilling.

Limitations

This study has several limitations common to qualitative research, including subjectivity, researcher bias, and participant reactivity. The researcher's background as a former teacher of SWSCD who provided SAI may have influenced interpretation of findings. Additionally, the researcher's role as an administrator in one of the participating districts may have affected participant responses.

Another limitation is the reliance on teacher self-reporting. Teachers were not required to provide evidence of their SAI implementation, so the accuracy of their responses is unknown. While they confirmed providing SAI in at least one core content area, the fi-

delity of their instruction was not independently verified. Furthermore, the study's small sample size of six participants limits generalizability to a broader population.

Recommendations for Teacher Preparation

This study explores barriers to providing SAI to SWSCD and the strategies used by high self-efficacy teachers to navigate those barriers. The findings suggest that while challenges persist, teachers with strong self-efficacy are capable of overcoming them through competency, organization, evidence-based instruction, and student-centered approaches.

Teachers in this study identified between two and four barriers, yet they successfully provided SAI. Notably, they did so despite a lack of PD in this area. Their ability to navigate challenges highlights the importance of developing teacher self-efficacy through targeted professional growth opportunities and administrative support.

Findings from this study have direct implications for both special education teachers and administrators. Teaching is inherently complex, and barriers exist in all classrooms. Research consistently shows that teachers with high self-efficacy achieve better student outcomes and are more effective in overcoming challenges. Teacher preparation programs should explicitly connect teacher success to the various instructional strategies associated with high self-efficacy. The coursework should also focus on providing the importance and necessity of SAI, especially when focused on SWSCD.

Administrators play a key role in shaping the instructional landscape. Many teachers in this study felt that administrators lacked sufficient knowledge about SAI, which limited the support they received. Administrator preparation programs should prioritize a focus on SAI for SWSCD to build administrators' capacity to guide and support SAI implementation effectively.

Encouraging collaboration between special education and general education teachers can help bridge gaps in instructional planning. Teachers of SWSCD benefit from partnerships with general education colleagues, particularly in content areas where special educators may have less expertise. Providing structured opportunities for interdisciplinary collaboration could improve instructional alignment and reduce barriers to SAI implementation.

Recommendations for Future Research

Future research should focus on professional development for teachers of SWSCD and their administrators. Professional development has been linked to improved teacher self-efficacy and inclusive practices, making it a crucial area for further exploration. Studies examining the impact of targeted professional development on teacher self-efficacy and instructional effectiveness could provide valuable insights into best practices for supporting educators in this field. Further investigation into the effectiveness of Dynamic Learning Maps (DLM) resources is also recommended. While these materials are designed to support SAI, many teachers in this study found them cumbersome or impractical. Understanding teacher perceptions of DLM resources and their impact on instructional planning could help refine their application in special education settings.

Additionally, research should assess administrators' knowledge of SAI expectations and how their understanding influences instructional leadership. Providing professional development for school leaders may improve their ability to support teachers effectively, ensuring that SAI is prioritized in instructional planning and resource allocation. Finally, a larger-scale study replicating this research with a broader participant pool would enhance generalizability. Expanding the sample size could provide a more comprehensive understanding of the challenges and enablers associated with providing SAI to SWSCD.

Conclusion

This study highlights the role of teacher self-efficacy in overcoming barriers to SAI for SWSCD. While challenges such as lack of curricular materials, administrative support, and professional development persist, teachers with high self-efficacy employ problem-solving skills, organizational strategies, and evidence-based practices to navigate these obstacles. Their commitment to student success and instructional effectiveness reinforces the importance of fostering self-efficacy among educators.

Findings from this study align with previous research

on teacher efficacy, inclusive practices, and barriers to SAI. Teachers who believe in their abilities are more likely to implement innovative strategies, persist through difficulties, and experience job satisfaction. Addressing systemic barriers through targeted support, professional learning, and administrative engagement can further empower educators and enhance outcomes for SWSCD.

By fostering high self-efficacy among teachers and providing the necessary resources and training, schools can create an environment where all students, including those with significant cognitive disabilities, receive high-quality, standards-aligned instruction.

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