Planning for Specialized Academic Instruction

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2017

ABSTRACT

The majority of students with special needs in California score below proficient levels on statewide assessments, and their special education teachers report feeling overwhelmed. In this study, the teachers were no different. The special education teachers studied serve a dual role as case manager and direct service provider for their caseloads of approximately 20 students with varied disabilities. Teachers reported spending over half of their weekly work hours delivering specialized academic instruction (SAI); however, professional development (PD) related to planning and providing SAI had been limited. This, coupled with the fact that teachers had little to no pre-service training and limited teaching experience, resulted in special education teachers lacking the knowledge and skills to plan effective instructional units based on students' Individualized Education Program (IEP) goals.

There is a very limited body of research on planning for instruction in special education, or planning SAI. However, the author argues that backward design is an approach to instructional planning that makes sense for SAI. The focus of this action research was to train and coach special education teachers on backwards planning instructional units aligned to students' IEP goals. Two of four participating teachers completed all components of the PD offered in this study. While neither teacher reported an increased self-rating of her ability to plan, other data suggests their ability to plan instruction aligned to IEP goals improved. Furthermore, both teachers reported planning significantly more of their caseloads' SAI as a result of the intervention. The teachers who did not complete the PD, though, did not demonstrate improvement in their planning abilities or practice. In her analysis, the author reflects on pervasive obstacles that prevent a focus on instruction in special education, proposes next steps

for the team of teachers studied and next steps more broadly within the field of special education, and suggests further research needed.

INTRODUCTION & CONTEXT

Infinity is a non-profit agency whose focus for the past 30 years has been on providing mental health supports and resources for the highest needs children in the Bay Area, through non-public schools, residential treatment, and wrap-around services. In 2010, our agency made a shift toward serving students in their public school (neighborhood school) settings. We partner with a number of schools across the bay area to provide direct services, oversight, and/or training related to school climate and culture, social/emotional intervention, behavioral intervention, academic intervention, and special education. We have aimed to interrupt the "wait to fail" model, and hope to support schools to better support their high needs students through a comprehensive, multi-tiered system of supports and services-- which may or may not include special education services. At thirteen local charter schools we provide and/or oversee special education program and services.

In our longest-standing six special education partnership schools, we have worked to build out a model that is a multi-tiered system of supports based on Response to Intervention (RtI) theory. This model proposes that, in most school settings, the majority of students (75-85%) should have their academic, social/emotional and behavioral needs met at the schoolwide, general education classroom level, or Tier One level. To meet their needs, a subset of students, some theorists propose 10-20% of the student population, would require supplemental support. Most of these students should be well-served through Tier Two (targeted) level supports, while

the remaining small percentage of students (5-10%) require Tier Three (intensive) level supports. (Fisher & Frey, 2010; Fuchs & Fuchs, 2006; Sailor, 2009).

While we consider the level of case management and coordination required to develop and implement individualized plans a Tier Three-level (intensive) support, students with special needs may be directly served throughout any/all tiers of intervention, depending on their unique needs. Special education services are provided to students with an identified disability requiring an individually designed instructional program to meet their unique learning needs. According to the Individuals with Disabilities Education Act, students qualify for special education services when they are identified to have a disability in one or more of the thirteen federally recognized categories and the disability is found to "adversely affect educational performance" so as to require special services (IDEA, 2004). In 2012, when we entered comprehensive partnerships with six charter schools in Oakland, most of our students with disabilities were eligible for special education under the categories of Specific Learning Disability (SLD) and/or Speech Language Impairment (SLI). Many of these students were well-served in Tier Two intervention groups, which could be comprised of both students with and without disabilities, as part of the RtI model we were building on site. Many of our Academic Intervention Specialists had small caseloads --of 10-12 students-- with relatively low level of need, and also provided reading intervention to students without IEPs who were identified through schoolwide, universal screening measures. As a result, instructional planning and programming was mostly based on scripted intervention curriculum designed for the 15-20% of students who are, according to RtI theory, not well-served by the grade level general education curriculum alone, and require a supplemental boost through Tier 2 intervention.

Over the past four years, however, the population of students served has shifted. Our partnership schools have earned positive reputations for supporting students with disabilities in inclusive settings, and, as a result, a number of families from the area have made the decision to leave their self-contained, special day class district settings and/or non-public school placements to enroll at these public charter schools. Charter schools must accept any student who applies for enrollment, regardless of disability. If there are more applicants than spots available, a lottery system is employed to determine admission (California Department of Education [CDE], 2016). Unlike school districts, which can provide a range of programs, services and supports for students across their entire local educational agency (LEA) and, therefore, develop specialization at certain sites, our partner charter schools each operate as their own LEA. This means they must provide services and supports at the exact site where the student enrolls. This has led to a wider range of student needs on a single campus over time. The change in population and student needs has happened quickly, and we now have more students who require more intensive, more individualized supports.

As students' needs have shifted, so has our allocation of resources. In California, special education funding is tied to average daily attendance of all students, so an increase in students with IEPs and increase in student level of academic need does not result in any increase in funding for a school (Legislative Analyst's Office [LAO], 2013). Special education teachers' caseloads have grown to about 20 students spanning across up to six grade levels, some of whom require high level of direct services and team coordination. Therefore, special education teachers' schedules have changed to include more time providing direct service to students with higher academic needs, more collaborative team meetings, more student planning meetings and more paperwork and documentation time. This means that special education teachers spend less

time supporting tier one and tier two level interventions on sites. Schedules are tighter and less flexible than before, and are still regularly interrupted at some sites to pull special education teachers into crisis response to support students with significant behaviors.

Higher caseloads and tighter schedules have led to less flexibility in how services are provided at these schools. As we have worked to figure out the model over the past few years, and have been confronted with reasons to adjust the model over time, we have yet to find the right balance for most students. The program varies school to school, teacher to teacher, depending on a number of factors. Students have been supported through various models, including specialized academic instruction through push-in, co-teaching, and pull-out supports. All stakeholders have varied opinions about which model is the best overall, but with more stretched resources resulting in less flexibility in schedule, the model of services at Soar and Earth is almost exclusively pull-out, small group or individual instruction.

While the ideal candidate to hold, balance and execute this full plate of responsibilities would be an experienced special education teacher with years of training and experience, the reality is that most of our teachers are novice teachers. The state of California has been in a pervasive teacher shortage, with special education being an area of teacher shortage in the state since 1993 (Cross, 2016). On top of the shortage, special education faces high teacher turnover. The National Center for Education Statistics (NCES) reported that in the 2008-2009 school year, special education teachers left the profession at a rate of 12.3% per year, nearly double the rate of their peers teaching general education (Keigher, 2010). Over the past five years, we have lost six teachers to a change in profession, four of whom pursued other roles in the field of education. Additionally, we have lost five teachers who have moved out of Oakland, for family reasons.

Turnover and program growth have meant that we have hired and filled an average of three vacancies each school year for the past five years.

All thirteen of our program's current special education teachers started their careers as intern teachers, and four are currently working under intern teaching credentials while attending classes part-time to earn their preliminary credentials. Our special education teachers enter the field with little to no pre-service training, and learn how to do the job on the job. As a result, professional development and other support is often focused on whatever is considered highest priority at any given moment, as determined by the teacher and school team. According to teacher reports and the researcher's own experience, special education and IEP legal timelines and compliance are given highest priority. Over time, our program and partner school leadership have reinforced these priorities by focusing professional development and coaching supports on IEPs, compliance and paperwork, rather than teaching and learning.

PROBLEM OF PRACTICE

While special education compliance and paperwork is often prioritized over a focus on teaching and learning, the intent of special education is that students with Individualized Education Programs (IEPs) whose disability impacts academics receive specialized, individualized instruction. Across all types of educational settings in California, it has proven challenging to provide effective specialized instruction leading to high academic outcomes for students with disabilities. While performance improved between 2002 and 2012, the majority of students with disabilities in California still score below proficient level on state assessments (LAO, 2013). In large district settings, there may be resources and opportunities to allow for specialized programs at particular schools to address students' needs. For example, there may be

a special day class or inclusion program at a site focused on meeting the social and academic needs of students on the autism spectrum. Smaller districts and charter schools, however, often face the challenge of meeting a wide range of needs without the same range of resources. In our partner charter schools, which have inclusive models, caseloads are large and include a wide range of student needs across grades TK through 8. This leaves special educators with a challenging task—to develop and implement an instructional program that meets the diverse academic, social-emotional, and behavioral needs of their students.

Since 2010, we have partnered with a number of charter schools across the Bay Area to directly support special education programming, providing both case management and direct services. For the purposes of this project, I will focus two of our longest-standing special education partnerships where we provide direct intervention services to students at the tier two and tier three level—Soar School and Earth Academy. These two Oakland public schools are high need schools. At Soar, 90% of students are eligible for free-reduced lunch and 63% of students are English Language Learners. At Earth, 96% of students are eligible for free-reduced lunch and 70% of students are English Language Learners. Schools are tasked with the challenge of creating a safe school with a positive climate and culture, while maintaining a strong, coherent instructional program.

In this environment, with so many competing needs, it is no surprise that students with special needs may not receive the "special" attention that each student deserves and is afforded by law. Students with special needs at these two schools consistently perform far below grade level on statewide assessments and school-wide benchmarks. There are a variety of factors, both within and outside the realm of special education, that have led to low student achievement. One specific point of impact on student achievement for students with special needs is their special

education direct service-- specialized academic instruction. However, there are still many factors that may impact the ability of special education teachers to provide effective specialized academic instruction to students. Some are out of our control -- related to lack of time and money in high needs schools. With high levels of need and low levels of resources, special education teachers' caseloads have increased, which means more meetings and more paperwork, and less time dedicated to instruction and planning for instruction. Limited time results in teachers reporting not having time to both complete paperwork and plan or prepare instruction within work hours. Limited funds results in high caseloads and limited training, coaching and support. Other factors that impact teachers' abilities to provide effective specialized academic instruction are related to student needs outside of academic needs. For example, many of our students have significant mental health (social, emotional and/or behavioral) needs. There may be a variety of supports in place to address these needs; however, in some cases special education teachers are pulled away from regularly scheduled academic intervention to support with students' behavioral crises. Students' social emotional and behavioral needs, motivation, and family engagement in school may also impact student achievement.

For the purpose of this project, it is important to focus on factors that are within our direct locus of control and the scope of our work. Two major responsibilities of our special education teachers are to lead development of IEPs and provide academic intervention services. Our special education teachers lead their teams in developing Individualized Education Programs (IEPs) for students, including setting annual goals based on student needs, and recommending services to address these goals. They also spend most hours of their school days providing instruction-- specialized academic instruction-- to students. These two crucial components of the work, goal-setting and direct instruction, are happening; however, their effectiveness is questionable. Special

education teachers at these sites are writing compliant IEPs with specific, measurable, attainable, relevant and time-bound goals, but students are not consistently meeting annual IEP goals and it is not clear how aligned instruction has been to the goals in students' IEPs. A critical skill for special education teachers is to be able to move from goal to service of specialized academic instruction-- to be able to plan units or cycles of instruction based on a student's present levels and the team's desired achievement for that student over the course of an upcoming year (Hosp, 2012; Childre, Sands & Pope, 2009). Through regular meetings, teacher comments and informal observations, the researcher has determined that teachers' professional capacity to plan effectively for specialized academic instruction is limited at this time.

Special education teachers across our program this school year have reported, through surveys and conversations, that they believe instructional planning is crucial to their work. They also report that they currently only consistently plan for, on average, only 30% of their students' specialized academic instruction. These same special education teachers indicate that they are not confident planners. Most of our teachers, especially our novice teachers, rate themselves as sub-par planners. However, all report that some, if not all, of their students require instruction that is special education teacher-designed curriculum (rather than scripted curriculum or slightly modified general education curriculum).

Of the four special education teachers who are part of this action research, *all four* reported ahead of this study that some or all of the instruction they provide to students with special needs is teacher-designed curriculum. They agreed that instructional planning is crucial to their work, but reported that they rarely, if ever, plan instruction for their students. *All four* teachers rated their instructional planning skills as mediocre (3 out of a 5 point scale) or lower. Overall, teachers reported they believed instructional planning is important, but they did not plan

for the majority of their instruction and did not feel confident in their instructional planning abilities.

It is up to the IEP team to make decisions about students' goals, direct services and other supports based on data that identifies each student's individualized needs-- the gap between grade level standards and students' present levels (Capizzi, 2008). In order to provide specialized academic instruction that is individualized to meet each student's unique needs, teachers must take a constructivist approach to planning curriculum and developing interventions. **However, our special education teachers in inclusive, charter school settings lacked the knowledge and skills to be able to translate students' IEP goals into instructional unit plans for specialized academic instruction.**

According to Anthony Bryk's framework of essential supports in schools, two main areas that impact classroom instruction (the instructional core) are "Professional Capacity" and "Instructional Guidance" (Bryk, et.al, 2010). This project aimed to improve coherence of our program's instructional guidance and increase teachers' professional capacity to plan units of instruction based on individual goals. It was the researcher's hope that focusing on the problem of planning would lead to refining both goal-setting and instruction. The researcher acknowledges that great plans do not always lead to great instruction; but argues that building teacher skills and knowledge around planning is a critical first step.

LITERATURE REVIEW

Little research exists on planning for instruction in special education, or planning for specialized academic instruction. Therefore, this literature review aims to explore related topics in order to build the argument that *backward design is an approach to instructional planning that makes sense for specially designed instruction, and that professional development in*

backward design (specifically Understanding by Design) will support special education teachers to be more confident and prolific planners. The following section includes a review of literature related to specialized academic instruction (special education services), instructional planning, and teacher preparation and professional development.

Special Education / Specialized Academic Instruction

"Special education means specially designed instruction, at no cost to the parents, to meet the unique needs of a child with a disability" (IDEA, 2004, Section 300.39 (a) (1)). The service category of "Specialized Academic Instruction" is currently used across our statewide charter Special Education Local Plan Area (SELPA) to describe the academic intervention service provided to students with special needs and tailored to meet needs resulting from their identified disabilities. At the federal level, "specially designed instruction" is the term used. The two terms are used interchangeably, and both are defined vaguely in legislation and state educational code. For the purpose of this paper, I will use specialized academic instruction (SAI).

Once it has been determined that a student is eligible for an Individualized Education Program (IEP), the IEP team develops an individualized plan for that student. The team--consisting of at least the parent, student (if of minimum age), a general education teacher, a special education teacher, an administrative representative, and any other related service providers-- uses data to document the student's present levels in all areas, determines areas of need related to the disability, and then develops annual goals to address those areas of need (IDEA, 2004). "For students with disabilities, annual goals form the foundation of the daily delivery of the IEP" (More & Hart, 2013, p104). Once goals are agreed upon, the team determines the services and supplementary aids required to support the student in meeting the annual goals (IDEA, 2004; Capizzi, 2008).

If students' goals are academic, it may be determined that they require specialized academic instruction to support their progress toward goals. Specialized academic instruction must be provided by a qualified special education teacher or under the supervision of a qualified special education teacher (IDEA, 2004). It involves adapting "the content, methodology, or delivery of instruction...to address the unique needs of the child that result from the child's disability" (IDEA, 2004, Section 300.39 (b) (3) (i)). In other words, what makes instruction truly specially designed and individualized for a student with a disability and different from what a general education student receives is that the instruction is delivered based on student learning style and driven by the student's individualized goals. "A clearly written IEP, based on documented student needs, can and should be a guidepost for selecting and designing effective instructional strategies to best meet a student's needs" (Capizzi, 2008, p18). Specialized academic instruction should be planned, organized and meaningful in that it is an intentional and systematic process that specifically addresses the student's needs as expressed in the IEP goals and objectives (Benedict, et.al, 2014).

Special Education requires that students with Individualized Education Programs (IEPs) whose disability impacts academics receive specialized, individualized instruction (IDEA, 2004); however, across all types of educational settings in California, this has proven challenging. While performance improved between 2002 and 2012, the majority of students with disabilities in California still score below proficient level on state assessments (Ehlers, 2013). There is no single factor that has been identified as contributing to low academic performance of students with disabilities, though there are certainly many factors that impact student performance. While research is limited in special education, research in general education suggests that two of these

factors could be teacher quality and quality of instruction (Darling-Hammond & Bransford, 2005).

According to the Individuals with Disabilities Education Act, specialized academic instruction must be provided by a "highly qualified" teacher, who has demonstrated competency in core subjects and, therefore, "is qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of children with disabilities" (IDEA, 2004, Section 1414 (d) (1) (B) (iv) (I)). This requirement can be met at a minimum level with an intern credential—meaning a teacher has passed a set of basic competency tests and is taking classes toward earning a teaching credential (IDEA, 2004). However, "highly qualified" does not mean effective. (Darling-Hammond & Youngs, 2002).

Brownell, et.al (2006), at the Council on Exceptional Children (CEC), asserted that more research is needed on both teacher quality and quality of instruction in special education. Research is limited due to the variance in special education teacher roles and responsibilities, content and grade levels covered by any one special education teacher, and lack of consistency in concept of what constitutes significant achievement for students with special needs. The research that does exist related to general education, however, has concluded that instruction matters, and quality of instruction is correlated with student achievement (Strauss & Sawyer, 1986). Although additional research is needed, in a study presented in 2006, Brownell, et.al, did conclude that the majority of special education teachers studied do need to improve their reading instruction. Two specific components involved in improving reading instruction were identified-- aligning assessments to learning and analyzing them appropriately, and improving teachers' understanding of the curriculum (Brownell, et.al, 2006).

Research on characteristics of effective special education teachers-- teachers providing specialized academic instruction-- indicates that effective teachers have pedagogical content knowledge (Benedict, et.al, 2014; Seo et.al, 2008; Shulman, 1987; Bishop, et.al., 2010; Brownell, et.al., 2013). Pedagogical content knowledge-- teachers' integrated understanding of what to teach and how to teach it-- supports teachers to transform content standards into purposeful units of study using pertinent strategies and resources to that align with students' needs. In other words, teachers with pedagogical content knowledge are able to effectively plan and successfully execute specialized academic instruction (Shulman, 1987; Benedict, et.al., 2014). There is a lack of research, however, on just *how* effective special education teachers do this-- how they (do or should) break down content into units of effective instruction and plan for specialized academic instruction.

Instructional Planning

> *Teachers who plan are more effective, regardless of outcome measure, than teachers who do not plan. Although researchers have not determined whether particular types of planning formats are more effective than other… there is general agreement that planning is a necessary activity in which teachers should engage* (Lederman and Niess, 2000).

Research indicates that quality teaching is critical to students' learning (Darling-Hammond, 2000). Over the past few decades, educational research has mostly focused on identifying aspects of quality instruction that can be observed (Frudden & Stow, 1985). Less research has focused on the less visible but critical phase of instruction-- instructional planning. However, there is a body of research that asserts the value of, what is vaguely defined as, instructional planning, drawing a clear correlation between teacher planning and student achievement (Darling-Hammond, Berry & Thoreson, 2001; Frudden, 2001; Knobloch and Hoop,

2005; Lederman & Niess, 2000). When teachers plan instruction, students spend more time on task (Carnahan, 1980), which leads to greater opportunities to learn. Although it cannot be guaranteed that effective planning leads to effective implementation of those plans, planning is a critical first step toward effective instruction (Wilkerson & Scheffler, 1992). "Teaching is a means to an end, and planning precedes teaching" (Wiggins & McTighe, 2011, p7).

Planning is defined as "preactive decision making that takes place before instruction" (Panasuk, Stone, & Todd, 2002, p2). In addition to delivering engaging, standards-aligned instruction to students in a safe, effective learning environment, and being able to assess students' learning, the California Commission on Teacher Credentialing (CCTC) has determined that teachers should be able to plan for instruction and learning. Planning effective instruction is one of the California Standards for the Teaching Profession: Standard 4: Planning Instruction and Designing Learning Experiences for All Students (CCTC, 2009). Experts agree that planning is something that effective teachers are able to do, and all teachers should be able to do (CCTC, 2009; Lederman & Niess, 2000; Wilkerson & Scheffler, 1992; McCutcheon, 1982; Arnold, 1988; Frudden, 1984); however, most teachers do not have a clear method for planning (Frudden and Stow, 1985). When teachers do plan, often the plans consist of little more than a list of activities (Dorovolomo, Phan, & Maebuta, 2010; Shen, Poppink, Cui, & Fan, 2007). Research does not indicate that a written plan improves instruction more than a mental plan does. *"*That is, the mental act of planning and having objectives is critical, not writing the plan and objectives on paper*"* (Lederman & Niess, 2000, p58). However, a written plan is a crucial part of the assessment of teachers' abilities to plan instruction.

The CCTC offers the following expectations of teachers, related to planning:

> *Teachers use knowledge of students' academic readiness, language proficiency, cultural background, and individual development to plan instruction. They*

> *establish and articulate goals for student learning. They develop and sequence long-term and short-term instructional plans to support student learning. Teachers plan instruction that incorporates appropriate strategies to meet the diverse learning needs of all students. They modify and adapt instructional plans to meet the assessed learning needs of all students* (2009, p11).

These standards are relevant to both general and special education teachers. Special education teachers, like general education teachers, need to use knowledge of students, content, and pedagogy to design long and short-term instructional plans. Short-term instructional planning may include unit or daily lesson plans; long-term instructional planning may include year-long or unit plans. Lesson planning is central to the work of teaching (Ball & Forzani, 2009) because of its impact on instruction (Dorovolomo, Phan, & Maebuta, 2010). Unit planning is a step that should precede daily lesson planning, because "lessons are typically more purposeful and connected when informed by larger unit and course designs" (Wiggins & McTighe, 2005, p8).

Backward Design for Planning Specialized Academic Instruction

Backward design involves planning with the end in mind (Childre, Sands & Pope, 2009; Wiggins & McTighe, 2005; Tyler, 1949; Polya, 1945). It is "an approach to designing a curriculum or unit that begins with the end in mind and designs toward that end" (Wiggins & McTighe, 2005, p338). Though the concept of backward design long pre-dated them, Wiggins and McTighe developed a framework for planning units of instruction using backward design. They called their framework "Understanding by Design" (Wiggins & McTighe, 2005). Understanding by Design, as its name suggests, "reflects the convergence of two interdependent ideas: (1) research on learning and cognition that highlights the centrality of teaching and assessing for understanding, and (2) a helpful and time-honored process for curriculum writing" (Wiggins and McTighe, 2011, p3). Teachers cannot plan learning activities without identifying

exactly what students should learn from the lesson or unit (Childe, Sands & Pope, 2009; Wiggins and McTighe, 2005). Backward design requires that teachers think carefully about what specifically students will learn and how they will demonstrate evidence of learning before considering how to teach the material (Wiggins and McTighe, 2005). The focus is on what students will learn.

Backward design is an approach to planning that aligns well with the IEP's focus on goals to drive the plan, making backward design a natural planning framework for specialized academic instruction. For example, specialized academic instruction should be "carefully scaffolded" to "address students' unique learning needs," and the backward design approach to unit planning has "been highly useful for retraining teachers to design curriculum for scaffolding learning" (Childe, Sands & Pope, 2009, p7). At the heart of the IEP are data-driven goals, discussed and developed by a multidisciplinary team of stakeholders. IEP goals are written in SMART format-- Specific, Measurable, Attainable, Relevant, Time-bound—to indicate "when..., given what…, who…, does what…, how much…, how often…, [and] how [it's] measured (Caurana, 2015, p242). IEP goals should then drive services. This idea of prioritizing standards, skills and understandings and setting goals that then drive specialized services, supports and accommodations aligns with the framework of backward design, which promotes starting with the end in mind.

Wiggins and McTighe's framework of Understanding by Design (2005) recommends a three stage approach to planning through backward design: (1) Identify desired results, (2) Determine acceptable evidence, (3) Plan learning experiences and instruction. Childe, Sands and Pope (2009) assert that when employing a backward design approach to planning for specialized academic instruction, teachers must add a step to the start of the backward planning process—

Step 1: Identify the Learners. Once the learners have been identified, their needs and interests "should be considered throughout all steps of the design process" (Childe, Sands and Pope, 2009, p8). Otherwise, they argue the stages of planning instruction for students with disabilities should follow the stages of backward design, because "when standards, assessment, and inquiry-oriented activities drive the curriculum, learning can be transformed" (Childre, Sands & Pope, 2009, p14).

Teacher Preparation, Professional Development & Adult Learning

Forty-nine of fifty states report a shortage of special education teachers. This is, in part, due to the fact that special education teachers nationwide leave the profession at twice the rate of general education teachers, with a turnover rate of 12.3% (Keigher, 2010). As a result of the shortage and turnover rate of special education teachers, impacted schools are often staffed by novice teachers. Novice teachers, who may have limited or no previous experience in education, are put in the position to take on the full-time responsibilities of a special education teacher, including planning for and delivering specialized academic instruction to students with disabilities.

According to the Bryk framework, teachers' knowledge and skills along with supports for teacher learning impact the instructional core (Bryk, et.al, 2010). Promoting professional development is one of the most influential behaviors of a school leader that impacts teacher performance (Blase & Blase, 2004). How best to support teachers to build their knowledge and skill set, especially with time and resource constraints, has long been a question in education. However, there is a large body of research on this topic, with clear key recommendations that support effective teacher learning. There are many parallels between best practices in teacher learning and student learning. Research indicates that professional development and teacher

training is effective when it is sustained and supported over time, rather than single, isolated sessions (Bransford, Brown & Cocking, 2000; Opfer & Pedder, 2011). Teachers, like students, need clearly defined goals for what they will be learning, and an emphasis of depth over breadth is preferable (Bransford, Brown & Cocking, 2000). Teachers, like students, bring prior knowledge and orientation to learning experiences. They require time and multiple opportunities to practice before truly mastering new learning or skill. Professional development should be ongoing in order to be effective. It should also include the right balance of collaboration, given the context (Bransford, Brown & Cocking, 2000; Opfer & Pedder, 2011). Because "telling ain't training" (Stolovitch & Keeps, 2002), active learning is another key tenet of effective teacher professional development. "The more the learners do, the more the learners learn. Active learners, engaged in meaningful and stimulating activities that are clearly tied to desired performance objectives, learn the best and retain the longest" (Stolovitch & Keeps, 2002, p109).

Teachers may have multiple and sustained opportunities to engage in professional learning in a group training format. Group training allows for building shared understanding and consistent language across a team of teachers. However, there is also research to support the effectiveness of following up on an individual level through instructional coaching (Knight, 2006). Instructional coaching is "nonsupervisory, nonevaluative, individualized guidance" that "is intended to promote teachers' learning and application of instructional expertise" (Taylor, 2008, p12). Moreover, Knight argues that "by offering support, feedback, and intensive, individualized professional learning, coaching promises to be a better way to improve instruction in schools" than traditional, standalone group training (2006, p36). Research suggests a combination of both group training and individualized, follow-up coaching sessions may be most powerful. In a study by Knight and Cornett (2009), teachers who had coaching support after

group professional development reported engaging in practice with the skill more frequently and finding higher value in the skill, compared to those who did not receive coaching (Knight, 2006; Knight & Cornett, 2009).

Finally, a safe learning environment is also important for teacher learning. Sometimes teacher training and professional development involves a transformative change, in which the teacher will be asked to "unlearn" something as they learn something new (Schein, 2004, p321). "It can be difficult for teachers to undertake the task of rethinking their subject matter" and to take risks and be vulnerable (Bransford, Brown & Cocking, 2000, p195). "Helping teachers become comfortable with the role of learner is very important" (Bransford, Brown & Cocking, 2000, p195).

Conclusion

Special education professional development has not kept up with the trajectory of the increasingly complex role of the special educator. Most special education teachers across the country do not have access to the level of professional development that research demonstrates would promote their development of the knowledge and skills required to improve their practice (Benedict, et.al, 2014; Sindelar, Brownell, & Billingsley, 2010). Special education teachers require professional development and training to build their knowledge and skills around how to develop and implement effective specialized academic instruction. This professional development should follow the tenets of effective adult, professional learning—it should be sustained and supported over time, have goals that are clearly defined, engage teachers as active participants, include both group training and aligned, individual coaching, and ensure a safe learning environment for teachers. Because effective planning is a prerequisite to effective

instruction, which leads to student achievement, instructional planning and unit design should be a focus of that professional development. Backward design is a research-validated framework for planning that aligns with the framework of an Individualized Education Program, and the idea that needs drive goals, and goals drive services.

Figure 1: ***Summary of Literature Review***

Problem of Practice	**Literature Review**		
What is the context? What is the problem in that context?	*What do you know about the problem?*	*What has been tried in the past to address the problem? What was successful and why?*	*What do we know about quality interventions of this kind?*
Special education teachers serve students with a wide range of needs. Special education teachers are pulled in many directions with many competing responsibilities / priorities. Special education teachers are not able to plan specialized academic instruction to address students' needs / IEP goals.	Special education teachers do not have access to adequate professional development. Instructional planning correlates with effective instruction; effective instruction correlates with student achievement	There is little research on instructional planning for SAI. However, Backward Design has been an effective model for planning general education instructional units. Planning with the end in mind has supported teachers to think through what learners will need to meet learning targets.	Backward Design aligns with the model of IEP goal-setting and designing services based on goals. Professional Development is most effective when it is sustained and supported over time, when goals are clearly defined, when teachers are active participants, when group training is followed up with individual coaching, and when teachers feel safe.

THEORY OF ACTION

If we provide a series of professional development / trainings on backwards planning instructional units and provide opportunities for one-on-one coaching & feedback regarding planning, then special education teachers will be able to effectively plan a unit of specialized academic instruction for students that considers their unique needs & learning styles and addresses IEP goals.

Figure 2: *Theory of Action*

Intervention	Expected Outcome	Research Methods / Data Collection
What are you going to try? Why do you think it will impact the problem? What is your rationale?	*What do you think will change/ improve?*	*How will you know if it changed/ improved? What data will you collect?**
Professional Development (including group training and individual coaching) on backward design for instructional planning. PD on backward design will build teachers' knowledge and skills around how to plan for instruction; Training and coaching will provide time to apply knowledge and skills to developing actual student intervention plans. Resources (PD and coaching time) dedicated to instructional planning will demonstrate the importance of instruction and instructional planning, even in face of competing priorities	Teachers understand planning is crucial to providing effective specialized academic instruction, and teachers improve their knowledge of planning and skills to plan. Teachers feel more confident in their ability to plan effective SAI. This will lead to teachers planning more consistently for their students' specialized academic instruction. Teachers will plan instruction and assessments aligned to students' IEP goals.	Data will be collected to measure impact of this intervention and to inform the process along the way. Data to measure impact include: Teacher surveys Teacher reflections Sample instructional plans Researcher notes (research journal) Data to measure process include: Teacher surveys Teacher reflections Researcher notes (research journal)

**See also Figure 3: Data Collection Plan*

INTERVENTION

The intervention for this action research was designed to address the problem of practice identified-- special education teachers in inclusive settings lack the knowledge and skills to be able to translate students' IEP goals into instructional unit plans for specialized academic instruction. The intervention was designed to specifically target the lack of knowledge and skills through training and coaching, including opportunities to practice and apply learning. As a result of this intervention, the researcher anticipated being able to measure an impact on teachers' planning abilities and planning practices.

Participants in this action research were chosen from a group of thirteen teachers based on their perceived availability to participate in this intervention-- all four already had standing, weekly meetings scheduled with the researcher dedicated to supervision and support in their role.

Two participating teachers each from two participating schools -- two teachers from Soar School, two teachers from Earth Academy. One teacher from each site is a first year, intern teacher; the other teacher from each site is slightly more experienced-- one 3rd year teacher clearing her credential, one 4th year teacher with a clear credential.

Before the intervention, the focus of this meeting time was rarely dedicated to instruction or instructional planning. Instead, the focus was often on other topics such as legal compliance matters in special education, development of paperwork for Individual Education Programs (IEPs), student behavioral plans, and collaboration with general education staff. Participating teachers acknowledge these other topics as competing priorities that prevent them from allocating time to planning. However, the researcher did not have control to make any changes to these or other time and resource limitations (like teacher caseload size and range, or teacher need to respond to student behaviors or crises at any given moment), so none of these factors was able to be addressed within the scope of this action research. The intervention was initially designed and amended along the way to fit the current circumstances and capacity of those involved-- the participating teachers and the researcher.

The intervention for this study included those components listed in the theory of action-- a three-part group training on backwards planning from IEP goals and a series of individual follow-up coaching sessions focused on planning. Participating special education teachers gathered three times over a period of two months for 1 to 2-hour training sessions on backwards planning units of specialized academic instruction based on student IEP goals. Initially, the trainings were planned to be two 2-hour sessions over an approximately one-month period, scheduled for March 15 and April 19. However, when the second session had to be shortened

due to an urgent program need, the training was extended into May with a third session. These three sessions covered up the following topics:

- Session 1, March, 2 hours: Intro to Backwards Planning & Stage 1
- Session 2, April, 1.5 hours: Review of Stage 1; Stage 2
- Session 3, May, 1 hour: Review of Stages 1&2; Stage 3

Teacher A and Teacher H attended all three sessions. Teacher R attended only the first session, and Teacher L attended only the last session.

Teachers were also scheduled to have 3 to 4 individualized coaching & feedback sessions with the researcher focused on planning specially designed instructional units. Two of these sessions were to take place between the March and April trainings, and one to two more sessions would be offered after the training on April 19. These coaching conversations were to take place during regularly scheduled, weekly, one-on-one meetings with the researcher. However, the frequency and duration of coaching conversations related to planning that actually took place depended on current needs of the caseload and context of each participating teacher. It ended up that Teachers R & L participated in no coaching sessions throughout the study, while Teacher A had only 1 coaching session focused on instructional planning, and Teacher H had 4 of coaching sessions covering instructional planning.

DATA COLLECTION

Data was collected throughout the intervention and through various means. The impact of the intervention was measured through pre- and post-intervention surveys, analysis of actual instructional plans, notes from teacher coaching conversations, and a research journal. Data was collected to determine impact of the intervention, seeking answers to the following overarching research question(s) via a series of sub-questions:

- Does training and coaching on backwards design unit planning impact special education teachers' perceptions of their own ability to plan specialized academic instruction (intervention) for students based on IEP goals and learning style?
    → *What is teachers' current perception of their own planning abilities?*
    → *What does objective evidence indicate about teachers' current planning abilities? Does it support teachers' self-assessment?*

- Does training and coaching on backwards design unit planning improve the quality of special education teachers' intervention unit plans?
    → *What do teachers consider (or not) when planning instruction for SAI?*
    → *What is the connection between unit plans and student IEP goals?*
    → *What does objective evidence indicate about teachers' current planning abilities?*
    → *What do teachers learn when reflecting on plans?*

- Does training and coaching on backwards design unit planning result in special education teachers more consistently planning for units of students' specialized academic instruction?
    → *For what percentage of their students' SAI do teachers actually plan?*

Data was also collected to evaluate and make changes to, as necessary, the process of the intervention. Process data was collected through training evaluations and reflections, notes from teacher coaching conversations, and a research journal. To inform the process of the study and design of this intervention, the researcher sought feedback from participants about the clarity and usefulness of each component of the intervention along the way. This was done through formal reflection and evaluation forms at the end of each training session. The researcher also tracked teachers' progress toward training session objectives. This process data was collected through teacher reflections and a research journal—noting observations during coaching conversations and training sessions. The researcher specifically kept notes on what teachers were considering when planning SAI. The process data collected was then used to determine the specific agenda of each upcoming training session and what to cover in coaching sessions.

Figure 3: ***Intervention Data Collection Plan***

	Purpose / Sub-Question(s) Explored	Activities	Data collected	Component(s)	Type of Data (process or impact)
1	*What is teachers' current perception of their own planning abilities? *What do teachers consider when planning instruction for SAI? *For what percentage of their students' SAI do teachers actually plan? *What is the connection between unit plans and student IEP goals?	Pre-intervention survey Follow-up teacher interviews Coded interview responses; analyzed survey and interview data	Pre-intervention survey responses *(likert-scale ratings & short-answer open responses)* Notes from teacher coaching conversations Research journal *(notes of observations throughout intervention)*	Pre-Intervention baseline information collected from teachers' self-assessment and researcher notes	Impact (pre-intervention)
2	*What does objective evidence indicate about teachers' current planning abilities? *--Does it support teachers' self-assessment?* *--What is the connection between unit plans and IEP goals?*	Collect and analyze actual teacher instructional plans	Baseline analysis of instructional plans* Coaching conversations *(notes)* Research journal *(notes)*	Pre-intervention baseline information collected from teacher work samples	Impact (pre-intervention)
3	How do teachers feel about planning for special education after input/ training? *--Was this component of intervention useful?*	Reflection and evaluation of intervention component	Evaluation responses & reflection responses	PD/training on backwards planning	Process (Collected after each PD training session)
4	What do teachers consider (or not) when planning for SAI? *--What do teachers learn when reflecting on plans? --What is the connection between unit plans and IEP goals?*	Research notes during/after coaching sessions	Research journal notes	Individual coaching sessions with teachers	Process (Collected during & after each coaching session)
5	*After intervention, what is teachers' current perception of their own planning	Post-intervention survey	Post-intervention survey	Post-Intervention information collected from	Impact (post-intervention)

	abilities? *After intervention, what do teachers consider when planning instruction for SAI? *After intervention, for what percentage of their students SAI do teachers actually plan? *What is the connection between unit plans and student IEP goals?	Follow-up teacher interviews	responses *(likert-scale ratings & short-answer open responses)* Follow-up teacher interview responses *(Recording? Research notes?)*	teachers' self-assessment	
6	*After intervention, what does objective evidence indicate about teachers' current planning abilities? -- *Does it support teachers' self-assessment?* *--What is the connection between unit plans and IEP goals?*	Collect and analyze actual teacher instructional plans	Post-intervention analysis of instructional plans**	Post-intervention information collected from teacher work samples	Impact (post-intervention)

***** No teachers were able to produce written instructional plans at the start of the study, so there is no notes. Process baseline analysis of plans. Baseline data is that plans did not exist.
******Only one teacher completed and submitted a written instructional plan at the end of the study.

The researcher planned to collect samples of teachers' instructional plans to help measure the impact of this intervention-- at least one at the start of the intervention as a pre-test measure and one at the conclusion of the intervention as a post-test measure. However, at the start of this intervention, none of the four participants had a written unit plan to share. This was analyzed as a data point in and of itself, along with the one and only plan that was submitted by one of the four participating teachers at the end of the intervention.

ANALYSIS, FINDINGS & IMPLICATIONS

Methods for Data Analysis

The data for this study was collected over a period of two months, mid-March to mid-May 2017. Written surveys and reflections were administered to teachers at group training sessions.

Instructional plans were solicited in either paper or electronic format; however, only one teacher submitted an instructional plan and she did so electronically. Coaching conversation notes were taken on computer and coded to reflect whether or not conversations during the meeting were related to the intervention (instructional planning) or other topics. The researcher journal notes were also taken on computer, or transferred from paper to computer soon after a session. After it was all collected, data was then entered into a single electronic database for coding and analysis. Once entered, data from surveys, reflections, coaching conversations and research journal notes were then coded and sorted by category. Data was analyzed by color-coding data points and assigning category codes aligned with the problem of practice and research questions. After assigning a category to each data point, categories were grouped under guiding research questions and analyzed to answer the guiding research questions. Categories included:

- Teacher ability to plan / quality of plans - self assessment
- Teacher ability to plan / quality of plans - other evidence
- Teacher planning practice - consistency
- Teacher planning practice - considerations
- Teacher planning practice - connection to student IEP goals

Figure 4: Data Coding Categories Aligned With Guiding Research Questions

Research Questions	Relevant Coding Categories
Does training and coaching on backwards design unit planning impact special education teachers' perceptions of their own ability to plan specialized academic instruction for students based on IEP goals?	● Teacher ability to plan / quality of plans - self assessment
Does training and coaching on backwards design unit planning improve the quality of special education teachers' specialized academic instruction unit plans?	● Teacher ability to plan / quality of plans - other evidence ● Teacher planning practice - considerations ● Teacher planning practice - connection to student IEP goals
Does training and coaching on backwards design unit planning result in special education teachers	● Teacher planning practice - consistency

more consistently planning for their students' specialized academic instruction?	

Analysis of Process: Implementation of Professional Development

Process data collected directly from teachers indicated that they found professional development sessions clear and useful. Feedback also indicated that teacher participants were very interested in focusing more on instruction and instructional planning, but were facing obstacles and competing priorities. *"I wish I was able to attend the first 2 sessions, however catching the tail end of this series has gotten me excited to check out the resources you provided & use these strategies next year." - Teacher L, May 2017.* When asked at the start of the study, "In your current role, how important is unit/cycle planning for SAI?" Teacher R responded, *"To me, 5- extremely important; My supervisor knows the importance, 5- extremely important; Time actually allotted systematically, 2- slightly important."* This indicates that while she and her supervisor (the researcher) agree on the importance instructional planning, Teacher R felt like she was not set up to manage her time in a way that prioritized instructional planning. Teacher A, another intern teacher, echoed her sentiments. After the second training session (April 2017), Teacher A reflected, *"I found this time very valuable - I wish I had space to do this with all my groups. Maybe next year!"*

In an effort to respond to competing needs and time constraints while keeping teachers engaged in this action research, the intervention for this action research changed over the course of the research period. Shifts related to individual participant and group needs, based on worksite demands. Initially, the intervention was designed to ask teachers to select one focus student or group to plan for and follow that student/group throughout the intervention, developing and iterating on the single unit plan. However, this ended up not being possible due to the extension

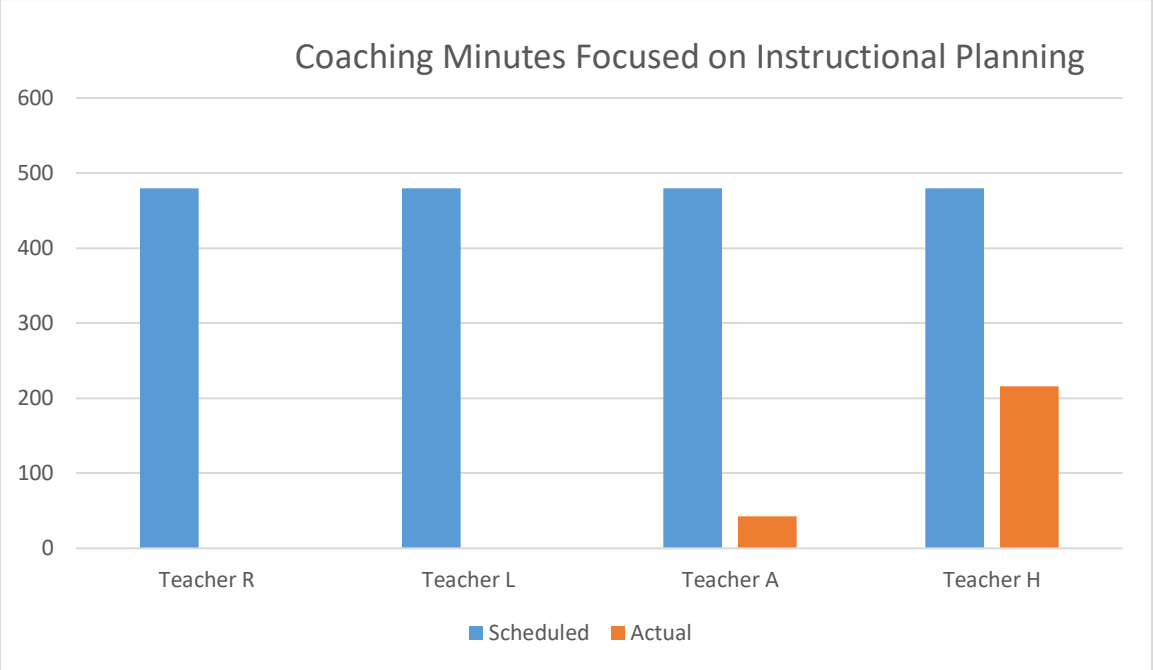
of the intervention into May and the impact of statewide testing on teachers' schedules and SAI groups. In an effort to be responsive to teachers' needs and keep the training and coaching relevant to teachers throughout, teachers were allowed to work on different students/groups' plans throughout the intervention. While teachers' comments on reflections indicated appreciation for this flexibility, this shift in the intervention made tracking data and monitoring the intervention impact more challenging.

One-on-one coaching conversations were designed to take place during existing meetings scheduled weekly between each teacher and the researcher. The researcher attempted to focus on instructional planning during these hour-long, standing meetings. While meetings did occur regularly and on schedule, the topics of conversation during these meetings were often focused on other priorities of the time. For example, in 8 meetings over the intervention period of 2 months, 0% of session time was focused on instructional planning for Teacher R; 0% for Teacher L; 9% for Teacher A; and 45% for Teacher H [See Figure 5]. Teacher needs ultimately drive the agenda for these meetings, which means that the teacher must consider a topic a priority requiring support for it to make it on the agenda. While Teacher H prioritized conversations about instructional planning almost half of the time, other teachers rarely or never prioritized the topic of instructional planning. If not instructional planning, teachers prioritized topics that fall within the following researcher-created categories, listed from most commonly discussed to least commonly discussed:

1. IEP development and/or student support planning (non-instructional)
2. Teacher job roles and placement for next school year
3. Scheduling and other logistics
4. Statewide testing
5. Documentation and paperwork
6. 5th or 8th grade transition planning

7. Reflection and self-evaluation
8. Debrief lesson observation
9. Collaboration and/or partnership with school staff
10. Accessing resources

Figure 5: Coaching Minutes Focused on Instructional Planning



"Teachers need time to develop, absorb, discuss and practice new knowledge" (Opfer & Pedder, 2011, p384). The researcher suggests that more time spent supporting teachers with instructional planning would likely have led to a greater impact on teacher planning practice. "Most research has concluded that activities that effectively support teachers' professional learning need to be sustained and intensive rather than brief and sporadic. ...Thus, professional development that involves significant numbers of contact hours over a long period of time is typically associated with effectiveness" (Opfer & Pedder, 2011, p384).

In this study, schoolwide systems, culture and organization seemed to impact the time and energy that special education teachers were willing and able to dedicate to instruction and instructional planning. Soar School is considered by school staff and Infinity program staff to be a stable school site with capable leaders and overall positive school culture. Earth Academy, however, is considered a much less stable and more chaotic school site, with students demonstrating more significant behavioral needs.

At Soar School, Teachers A and H prioritized instructional planning as a topic of conversation at least some of the time. Still, Teacher A, a first year teacher, spent much more time seeking support related to scheduling, logistics, and IEP and student plan development. When not focused on instructional planning, Teacher H, a third year teacher, prioritized debriefing observations and reflecting on her learning and practice. Due to uncertain circumstances for the following year, both teachers at Soar also prioritized discussing plans and roles for next year.

At Earth Academy, Teachers R and L did not prioritize attendance at professional development sessions or seeking support related to instructional planning. Instead, Teachers R and L most often sought support around development of student plans (non-instructional) – often in response to events that led to student suspensions. Earth Academy's staffing and structural plans for next year were also uncertain, which led to teachers there prioritizing conversations around planning for next year. Additional time was dedicated to transitions conversations once it was determined that these two teachers would not return to Earth Academy the following year.

Findings: Impact of the Intervention

The impact of this intervention was measured and analyzed in response to the three guiding research questions, and analysis is presented as such.

Does training and coaching on backwards design unit planning impact special education teachers' perceptions of their own ability to plan specialized academic instruction for students based on IEP goals?

In regard to their abilities to plan specialized academic instruction, all participating teachers rated themselves consistently before, during and after this intervention. Even the two teachers who attended all three training sessions rated their own abilities the same at all three survey points. Before, during, and after the intervention, Teacher H rated herself 3 of 5, somewhat capable; Teacher A rated herself 2 of 5, slightly capable.

For Teacher H, the researcher believes the pre-intervention self-rating is accurate, but the post-intervention self-rating of Teacher H is an underestimation of her abilities. There are a couple possible explanations for the lack of self-perceived improvement in planning ability. One is the fact that Teacher H is a high-achiever with high expectations for herself. As she noted in a coaching conversation, "I expect a lot of myself and know I can be hard on myself." It is possible Teacher H had high expectations for her own improvement related to their planning ability and did not meet these expectations. For example, the researcher believes that Teacher H was not ready to change her own self-evaluation score because she was evaluating herself on her ability to complete written plans for all of her groups, and she was not able to do so by the end of this study. However, the expectation was to complete and submit one written plan for one SAI student or group, and Teacher H did meet this expectation.

Though Teacher A did demonstrate understanding of the principles of instructional planning for SAI, she did not demonstrate application of her learning. Therefore, her self-rating

of 2 - slightly capable - seems appropriate. It could be argued that a rating of 3- somewhat capable – would also have been appropriate for Teacher A at the end of the intervention. Without objective evidence (sample written plan) it is difficult to assess Teacher A's abilities and compare to her self-rating. While research indicates that those with less experience tend to rate themselves least accurately and more commonly overestimate their abilities (Sargeant et al, 2008), the researcher believes that all of these novice teachers rated themselves accurately in their initial surveys.

Overall, the intervention had no measurable impact on teacher self-perception (or at least self-reporting) of planning abilities. The researcher, however, observed an impact on teacher planning abilities, as demonstrated by participation in activities during professional development and coaching conversations. In the future, the researcher would like to consider adding other feedback sources to support teacher reflection and self-rating, as Sargeant, et.al. (2008) argue that accurate self-assessment, without feedback from external sources, is quite difficult. But "accurate self-assessment of one's knowledge and performance leads to more effective use of feedback, improved time management, and appropriate goal setting" (Bercher, 2012, p.27), and learners who know their own level are more likely to improve their understanding and skills (Bercher, 2012). A reflection from Teacher A during a coaching conversation indicates another facet of the importance of self-perception of knowledge and skills-- *"I feel like I'm getting good at writing IEPs and completing paperwork, so I'm more likely to spend time on that than on planning—if I don't feel like I don't know what to do for [planning]" (March 2017)*. This suggests that teacher self-perception is important because if teachers feel confident and empowered in their planning practices, it is less likely that they will avoid the activity, and more likely that they will plan more often.

Does training and coaching on backwards design unit planning improve quality of special education teachers' specialized academic instruction unit plans?

This question was not able to be effectively answered through complete work samples as initially planned. At the start of the intervention, none of the four teachers had written plans for her current cycle of instruction. Then only two of the four teachers participated in most of the intervention, and only one of those two produced a plan at the end of the intervention. Because the intervention spanned a period of two months, March to May 2017, teachers were allowed to work flexibly on relevant plans during each training session, rather than focusing on one single plan as initially planned when the intervention was going to span only one month. At the end of the intervention, teachers were directed to submit their written plan that best demonstrated their understanding and application of backwards planning for specialized academic instruction. They were not required to use the planning template that we had been using during our training sessions. As previously mentioned, only one participating teacher submitted a plan-- Teacher H. The written plans were intended to serve as objective work samples that would be analyzed and compared as pre- and post-intervention measures to help determine impact. Instead, the researcher had to rely on observations and notes from training and coaching sessions to determine impact of this intervention on the quality of participating teachers' instructional plans.

Researcher observations throughout training sessions and coaching conversations suggest that the quality of instructional planning done by Teacher A and Teacher H improved over the course of this intervention. Although Teacher A did not submit plans at the end of the intervention, she did develop plans during the intervention. In her April reflection, Teacher A noted, *"I have a more clear understanding of what I need to do with my group for the next few weeks!"* This indicates that she had both developed some type of plan--whether or not it was written out fully-- and that her knowledge and skills around instructional planning for SAI had

improved. Researcher observations and coaching conversations validated this statement, as Teacher A was able to talk through her instructional plans for one of her groups.

Though Teacher H's self-ratings did not indicate improvement, other evidence, including written plans, researcher observations during training sessions and coaching conversations, indicate that Teacher H's capacity for planning SAI did in fact improve over the course of this intervention. For example, at the start of this intervention, Teacher H tended to jump right into planning learning activities and needed repeated prompting during coaching conversations to start with goals in mind-- "What do you want the students to be able to do by the end of this unit?" In the second training session and follow up coaching conversations, however, Teacher H was able to name IEP goals as a starting point for identifying desired results for students, break down annual goals into a reasonable unit goal, and determine aligned assessments to monitor student progress toward goals. The researcher would argue that by the end of the intervention, Teacher H had reached a level of 4-- very capable-- in her ability to plan targeted instruction for specialized academic instruction. However, Teacher H was not able to reach a point to change her perception of her own skillset, which is important to note. The researcher believes that Teacher H would agree that she improved her ability to work through the first two stages of backwards planning, but that she would hesitate to rate herself a 4 because she continues to lack confidence in her abilities to plan and implement the third stage-- developing learning activities. In other words, she might have felt more confident in planning what to teach, but not yet how to teach it.

While Teacher A participated in all trainings, she often focused on co-planning with Teacher H, which seemingly allowed Teacher A to follow the lead of Teacher H. As a result, Teacher A was not as actively engaged in demonstration and application of her learning as she

might have been if working independently, and research indicates the importance of active engagement for adult learners (Stolovitch & Keeps, 2002). She was also not able to produce a complete, written unit plan for any of her own groups at any point during the intervention. This was likely because Teacher A, a first year intern teacher, was facing organizational and time-management issues and just beginning to build her pedagogical content knowledge. She was busy evaluating students and completing new IEP assessments and paperwork, and her caseload was ever-growing. As a result, she was constantly shifting her instructional groups and schedules. Teacher A was not able to work through a single, consistent group plan over the course of this intervention, which likely contributed to her difficulty completing a written unit plan.

Teachers H & A demonstrated most significant growth in the first two (of three) stages of backwards planning—identifying desired results and aligning assessments with those results. Stage three—learning activities—was what seemingly held back teachers from completing written plans. At various points throughout the study, however, both teachers expressed a lack of confidence in knowing "what to do" with students for teaching & learning activities. This was observed in the third PD session during work time and implied in the incomplete written plans developed by teachers. The focus of the professional development was on finding alignment between goals, assessments and instruction; it was not focused training on the instructional practices themselves. However, teacher comments in coaching conversations and researcher observations indicate that professional development (training and coaching) related to instructional practices is an area of need for this group of teachers. These novice, not yet effective special education teachers lack pedagogical content knowledge—including the content

of the subject being taught and the evidence-based strategies to engage students in learning (Benedict, et.al, 2014).

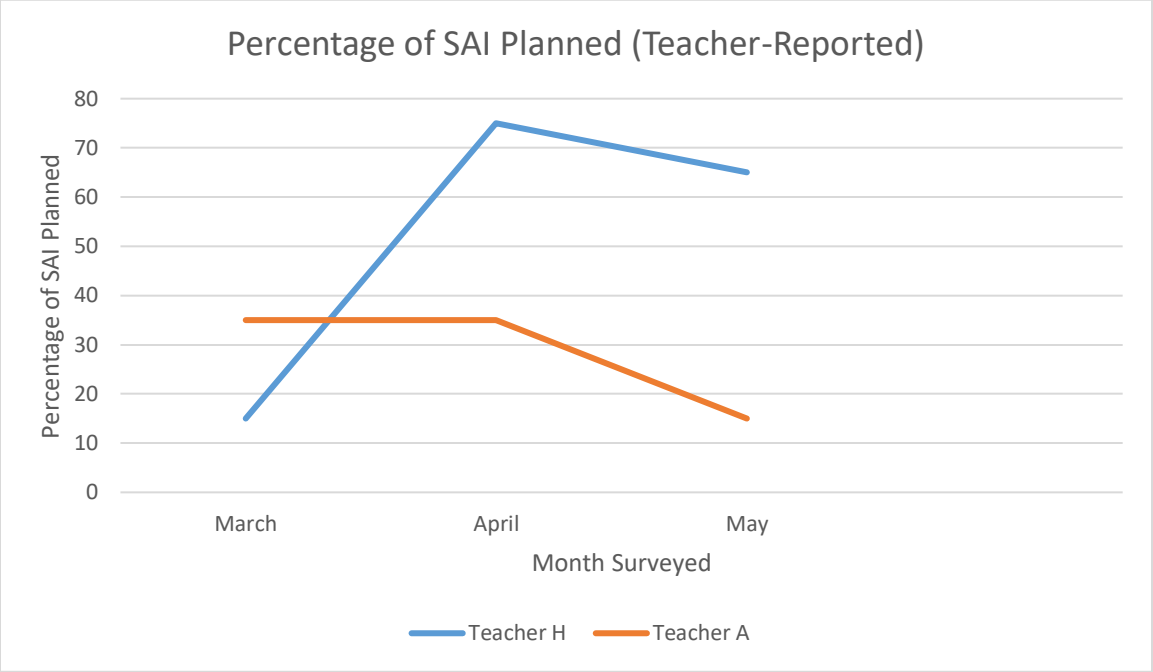
In conclusion, teachers who did not participate in the intervention (training and coaching) did not demonstrate evidence of improvement in their instructional planning. However, teachers who did participate in the training and coaching did demonstrate growth through their participation in professional development sessions and coaching conversations. Marked growth was in the first two stages of backward design—(1) identifying desired results and (2) determining acceptable evidence; while further support is needed to impact teachers' abilities to (3) design instruction that is aligned with desired results and acceptable evidence.

Does training and coaching on backwards design unit planning result in special education teachers more consistently planning for their students' specialized academic instruction?

The most significant impact of this intervention was related to one teacher's planning practice. Teachers were asked to estimate for what percentage of their students' SAI they had a plan for instruction. At the start of the intervention, Teacher H noted that she only had developed instructional plans for 10-20% of her students' specialized academic instruction. After the first training session and a couple follow-up coaching conversations, Teacher H reported that she then had plans for 70-80% of her students' specialized academic instruction. This increase in planning was corroborated by notes from coaching conversations, including the teacher's notes and other evidence of plans and her ability to produce plans when asked. In her first coaching conversation following the first training session (March 16, 2017), Teacher H commented that she was "*inspired by last week's backward planning conversation and want[ed] a more thorough plan for this group! So I did some reflections, goal-setting, and action planning with students."* Then in a coaching conversation the next month, on April 27, 2017, Teacher H noted, "*I did much more scope planning than last year! I do still want to work on this, because this type of work*

helps me feel more prepared and targeted." Once statewide testing started in May, though, Teacher H's planning practice and instructional groups were interrupted, and she reported a slight dip in her planning.

Figure 6: Percentage of SAI Planned, as Reported by Teachers



Teacher H's impression of the importance of unit planning for specialized academic instruction also increased over this time period-- from 4, very important, in March to 5, extremely important, in April. In this case, an increased belief in the importance of instructional planning correlated with a change in planning practice-- an increased consistency in planning. Teacher H demonstrated her value of instructional planning and seemed to make a concerted effort during this time, despite other potential distractions, to follow the intervention plan and utilize coaching time to focus on instructional planning.

At the start of the study, Teacher A noted that she had plans for 30-40% of her students' SAI service. However, when asked to produce the plans, she was not able to show written evidence of unit plans. Teacher A spoke of some shorter-term lesson plans that she had developed as an assignment for her teacher credentialing class; however, in follow up coaching conversations, Teacher A spoke of her instruction as if she had no plans at all. This inconsistency points toward the sense of overwhelm that a novice, intern teacher may experience in her first year. Without seeing evidence of unit plans, the researcher deduced that Teacher A did not have unit plans for 30-40% of her student groups; rather, she may have had ideas of what and how to teach about 30-40% of her students. Ahead of pre-test surveys what it meant to "have a unit plan" was not clearly defined, so it is likely that in the pre-test survey Teacher A had a different understanding than the researcher of what it meant to have developed an instructional plan.

By the midpoint of the study, Teacher A was able to produce evidence of planning. At that time she again indicated that she had plans for 30-40% of her students, and it was then corroborated with other evidence to suggest that may be an accurate estimate. Teacher A reviewed plans at times with the researcher, and at one point reflected, *"I found this time very valuable. I wish I had space to do this with all my groups. Maybe next year" (April 2017).* This indicates that Teacher A did demonstrate an increase in planning between March and April survey points. However, then she indicated a decrease in planning between April and May, which is when she started focusing on administration of the statewide assessments.

Impact data is not available for the two teachers who did not fully participate in the intervention. However, Teacher R's self-assessment of what percentage of students she has planned for, along with follow-up conversations and researcher notes triangulate to indicate a true need for an intervention to her instructional planning practice. She reported only planning

for 0-10% of her students' specialized academic instruction. In her March survey, when responding to the importance of instructional planning, Teacher R indicated that it is extremely important but that the "time actually allotted systematically" to planning indicates that in the grand scheme of her role it is given only "slight importance." After making those comments, Teacher R still was not able to prioritize participation in the training and coaching sessions on instructional planning for SAI. She missed the two following training sessions and prioritized other topics and needs in one-on-one meetings, resulting in zero coaching sessions on instructional planning. Teacher R, a first year, intern teacher, claimed to need more support with special education legal compliance-related matters, IEP and program development, and navigation of partnership with her school (general education) staff. These topics continued to receive prioritized time and attention throughout the study and end of the school year.

In summary, this action research greatly impacted the planning practice of the teacher, Teacher H, who fully participated in the training and coaching. The impact cannot be measured for Teacher A, as data from her March survey is not considered valid. The two teachers who did not participate in all trainings or any coaching demonstrated no evidence of change in planning practice. All Teachers who participated in the first session of training showed a peak in planning practice after reporting to be inspired and informed by the first training on backward design for instructional planning.

Conclusions from this Action Research

Overall, there seems to be a correlation between teacher participation in the action research intervention (including attendance at training sessions and follow-up coaching conversation time spent on the topic of instructional planning) and the impact of this

intervention. In this study, teachers' increase in knowledge and skills related to instructional planning for SAI is correlated with how much time spent in training and coaching on the topic. This indicates that increased knowledge and skills related to instructional planning for specialized academic instruction leads to improved quality of instructional plans and increased frequency and/or consistency of planning for students' instruction, which directly addresses the problem of practice identified ahead of this action research.

This action research proved that backward design training is very useful for setting up the framework for planning specialized academic instruction-- identifying unit goals and aligning assessments to goals. However, teachers (at least novice teachers, like those participating in this study) require significantly more training and support specific to both the content they need to teach and the instructional practices that will help students meet these goals. In a study presented to the Council for Exceptional Children (CEC), two specific components involved in improving reading instruction were identified-- aligning assessments to learning and analyzing them appropriately, and improving teachers' understanding of the curriculum (Brownell, et.al., 2006). Data from this action research showed that even when teachers moved through the first two stages of backwards planning and were able to identify desired results for students and how to assess those results, they still felt insecure/unsure about stage three—their understanding of the curriculum and what their instruction should actually look like. This validates the findings from the Brownell, et.al study (2006), and indicates a need to increase special education teacher access to professional development related to curriculum and instructional strategies.

When asked what could have made the second session more helpful, Teacher H commented, *"More time to work on backwards planning stage 3."* As a result, the full hour available for session 3 was dedicated to stage 3—designing learning activities. However, it was

not just more time that teachers needed. Rather, they needed curriculum that aligned with the goals and assessments they had identified in stages 1 and 2, and training on that curriculum. Time is a limited resource, and limited time is an obstacle to the work of a special education teacher, but more time to plan is not useful if teachers continue to lack the knowledge and skills to complete the instructional planning process and then carry out those plans. The conclusions from this action research validate the problem of practice identified, and prove that directly impacting the knowledge and skills of teachers can result in teachers planning with higher quality and greater consistency. Along with professional development to increase teachers' knowledge and skills, teachers' caseloads and schedules need to be set up in a way that allows them time dedicated to instruction and instructional planning.

Limitations of the Study

There are limitations of the current study and its findings. In fact, participants themselves noted limitations related to the timing of the intervention. *"It falls at a funny time of year. I think it would be a lot more helpful to complete these 3 stages of planning in the beginning of a cycle, so the work feels more relevant & supportive" - Teacher H, May 2017.* With very full caseloads and workloads already, it is important that professional development for teachers is relevant and actionable at that time and does not feel like something extra for the busy teachers. The first session was well-timed, but the fact that the intervention spanned across two months into May made the training less applicable in the eyes of teachers at that time of year. This partially explains the lack of complete participation by all teachers in the intervention. The researcher recommends implementing an intervention such as this at the start of a new school year, with follow-up sessions extending into the first month of school.

The scope of the researcher's role also seemed to impact the study and findings. The intervention was designed to focus on instructional planning and the researcher was leading both group professional development and individual coaching. However, the scope of the researcher's responsibilities far exceeded the scope of instructional practice. The researcher was supervisor and support provider for all aspects of the work of each special education teacher, and so teachers often felt compelled to use meeting time to get support on topics that they considered higher priority at the time—especially related to case management, upcoming student transitions, and planning for next year. The researcher recommends that the leader who provides training and, especially, follow up coaching on instructional planning be a leader who is not also the main provider of supports related to special education law, compliance and behavior intervention.

Next Steps

Although the findings from this action research are limited, they are intriguing and the topic is worthy of continued attention. As a result of analysis, reflection and lessons learned from this action research, the researcher proposes four next steps for the upcoming school year. (1) First, this team of teachers will have a dedicated supervisor responsible for overseeing and coaching special education teachers on instructional practices. (2) This instructional leader will implement a similar series of trainings and coaching supports in the beginning of the upcoming school year. The three separate sessions will be combined into a one-day session in August, and teachers will be provided with a planning template to use. (3) In addition to the training on backward design, teachers will be offered a curriculum menu from which they can identify aligned instructional practices and materials for their instructional unit plan goals. Through this action research, it was clear that the team of special education teachers would benefit from some

scaffolding as they learn to plan instruction based on individualized student needs. A structured but not entirely scripted curriculum will allow for teachers to build their knowledge and skills related to instruction that is multi-sensory and designed to meet the learning needs of students with mild to moderate disabilities. Training on the academic intervention curricula – what to teach and how to teach it-- will also be offered to teachers. Special education teachers will still be responsible for making sure that curriculum options and assessments align to student needs and goals, and they can do so using the framework of backward design. (4) Finally, each participating teacher will have one to two individual coaching sessions monthly with the instructional leader that are dedicated exclusively to instruction and instructional planning.

Implications for the Field & Further Research Needed

It is difficult to draw many generalizable conclusions from this study due to the inconsistent participation of the teachers involved. Only one teacher completed all steps of the intervention and turned in a complete unit plan. But one possible generalization is that it is difficult to bring and maintain a focus on teaching and learning to special education with limited leadership personnel resources and teachers with caseloads of 20 students each—including students with diverse and high needs. Resources must be allocated in such a way that allows instruction and building instructional capacity to be a priority in special education. This includes resources of time (caseload size), curriculum & materials, and professional development for teachers.

Regardless of how resources are allocated, though, it is clear that further research is required in the field of special education to learn how to better train and support both novice and developing special education teachers in planning and delivering instruction. The individualized

nature of the Individual Education Program (IEP) inherently assumes a constructivist approach to teaching and learning through specialized academic instruction (SAI). However, with high teacher turnover rates in special education, a pervasive teacher shortage, and a lack of high quality pre-service and in-service professional development, novice special education teachers are not equipped to plan instruction using a constructivist approach. New, inexperienced teachers need more directive training, around both what and how to teach.

> *Effective special educators have specialized knowledge needed to provide meaningful instruction to students with learning difficulties. This knowledge includes a deep understanding of students with disabilities' developmental and learning needs, knowledge of content, and knowledge for teaching. This integrated knowledge is called pedagogical content knowledge, and it enables them to design effective instruction tailored to students' individual learning goals.* (Benedict, et.al, 2014, p.148)

Knowledge and skills in constructivist planning is crucial for teachers to be effective in their role as a provider of specialized academic instruction. But constructivism seems to not come easily or quickly to novice teachers or to more experienced special education teachers who lack pedagogical content knowledge. It is crucial that we continue to build our understanding of what it takes to develop effective special education teachers and what it means to be effective. On this note, this researcher proposes further research in this field, with research questions including:

- With no pre-service training, what supports related to instruction and instructional planning are most effective for brand new, intern special education teachers in their first year of teaching?
- What is the impact of intern / novice teachers on the academic achievement of students with mild to moderate learning disabilities?
- Under what conditions do teachers working with students with mild to moderate learning disabilities make the biggest impact on student growth and academic achievement?

Appendix 1: Teacher Meeting Reflection & Evaluation

Meeting Reflection & Evaluation Name: _____

How clear was the content / delivery of content today?
◯ 1- Not at all clear ◯ 2- Slightly clear ◯ 3- Somewhat clear ◯ 4- Very clear ◯ 5- Extremely clear

How helpful was this session in moving your instructional planning practice?
◯ 1-Not at all ◯ 2-Slightly helpful ◯ 3-Somewhat helpful ◯ 4-Very helpful ◯ 5-Extremely helpful

What could have made this session more helpful?

What new learning did you gain from today's session?

How will you apply learning from today?

Today's PLC will positively impact my instructional practices and student outcomes.

1 2 3 4 5

PLUS	DELTA

Appendix 2: Teacher Survey

Name:_____

This information will be used as baseline data to help inform current and future PD sessions. Information will not be used for evaluative purposes. ***Please respond honestly.***

1. For what percentage of your students' SAI/intervention do you currently have a cycle or unit plan?

◯ 0-10% ◯ 10-20% ◯ 20-30% ◯ 30-40% ◯ 40-50%
◯ 50-60% ◯ 60-70% ◯ 70-80% ◯ 80-90% ◯ 90-100%

2. Which best describes the curriculum/content of your students' specialized academic instruction / intervention time? *Select all that apply:*

◯ scripted intervention curriculum
◯ special education/intervention teacher-designed curriculum
◯ general ed curriculum, modified by special education/intervention teacher
◯ general ed curriculum, modified by other staff
◯ Other:_____

3. How would you currently rate your ability to plan effective specialized academic instruction / intervention? *Select one:*

◯ 1- Not capable
◯ 2- Slightly capable
◯ 3- Somewhat capable
◯ 4- Very capable
◯ 5- Extremely capable

4. In your current role, how important is unit/cycle planning for SAI / intervention? *Select one:*

◯ 1- Not important
◯ 2- Slightly important
◯ 3- Somewhat important
◯ 4- Very important
◯ 5- Extremely important

5. In your current practice, how aligned is your instruction to students' academic IEP goals? *Select one:*

◯ 1- Not at all aligned
◯ 2- Slightly aligned
◯ 3- Somewhat aligned
◯ 4- Very aligned
◯ 5- Extremely aligned
◯ Not Applicable

6. What do you consider when planning specialized academic instruction / intervention services? *List:*

Appendix 3: Backward Design UbD Planning Template (Wiggins & McTighe, 2005)

<table>
<tr><th colspan="3">Stage 1 Desired Results</th></tr>
<tr><td rowspan="5">ESTABLISHED GOALS</td><td colspan="2">Transfer</td></tr>
<tr><td colspan="2">Students will be able to independently use their learning to…</td></tr>
<tr><td colspan="2">Meaning</td></tr>
<tr><td>UNDERSTANDINGS
Students will understand that…</td><td>ESSENTIAL QUESTIONS
Students will keep considering…</td></tr>
<tr><td colspan="2">Acquisition</td></tr>
<tr><td colspan="3">Stage 2 - Evidence</td></tr>
<tr><td>Evaluative Criteria</td><td colspan="2">Assessment Evidence</td></tr>
<tr><td rowspan="2">Are all desired results being appropriately assessed?
What’s the goal for (or type of) each learning event?
What criteria will be sued in each assessment to evaluate attainment of the desired results?
Regardless of the format of the assessment, what qualities are most important?</td><td colspan="2">PERFORMANCE TASK(S): How will students demonstrate their understanding (meaning-making and transfer) through complex performance?
Students will show that they really understand by evidence of…</td></tr>
<tr><td colspan="2">OTHER EVIDENCE: What other evidence will you collect to determine whether Stage 1 goals are achieved?
Students will show they have achieved Stage 1 goals by…</td></tr>
<tr><td colspan="3">Stage 3 – Learning Plan</td></tr>
<tr><td colspan="3">Summary of Key Learning Events and Instruction</td></tr>
</table>

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