Examining Post-School Outcomes for Students with Disabilities:

A Continuous Improvement Process for Post-Secondary Transition Practices

by

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ABSTRACT

The purpose of this action research study was to implement and study a systematic framework for using data inquiry and collaborative teams to improve practices that affect the post-school outcomes of students with disabilities. Teams at six high schools in a large public school district participated in a multi-level intervention involving work within their teams, collaboration with other schools, use of a web-based tool to examine data, and support from district leaders. Ultimately, teams used data to identify change targets, linked those to evidence-based predictors of post-school success, and designed action plans to change practices and programs related to post-secondary transition at their schools.

The researcher used a mixed methods concurrent design to explore how participants engaged in situated learning and a process of collaborative meaning-making to reflect on and change their practices. The researcher used a collaborative team survey and observations to collect data from all teams, as well as an in-depth case study of one team to collect further data through a focus group, semi-structured interviews, artifact analysis, and observations. Qualitative data analysis incorporated both inductive and deductive approaches through initial coding, focused coding, and mind mapping.

Results suggested the data inquiry process enabled school teams to construct meaning about their practices, and through collaboration, they were able to develop deeper understanding of problems and solutions. A comparison of means and standard deviations of five survey constructs indicated teams placed high levels of value on collaboration within their school teams and with other school teams. Furthermore,

results suggested establishing a continuous improvement process to address post-secondary transition provided structure and sustainability for examining data and making changes in practices. This work resulted in the implementation of an ongoing continuous improvement process for special education practices in a large public school district.

DEDICATION

       This work is dedicated to my husband, Bill, who loved, encouraged, and supported me throughout this process. He always knew how important this was for me and provided me with just what I needed to get me thought each step of this amazing journey.

ACKNOWLEDGMENTS

Completing this dissertation helped me realize the importance of relationship and collaboration. Just as this dissertation addresses the importance of social construction of meaning and situated learning, it also stands as an example of those principles. This work grew and changed as a result of my interactions with many individuals and groups who played a part in its creation.

First, I would like to thank my dissertation chair, Dr. Mel Bertrand, for her never-ending support and guidance. Her feedback and encouragement brought out the best in me and helped me grow throughout this process. Her technical knowledge in data-based decision-making provided me with new perspectives on this topic. Dr. Kathleen Puckett also played an integral part in supporting me through this experience. Her dedication to students with disabilities and her work in teacher preparation provided insight and technical assistance to me. I would like to thank Dr. Charlotte Alverson for her support and technical assistance. Her expertise in post-school outcomes for students with disabilities guided my work and provided a national perspective for my learning. Her support of my district in the use of the STEPSS tool to examine our data made this study possible.

I would also like to acknowledge the teachers and staff who participated in this study. Coping with multiple priorities is always difficult, yet they found the time and energy to participate in this continuous improvement process. They created initiatives at their schools that may have long-lasting effects on their students. The members of the special education leadership team were also instrumental in supporting this project. They make a difference for students with disabilities in our district every day, and give me the

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Finally, I would like to recognize my family for their ongoing support of me through the past few years. My husband Bill and my sons, Chris and Alex, loved me and supported me throughout this process. My aunt, Sister Carol Larkin, taught me by her example the value of education when I was a child, and offered her encouragement and prayers along the way. Last but not least, my parents, brother, and sister helped shape the person I am today. I thank you with all my heart.

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CHAPTER 1: INTRODUCTION AND LOCAL CONTEXT

"What do you want to be when you grow up?" Parents, teachers, and community members often pose this question to children, demonstrating the value placed on planning for the future of children after high school. Recently, this emphasis on thinking beyond graduation has come to the forefront in the approach to K-12 public education. As many states transition to new academic standards, the common theme addresses a focus on college and career readiness. According to the Educational Policy Improvement Center (EPIC), college and career readiness can be defined as "the content knowledge, skills, and habits that students must possess to be successful in postsecondary education or training that leads to a sustaining career" (Conley, 2012).

In preparation for the reauthorization of the Elementary and Secondary Education Act, a Blueprint for Reform was distributed by the United States (U.S.) Department of Education with college and career readiness identified as a national priority (U.S. Department of Education, 2010). The reauthorization of this act signed into law on December 10, 2015 as the Every Student Succeeds Act (ESSA) continued this emphasis of preparing all students for success in college and careers after high school (U.S. Department of Education, 2016). High school reform efforts at the federal and state levels focus on the importance of high schools as the "gateway between the public education system and colleges and careers" (Fowler et al., 2014, p. 19).

Post-School Transition for Students with Disabilities

Broad high school reform initiatives to increase the college and career readiness of students also have an effect on students with disabilities (Fowler et al., 2014). However, this emphasis on preparing students with disabilities for the adult world is not

new. Since the mid 1980s, there have been federal initiatives and resources to increase

the successful transition of students with disabilities to meaningful post-school

experiences including education, training, and employment (Benz, Lindstrom, Unruh, &

Waintrup, 2004). In 1990, the Individuals with Disabilities Education Act (IDEA)

mandated transition plans and services for students with disabilities. This requirement

was extended in the most recent reauthorizations of IDEA in 2004. Thus, the focus of

special education for students with disabilities has expanded from access to academic

instruction and services to assessment and implementation of activities that prepare

students to access post-school opportunities. Despite the emphasis for the past 30 years

on the importance of transition, studies of former students who received special education

services continue to show gaps in accessing education, employment, and adult services in

the community for these students (Johnson & Emanuel, 2000).

       To measure outcomes for students with disabilities related to the success of post-

school transition activities in high school, states must examine four indicators as part of

the State Performance Plan (SPP), a federal reporting requirement of IDEA. Each state

collects annual data on the graduation rate and dropout rate for students with disabilities.

In addition, an annual survey of post-school outcomes provides data to describe the

extent to which these students who received special education services in high school are

engaged in employment or education one year after they leave public schools. Finally,

states are required to monitor the compliance of the components in each student's

individual education plan (IEP) that relate to transition assessments, services, and goals.

These four indicators combine to form the basis of measuring outcomes and processes

related to effective transitions.

As transition has become increasingly important, the Office of Special Education Programs (OSEP), a division of the federal Department of Education responsible for children with disabilities, has funded multiple technical assistance centers to aid states in developing evidence-based practices to improve outcomes. Resources related to transition have been available through the National Dropout Prevention Center for Students with Disabilities, the National High School Center, the National Secondary Transition Technical Assistance Center, the IDEA Partnership, and the National Post-School Outcomes Center. In 2004, the IDEA Partnership created a national community of practice to enable states to partner with one another on a wide variety of transition initiatives. Arizona was one of the states that became involved in this community of practice, and thereafter established itself as a state leader in transition.

The Arizona Department of Education has become actively involved in and committed to improving transition services and post-school outcomes for students in special education. For the past fourteen years, it has hosted an annual conference based on evidence-based practices with many national presenters. It has also provided districts with capacity building training as well as technical assistance in all transition components. Despite these initiatives, state performance indicators of transition and post-school outcomes have not met established targets.

National and State Outcomes

The IDEA requires all states to have a State Performance Plan (SPP) evaluating the state's compliance and outcomes related to the provision of special education services (U.S. Department of Education, 2014). Each state completes an Annual Performance Report (APR) addressing the targets defined in the SPP (U.S. Department of Education,

2014). The SPP and APR address 17 indicators, determined by OSEP, to measure priority areas addressed in the IDEA. Of these 17 indicators, four of them are those discussed above, which are directly related to the transition of students with disabilities from high school to their post-school goals. To reiterate, these four indicators are graduation rate (Indicator 1), dropout rate (Indicator 2), compliance for IEP components related to transition goals, assessments, and activities (Indicator 13), and post-school outcomes (Indicator 14; U.S. Department of Education, 2014). The following paragraphs describe each of these four indicators in greater detail and provide the state and national data for each. A full explanation of these indicators is available in Appendix A.

Graduation rate for students with disabilities (Indicator 1). According to a report by Civics Enterprises, the Everyone Graduates Center, America's Promise Alliance, and the Alliance for Excellent Education (Building a GradNation: Progress and Challenge in Ending the High School Dropout Epidemic, 2014), the national graduation rate for students with disabilities is 20 percentage points lower than the overall national average for all students. The same report describes great variability in the data across different states. As graduation rates have begun to climb nationally, the gap between rates for all students and those with disabilities remains. The most recent federal analysis for the 2013-14 school year indicated graduation rates of 63% for students with disabilities compared to 82% for all students (Diament, 2016).

Graduation rate refers to the percent of students with disabilities who graduate with their cohort in four years (Arizona Department of Education, 2013). According to Arizona's APR data, from the 2012-13 school year to the 2014-15 school year, the graduation rate for students with disabilities in Arizona has declined from 67% to 63%.

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During that same period, graduation rates for all students in the state dropped from 77% to 76%. Thus, over the past three years, the state graduation rate for students with disabilities has remained at least 10% lower than the rate for all students.

Dropout rate for students with disabilities (Indicator 2). Dropping out of school has serious implications for the success of students after high school, including increased poverty, unemployment, and incarceration (Wilkins & Huckabee, 2014). Dropout rates are calculated as the number of students who begin a school year and leave without graduating or moving to another school (Arizona Department of Education, 2014). Nationally, dropout rates are estimated at 3.3% with high variability based on student demographics (Stetser & Stillwell, 2014). The 2015 dropout rate for students with disabilities in Arizona was slightly higher (4.05%) than the rate for all students (3.46%). A national comparison for students with disabilities is not available, since there is no standardized definition of dropout rates for this population across states.

Compliance of transition components on IEPs (Indicator 13). Using a variety of checklists, states report the compliance of school districts in writing appropriate transition plans for students aged 16 and above. This includes appropriate measurable post-secondary goals that are annually updated and based upon an age-appropriate transition assessment. There must also be transition services, including courses of study, that will reasonably enable the student to meet those post-secondary goals, and annual IEP goals related to the student's transition services needs. Finally, there must be evidence that the student was invited to the IEP team meeting where transition services are to be discussed and evidence that, if appropriate, a representative of any participating

agency was invited to the IEP Team meeting with the prior consent of the parent or student who has reached the age of majority (Arizona Department of Education, 2013).

The National Secondary Transition and Technical Assistance Center (NSTTAC) described national trends from an analysis of compliance data (2012). Compliance of states in post-secondary transition planning in IEPs ranged from 8.6% to 100%, with a mean of 81.6% and a median of 90% (NSTTAC, 2012). In their most recent federal report, Arizona reported 80% compliance, representing a total of 99 findings of non-compliance for the monitoring sample across the state (Arizona Department of Education, 2013). The federal and state target for this indicator is 100%, since there is an expectation that all students in special education have IEPs that fully address their post-secondary transition needs.

Post-school outcomes (Indicator 14). Indicator 14 measures post-school outcomes through an annual survey administered one year after students have left public school. Districts call students who have graduated, dropped out, or left school because they have reached the maximum age to ask a series of questions regarding their activities since they left school. Data are collected through questions about engagement in higher education, training, and employment. Ultimately, the data measure the engagement of former students in some type of activity. Surveys completed in Arizona in 2013 for students who left school in 2012 indicated that 72.5% of students who were contacted were engaged in some type of employment or education. This was slightly lower than the baseline year, 2011, when 73.6% of students contacted were engaged. Therefore, in the most recent data collection year, 27.5% of the students contacted were not engaged in

work or education. Since the post-school outcome survey is only completed for students with disabilities, these results cannot be compared to those for all students.

Local Context

As the director of special education in a large public school district with over 9,000 special education students, it is my role to ensure that students with disabilities receive the supports and services they need to make a successful transition to adulthood. Although I do not directly supervise special education teachers, I provide the vision and direction for the implementation of special education services, including those that address transition. I am responsible for providing teachers with the tools and knowledge they need to do their jobs effectively. This includes access to professional development opportunities to reflect upon and improve their practice.

Problem of Practice

For the past several years, I have reviewed data related to transition and post-school success with my district leadership team to assess how we are doing. Using the indicators for post-secondary transition described above, I have analyzed the data for my district.

Graduation rate. Figure 1 provides a comparison of my district's results with national and state data for graduation rate. The most recent national data published for this comparison were from the 2013-14 school year. The results for my district are concerning. The graduation rate for students in the four-year cohort ending in 2014 was 75%, yet only 54% of students with disabilities in that cohort graduated in four years. More recent data for the 2014-15 school year showed some improvement as the graduation rate for students with disabilities rose to 56%, and the rate for all students rose

to 76%. Yet the graduation rate for students with disabilities in my district remained

lower than for other students with disabilities across the state, and 20% lower than the

full cohort of students in our district.
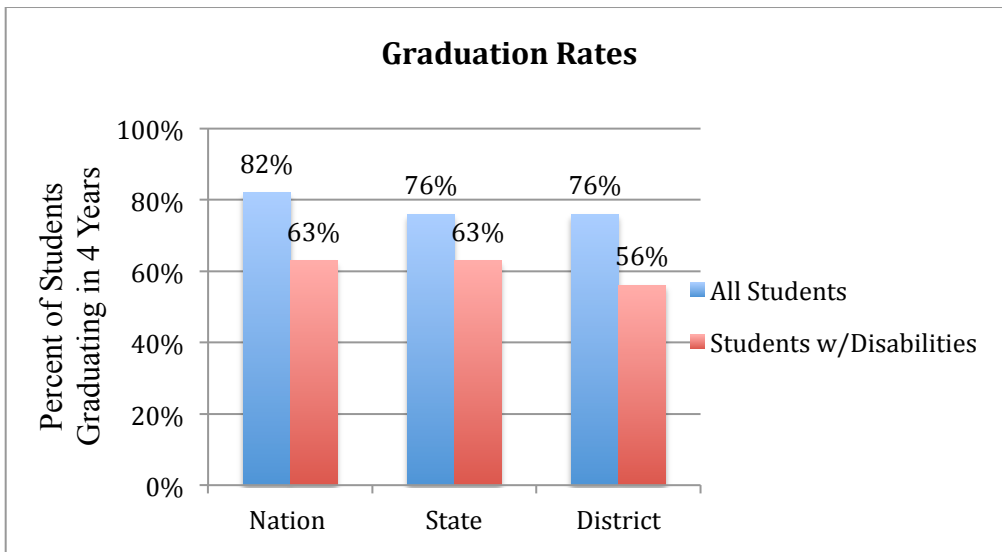
Figure 1. Comparison of national, state, and district graduation rates for students with
and without disabilities for 2013-14 school year.

Dropout rate. Data for the 2013-14 school year indicated concerning results for

the percentage of students who left school without graduating or leaving school because

they reached the maximum age, with a 5.5% dropout rate for students with disabilities

compared to a 4.4% dropout rate for students without disabilities. Data from the 2014-15

school year, reflected in Figure 2, shows some progress for my district in this area. The

dropout rates declined to 2.7% for all students and 2.8% for students with disabilities. It

should be noted that the district engaged in targeted initiatives to decrease dropout rates

during the 2014-15 school year.
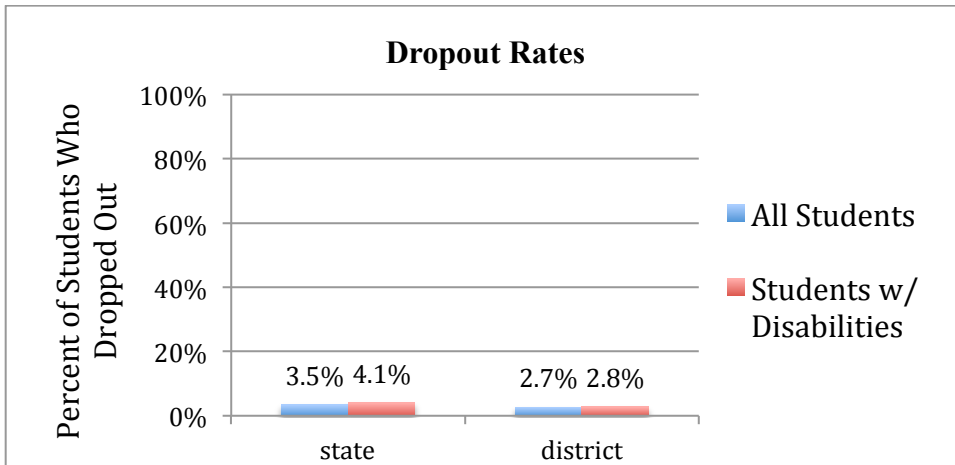
Dropout Rates

Figure 2. Comparison of state and district dropout rates for students with and without disabilities for the 2014-15 school year.

Compliance of transition components on IEPs. In a file review of 60 IEPs for high school students in my district conducted in August 2015 using a compliance checklist, fewer than 20% of the IEPS reviewed were compliant in all the components of transition. Figure 3 displays the differences in the most recent data collected for compliance for national, state, and district file reviews.
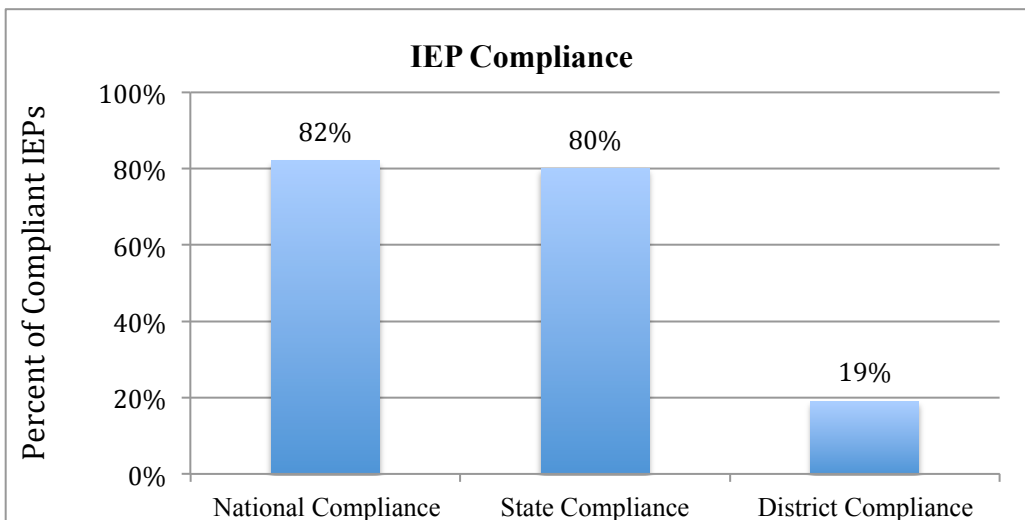
IEP Compliance

Figure 3. Comparison of national, state, and district compliance for IEP transition components as measured by a compliance checklist.

Post-school outcomes. Of the 263 students with disabilities who left high school in our district during the 2013-14 school year and responded to a post-school outcome survey one year later, 74% were engaged in education, training, or employment. This means that 26% of those surveyed were not engaged. These results are similar to the state and national survey results that found 73% of respondents engaged. Data are displayed in Figure 4.
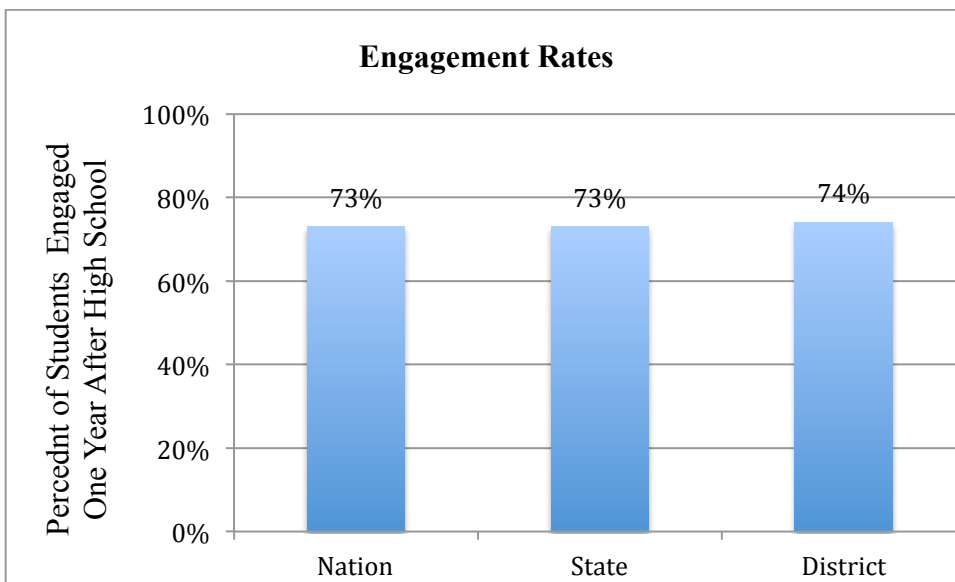
Figure 4. Comparison of national, state, and district rates of engagement for students with disabilities one year after high school as measured by a post-school outcome survey.

In summary, the four data indicators established by the federal Office of Special Education Programs to assess post-secondary transition programs offered insight into the performance of our district's special education program. All indicators pointed to the need for improvement in post-secondary transition services and supports. Thus, this study addressed my need to develop a systematic way to work with school-based teachers and

staff to examine and address the quality and outcomes of these programs in their high schools.

Prior Activities to Address the Problem

In an effort to improve outcomes of students with disabilities, I have worked with my district-based special education leadership team to identify and address areas for growth. As a result, over the past three years, I initiated some new programs and interventions for high school students and provided high school staff with opportunities to improve practice. As a district, we have participated in state and local professional development related to transition. I have provided professional development related to post-secondary transition to teachers across the district. I have met with school teams to encourage the use of evidence-based practices to improve the outcomes of our students. Despite the attention the special education department has given to transition and post-school outcome data, the district has made limited progress in improving these outcomes. I have realized that, throughout these initiatives, local school teams have not been involved in the analysis of their data and, thus, have not used those data to make improvements in their service delivery.

In 2013, I participated in a professional development opportunity to learn about STEPSS, the State Toolkit for Examining Post-School Success. The National Post-School Outcomes Center (NPSO), a five-year federally funded program whose mission was to help states establish data systems to measure and report the post-school outcomes of students with disabilities and to improve transition services for this population, developed this web-based system (National Technical Assistance Center on Transition, 2016). STEPSS, a framework for using data to improve programs, guides users to make data-

based decisions to identify a focus area and develop an action plan by selecting and implementing evidence-based predictors of post-school success (National Post-School Outcomes Center, 2013; see Appendix A). With a representative from the Arizona Department of Education, I reviewed STEPSS and decided to use this continuous improvement process in my district.

During the 2014-15 school year, I implemented an adapted version of the STEPSS process with six high school teams. I expanded the STEPSS protocol to ensure schools used their own data, rather than district-level data, in order to target changes at their schools. In a previous cycle of action research, I learned the value of collaborative processes in implementing school improvement. According to Blase, Blase, and Phillips (2010), empowered school teams have the greatest ability to create viable plans for continuous school improvement. Data from this cycle provided valuable information related to the process and were used to adjust the activities and timelines for implementation of the next cycle of continuous improvement during the 2015-16 school year.

Purpose of Study and Research Questions

It is the continuation of this intervention during its second year that formed the basis of this action research study. Thus, the purpose of this study was to implement a systematic framework for using data to improve practices at each of the six high schools in the district. The following research questions guided this work:

1) How does participation in situated learning using a data-based decision making model to examine post-secondary transition influence the social construction of meaning for school-based teams?

2) What factors contribute to the perceived value of the process for participating teams?

3) In what ways do teams change programs and practices at their schools to improve their post-secondary transition activities and post-school outcomes?

CHAPTER 2: REVIEW OF LITERATURE

In order to frame this study, this chapter presents a theoretical orientation and supporting scholarship with which to examine the problem and the components of the innovation. First, social constructionism provides a lens to examine how social groups make meaning of their experiences to support the use of collaboration and teamwork in this study. Situated learning theory further sheds light on the ways in which groups come together through communities of practice. A review of the research based on a theory of action for data use then provides justification for the use of this approach to address the problem. Finally, existing research related to post-secondary transition for students with disabilities will provide an overview of the ways other researchers and practitioners have identified and approached this problem. The chapter will conclude with a description of how these theoretical perspectives are woven together to form the foundation for the innovation.

Social Constructionism

Social constructionism is a theoretical perspective that views knowledge and understanding as socially constructed phenomena (Berger & Luckman, 1966). The underlying assumption originates in the premise that people create meaning in their lives through collaborative experiences with others (Gergen & Gergen, 2008). Individuals' and groups' knowledge and understanding of the world are built, sustained, and changed as they interpret aspects of their lives in the context of their social experiences (Miller & Fox, 2014). Weinberg (2014) emphasizes the importance of shared human endeavor through social experiences, on relationship over isolation, on process over stasis, and on collective over individual perspectives. Gergen (2009)

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explains, "what we take to be the world depends on how we approach it, and how we approach it depends on the social relationships of which we are a part" (p. 2). This forms the basis of social constructionist theory.

Through a social constructionist lens, members of an organization share a culture tied together by basic assumptions, and the success of the organization relies on the capacity of its members to negotiate meaning effectively (Gergen & Gergen, 2008). Although social interaction can be positive, conflict in organizations can sometimes result during the process of meaning making. To move beyond conflict, divergent constructions of meaning must be reconstructed to draw them closer (Gergen & Gergen, 2008). Discussion about who is right and who is wrong can change to collaborative deliberation about what the two groups can build together (Gergen, 2009). This reconstruction can be accomplished through changing paradigms.

To make sense of the world, communities develop paradigms: shared assumptions, methods, and ways of communicating that bind them together (Kuhn, 1962). Although these paradigms help the group make meaning to guide them, paradigms can also restrict the vision and action of the community. (Gergen & Gergen, 2008). Thus, an essential component of social constructionism is the use of dialogue to allow different realities and values to intersect (Gergen & Gergen, 2008). One way this dialogue can occur is through communities of practice and situated learning.

Situated Learning Theory

Situated learning theory views the physical and social situation in which a person learns as an integral part of the learning (Putnam & Borko, 2000). Lave and Wenger (1991) describe this theory as learning through participation as one "absorbs

and is absorbed into the culture of practice" (p. 95). Interaction with others in a social context determines what is learned and how it is learned (Putnam & Borko, 2000). According to this theory, activities and situations are essential parts of cognition and learning, producing rich, usable knowledge that would not be possible without that experience (Brown, Collins, & Duguid, 1989). Situated learning occurs through social participation and requires active participation that involves action and connection in social communities (Wenger, 1998).

One opportunity for situated learning is through communities of practice. A community of practice is a group of people who share a set of problems or a passion about a topic and who expand their knowledge and expertise in this area by interacting together on an ongoing basis (Wenger, McDermott, & Snyder, 2002). Over time, they develop a unique perspective and a body of common knowledge, practices, and approaches (Wenger et al., 2002). Through a community of practice, developing knowledge is a social experience that lies in the skills, understanding, and relationships of its members (Wenger et al., 2002). The members of a community of practice come together to participate in the activities of knowledge construction through a social process (Pella, 2011). A community of practice can be a sustaining force in ensuring continued leadership, knowledge development, and social relationships. Thus, communities of practice are well suited for the type of professional learning that needs to occur in the current educational climate.

Although the skills and attitudes of individual teachers are important, they must be intertwined in an organized, collective manner to be most effective in changing practices (King & Newmann, 2001). This requires a collaborative process that involves

inquiry, reflection, and action to solve specific problems of practice (Darling-Hammond & McLaughlin, 1995). Butler and Schnellert (2012) examined the use of collaborative inquiry through an in-depth case study and found engagement in inquiry shifted teachers' practices and learning. The study found high levels of motivation to change practices when teachers could see the effect relative to student outcomes (Butler & Schnellert, 2012). Furthermore, the authors identified the importance of building collaborative opportunities by providing time, resources, and structured opportunities for collaboration (Butler & Schnellert, 2012). Situated learning theory has been applied to promote positive outcomes in educational settings as demonstrated in the following studies.

Englert and Rozendal (2004) examined qualitative data from a community of practice related to literacy composed of general education teachers, special education teachers, and researchers. Following the initial information provided by the researchers on evidence-based practices, the teachers took the lead in using that knowledge to apply it to their specific contexts (Englert & Rozendal, 2004). The works of experts outside the community of practice were used to create "zones of possibility" to guide the work (Englert & Rozendal, 2004, p. 28).

In a qualitative study examining writing pedagogy, Pella (2011) used a situated learning approach with teachers and found that teachers combined the individual knowledge they brought to the group to create new knowledge. As a result, they changed their perspectives and pedagogy. In a case study of capacity building in New Zealand, Stringer (2009) employed a situated learning model for professional development and concluded that a situated, layered approach to collaboration enabled

participants to discuss their beliefs and practices and share in ongoing processes to transform practice. Thus, situated learning offers opportunities to transform practices through providing a context for learning. Combining situated learning with data-based inquiry can further strengthen this transformation.

Although communities of practice are situated within specific contexts, they can also develop interrelationships with other communities of practice in a broader organizational context (Hotho, Saka-Helmhout, & Becker-Ritterspach, 2013). Thus, the interrelationships among different communities of practice can influence their patterns of participatory involvement and their learning outcomes during the process of meaning-making (Hotho et al., 2013).

Theory of Action for Data Use

As educational professionals use communities of practice to develop knowledge through sharing practice-based experiences they must also consider evidence-based practices to become highly effective in their work (Kowalski, 2009). Data-driven decision making is a "way of thinking and a mode of operation" that takes place in an "ongoing cycle of making choices and taking action based on multiple sources of data, and frequent, thoughtful conversations with the larger school community" (O'Neal, 2012, p. 2). It involves both the evaluation of existing practices and the selection of interventions and strategies to improve practice. Evidence-based practices involve the use of empirical evidence or action theories to make decisions about how to solve problems of practice (Kowalski, 2009). It is important to note, however, "data do not objectively guide decisions on their own—people do, and to do so they select particular pieces of data to negotiate arguments about the nature of problems as well as potential

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solutions" (Spillane, 2012, p. 114). Murray (2014) warns that educators should use data to inform decisions rather than drive them, since data do not provide all the information needed to help children learn. Thus, teams need to make sense of the data to create meaningful concepts, interpretive frames of reference, and theories of action (Copland, Knapp, & Swinnerton, 2009).

In a review of interventions that promote data use in educational settings, Marsh (2012) described the process of turning raw data into usable information that can then be converted into actionable knowledge when combined with the expertise and understanding of stakeholders. This same review identifies features of data-based decision making that leads to successful implementation. These include providing data in a usable and understandable format, offering comprehensive supports that support participants in the use of data, and encouraging opportunities to collectively share and interpret data collaboratively (Marsh, 2012).

A number of studies have supported the use of data to facilitate conversation among educators about student outcomes (Wayman & Cho, 2009). In a qualitative study of three schools using software tools to examine student data, Wayman and Stringfield (2006) found an increased sense of teacher professionalism, better response to student needs, increased reflection on practice, and increased collaboration. Another investigation of three urban school districts using a comparative case study mixed-methods design provided further insight into factors that promote the use of data to inform decisions (Kerr, Marsh, Ikemoto, Darilek, & Barney, 2006). One of the key findings in this study was the need for district-level staff to support school staff in building capacity to understand and analyze data (Kerr et al., 2006).

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Copland et al. (2009) describe the process of data-informed inquiry and action as a six-phase process. After framing a problem for inquiry, the collaborative team generates or searches for data. An intentional search for different perspectives provides the team with a possible reframing of the problem (Copland et al., 2009). Stakeholders then make collective sense of the data and consider the implications for action (Copland et al., 2009). Finally, the team takes action and identifies further inquiry based on the feedback from the action (Copland et al., 2009). Thus, the team uses data and inquiry to engage in a cycle of continuous improvement.

Copland et al. (2009) present a case study that illustrates the implementation of these phases in a school district, as they developed an organizational culture of inquiry. Additional case studies (Zavadsky, 2009) link improved student outcomes with data-based decision making. This study concluded that higher performing school systems have focused on improving student outcomes through the use of data (Zavadsky, 2009).

The existing scholarship points to the value of using data to inform and improve practices in the educational system. The following section will review the current literature related to the application of these theoretical and practice orientations specifically related to improvement of post-secondary transition practices of high school teachers and the post-school outcomes of their students.

Post-Secondary Transition

The need for post-secondary transition planning for students with disabilities has been addressed on a national level since 1984 (Benz et al., 2004). Since that time, there has been a considerable investment in research and training projects directed toward improving the post-school outcomes for this population. In 1996, Kohler

published a report to establish a link between research and practice through the *Taxonomy for Transition Programming*. The framework presented in this report organized the best practices related to post-secondary transition into five areas: a) student-focused planning, b) student development, c) interagency collaboration, d) program structure, and e) family involvement (Kohler, 1996). These five areas formed the basis for further evaluation of practices in a literature review of studies published between 1984 and 2008 that identified 32 evidence-based practices related to transition (Test et al., 2009).

Although evidence-based practices for post-secondary transition have been identified, they are not always used in public schools (Benz et al., 2004). A multi-state study of service providers concluded that many lack the necessary knowledge and resources to deliver effective interventions (Mazzotti & Plotner, 2014). In a study examining the collection of post-school outcomes data, the authors suggested a need for further study on the collaborative use of post-school outcome data to examine the practices associated with those outcomes (Alverson, Naranjo, Yamamoto, & Unruh, 2010). Odom, Cox, and Brock (2013) suggest the need for an "infrastructure of support" to ensure that training, coaching, and technical assistance are available to link research and practice. Morningstar and Benitez (2013) further suggest the use of guided and self-directed learning where district teams can use problem-solving strategies to plan for improvements in the delivery of transition services.

Federally required data collection related to the post-school outcomes of students with disabilities has provided needed information with which to evaluate the effectiveness of high school programs that prepare students for employment and

educational opportunities. Rabren and Johnson (2010) analyzed the post-school outcome surveys conducted by two states and concluded that in order for positive changes to occur, states and local schools need to move beyond the federal mandate to collect data and use the results for program evaluation and improvement. Key factors that support the implementation and sustainability of practice improvements related to transition include coordination and cooperation of those supporting students with disabilities, tying innovation to the resulting positive outcomes, and using a problem-solving approach to adapt programs to local needs (Benz et al., 2004). Establishing effective post-secondary transition services and programs in high school is a critical component in ensuring a meaningful educational benefit for students with disabilities (Prince, Katsiyannis, & Farmer, 2013).

Conclusion

This chapter has presented the theoretical lens and existing literature related to the current problem of practice and innovation. The current study builds upon the theoretical frameworks of social constructionism and situated learning to understand how high school teams construct knowledge to inform and improve their practice. It extends these theories and the existing research further through their application to a contextual model of data-based decision making to improve post-secondary transition practices. This study applies this theoretical framework and supporting scholarship to an action research intervention to establish a system of continuous improvement related to post-school outcomes for high school students with disabilities. The next chapter will demonstrate the application of these theories in practice through the description of the method for this study.

CHAPTER 3: METHOD

This chapter builds upon the theoretical framework presented in Chapter 2 within the local of context of my work as a director of special education in a large school district, particularly within the scope of this action research study. It provides a detailed description of the method for this study, including the procedures for the implementation of the innovation, selection of the participants, and the process for data collection and analysis. A description of data collection tools illustrates their use in answering the research questions.

Action Research

This study used action research to address the problem that high schools in my district do not have a systematic approach to address post-secondary transition practices, resulting in poor post-school outcomes of students with disabilities. Since top-down district initiatives have proven to be unsuccessful in addressing this problem, it was essential that I involve local high school teams composed of essential stakeholders in the analysis and design of the assessment and interventions to address post-secondary transition in their own schools. My role as special education director does not provide me with supervisory or evaluative relationships with special education teachers, so it was necessary for me to engage with them in different ways to achieve positive outcomes. Action research engages teachers in a process where teachers do research for themselves; someone else does not impose the research on them (Mills, 2014). Thus, action research created the framework for me to engage with them in a process of data review, self-reflection, and action.

Action research offers a practical set of procedures that are systematic, cyclical, solutions-focused, and participatory (Stringer, 2014). The purpose of action research is to provide a method for people to engage in systematic inquiry, to design a way to meet a desired goal, and to evaluate its effectiveness (Stringer, 2014). In an action research study related to teacher professional development, Allan and Miller (1990) identified action research as a methodology to document and demonstrate teacher expertise within their own classrooms and school communities. A primary goal of action research is educational change that enhances the lives of students, but also has at its core the development of teacher effectiveness to reflect on their own practice to make positive changes (Mills, 2014). Due to the high level of collaboration required and the contextual focus, action research was the most appropriate method for this study.

The Innovation

As the executive director of special education in my district, I was concerned about the success of our students with disabilities, both during their time in school and after they graduate. District-wide data indicated low levels of engagement for students with disabilities after high school, low graduation rates, and high dropout rates. This research was designed to study an ongoing, multi-faceted collaborative process I initiated through a pilot study in the 2014-15 school year. The current innovation took place in the Fall Semester of the 2015-16 school year to address concerns related to the post-school success of the students in our six high schools. The goal of this innovation was to create a system of continuous improvement that would provide a long-term framework for school teams to use from year to year to improve their practices related to student post-school outcomes.

This innovation included the following components: a) use of a data-based decision making tool to provide a framework for data analysis, selection of evidence-based predictors for school improvement, and development of action plans; b) interdisciplinary collaboration within school-based teams at six high schools; c) networking time for teams with other high schools through large-group meetings; and d) access to district-based facilitators to assist with structure and resources. Each of these components of the program is described in more detail in the following paragraphs.

Data-Based Decision Making Tool

In March 2014, the Arizona Department of Education invited me to participate in a two-day training to learn about the State Toolkit for Examining Post-School Success (STEPSS), a data-based decision making protocol for professional development created by the National Post-School Outcomes Center. STEPSS involves a process of examining data, identifying evidence-based predictors that have been correlated with post-school success, and action planning (National Post-School Outcomes Center, 2013). Several states have piloted the use of this framework with local districts, but it has not been used to examine school-level data.

Although this tool was developed for states and school districts to improve practices, my innovation involved using this tool at the school level. Thus, STEPSS provided the structure and framework to examine post-school outcomes and transition services in the six high schools in my district.

The STEPSS framework led users through four phases. First, teams reviewed a slideshow of their school data related to graduation rate, dropout rate, compliance results, and survey results that had been uploaded by a representative from the state department

of education. The second phase involved school teams rating their progress toward

meeting their desired targets on the four national secondary transition indicators using a

data discussion worksheet (see Appendix B). The third phase led teams through the steps

of prioritizing the predictors of success that are associated with each outcome area. A

predictor of post-school success is "an in-school experience, typically a program,

correlated with improved in-school or post-school outcomes" (National Post-School

Outcomes Center, 2013). Finally, in phase four, teams identified essential program

characteristics that lead to positive outcomes and prepared an action plan to improve the

services and programs at their schools.

During the 2014-15 school year, I conducted a pilot study to introduce the school

teams to the STEPSS process. I facilitated four professional development sessions to

enable teams to become familiar with the tool, understand their data, and begin to use the

framework to develop and implement a small action plan. Teams reported positive

experiences with this process, indicating that it helped them to prioritize the transition

needs of their students. Since STEPSS represents a tool for continuous improvement

planning, the expectation for teams was that they continue to use this tool and process in

the future. This process was modified and became the innovation that was central to this

study in the 2015-16 school year.

The use of this tool in the second cycle of continuous improvement from August

to December 2015 became a component of the innovation for the current action research

study. According to Butler and Schnellert (2012), a community of inquiry benefits from

structured opportunities to collaborate. Furthermore, making data useful and safe are

important predictors for use (Marsh, 2012). In prior cycles of this action research, I

learned that access to school-level data and evidence-based practices enhanced the experiences of teachers in examining and changing their practices.

Based on feedback from participants during the first year of implementation, some variations to the STEPSS format were changed in the innovation. This included providing the participants access to more detailed supplemental data through spreadsheets in a Google Drive folder for each team. In addition, participants accessed additional data including student attendance, discipline, and academic information through the district data dashboard.

School-Based Team Collaboration

The second component of this innovation involved the development of an interdisciplinary school-based team at each of the six high schools. During the pilot, each team was initially composed of a school administrator, a school psychologist, a student advisor, and at least three special education teachers. One of the special education teachers on each team worked in a specialized role as the transition facilitator for the school, a position that provides leadership and resources for the campus related to post-secondary transition for students with disabilities. Essentially, these teachers provide expertise in developing programs and instruction that support students in achieving their post-school goals. School administrators were also able to select additional team members who may have offered additional expertise to the team. For the innovation, team composition became more homogeneous, as those who were directly involved in special education remained and others took on more peripheral roles due to competing priorities.

During the innovation, school teams had the opportunity to collaborate during two large-group meetings where they worked within their teams on their data analysis and action plan creation. This provided protected time away from their sites to focus on their work. They also met at their respective schools to complete tasks required for each phase of the program. Each team determined the frequency and schedule of their own site-based meetings. To enlist support from those who were not directly involved, teams also reached out to other stakeholders, including teachers, student advisors, general education staff, parents, students, and community members as they developed their action plans.

The collaboration of school teams in examining practices and identifying areas for change was an essential component of this study. Social constructionism emphasizes the premise that people create meaning in their lives through collaborative experiences with others (Gergen & Gergen, 2008). Situated learning theory further supports the use of collaborative teams in describing learning as occurring through participation as one "absorbs and is absorbed into the culture of practice"(Lave & Wenger, 1991). In addition, the theory of action for data use explains that raw data become actionable when it is combined with the expertise and understanding of the stakeholders (Marsh, 2012).

Collaborative Professional Development Networking Sessions

The third component of the innovation involved networking sessions where the six high school teams came together in a large training room at the district office to engage in the process together. Using a structured agenda for each session, I led the teams through the steps of data analysis and action planning. Schools worked within their teams to accomplish tasks related to the process and then periodically shared their ideas and perspectives through informal presentations to the teams from other schools. Since

each team brought with it a unique culture, exposure to the work of other teams served to demonstrate other approaches they may not have considered. Full-day sessions were held in August and November to examine data and develop action plans. Following the conclusion of the study, teams met once more to share their results at a third large-group meeting. This schedule was established in advance with the entire group, taking into consideration other priorities in the school year.

The two full-day professional development sessions provided teams with an opportunity to analyze their indicator data related to post-school success, identify their targets for change based on predictors of post-school success, and design their action plans. This includes an analysis of data related to graduation rates and dropout rates, assessment of compliant transition plans developed as part of the IEP process, and results of a post-school outcome survey. As the facilitator of these meetings, I encouraged teams to share ideas and provide feedback to other teams. Social constructionism is based on the use of dialogue to allow different realities and values to intersect (Gergen & Gergen, 2008). According to Marsh (2012), "the process thrives when it involves opportunities for cross-site collaboration" (p. 35). Interrelationships among different communities of practice can influence their outcomes during the process of meaning-making (Hotho et al., 2013). Thus, networking among school teams was investigated as a component that added value to this process.

District Facilitators

To support the work of each school team, a district facilitator was assigned to assist in all activities to ensure fidelity of the process and to help guide the team. The district facilitators maintained close communication to review the progress of the teams

and to assist them in obtaining information and resources. I served as the district facilitator for one school team. District facilitators met as a group prior to each of the large-group sessions.

My experiences in previous cycles of action research demonstrated the value of district-level support to the school team. Marsh (2012) described the need for offering comprehensive supports as a key component for implementation of data use to guide practice. Englert and Rozendal (2004) further support the use of outside experts to guide the work of communities of practice. The current study investigated the value of district support in the innovation, in addition to the other components described in this section.

Research Design

Based on social constructionism, situated learning theory, and the theory of action for data use, this study investigated the collaborative process used by school teams as they participated in a structured process involving data analysis followed by the development of an action plan. The following research questions guided this work:

1) How does participation in situated learning using a data-based decision making model to examine post-secondary transition practices influence the social construction of meaning for school-based teams?

2) What factors contribute to the perceived value of the process for participating teams?

3) In what ways do teams change programs and practices at their schools to improve their post-secondary transition activities and post-school outcomes?

To address the research questions, this study used a mixed-methods approach. Mixed-methods research is an approach to inquiry that involves a combination of

quantitative and qualitative data to provide a more complete understanding of the research problem than either approach alone could provide (Creswell, 2014). This research involved a convergent parallel mixed-methods design. In other words, I collected quantitative and qualitative data at the same time and integrated the information in the interpretation of the overall results (Creswell, 2014).

I mixed the methods for the purpose of complementarity. Greene (2007) supports the use of a complementarity purpose to deepen and broaden the interpretations and inferences from the study of complex phenomena. Although some mixed-method studies use triangulation, this was not the purpose of mixing methods in the current study. Vagle (2014) suggests triangulation is not necessary and can make qualitative research mechanistic. When a study has multiple data moments from interviews and observations across a period of time, sometimes a single statement can be powerful and other times you may need multiple data for amplification (Vagle, 2014, p. 97). Through the use of both qualitative and quantitative data, this study examined different dimensions to gather comprehensive information about the innovation and the experiences of its participants.

Furthermore, this study used a design based on constructivist grounded theory. This methodology used the inductive, comparative, emergent, and open-ended approach of Glaser and Strauss (1967). It viewed research as constructed rather than discovered, taking into consideration the researcher's perspectives, values, and interactions (Charmaz, 2014). As data were gathered and analyzed, I used those discoveries to inform later processes in the study.

Organizational Framework

Since this innovation involved a continuous improvement process that extended over multiple years, the current study provided a snapshot of that process as school teams reviewed their data and prepared their action plans during their second action cycle in the 2015-16 school year. Within the broader context of the innovation, I focused my data collection and analysis on team activities during a 10-week period beginning with their review of data and ending with their creation of team action plans. Due to time constraints and the focused approach of this study, I did not include the teams' implementation and evaluation of their action plans in this analysis, although these did continue in the innovation after the conclusion of the study.

To further enhance the study, I collected additional data in a single case study through my participation as a district facilitator with one high school team. Hamilton and Corbett-Whittier (2013) describe case study as an approach to research that targets complex relationships, attitudes, and beliefs within a "bounded unit" (p. 10). A case study using an embedded design enabled me to work with a smaller unit of analysis for a portion of this study and then return to the larger unit of analysis for additional data collection (Yin, 2014). Figure 5 provides an illustration of this design.
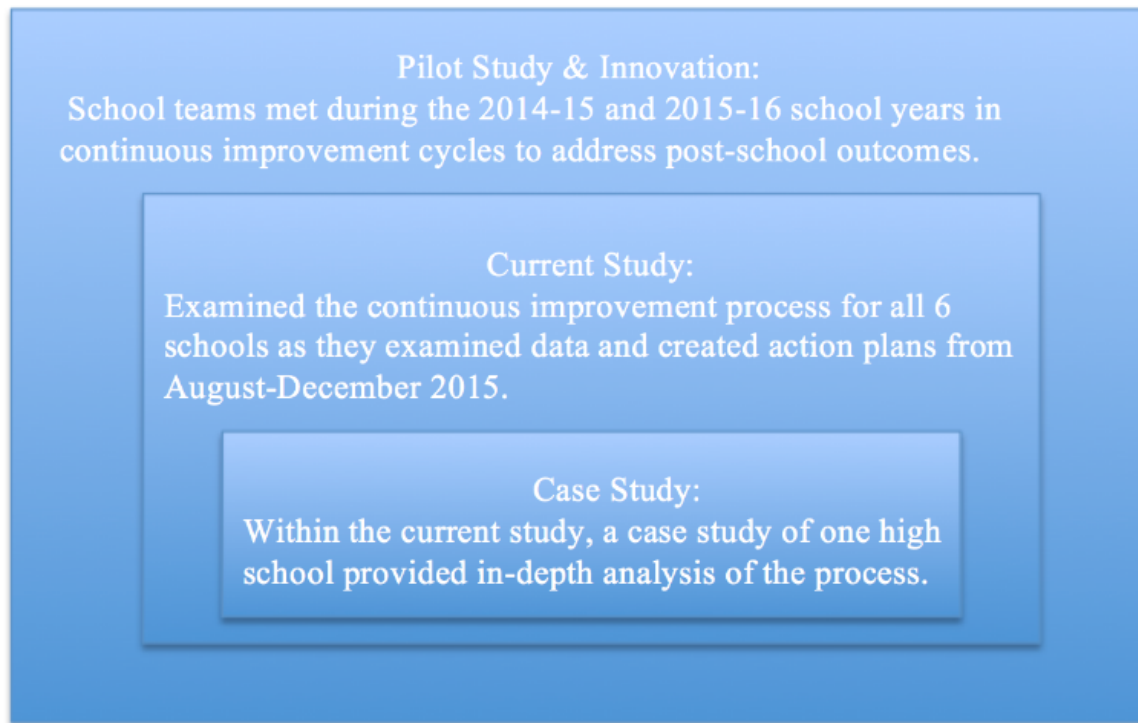
Figure 5. Organizational framework demonstrating the pilot study and innovation, the current study, and case study.

Participants and Setting

The population for this study included high school teachers, administrators, and support personnel who touch the lives of students with disabilities as they progress through high school toward their post-school goals. To ensure the confidentiality of the participating school teams and their members, I changed all school and individual names to pseudonyms in reporting the method and results of the study.

I used criterion sampling to select the participants for the study. Mertens (2015) describes criterion sampling as setting a specific criterion for participation and then selecting cases that meet that criterion. In this study, participants were the members of school teams that had been selected by their administrators. At the start of the first year of this project, the administrators of each high school chose members for their teams

according to the following criteria: two special education teachers, a transition specialist, a school counselor, a school psychologist, and an administrator. Administrators were also able to choose additional team members who might contribute to the process. For the second year, schools continued in their established teams, but made some changes based on their experiences in the first year. As a result, teams were composed primarily of special education teachers, transition facilitators, and school psychologists. Two teams included administrators, although all teams reported that administrators were at least peripherally involved.

I informed all team members about the purpose and requirements of the study through an informed consent process. Participation in the study activities was voluntary, and all six teams chose to fully participate. There were 32 participants. All teams were present at two full-day sessions that took place in a large conference room at the district office, approximately ten weeks apart. In addition, teams met at their high schools to complete tasks that were not completed at these sessions. Sessions at the high schools provided teams with formal and informal time for planning and meetings with stakeholders. Teams invited district facilitators assigned to school team to these sessions.

The team collaborative survey (see Appendix C) was used to collect data that reflected the entire sample of six high school teams. Likewise, all participants were included in observations that included the entire sample or sub-samples that occurred naturally during different activities in the process. Observations were documented in field notes and audio recordings.

A smaller sample of all team members from Washington High School, the focal school, was used for further data collection through a single-case study. I conducted a

focus group as well as observations of two site-based meetings of this team (see

Appendix D). I then used theoretical sampling to choose two participants for individual

semi-structured interviews (see Appendix E). Theoretical sampling provides a flexible

way to use data analysis to guide the collection of data to answer the research questions

(Corbin & Strauss, 2008). In this case, I chose to interview a special education teacher

who served as the team leader and a school psychologist who was part of the team for

both years. This decision was based on the results of the ongoing analysis of

observation data as well as an analysis of the results of the focus group. Finally, artifacts

from this team were collected throughout the process.

Role of the Researcher

As the researcher, I participated in all aspects of this action research study, through

acting as the facilitator of large-group sessions and acting as a district facilitator for one

high school. My role in this research was to facilitate the process to ensure teams had the

necessary time, information, and resources to complete their work. As the researcher, I

collected and analyzed data related to the implementation of the innovation through

participant observation. Participant observation is consistent with a grounded theory

approach, since it encourages the continual reassessment of the initial research questions

and the development of new insights as familiarity with the context increases (DeWalt &

DeWalt, 2011). Participant observation is a useful tool for producing studies that provide

an accurate representation of a culture (Kawulich, 2005). Although my relationship with

the participants is generally collegial and collaborative, there was the possibility of some

bias related to my position as a cabinet-level administrator in the school district.

Study Timelines and Activities

As described above, the current study focused on a ten-week period from August to October 2015. The research design was organized according to the timeline described in Figure 6. Detailed descriptions of the data collection tools are provided in the following section.

Dates	Activities	Data Collection Tools
August, 2015	Initial large-group session for all six schools at district office • Orientation to the STEPSS process • STEPSS Phase 1: Viewing and Discussing Data/Understanding and Using Data	• Observations/ Field Notes • Artifact: Data Discussion Worksheet
September, 2015 – October, 2015	Individual sessions at each school: Teams meet individually with a district facilitator • STEPSS Phase 2: Assessing Outcome Areas • STEPSS Phase 3: Prioritizing Predictors and Involving Stakeholders	• Case study of one high school using observations/field notes • Focus group • Semi-structured interviews
November, 2015	Final Session for All School Teams Report out on creation of action plan: process and outcomes STEPSS Phase 4: Action Planning	• Team collaborative survey • Artifact: Action Plan • Observations/Field Notes
October, 2015 - December 2015	Final data analysis	Member checking

Figure 6. Timeline of research activities.

Data Collection

To understand the phenomena being examined and to address the research questions, I used various tools to collect qualitative and quantitative data for a 10-week period from August to November 2015. Creswell (2014) states that before entering the field to conduct the study, the researcher needs to plan the approach to data collection. This section describes each of the instruments used for data collection in the study, as illustrated in Figure 7.

Instrument	Description	Inventory
Collaborative Team Survey (Quantitative and Qualitative)	Each team completed a collaborative team survey to report current perceptions of the continuous improvement process. Responses were recorded using a 4-point Likert Scale and open-ended questions. The survey was administered at the last large-group session.	All teams: six surveys, one survey per team completed in November during the final large-group session.
Artifacts (Qualitative)	All artifacts produced by the case study team during large-group and site-based meetings were collected to analyze the development of their action plan.	Case Study Team: four artifacts PowerPoint of action plan and results of the prior year, two data discussion worksheets, Year 2 action plan
Focus Group (Qualitative)	Following the first large-group meeting, I conducted a focus group with 5 members of the case study team. The focus group served as an instrument to provide more detailed information about the team's experiences and helped to guide further data collection and analysis.	Case Study Team: one Focus group with five members
Semi-structured Interviews (Qualitative)	Following the focus group, but before the second large-group session, I interviewed 2 members of the case study school team. Questions related to my research questions were created from the focus group responses in order to ensure data collection was guided by my data analysis.	Case Study Team: One interview with the team leader One interview with the school psychologist
Researcher Field Notes (Qualitative)	The researcher completed field notes following all observations during the case study team meetings as well as the large-group meetings. Audio recordings that were later transcribed captured the informal presentations and interactions of teams during the meetings.	Case Study Team: Two observations of site-based meetings Large-group Meetings: Observations of team processes over two sessions

Figure 7. Qualitative and quantitative data collection inventory.

Team Collaborative Survey

In order to capture the collective experiences consistent with the framework of this study, I administered a survey that members of each team completed together at the final session. Team members provided responses based on their current perceptions of the process. Survey items consisted of 20 questions that represented five constructs related to the innovation: (a) team collaboration, (b) the use of data inquiry, (c) the implementation of a web-based tool, (d) networking with other schools, and (e) involvement of district facilitators. Additional open-ended questions were used to allow each team to describe their experiences. I used this instrument to collect both qualitative and quantitative data related to the research questions. Boynton and Greenhalgh (2004) suggest the use of a questionnaire offers "objective means of collecting information about people's knowledge, beliefs, attitudes and behavior." The instrument is attached in Appendix C.

I administered a pilot survey that contained 20 questions using a four-point Likert scale through an online survey using a Google form to assess the internal validity of the instrument prior to its administration. I distributed the survey to members of my leadership team who are familiar with the innovation and asked them for feedback about the instrument; ten respondents completed the survey. The respondents indicated through their feedback that the questions were easy to understand and reflected the key components of the process.

I conducted a reliability analysis of the survey instrument and the five constructs to measure their internal consistency. I used SPSS to calculate Cronbach's alpha (Cronbach, 1951). The results of this analysis are displayed in Table 1. All constructs returned values between 0.87 and 0.95. The overall alpha for all items was 0.95.

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Through my analysis of internal consistency I was able to achieve good to excellent reliability results of 0.87 and above for the instrument and all five constructs. A score of 0.70 is considered to be acceptable level of internal consistency (Cronbach, 1951). Cronbach describes the importance of balancing the homogeneity (likeness) and heterogeneity (differences) of items in a survey. These results achieve this balance by demonstrating good reliability without redundancy. I repeated this test following the administration of the survey to assess its internal validity during the study.

Table 1

Reliability Analysis of Pilot Team Collaborative Survey

Factor	Within Factor Items	Coefficient Alpha Estimate of Reliability
Collaboration	Items 1-4	0.87
Data Inquiry	Items 5-8	0.92
Web-based Tool	Items 9-12	0.95
Networking	Items 13-16	0.92
District Support	Item 17-20	0.90
Overall Alpha	Items 1-20	0.95

Focus Group and Semi-Structured Interviews

The purpose of conducting a focus group is to understand the collective meanings and interpretations of an experience from the perspective of the group participants (Liamputtong, 2011). With its emphasis on the social interaction among the participants, a focus group enabled me to ask open-ended questions to explore the meanings the

participants bring to the situation (Mertens, 2015). Since this study was based in situated learning and social constructionism, it was especially important to understand the group experience in the social context. All members of the Washington High School team, the school team involved in the case study, participated in a focus group following the first large-group session to describe their experiences with the process. According to Liamputtong (2011), homogeneous groups are appropriate to study in a focus group when researchers are trying to generate an understanding of the thoughts and experiences of the participants related to a specific topic. The focus group protocol is available in Appendix D.

Using a semi-structured interview protocol, I conducted individual interviews with two members of the Washington High School team. The interview protocol is available in Appendix E, although additional questions were added as clarifying questions from the focus group. Interview questions focused on participant experiences of the process and reflections of how their group worked together. They further explored reflections of the participants on their practice and the influence of this process on practice. Since interviews were the only data collection method that did not involve multiple participants, this provided me with a different perspective as I engaged individuals in conversations about their participation in the group process.

Observations

During the two large-group sessions, I observed the team interactions as they worked together. I looked at the way the team's members engaged with one another to make sense of their data as well as the way teams interacted with other teams to discuss their practices related to post-secondary transition. I collected qualitative

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data from observations of the two large-group meetings with all school teams and two site-based meetings of Washington High School during the case study. Plano Clark and Creswell (2010) explain that observation is a data collection tool that allows the researcher to gather information as it naturally occurs and to study actual behaviors. In this case, I paid particular attention to team verbal reports as they summarized their activities for other teams throughout the large-group meetings. I then captured these reports in audio recordings and field notes.

Field notes involve representing in written form what the researcher sees and understands as a result of participation in fieldwork (Emerson, Fretz, & Shaw, 2011). I recorded observation data in field notes using a process described by Corbin and Strauss (2008). I used observational notes to describe actual events that I observed and theoretical notes to document my thoughts and interpretations about those events. I transcribed audio recordings of these sessions as additional data sources.

Artifacts

Artifacts were collected from Washington High School throughout the process. These artifacts were created by the team and documented the development of their action plan as they moved through the process. These documents included a PowerPoint presentation of the results of their first year project, data discussion worksheets from their two large-group sessions, and their final action plan document completed at the second large-group meeting. These artifacts served as a way to tell the story of this team's journey as they analyzed their data and developed changes to their practices through action planning.

Data Analysis

According to Greene (2007), the purpose of data analysis is to organize raw data into manageable forms, assess patterns and trends in the data, and support conclusions and inferences. In this study, I collected and analyzed data simultaneously, as characterized by grounded theory (Charmaz, 2014). As data were collected, I reviewed each data source and then conducted the appropriate analysis as described below. The preliminary data collected served as a foundation for subsequent data collection and analysis (Corbin & Strauss, 2008). Throughout this process, I synthesized both qualitative and quantitative data of different forms as is characterized by a mixed-methods approach (Greene, 2007).

Quantitative Data

I analyzed quantitative data using descriptive statistics from the collaborative team survey results. I calculated the means and standard deviations of the scores for the five constructs measured on the survey: (a) team collaboration, (b) data inquiry, (c) use of a web-based tool, (d) networking with other schools, and (e) district support. I compared these results to the findings from qualitative sources to gain deeper understanding and further clarification related to these constructs. Since the quantitative data were collected as the final activity of the study, data from the survey provided evidence to confirm or disconfirm my qualitative analysis. It led me to reexamine and redefine some units of qualitative data. It further served to highlight the similarities and differences of the experiences of different teams.

Qualitative Data

Miles, Huberman, and Saldana (2014) describe data analysis as three concurrent processes that occur simultaneously: 1) data condensation, 2) data display, and 3)

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reaching conclusions and verification. These processes reflect my approach to data analysis. I collected qualitative data from team collaborative surveys, the focus group, two semi-structured interviews, artifacts, and researcher field notes of observations. All interviews and large-group observations were transcribed from audio recordings of the sessions. Data were analyzed and condensed into meaningful units during all data collection processes using constant comparison, as new conceptual categories were created (Charmaz, 2014). Vagle (2014) describes the whole-part-whole analysis of qualitative data as thinking about focal meanings in relation to the whole from which they are situated. "Once we remove the parts from one context and put them in dialogue with other parts, we create new analytic wholes" (Vagle, 2014, p. 97). According to Charmaz (2014), coding is the link between collecting data and developing an emergent theory to explain the data.

Following data collection at the initial large-group session, I reviewed the field notes and transcriptions from observations of that session. I read through each data source several times and completed an analytic memo to record my impressions and observations. I then used HyperResearch to code data sentence by sentence according to the five pre-determined constructs from the collaborative team survey. I also used inductive coding during this process to allow me to remain open to exploring and developing new conceptual categories. (Charmaz, 2014). Then, using Simple Mind, a mind mapping application, I grouped these codes into connected nodes according to themes. The visual display enabled me to see the interrelationships of the themes and I modified the groupings as new ideas emerged. Mind mapping is a type of networked display of data where nodes are linked together either during or after data collection to provide preliminary data or to develop new data. (Miles et al., 2014) I

used a constant comparison method to find relationships, similarities, and differences in the data as each new segment was added to the analysis (Glaser & Strauss, 1967). I completed this process a second time for all case study data, and then a third time after the final large-group session. Each time, codes were integrated into the whole. I created an analytic memo at the end of each phase to document the direction and decisions related to this process (Charmaz, 2014).

To address trustworthiness of the data, I used member checking, where selected participants were given the opportunity to review the analysis to ensure the accuracy of the interpretation (Fossey, Harvey, Mcdermott, & Davidson, 2002). All members of the case study team and one participant from each of the other five teams provided feedback on the final assertions and sub-assertions through an electronic survey.

This chapter has described the methods that were used to address the research questions. It has described the data collection tools and process for data analysis of the mixed-methods study. It has also provided the detailed descriptions of the process that was used to implement the innovation and the study. The next chapter will report on the results of the data collection and analysis.

CHAPTER 4: RESULTS

To understand the social construction of meaning for high school teams as they navigated through a process of data analysis and action planning, I developed, implemented, and studied an innovation that involved a system of continuous improvement targeting post-secondary transition practices for students with disabilities. As the district special education director, I participated in this action research study with six high school teams to understand their process of collaboration within their schools and with other schools in the district, their use of data to inform their practice, and their development of action plans for systems change.

Results from multiple instruments used to collect and analyze data in the study supported the assertions described in this chapter. Interviews, a focus group, field notes, and artifacts provide qualitative data and a collaborative team survey completed at the end of the study provides quantitative data. First, I will present the overall results of the collaborative team survey including measures of the reliability of the instrument and descriptive statistics related to the responses for survey constructs. Then I will describe the assertions and sub-assertions that emerged from data during the analysis with supporting evidence from both the qualitative and quantitative data collected during the study.

Quantitative Results

This section describes the quantitative results of the collaborative team survey administered during the study to assess the value of the process for the participants. Teams completed the survey together so responses reflect the consensus of the team.

Reliability of the Collaborative Team Survey

Following the administration of the team survey, I conducted a reliability analysis

of the survey instrument and the five constructs I designed the survey to measure. To

measure the internal consistency of the instrument and its constructs, I used SPSS to

calculate Cronbach's alpha (Cronbach, 1951). The results of this analysis are displayed in

Table 2. All constructs returned values between 0.81 and 0.98. The overall alpha for all

items was 0.82. The results of this measure with the actual participants were consistent

with those of the pilot survey conducted prior to the beginning of the study. A score of

0.70 is considered to be acceptable level of internal consistency (Cronbach, 1951).

Table 2

Reliability Analysis of Team Collaborative Survey

Factor	Within Factor Items	Coefficient Alpha Estimate of Reliability
Collaboration	Items 1-4	0.91
Data Inquiry	Items 5-8	0.81
Web-based Tool	Items 9-12	0.85
Networking	Items 13-16	0.83
District Support	Item 17-20	0.98
Overall Alpha	Items 1-20	0.82

Results of the Collaborative Team Survey

I calculated the mean and standard deviations of the responses for each of the five

constructs. Teams indicated their perceptions of the values of various components of the

innovation by indicating agreement or disagreement to 20 statements on a four-point

Likert scale. Some examples of these statements included, "Having time to network with

other schools is important to our team," and "Using the STEPSS tool is an effective way

to understand and use data." Results indicated that the participating teams agreed that all

components of the innovation were valuable to the process. Teams viewed networking

with other schools and collaboration time within their school as the most valuable parts of

the experience, with a mean response of 3.54 and 3.39 respectively. There was a high

degree of consistency among responses to the survey. Ratings for the value of district

facilitators had the most variability with a standard deviation of 1.15. This may reflect the

differences in experiences of teams dependent upon the individual who performed this

role on the team. Table 3 provides a summary of the results of the collaborative team

survey.

Table 3

Descriptive Statistics of Collaborative Team Survey Constructs

Construct	*M*	*SD*
Networking with Other Schools	3.54	0.49
Collaboration	3.39	0.39
Data Inquiry	3.29	0.43
District Facilitators	3.08	1.15
Web-Based Tool	3.00	0.52

Quantitative results complemented the qualitative results in this study by providing a measure of team perceptions about the process. In the next section these results will be included as appropriate to provide evidence for the assertions and sub-assertions of the study.

Overall Findings

This section highlights the findings of this study and presents a thematic summary related to the research questions: (1) How does participation in situated learning using a data-based decision making model to examine post-secondary transition influence the social construction of meaning for school-based teams? (2) What factors contribute to the perceived value of the process for participating teams? and (3) In what ways do teams change programs and practices at their schools to improve their post-secondary transition activities and post-school outcomes? Figure 8 provides a preview of the themes, assertions, and sub-assertions discussed in this section. Qualitative and quantitative data provide evidence to support the assertions.

Themes	Assertions	Sub-Assertions
Data Inquiry	Teams construct meaning about their practices through data inquiry.	Data analysis provides teams with a way to understand their strengths and weaknesses. Teams link data to broader contexts to understand their own data. Data inquiry connects student outcomes with school practices. Teams value their participation in a data inquiry process as a way to understand their work.
Collaboration	Through collaboration, teams develop deeper understanding of problems and solutions.	Members of school teams enhance their work by collaborating with stakeholders and one another. Sharing practices and barriers with other schools deepens understanding.
Continuous Improvement Process	Establishing a continuous improvement framework provides structure and sustainability.	Linking special education improvement activities to school-wide initiatives anchors the process and outcomes at the school. District support provides a framework for resources and accountability. Through cycles of continuous improvement, teams build competence in the process and outcomes.

Figure 8. Themes, assertions, and sub-assertions.

Following the data analysis, the assertions and sub-assertions were shared with all participants of the case study team and one participant of each of the other five teams through a process of member checking. There were high levels of agreement with all of the findings. Some respondents added qualifiers and comments that have been incorporated into the discussion of each assertion.

Assertion 1: Constructing Meaning Through Data Inquiry

Two weeks after the start of the 2015-16 school year, teams from six high schools in a large public school district assembled in a conference room at the district office to begin a process of data inquiry designed to increase their understanding of their school data related to post-school outcomes. They were charged with analyzing their school data, identifying predictors of post-school success, and developing action plans based on these predictors to address the results of that inquiry. Through this process, teams found meaning in the data and developed linkages to their post-secondary transition practices and the outcomes of their students.

Initially, some team members admitted that they had never been aware of the data that reported the outcomes of their students, as they expressed their inexperience related to data inquiry. They lacked the skill and understanding of how to make sense of the data and did not make connections between the data and their practices. Once they became aware of the purpose of the data inquiry process in making connections, participants began to immerse themselves in the process. Mr. Smith, a teacher from Lincoln High School reported, "We felt blindsided when we had all of those awesome graphs put up and we saw that we only had 24% of our students graduating in four years." This teacher and many others had never received information related to graduation rates for the students with disabilities at their schools. Similarly, Ms. Lopez, a special education teacher from Madison High School, expressed surprise that so many students from her school with emotional disabilities were competitively employed. Whether positive or negative outcomes, school-based teams were never cognizant of what happened to their students after they left their schools, so they were unable to view their practices in terms

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of these outcomes. Ms. Lopez also expressed concern about the unexpected results for compliance on the transition components of the IEP. "Touching on Indictor 13, and I know for myself I am doing transition, so I was actually very surprised that our lowest area [of compliance] was transition assessments, so that is an area of concern for us as a team." The Jefferson High School team made similar observations about their data.

> As far as Indicator 13, looking at IEPs we were a bit surprised at the results we had. It looked like some staff have really mastered writing really effective IEPs. We have certain [teachers] in the department that have not mastered it.

Even in the early stages of the process, most teams connected to the data in ways that were both personal and interpretive. They expressed surprise, excitement, and disappointment in the data they discovered. Thus, this was more than a passive exercise. Team members actively explored the outcomes for each indicator as they sought to understand and interpret the data.

However, as the participants began the process of data inquiry, it was more difficult for some teams to engage meaningfully in the process of examining data. Instead, they focused on the barriers to their participation in the process. Some teams reflected on barriers such as teacher shortages and other distractions that they feared would prevent them from fully investing in this process of data inquiry. During my observations of the first team activity as they reviewed data related to the graduation and dropout rates at their schools, I noticed a team that was not fully participating in the activity. The following is an excerpt from a field note from this session.

> I walked among the groups during the first data analysis assignment, where teams looked at the graduation and dropout rates. I stopped to check in with the three special education teachers and two school psychologists from Lincoln High School. Their administrator had not yet arrived, and they did not seem to be looking at their data. They were focused on discussing their immediate concerns related to inadequate staffing rather than addressing the issues related to their

data. They expressed to me that it was difficult to focus on a new project when they don't have enough staffing to provide instruction and address student IEPs.

Similarly, Ms. Moore, a teacher from Roosevelt High School, expressed concern about having to participate in a data inquiry process. She wanted to move quickly to her action plan without engaging in the reflective process of data analysis. She spoke to me as I circulated through the room checking on teams. "Let's get this done. This just adds more chores to my plate. I want a checklist to cross things off."

As teams became more involved in data inquiry, however, they began to see firsthand the value of their participation in the process. It was only with more engagement in the process that they began the process of creating meaning in the data and became more committed to discovering data that could help them understand and change their practices. Ms. Moore later stated, "I think for us it was about coming up with something that was doable and realistic, using the data as an umbrella for our kids." This demonstrates that engagement in meaning making and linking data to practice happened in different ways for different teams, yet all teams eventually made these connections.

Dr. Warren, the school psychologist from Jefferson High School made connections between data and practice for her team when she reported to the large group at the first session.

> Our transition facilitator has done a great job of scaffolding skills related to employment but has not necessarily integrated them into the IEP goals and services. We now recognize from our data that there is a disconnect between our post-secondary employment and what they [students] are doing in high school.

This comment was representative of remarks from other teams as they engaged in the process of data inquiry. It demonstrates that teams created meaning from their data and applied it to their practices.

The following sections provide some specific areas where teams constructed meaning in their analysis of data. These include: (a) how teams used their data to prioritize targets for change; (b) how they looked at their data in the broader context of school-wide, district, and state data; and (c) how they linked the data to post-secondary transition practices.

Assessing strengths and weaknesses through data inquiry. Using data to examine practices, high school teams in this study were able to reflect on and identify their strengths and weaknesses related to student outcomes and targets for change. Through my facilitation of the process and the use of a web-based tool, I purposefully led teams slowly and deliberately through an analysis of their data during the two large-group sessions. Teams spent considerable time working through their data for each of the indicator areas: graduation rate, dropout rate, engagement rates after high school, and IEP transition component compliance.

The data inquiry process helped teams identify areas of concern as they developed focus statements to target problems at their schools. During the focus group with the Washington High School team, Ms. Johnson, a special education teacher, stated, "I think it's always good to identify what the problem is first and then go, 'OK, what can we do to solve this problem?'" This teacher demonstrated an understanding of the need to examine practices in relationship to the problem before moving forward to solutions. She supported the need to interpret the data in the context of the school's strengths and

weaknesses before moving to action. The time and opportunity for this reflective process was embedded as a key ingredient of the innovation. It was during this reflective analysis that teams assessed their strengths and weaknesses that enabled them to find meaning in the data and to develop viable action plans.

In an interview with Dr. Davis, the school psychologist at Washington High School, she supported this need for a data analysis process to make meaning to inform practice. She described how the data inquiry process differed from other experiences of her team. She explained how data have helped her team apply new knowledge to action.

> In the past, we've had wonderful resources both online through special education and wonderful trainings in transition. But I think where this process has honed [sic] in on is looking at the data to drive what we do. You know I think this has been the beneficial piece.

She explained that the data analysis process has helped her team to understand post-secondary transition in a way that no professional development or other resource had been able to do in the past. By examining their own strengths and weaknesses in the context of their outcome data, the team began to understand how their practices made a difference for their students.

During the data analysis, teams took the time to reflect on their strengths. Dr. Warren, a school psychologist from Jefferson High School, made the following report on the post-school outcome data for her school.

> We had the best post-school outcomes in competitive employment for our kids with emotional disabilities, which I think is really good. I feel like we are really promoting that future-seeking. That is really what you want to do: provide them with skills and abilities to be successful after high school.

This comment reflected a common observation that, as teams reported their positive results, they often attributed them to their positive practices. Many teams used these strengths as they built their action plans.

Conversely, teams were also able to reflect on some of their weaknesses through this process, as they attributed poor outcomes to gaps in their service delivery. Ms. Lopez described a weakness at Madison High School related to their high staff turnover and vacancies of special education teachers and how it affects their practices.

> We have poor connectivity to students due to our high staff turnover. We have approximately one third of our staff turn over each year. I think the other school said they have five long-term subs. Well we have three. It's a revolving door. There are concerns about that. This is an area of focus for us.

High turnover was noted as both an area of weakness and an area for improvement after the team reviewed the data related to the dropout rate for students with disabilities at their school. While some schools during this process attributed problems to factors beyond their control, it was interesting to note that this team sees their weakness related to teacher retention as an area for intervention.

In both large-group meetings, teams consistently discussed strengths and weaknesses of special education and transition services at their schools, as they constructed meaning from the data and applied it to their practices. The data inquiry process provided them with an opportunity for this level of reflection.

Linking data inquiry to broader contexts. Although the focus for school teams was on their own school data for students with disabilities, it was common for teams to seek a broader context to understand their data. Often, as teams reported their data findings, they stated these results in comparison to district data or they compared their special education results to those of general education students at their schools. These

comparisons seemed to help teams understand their own data, and sometimes served as a goal for teams to meet. When comparing their data to district graduation rates, Mr. Cohen, a special education teacher at Jefferson High School stated, "We are beating the district so we are glad about that." At times, teams expressed alarm when they noticed large discrepancies between their data and district data. Ms. Lopez from Madison High School made the following observation.

> One of the issues that is interesting for us is our dropout rate for students who have limited English proficiency is the highest in the whole district at over 8%. We were higher in that category than any category in the whole district.

Seeing these data in the context of the district results helped this information to stand out to the team. They went on to choose their dropout rate as a target for change.

When Washington High School described their results on graduation and dropout rates at the second large-group session, they compared the results for students with disabilities to the results for all students at their school, the district results, and their results for the prior year. Looking at these different data points helped to situate the data regarding students with disabilities for their team as evidenced by this quote from Ms. Lee.

> Our current graduation rate for all students is 83.54% and our graduation rate for students with disabilities is at 61.2%. When we compare that to the district, we are currently above average in both areas. Our dropout rate for all students is 1.9% and the rate for students with disabilities is 3.7%. The district rate is 2.7% and 2.8 %. Technically, our rate for all students is lower than the district rate, but our rate for students with disabilities is higher. We found this to be a little bit odd. In comparison to last year's data, it is pretty similar without a lot of change. However, the district's overall dropout rate has decreased.

Ms. Lee also noted the large differences between the results for students with disabilities and the students in general education at her school. This led to the team wondering about

their data and possible explanations for the differences. They held further discussions about this in their team discussions as they tried to make sense of the data.

The following examples show that schools also compared their data for the current year to the prior year. This helped teams to understand trends in their data over time. Washington High School celebrated an increase in their graduation rate for students with disabilities over the prior year, despite a decrease in the graduation rate for all students at their school. Ms. Lee reported to the large group, "So comparing the graduation rates from last year, the overall graduation rate for our school dropped by 2%, however our graduation rate for students with disabilities went up by 1%. So yeah for us!"

Madison High School expressed dismay when comparing current data for IEP compliance to the prior year. Ms. Lopez noted, "Last year we were at 0% compliance for transition assessments and even though we looked at improving them, we are still at 0%. So we're like 'Aaww.'" Comparing the prior year data to the current year provided a point of reference for the results. Although she noted her disappointment with the current year results, she did not describe any specific interventions her team had completed between the two measurements. She did, however, indicate a need for her team to engage in training related to transition components of the IEP after reporting these results. Seeing these results for two years in a row increased the level of concern about these data.

Teams did not view their results in isolation. They noted common areas of concern as they listened to each team report their data. When Ms. Delgado, a teacher from Adams High School, reported on their dropout rate, she referenced other school data by saying, "Like everybody else's, it wasn't very good across the board." This was

representative of many of the comments teams made as they listened to each team report their findings. Linking their data for students with disabilities to those of other schools, other populations, or the district helped teams bring meaning to what they were seeing in their own results.

Using data inquiry to connect practice and outcomes. Through the data inquiry process, teams began to make discoveries about how their practice influenced outcomes. During the two large-group sessions with all schools, there were frequent comments related to this interrelationship. When Jefferson High School reflected on poor results in dropout data, they considered the effect of a service delivery model they had attempted during that school year. They discussed new practices they put in place for the following year and anticipated that their future data will reflect this change in practice. They clearly saw a connection between their actions and the outcomes of their students through the data analysis process. They attributed their poor outcomes to specific practices and anticipated that with a change in practices there will be a change in outcomes.

Similarly, Ms. Delgado, a special education teacher from Adams High School, discussed a change in practice they had initiated as a result of examining dropout data in the previous year.

> Last year we were concerned about our dropout rate. We looked at who dropped out and realized they were not coded correctly. There was a lack of communication between the registrars and teachers. So at the beginning of every semester, we asked teachers to get the email addresses for their students so we could be in touch with them if they did dropout.

Through examining outcome data, this team made a hypothesis about a factor that may have been contributing to the problem. By addressing that problem, they were able to establish a new practice to address the dropout rate in future years.

As the final step in the first large-group meeting, teams presented their data analysis findings and a focus statement to the entire group. All teams were able to summarize their data and prioritize a need for the focus of their action plan. Mr. Rubin, the spokesperson for the Lincoln High School team, summarized their findings as follows.

> We were really caught up on the statistics of the graduation rates and dropout rates. The problem we identified is that we have a higher than average dropout rate and a lower than average graduation rate. We are going to monitor the tenth grade students who are at risk for poor attendance and credit deficiency.

This team described that they were not paying attention to students who were at risk for dropping out and not graduating on time. They realized they needed to change practices to begin to monitor and address these data at their school related to these risk factors. They were able to identify the problem in their results and link it to a change in practices. Later in the process, they became more specific about their interventions through an analysis of the predictors for post-school success. They developed their action plan based on this initial observation about their data and how it linked to their practices.

Ms. Delgado from Adams High School also reported on their data analysis and focus statement at the end of the first large-group meeting.

> Our populations of students with emotional disabilities and intellectual disabilities were two groups that were not engaged after high school. So our questions were, "Well, if they're not actively engaged, what are they doing? Are they just living in Mom and Dad's house? Just sitting there? Are they volunteering? Are they married? Is it a stay-at-home Mom?" The big question is "What was the disconnect between the transition piece and what they were missing for it to follow them out [to be successful after high school]?" How do we know this is a problem? Because the data told us so.

This example shows this team connected the problem identified through their data analysis and began to ask questions about possible causes of the problem, including their

post-secondary transition practices. Asking questions about the data often formed the bridge between seeing the problem and connecting it to practices. Linking outcome data and transition practices was an essential part of the construction of meaning for teams in this process.

The value of data inquiry for teams. Teams expressed their perceptions about the value of data inquiry throughout the study. In the collaborative team survey at the end of the study, teams responded to questions about the value of the data inquiry process in understanding and making connections with their data. There was a high level of agreement to the statements where participants reflected on the value of data inquiry in the construction of meaning. Examples of survey questions with high levels of agreement included, "This process helps us understand our data," and "Our post-school outcome data help us focus our attention where it is needed." Table 3, at the beginning of this chapter, provided data from the collaborative team survey related to team perceptions of the data inquiry process. On a four-point Likert scale, the mean value of data inquiry for all teams was 3.29 (standard deviation 0.42), reflecting a high level of agreement that using data inquiry aided teams in examining their local contexts.

Comments from the survey provided additional insight into team perceptions of the data inquiry process, including, "Looking at the data challenged and changed the way we think," and "This process funneled the data to something that was a better action plan." I documented similar evidence during the focus group held with members of the Washington High School team. One teacher stated, "We took a look at our data points and asked the question, 'What is the true meaning of this?'" Often, this process resulted in teams asking more questions and digging deeper into the data to increase their

understanding. One team commented on the survey, "The process helps us become more aware and helps us ask more questions." Another team stated on the survey, "Working as a team and having the opportunity to dissect the data are two parts of the process we feel are most valuable." These comments point out the value of the data inquiry process as a way to reflect on and draw meaningful conclusions for the participants.

This section has provided evidence to support the assertion that teams construct meaning about their practices through data inquiry. Data from qualitative and quantitative sources have supported this assertion. The following section will address the next assertion: Teams develop deeper understanding of their practices through collaboration.

Assertion 2: Collaboration and the Process of Meaning Making

As school teams analyzed their data and created action plans to address problem areas, collaboration played an important part in the value of the process. Throughout this study, collaboration took place within school teams and between school teams and with stakeholders. Most important, teams collaborated with all high school teams at two large-group sessions where they interacted to share their data findings, their practices, and their action plans. An unexpected finding of this study involved the data related to the sharing of barriers and solutions that special education teachers encounter in their work. Although all teams created action plans based on their local context of data and practice, each team was influenced and enriched by the sharing of ideas through collaboration.

Collaboration was highly valued both within schools and with other schools. Results from the collaborative team survey (Table 3) indicated that collaboration within the school team and networking with other schools were two of the most valued components of this process. The mean value for collaboration with their school team was

3.39 (standard deviation 0.39) and networking with other schools had a mean of 3.54 (standard deviation 0.49) on a 4-point Likert scale. The Adams High School team commented, "The most valuable part of this for our team was collaboration time." They further explained the aspects of collaboration that were meaningful for them. "We really love the different points of view, and we now realize that issues are across the district. We notice a lot of other teams may be focusing on the same areas we are." Lincoln High School and Roosevelt High School also mentioned the value of collaboration time, specifically within their school team. The following section addresses results related specifically to the value of within-school collaboration.

Team membership and collaboration. Although the specific experiences were different for each of the school teams, they all found value in having the time and opportunity to collaborate with others at their school to address post-school outcomes for students with disabilities and their practices that influence those outcomes.

As teams moved from the pilot in the 2014-15 school year to the implementation year of this study, there were changes in the composition of teams. Each team assessed the contributions of the team members and the commitment they were able to make toward the process. Teams were primarily composed of special education teachers, including those whose focus was on post-secondary transition, and school psychologists. The administrator for the Lincoln High School team participated in and led all activities, but most administrators were only peripherally involved. Ms. Moore, a special education teacher from Roosevelt High School stated, "We started out with a team who included administrators and counselors, but in reality, when it came time for the work, the two special education teachers did the work." Although their core team was very small,

Madison High School described how they would share their action plan and steps with teachers and administrators following each large-group meeting.

Teams reported that they wanted their core team to include the right people to create buy-in and to provide expertise in different student populations. All teams included teachers who work with students with mild disabilities as well as those with more severe disabilities, such as intellectual disabilities and emotional disabilities. Ms. Johnson, a teacher at Washington High School, stated during a focus group, "We wanted to have better representation from our department this year." In an interview with Dr. Davis, a school psychologist who was a part of the team at Washington High School, she described their team membership.

> I think it's good to have people together to develop this. One person could develop a plan but you'd need to have buy-in from different people so it's good to have variety. I think re-making the team this year was good. It's an excellent team. I think everyone contributes and works together and comes up with good plans as a result.

This example shows the collaborative nature of school teams in the data inquiry and action planning process. Teams involved multiple members at their schools, each contributing a specific area of expertise to the process. It also demonstrates the way teams collaborated to ensure that different voices were heard, thus ensuring a commitment to the process and the implementation of the action plan.

Although team membership may not have been representative of school personnel beyond the special education department, school teams actively sought out collaboration with others at the school outside of the team. Washington High School described their collaboration with the counseling department. Ms. Lee, the special education teacher, explained how her team worked with the counselors to understand how their activities

related to the approaches in the special education department. She discovered that they used a very similar process, so they met together to share ideas and practices. She reported, "They are now taking some of our methods and incorporating them into what they do across the board with the general education population." This reciprocal process resulted in improvements for both departments.

The teams also described cohesiveness and sense of purpose as they participated in the process. Quotes from members of the Washington High School team during the focus group meeting are representative. They described themselves as a "tight-knit community" and reported numerous informal meetings where they collaborated to complete steps of the process. Ms. Johnson, a special education teacher on the team stated, "We've always had a very particular mission in what we're doing."

Collaboration within the teams occurred on school campuses and at large-group meetings. Although the expectation was for each team to meet formally on their campuses every two weeks, teams found it difficult to commit to this practice due to time limitations. Several teams did most of their work during the large-group meetings. Others found informal time during the school day to work on different components of the process. All teams related the importance of having time to collaborate at their school with one another and with other stakeholders.

Collaboration among high school teams. Although spending time within the school team was important, participants viewed spending time with teams from other schools as the most valuable part of this process. Teams enriched the work of one another by sharing their ideas, feedback, practices, and barriers. Field notes and transcriptions of

audio recordings from both large-group sessions reflected team comments that demonstrated this collaboration such as

- "What they were saying over there."

- "Just like that team said."

- "As some of the other campuses mentioned."

- "I think what that school said was important."

- "I think another school does this, but we are thinking about."

- "Another school brought that up earlier."

Participants found commonalities between their work and the experiences of other school teams. Sometimes teams took ideas and expanded them to their setting. For example, at the second session, the Adams High School team referenced an idea from the Washington High School team, saying, "We are trying to do kind of the same thing, approaching it a little more intensively and selectively." Teams viewed similarities and differences in their practices, learned from one another, and applied ideas they heard from other teams to their own practices. Collaboration involved reciprocity between schools that deepened the construction of meaning for both the giver and receiver of ideas. Often through the collaboration among teams, one idea led to another and eventually the exchange of ideas led to a new interpretation for all participants.

Teams extended this dialogue by offering to share resources. When hearing about a survey the Adams team conducted with their special education teachers, the Washington team asked if they were willing to share the tool. Adams responded with an enthusiastic, "Absolutely!" When Jefferson described a tool they had created to assess students for community employment, Adams asked if their team would be willing to

share it. Again, the answer was a resounding, "Yeah, of course!" As much as teams wanted to learn from the experiences of others, sharing information and teaching about successful practices was also highly valued.

As teams shared effective practices, they also spent time sharing barriers. At the second large-group meeting, a discussion of barriers dominated the conversation initially as teams reported on their data and action plans. It was common to hear participants referring to the work of other teams, pointing out their similarities especially when they addressed the challenges they faced in their work. One example of this involved teams from Roosevelt and Jefferson sharing a conversation about barriers they both faced in helping parents to understand that competitive employment is a viable option for their children with intellectual disabilities. As they reflected on the common barriers, however, they also explored potential solutions. During the focus group, Ms. Johnson from Washington High School talked about the value of sharing barriers with other schools. She stated, "It's nice to hear where people took things and where they found roadblocks. If we were to take things in a similar direction would we encounter those same roadblocks, or could we prepare better for those roadblocks?" Jefferson High School shared their frustration with not having enough collaboration time for special education department meetings and professional development.

> I don't know if other schools have the same thing. Our PLC model has really limited our ability to do any kind of trainings or department meetings with our people. I don't know how other campuses are managing that but the information I would like to share and do those trainings with new staff is no longer available to us unless it's lunch meetings or a prep meeting.

In response to this concern, school teams engaged in dialogue for several minutes, sharing stories about similar concerns or offering solutions that they have experienced.

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Teams also shared concerns about barriers such as serving students who live in group homes and transportation issues that interfere with community employment. Engaging in dialogue about common barriers was often a way for teams to develop an understanding of their shared experiences.

The social construction of meaning for Washington High School. Through collaborative processes, teams constructed meaning related to post-secondary transition through data inquiry and collaboration. They took the raw data provided to them and, through discussion and interactions, they made sense of that data through analysis and interpretation. As a result of their working together, they came to actionable conclusions about how they wanted to improve their outcomes in the future.

The following vignette further supports the interpretation related to social construction of meaning through an analysis of artifacts collected from Washington High School, the team that served as a case study. As this team proceeded through each step in the process, new data collected through data inquiry and collaboration both within and outside the school team show the influence of these factors in revisions and modifications to the plan. This analysis provides one example and is representative of the processes for other schools, as their action plans evolved and grew through their collaborative experiences.

During the pilot in 2014-15, Washington High School developed an action plan to improve their compliance in assessments in the IEP and to increase the number of students in their resource classes who attend higher education and are competitively employed after high school. They collaborated with student advisors on the development of a student assessment form to be completed by students in their resource classes. This

plan was used as the baseline to assess the changes for this high school during their participation in the study.

In the large-group meeting in August 2015, the Washington High School team revisited the action plan they developed during the pilot school year and analyzed new data through the web-based tool. In doing so, the team completed a data discussion worksheet ("STEPSS State Toolkit for Examining Post-School Success Facilitator's Guide," 2013) that represented their collaborative discussion as they examined and discussed the different outcome areas for their school. This worksheet illustrated how the team co-constructed meaning through collaboration. For example, when discussing the results of compliance on IEP transition plans, the team wrote, "This tells us that while we are reviewing students' IEPs annually, we are not thoroughly developing our transition plans." This statement demonstrates the team's interpretation of the through their shared perspectives and experiences. Another observation that appears on the data discussion worksheet is, "This tells us that while 100% of our SLD population is engaged, students in other disability areas are struggling with being engaged adults." This type of observation reflects the conversations of the group as they worked to understand the implications of their raw data.

At the same large-group meeting in August, the Washington High School team also co-constructed meaning by borrowing from another team. The following excerpt from a transcribed audio recording shows how Washington High School adopted an idea they heard from Roosevelt High School. Ms. Lee, a special education teacher at Washington, made the following comment after a presentation by Roosevelt.

We are stealing your idea! I love that you are getting them [students] involved and part of our piece that I'll talk about in a few minutes is the way we do lessons in our English classes. They give feedback on their transition plans, so now we are going to have them create a presentation that will go into the folder that they will be able to pull up for their IEP meeting. That's a great idea! That's a wonderful idea.

Following this interaction, Ms. Lee and her team reviewed the new idea that expanded their involvement of students in their own transition plans. Prior to this exchange, they planned to have students complete an assessment that would be available to them in an online folder. This new idea deepened student involvement by extending the student's role to the IEP process. This component later appeared in their final action plan.

At the focus group conducted to learn more about the experiences of this team, the special education teachers from Washington described how their ideas have evolved over time. They talked about learning from one another and sharing practices. In the following discussion, they describe how their action plan has changed through discourse with other school teams, school counselors and with one another. They discussed how their team composition was expanded this year to include the perspectives and specialized knowledge of their teacher of students with autism. He was able to provide the team with a resource he was already using that could be incorporated into the action plan. They reached out to special education teachers who were not a part of the core team to gain information and examples of increased student involvement in IEPs. Finally, they emphasized the importance of informal observations and conversations in contributing to the evolution of their action plan.

Ms. Lee: I think our ideas have evolved. We started with the Google form but what we have placed around in order for them to complete it successfully has evolved. We have started the conversation of creating student folders that will align to ECAP that the counselors are doing every year. This will be in a folder they can take with them that will have a plan. They'll know where they are going

and what college they are going to. This will be done in a presentation they can present to their IEP team, so it's definitely evolving. We brought another teacher into the team this year and are using his ideas. He recently put together a similar Google form. Through conversation and him hearing what we're doing, he is like "Hey, I have this check sheet that I use all the time and this could be easily be manipulated to go with what you are doing here."

Ms. Johnson: Our ED teacher has been doing presentations with her kids for years. When this came up at the last meeting we decided to contact her. Sometimes we know people are doing things so we put it all together.

Ms. Lee: Sometimes we see teachers using things at IEP meetings. You know, we work together during lunch and have conversations.

The exemplars described in this dialogue support the social construction of meaning as ideas were formed and grew through social interactions.

Washington High School developed their final action plan for the current school year at the large-group meeting on November 3, 2015. This action plan expanded the use of a transition assessment tool to all special education students at the school, rather than just students in resource classes. Due to the involvement of a teacher of students with autism and intellectual disabilities, an additional assessment tool was added for all teachers. Based on the results of their data analysis, the team decided to link the use of the tool with the assessment section of the IEP. This change was based on an idea presented by Adams High School at the November 3 meeting. The team also used a suggestion from Adams related to using a fidelity check to see if teachers were using the tool with their students in the development of IEPs. The team further expanded the action plan to include student participation and parent involvement after participating in discussions in the large-group meetings. Based on an idea from Roosevelt High School, they added the student creation of a presentation to online folders where they could access transition materials.

A review of the artifacts and other data described in this vignette shows the collaborative process of meaning making for Washington High School, as they transformed their initial plan through the process of collaboration. As the individuals on the team joined with one another and with other teams, their ideas grew and changed. A simple idea became more complex and bore little resemblance to the initial proposal. Objective data became actionable knowledge based on the team's collaborative understanding and interpretations. Through collaboration, the team turned raw data into an action plan that will guide their practices

Assertion 3: Creating a Formal Process of Continuous Improvement

As discussed in this chapter, data inquiry and collaboration combine to form a rich opportunity for school teams to examine and improve their practices related to post-secondary transition. To address structure and sustainability, these components are most successful when embedded in a formal system of continuous improvement. This can be accomplished through embedding special education action plans and practices into larger school-wide or district initiatives, providing district supports and oversight for accountability and resources, and using a consistent framework for data analysis and action planning over time.

Linking to school-wide initiatives. As school teams completed this process and developed targets for improvement through their action plans, some teams related those targets to school-wide initiatives. By aligning these change efforts to established priorities in their schools, they added structure, buy-in, and sustainability to their work. Ms. Lopez discussed her team's desire to connect their action plan to school-wide incentive goals. She stated, "I think if we start tying it to something else, bigger than this,

then more people will start saying we have to get these kids to stay in school." Other schools also reported aligning their focus to school initiatives such as school climate and dropout prevention efforts. The Madison High School team decided to implement an action plan to address the dropout rates of students with disabilities at their school. This became part of the school-wide goal of decreasing the dropout rate for all students. Similarly, the team from Lincoln High School tied their action plan to dropout prevention as part of their school's initiative. Thus, aligning and embedding the special education change efforts into other school initiatives can increase the chance that the change will happen.

District support and resources. Throughout this innovation, I collected data related to the value of district involvement in the process. Could teams complete this work without a formal district process that guided the work? An analysis of the data indicated that district involvement served a very specific role in the process and district facilitators did not need to be a part of every aspect of the work.

Some teams felt the district involvement added credibility to the process. For example, Adams High School commented on their survey, "Pulling a district facilitator out of the equation would make the process less relevant and important." Other teams felt that district resources such as substitute teachers and conference space were essential to give teams the time and location to work uninterrupted. Lincoln High School reported in their survey that they were appreciative of the time the district had provided for them to work together. They stated,

> The most valuable part of this experience was the collaborative time we have had as a school team because this time has allowed us to really focus and develop

plans related to data compared to the 20 or so minutes we may or may not have at our site.

The Washington High School team reflected on the role of district facilitators in their focus group. They expressed the need for leadership to come from within the team, but viewed the district facilitator as a point of contact for questions. In all cases, teams conducted at least some of their activities without the involvement of the facilitator. They viewed the leadership of the team as their responsibility. Thus, teams consider the primary role of the district as providing resources and directions for the process.

Data inquiry framework. A structured framework provided teams with the consistency and predictability to complete their work. During the focus group, two special education teachers from Washington High School described how the formal process helped their team.

> Ms. Lopez: I think it helps. Especially at the beginning, it sets the tone for us. It allows us to devote that focused attention so that when we are back here on our campus, we already have a focus. We already have the mission and we already kind of know where we're going. Then all we have to do here is kind of hash out the "hows." The "why" has already been established.

> Ms. Johnson: We already know our weaknesses. It wasn't like we weren't trying to solve them. We just didn't have a vehicle to solve them at that time. So that's where this process came in for us. We now have a vehicle to do it and a way for us to create a system.

> Ms. Lopez: We needed something and this kind of helped give us something to start with. I think we would have eventually gotten there. It would have taken a while!

Other teams also expressed the value of the process as a framework for systems change. The Adams High School team commented on their survey, "The process creates a commitment to improve our practices. It keeps us moving forward." During this innovation, teams referred back to data and action plans from prior years to link the past

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to the present. Jefferson High School viewed this as an ongoing process as they referred to their plan as a "two year plan." They reported, "When we first started it we knew that there was no way possible to attack everything in one year."

By establishing a district-wide continuous improvement process, teams have the resources and accountability to coordinate their efforts to engage in dialogue and action to address the post-secondary transition practices that affect post-school outcomes of students with disabilities.

Conclusion

As we came to the end of the second large-group meeting and the final activity for this study, school teams expressed enthusiasm for their next steps in the process. Although the study ended at this point, the activities of the continuous improvement process would continue through the implementation of each team's action plan. Schools decided together how they would share their results and experiences through formal presentations at the final meeting of the school year. Teams collaboratively decided upon a date for this session as well as a format for sharing their results.

The assertions and sub-assertions described in this chapter provided a framework for examining the results of the current study. In the next chapter these findings will be tied to the research questions in order to draw conclusions from the data and gain an understanding of the value of data inquiry, collaboration, and continuous improvement in post-secondary transition practices.

CHAPTER 5: DISCUSSION

Prior chapters have set the stage for the development and implementation of the innovation described in this study. I have provided the context and background that demonstrated the importance of this action research study. Furthermore, I have tied this study to theories and literature related to social constructionism, situated learning, and the theory of action for data use. These have formed the foundation for the current study. Finally, I have presented the method used in this research and the quantitative and qualitative results.

Results of the study, including the assertions presented in Chapter 4, guided the discussion and implications in this chapter. It begins with an overview of the study, followed by a discussion of the findings. I present implications for practice and for further research, as well as the personal lessons I have learned. Limitations of the study are also discussed.

Overview of the Study

I designed this action research study to examine the involvement of high school teams in a large public school district in a system of continuous improvement related to improving the post-school outcomes of students with disabilities. As the special education director, I needed a way to engage with teachers through a positive, productive approach that empowered them to reflect on and improve their practices. I developed a framework whereby school teams shared successes and barriers that influenced their practice while examining specific data related to their outcomes. The innovation provided several components that provided the basis of analysis for this study: data inquiry using a wed-based tool, school team collaboration during site-based and large-group meetings,

networking with other schools during two large-group meetings, and guidance from district facilitators throughout the process.

Greene (2007) describes the importance of using "a mixed methods way of thinking" when approaching educational research due to its complexity. Mixing methods allows the researcher to take into account different views of the phenomenon that would not be apparent from a single perspective (Greene, 2007). For this reason, I used a variety of tools for data collection and analysis to develop a multifaceted understanding of my intervention. Just as a photographer uses different lenses to capture the intricacy of a subject, I designed this study to create a picture that would help me understand the innovation from different perspectives. I conducted observations as I participated with all teams and collected data through field notes to look at my innovation through a wide-angle lens as the six school teams interacted at two large-group sessions. I used a close-up lens to study the work of one team through a case study. I supplemented the natural observations and field notes of my participation in this team with a more formal focus group and semi-structured interviews of team members to capture both group and individual perspectives. I then examined artifacts produced by this team to see how their ideas changed throughout the process.

Finally, I moved from qualitative to quantitative data to examine the experiences of teams through yet another lens. Through the collaborative team survey I was able to quantify the value teams placed on different components of the process. The mean scores of 3.54 on a 4-point scale for the construct of networking and 3.38 for collaboration were consistent with the qualitative data that represented these as important factors in the

experiences of the participants. This helped me to understand how the teams viewed the experience.

Data analysis occurred throughout the data collection process through initial and focused coding, as well as through a more thematic approach. Using a whole-part-whole analysis and constant comparison, I examined each data point individually and then in the context of the other data. Vagle (2014) describes this type of analysis as thinking about the data within the context and then putting them in dialogue with other data to create new analytic wholes. With each additional source of data, I was able to broaden and deepen my understanding of the experiences of the participants. I supplemented coding with mind mapping to gain a visual representation of the interrelationship of the data. It was through this analysis that I developed assertions and sub-assertions related to data inquiry, collaboration, and meaning making. The following discussion relates the study results to the research questions and the literature to form a starting point for presenting implications for practice and further research.

Discussion of Findings

The findings of this action research study indicated that teams constructed meaning about their post-secondary transition practices through a collaborative data inquiry process. Prior to this innovation, special education teachers were not aware of the specific data related to their post-school outcomes for students, nor did they use the available data to seek improvements in their practices. Opportunities for collaboration with others at their schools as well as with other school teams as they sought to examine and make sense of their data enabled them to develop a deeper understanding of their problems and possible solutions. Finally, the use of a continuous improvement process

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that involved cycles of data inquiry and action provided a framework for structure and sustainability, providing teams with the resources and time to develop their skills both in the process of data analysis and the improvement of their practices. The following sections will connect these findings to the literature and demonstrate how they answer the research questions.

Situated Learning and the Social Construction of Meaning

The first research question asked, "How does participation in situated learning using a data-based decision making model to examine post-secondary transition influence the social construction of meaning for school-based teams?" According to Gergen and Gergen (2008), social constructionism involves the use of dialogue to bring different realities and values together. Evidence from this study supported this theory, as teams constructed meaning about their practices through the data inquiry process with one another. Sparked by their data discoveries, teams engaged in rich dialogue about the commonalities and differences in their practices as well as the barriers they face and try to overcome in their daily work. This innovation presented schools with their first opportunity to look at the long-term outcomes of their students through a structured process that provided the time and resources for collaboration through a situated learning experience.

As teams worked through the process of examining outcomes and developing action plans, they engaged in meaningful dialogues characteristic of situated learning through communities of practice. The experiences of these teams were consistent with the characteristics proposed by Lave and Wenger (1991), as they describe the social process in communities of practice as participants construct knowledge through their interactions

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with other people, the environment, and raw materials. Teams reflected on the data that described the engagement of students after high school as well as their graduation and dropout rates. They examined their own processes related to transition plans in student IEPs. They joined together to understand the meaning of the data through analysis and conversation about their current practices. Teams from different schools talked to one another through their participation in the large-group meetings. They shared commonalities in their practice such as barriers related to finding times in the school day for collaboration. They shared solutions to problems such as tools they were using which they then enthusiastically shared with other teams. Together, they discussed approaches to increase parent involvement to support high school students in their transition goals. The results of this study were consistent with the work of Putnam and Borko (2000), who described discourse communities as places where diverse groups of teachers share in rich conversations that enable them to develop new insights into their practice. All teams in this study were able to work together to find meaning in their data.

Networking, Collaboration, and Data Inquiry

The second research question asks, "What factors contribute to the perceived value of the process for participating teams?" In this study, three components stood out as being valuable for school teams: networking, collaboration, and data inquiry. Networking with other schools proved to be a valuable part of the process for teams, as they shared practices, tools, and barriers with one another. Teams noted that they were unaware of the commonalities among schools as they approached their data analysis. Teams frequently commented on the work of other teams, offered ideas and suggestions,

and ultimately added components to their action plans based on these discussions. Networking with other teams enriched the process for teams.

Collaboration was also an essential component of this process for teams. They valued the contributions of one another as they worked together as a team to understand their data and practices. Some teams actively invited specific members to add expertise and differing perspectives to the team to enrich the collaborative process. Collaboration allowed teams to distribute the responsibility for analysis and action. These results support the notion of collective responsibility in data analysis used to develop the theory of action for this study (Datnow, 2013).

Teams also valued the time that this process offered them for collaborating within their school teams. Due to competing priorities in their everyday work, most teams found little time in the school day for collaboration and sharing of practices. The literature on data inquiry provides abundant support for the notion that lack of time is a barrier for implementation of data-driven interventions (Marsh, 2012). Even though site-based time was expected as a part of this innovation, teams described barriers to implementation.

When teams were able to collaborate at their school sites, it was usually on an informal basis for short periods of time as they discussed problems of practice and implementation of their action plans during lunch and between their teaching responsibilities. Teams perceived these short periods of time as a barrier to data inquiry that impeded their work at their sites, a contention that is also supported in the literature (Slavit & Nelson, 2010).

During large-group meetings, teams shared concern about this lack of collaboration time on their campus. Consequently, providing participants with time to

meet within their school teams during the large-group meeting was considered helpful to the process and valued by teams. Teams needed both within-team collaboration and networking with other schools to achieve the desired results of the data inquiry process.

Finally, the data inquiry process itself was viewed as a valuable experience for school teams. In their book on data inquiry, Lipton and Wellman (2012) note, "prodding, poking, and inquiring into what's going on, and whether it is satisfactory motivates change" (p. 53). This was the case as teams delved into their data on post-school outcomes to identify areas of strength and need. As teams became more comfortable about the data inquiry process, they also became more knowledgeable about the meaning of the data and its relevance to their work. Teams asked questions about the data and what it represented, expanding the conversations to the implications for practice.

Improving Post-Secondary Transition Practices

The third research question asked, "In what way do teams change programs and practices at their schools to improve post-secondary transition activities and post-school outcomes?" As a result of this intervention, teams established change targets for their practices based on predictors of post-school success related to the outcomes they wanted to improve. School teams identified areas for improvement based on their data related to four national indicators. They then developed action plans consistent with best practices and identified predictors of post-school success established by researchers at The National Secondary Transition Technical Assistance Center (NSTTC; Test et al., 2009). Figure 9 provides a summary of the post-secondary transition practices targeted for change in each action plan, the post-school outcomes and indicators that the plan

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addressed, and the predictor for post-school success that aligns to the action plan. The

indicators listed correspond to the federal indicators described in Chapter 1.

School/Practice Changes Targeted in Action Plan	Post-School Outcome Addressed (Indicator)	Predictor
Adams High School: The team will provide two training sessions for all special education teachers in the linkage of assessment to the development of coordinated activities and goals. First teachers will learn about their school's data related to post-school outcomes. Then, teachers will be trained to use assessments to understand the strengths, preferences, and interests of students and to integrate these into the goals and coordinated activities for each student.	Increase the quality of transition plans so assessments guide the plans for every student, enabling them to have plans that lead to more positive outcomes (Indicators 13 and 14)	Access to: Career awareness, Work experiences
Jefferson High School: The team will implement the use of a competitive employment checklist for students with intellectual disabilities to identify skills needed for community-based employment. They will use this checklist to develop IEP goals specific to increasing self care and social skills needed for competitive employment.	Increase competitive employment for students with intellectual disabilities. (Indicator 14)	Independent living and Self-care skills, Social skills, Vocational education
Lincoln High School: The team will use the district data warehouse to track students who are at-risk due to absenteeism and low grades in the first semester. Teachers will meet with these students weekly and will contact parents to involve them in a plan of support.	Increase the graduation rate for students with disabilities from 57% to 60%. (Indicator 1) Increase compliance on IEP (Indicator 13)	Student Support: Check and Connect, Parent Involvement
Madison High School: The team will develop a system of support involving a checklist of interventions that can be used to support students at risk for dropping out. Special education teachers will monitor their own caseloads to identify students who are credit deficient, have high absenteeism, or have failing grades. They will match them to an intervention: check and connect, peer mentoring, tutoring, parent contact, credit recovery program, or the PRIDE program (a school-based intervention program).	Decrease the dropout rate for students with disabilities (Indicator 2)	Student Support
Roosevelt High School: Develop a system of student-led IEPs to increase student and parent involvement in the IEP process.	Increase graduation rate and decrease dropout rate for students with disabilities. (Indicators 1 and 2)	Parent involvement, Student self determination
Washington High School: Expand an assessment tool developed last year to include all special education students. Students, teachers, and parents would have access and input into the tool that would be used for IEP development and transition planning. A fidelity checklist was added to ensure teachers coordinate the use of the tool in the IEP process.	Increase IEP compliance, Increase engagement after high school (Indicators 13 and 14)	Student self determination

Figure 9. Changes in post-secondary transition practices by school.

The action plans were varied in their targets for change as well as the indicators they were interested in addressing. All school teams were concerned with the data related to establishing compliant and effective transition plans that would serve as the foundation for success for their students. Teams targeted interventions to increase student support, increase parent involvement, and increase student skills and participation. Although action plans created a process to design and implement changes, the implementation phase actually occurred after the study.

Personal Lessons Learned

As a special education director, I have an indirect impact on the students with disabilities in my district. The only way I can improve outcomes for students is through site-based teachers and staff. This innovation provided me with a vehicle for conversations and reflection and enabled me to build relationships with the teachers and school-based staff whose practices do influence the outcomes for our students. Through this study I was able to reflect on my growth as a researcher and as a special education director.

Methodological Reflections

My path in the field of education began as a behavior analyst for students with disabilities. Thus, my early training was in the delivery of interventions based on behaviorism through quasi-experimental single subject design. As I approached this study, I made a deliberate effort to learn about and explore a more qualitative approach to research. As a result, this study focused primarily on qualitative data I collected through observations, interviews, and a focus group. Although the quantitative results from the survey helped to answer the research questions, it was the richness of the qualitative data

that really enabled me to develop an understanding of my participants. As a result of my participation in this study, I have developed a strong appreciation for the value of a mixed-methods approach, particularly the importance of qualitative data in providing a more complex view.

Similarly, I have reflected on my thinking related to inductive and deductive approaches to data analysis. As I began this study, I was determined to use a pure inductive approach using grounded theory. As I began to analyze the data, I found myself finding a middle ground between inductive and deductive approaches. Thus, I used an inductive approach to develop initial codes, but then tied them to the pre-determined constructs I had identified through my quantitative lens. This created convergent thinking, which I referred to as a "meet-in-the-middle approach." As a researcher, I have learned to use a balanced approach that supports my strengths.

I grew in my understanding and skill in both the art and science of the research process. I selected and integrated methodological approaches that would enable me to study my innovation. As a result of this experience, I now embrace the connection between research and practice and seek out opportunities to engage in action research to address problems of practice.

Practice Reflections

This study has influenced my approach to research, and it has also affected my approach to my practice as a special education director. Engaging in this action research study has changed the way I view my relationship with school-based teachers. As I collaborated with them in this process, I was able to listen to the stories they related in terms of their data inquiry and action plans. I learned that school teams come to the table

with a valuable set of skills and perspectives and that, when given the time and resources to reflect on their practices and outcomes, they are able to establish viable targets for change. In my role as a district administrator, the core of my practice needs to focus on how special education teachers understand their own local contexts and how I can best support them to achieve their priorities.

This study also helped me to understand that sometimes teachers on school teams need additional information and data. Traditional professional development for these teachers often provides this information at times that are convenient for my special education leadership team to schedule and provide this professional development. Through this study, it became evident that teachers need information as they are engaged in solving problems in their schools. This means that I need to ensure a more responsive system that provides "just in time" information when it is needed.

Finally, I have learned the value of establishing a continuous improvement process that provides school-based staff the time and opportunity to examine their practices in the context of their own outcome data. I watched the growth of teams as they learned the process of examining data as well as their excitement with learning and applying evidence-based practices and the predictors of post-school success. I will continue to explore continuous improvement models for different areas of my practice.

Limitations

As with any research study, there are unanticipated events and limitations that must be taken into consideration when examining the results. These included the following methodological factors. The first limitation of the study involved my role as a participant and a researcher in the study. As a district administrator, I was well-known to

the participants, and this may have affected their responses and activities in the data collection process. Second, I used a case study approach to conduct an in-depth analysis to supplement the data I collected through large-group activities. A comparative case study with an additional team may have provided more data to help me understand whether the first team was representative of other teams. Finally, due to my focus on collaborative practices, I used collective data for the most part, rather than individual participant data. The exception to this approach involved two individual interviews. Conducting additional individual interviews or surveys may have provided additional insight into the functioning of the team process.

In addition to these methodological limitations, there were some unexpected changes to the innovation during the study. Due to the nature of this study and the involvement of teams from across the district, I was restricted in the timeframes during which the activities of the study could be conducted. This resulted in scheduling our first meeting prior to the release of 2014-15 school year data from our state department of education. When post-school outcome data were released, there were technical problems loading the data into the web-based tool. As a result, the outcomes of this study related to the use of the web-based tool will need to be reconsidered. Although teams were able to access the tool during the first large-group session, the research plan was adjusted to provide school teams with their data through electronic folders at the second session. The plan was also modified to give additional access to the district's data dashboard for current data beyond that available in the web-based tool. This may have altered the results for team perceptions of the usefulness of the web-based tool.

Throughout the study, I struggled with the balance between providing teams with the structure of the innovation as designed and the autonomy and flexibility to allow them to take the structure and adjust it to their own needs. As a result, fidelity of implementation could be considered one of the limitations of the implementation of the study. While the district facilitators were initially designed to establish uniformity of implementation among the six teams, I learned that they too had differences in approaches. I made a decision to allow those variations to occur, due to the nature of participatory action research. It was important to go off course when participants felt there was a better way to attain their goals. As a result, the focus of this study should be on a general analysis of the intervention rather than the specific tools or model used.

Implications for Practice

The results of this study demonstrate the usefulness of applying a data inquiry model to improving post-secondary transition practices in high schools. The use of collaborative inquiry into academic data has become commonplace in educational settings, yet for the most part, this has not extended to an examination of post-school outcomes and transition practices. Despite the abundant post-school outcome data available for analysis, data only become actionable knowledge when they are analyzed and combined with stakeholder understanding (Marsh, 2012). Post-school outcome data are only valuable when they can be applied to the practices that affect those outcomes. Although the current study focused on the use of data to improve high school practices, Alverson et al. (2010) emphasize the importance of expanding the scope of collaboration to the multiple agencies and stakeholders who serve a role in the transition process.

At the foundation of data inquiry is the social construction of meaning through collaboration. "When teachers work together around problems of practice, they co-construct solutions for improving instruction and ultimately student achievement" (Datnow, 2013, p. 343). Special education directors and other administrators need to consider collaborative approaches to understanding data and improving practices. Marsh (2012) demonstrates that opportunities for cross-department and cross-school interaction were an essential feature to support data use.

Examining and making sense of data has become a critical skill for educators to master. Ongoing engagement in cycles of continuous improvement builds competence in the skills of data analysis and the ability to transform that data into actionable knowledge that can improve practices. Establishing a culture of innovation through data inquiry and a focus on improvement requires a framework to guide the process. The current study offers such a framework based on data inquiry, collaboration, and supports.

Implications for Further Research

As mentioned previously, this study provided only a snapshot of a complex continuous improvement process. The outcomes of this study were limited to addressing the inquiry process and the development of action plans. Further research is needed to examine the implementation of these plans and the correlation between action and post-school outcomes. Truly understanding a continuous improvement process requires a longitudinal assessment of its value and impact over time.

Many themes emerged through the analysis of data that were beyond the scope of this research. Revisiting these topics could add clarity to understanding this process and its application to other settings and circumstances. One theme that emerged throughout

the process was that of attribution. As school teams reviewed their data in terms of their practices, there were frequent interpretations of the data that involved explanations other than their practices. Bertrand and Marsh (2015) explored the role of attribution in their study of data sense-making and concluded that attribution may influence the way that teachers understand and interpret data. Other areas for further exploration included the role of distributed leadership in the continuous improvement process, strategies for deeper interpretations of data, and the involvement of outside stakeholders in action plans.

Conclusion

This action research study has provided an opportunity to understand how I, as a special education director, can engage with school staff to make a difference for the students with disabilities in our district. It has enabled me to design and implement a system for continuous improvement that I can establish as an ongoing framework to examine post-school outcomes for our students and collaborate with site-based teams to create positive changes in our district.

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APPENDIX A

INDICATOR INFORMATION FROM THE ARIZONA SPP/APR

<center>**Indicator Information from the Arizona SPP/APR**</center>

<center>(Arizona Department of Education, 2013)</center>

Indicator 1: Graduation Rate

Definition: Percent of youth with IEPs graduating from high school with a regular diploma

Data Collection Methods: Arizona uses a four-year cohort. Any student who receives a traditional high school diploma within the first four years of starting high school is considered a four-year graduate. A four-year rate is calculated by dividing the sum of all four-year graduates in a cohort by the sum of those who should have graduated and did not transfer to another qualified educational facility or die. Students who receive a diploma in the summer after their fourth year are included as part of the graduation cohort. This calculation of the graduation rate does not include dropouts as transfer students or those who obtain a Graduate Equivalent Diploma (GED). The graduation data are reported by the public education agencies (PEAs) through the Student Accountability Information System (SAIS), a Web-based system for reporting all student-level details to the Arizona Department of Education. The graduation data are analyzed by the Arizona Department of Education's Accountability Division/Research and Evaluation Section (ADE/R & E) and the Information Technology Division (IT). The same graduation rate calculation is used and it is the same data as reported to the U.S. Department of Education under Title I of the Elementary and Secondary Act (ESEA).

Indicator 2: Dropout Rate

Definition: Percent of youth with IEPs dropping out of high school.

Data Collection Methods: For purposes of calculating and reporting a dropout rate, Arizona uses the annual event school dropout rate for students leaving a school in a single year determined in accordance with the National Center for Education Statistics' (NCES) Common Core of Data. Consistent with this requirement, Arizona uses NCES' definition of high school dropout, defined as an individual who: 1) was enrolled in school at some time during the previous school year; and 2) was not enrolled at the beginning of the current school year; and 3) has not graduated from high school or completed a state- or district-approved educational program; and 4) does not meet any of the following exclusionary conditions: a) transfer to another public school district, private school, or state or district-approved educational program (including correctional or health facility programs); b) temporary absence due to suspension or school-excused illness; or c) death. Dropout rates are calculated for grades 9 through 12. The same definition and methodology for dropout rates apply to all students in Arizona. The dropout data are reported by the public education

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agencies (PEAs) through the Student Accountability Information System (SAIS), a Web-based system for reporting all student-level details to the Arizona Department of Education. The dropout data are analyzed by the Arizona Department of Education's Accountability Division/Research and Evaluation Section (ADE/R & E).

Indicator 13: Secondary Transition

Definition: Percent of youth with IEPs aged 16 and above with an IEP that includes appropriate measurable postsecondary goals that are annually updated and based upon an age appropriate transition assessment, transition services, including courses of study, that will reasonably enable the student to meet those postsecondary goals, and annual IEP goals related to the student's transition services needs. There also must be evidence that the student was invited to the IEP Team meeting where transition services are to be discussed and evidence that, if appropriate, a representative of any participating agency was invited to the IEP Team meeting with the prior consent of the parent or student who has reached the age of majority.

Data Collection Methods: The data for this indicator are extracted from the ESS monitoring system. The National Secondary Transition Technical Assistance Center (NSTTAC) Indicator 13 Checklist was used as a guide for the eight components from which data are pulled. The eight items are: • Measurable post-secondary goals • Postsecondary goals updated annually • Postsecondary goals based upon age appropriate transition assessment • Transition services • Courses of study • Annual IEP goals related to transition service needs • Student invited to IEP meeting • Representative of participating agency invited to IEP meeting A root cause analysis is included in the monitoring when compliance is less than 100% for any component related to this indicator. The monitoring system also requires that 100% compliance on this requirement be demonstrated through extensive subsequent file sampling prior to closing out a PEA's monitoring.

Indicator 14: Post School Outcomes

Definition: Percent of youth who are no longer in secondary school, had IEPs in effect at the time they left school, and were: A. Enrolled in higher education within one year of leaving high school. B. Enrolled in higher education or competitively employed within one year of leaving high school. C. Enrolled in higher education or in some other postsecondary education or training program; or competitively employed or in some other employment within one year of leaving high school. (20 U.S.C. 1416 (a)(3)(B))

Data Collection Methods: The ADE/ESS used a sampling procedure to collect Post School Outcome (PSO) data. Over the course of the State Performance Plan (SPP), each PEA serving students 16 years old and older is asked to collect and report post school outcomes data during the second year of the six-year monitoring cycle. The monitoring cycle is a representative sample of Arizona's districts and charter schools

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and the representative sample is based on the categories of disability, race, and gender. The ADE/ESS sampling plan was approved by OSEP. PEAs gather contact information on student leavers and either input the data into the online PSO data collection system or maintain contact information locally. The PSO data collection system uses a secure application as part of the ADE Common Logon. The application includes an auto-population of student demographic information and exit reason imported directly from the Student Accountability Information System (SAIS), a Web-based system for reporting all student-level details to the ADE. PEAs designate district or charter school personnel to contact student leavers or designated family members (i.e., parent, grandparent, or guardian), conduct phone interviews, and input survey data into the online PSO data collection system. Youth or family members were contacted between July 1 and September 30, 2012, after Arizona Part B Arizona State Performance Plan (SPP) for 2005-2012 Part B Arizona State Performance Plan (SPP) 2005-2012 125 being out of school for at least one year. Arizona's two PEAs with an average daily membership exceeding 50,000 are included in the data collection each year.

Definitions

The following definitions are used by the ADE/ESS in the data collection and reporting for Indicator 14:

Higher Education includes youth who have been enrolled on a full- or part-time basis in a community college (two-year program) or a college/university (four- or more year program) for at least one complete term, at any time in the year since leaving high school.

Competitive Employment includes youth who have worked for pay at or above the minimum wage in a setting with others who are nondisabled for a period of 20 hours a week for at least 90 days at any time in the year since leaving high school. This includes military employment.

Other Postsecondary Education or Training includes youth enrolled on a full- or part-time basis for at least one complete term at any time in the year since leaving high school in an education or training program (e.g., Job Corps, adult education, workforce development program, or vocational technical school that is less than a two-year program).

Some Other Employment includes youth who have worked for pay or been self-employed for a period of at least 90 days at any time in the year since leaving high school. This includes working in a family business (e.g., farm, store, ranching, catering services, etc.).

Respondents are youth, young adults, or designated family members who answer the PSO Survey.

<u>Leavers</u> are youth or young adults who left school by graduating, aging out, or leaving school early (i.e., dropped out) or who were expected to return to school and did not.

APPENDIX B

STEPSS DATA DISCUSSION WORKSHEET AND PERMISSION TO REPRODUCE

STEPSS

Data Discussion Worksheet

Directions: Use this worksheet to capture your thoughts and observations while viewing and discussing the outcome areas related to graduation, dropout, compliant transition component of the IEP, and post-school outcomes data in the STEPSS slideshow. Record specific data references. Your observations lay the foundation for data-based decision making when Assessing Outcome Areas, Prioritizing Predictors, and Action Planning to improve in-school and out-of-school outcomes for youth with disabilities. For each outcome area, consider what questions you have about the state and district data.

Graduation Rates: Indicator 1
How do graduation rates of students with disabilities compare to those of all students?
- What questions do you have about graduation rates in the state and or district?

- Make notes about your observations as you review this data.
- What additional data need to be collected or reviewed (e.g., attendance records, discipline referrals, and / or grades)?
- What data support your observations, questions, and thoughts?

Notes:

Dropout Rates: Indicator 2

How do dropout rates of youth with disabilities compare to all youth?

- What questions do you have about dropout rates in the state and or district?

➢ Make notes about your observations as you review this data.
➢ What additional data need to be collected or reviewed (e.g., attendance records, discipline referrals, and / or grades)?
➢ What data support your observations, questions, and thoughts?

Notes:

- ❏ Measurable post-school goals
- ❏ Goals updated annually
- ❏ Transition Assessments
- ❏ Transition Services
- ❏ Course of study
- ❏ Annual goals related to services
- ❏ Student invited to IEP
- ❏ Agency Representative

Disability Category	Gender	Race/Ethnicity
❏ Specific Learning Disability ❏ Emotional Disturbance ❏ Intellectual Disability ❏ All other Disabilities ❏ Unknown Disabilities	❏ Male ❏ Female	❏ White ❏ Hispanic/ Latino ❏ Black or African American ❏ All Other

Notes:

State Toolkit for Examining Post-School Success - Data Discussion Worksheet 3

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Post-School Outcomes: Indicator 14

- What questions do you have about post-school outcomes in the state and or district?

➤ Make notes about your observations as you review these data. Which outcome areas (e.g. higher education) have the highest and lowest rates? Which subgroups of former students (males, minorities, disability categories) have the highest and lowest outcomes?
➤ What additional data need to be collected or reviewed (e.g., not-engaged)?
➤ What data support your observations, questions, and thoughts?

- ☐ Higher Education
- ☐ Competitive Employment
- ☐ Other Postsecondary Education
- ☐ Other Employment
- ☐ Not Engaged

Disability Category	Gender	Race/Ethnicity
☐ Specific Learning Disability ☐ Emotional Disturbance ☐ Intellectual Disability ☐ All other Disabilities ☐ Unknown Disabilities	☐ Male ☐ Female	☐ White ☐ Hispanic/ Latino ☐ Black or African American ☐ All Other

Notes:

TO: Jan Cawthorne, Executive Director of Special Education

FR: Charlotte Y. Alverson, Ph.D.

DATE: March 7, 2016

RE: Permission to use the STEPSS Data Discussion Worksheet

Jan Cawthorne has permission to include the STEPSS Data Discussion Worksheet in the appendix of her dissertation.

If I can answer any questions, you can reach me at 541.346.1390.

APPENDIX C

COLLABORATIVE TEAM SURVEY

STEPSS Collaborative Team Survey

Part I: Please discuss and respond to these statements with your team. Reach a consensus for the best response that indicates your team's agreement with the following statements at this point in the STEPSS process, following the completion of your Year 2 Action Plan. Place an X in the appropriate column.

	Strongly Agree	Agree	Disagree	Strongly Disagree
Collaboration				
1. Participating on our school team is a valuable experience.				
2. When our team meets, we work together to improve practices at our school.				
3. Participating on this team gives us the opportunity to hear different points of view.				
4. Working together as a school team is helping us to improve post-school outcomes.				
Data Inquiry	Strongly Agree	Agree	Disagree	Strongly Disagree
5. This process helps us to understand our data.				
6. Our post-school outcome data help us understand what our students need to be successful.				
7. Reviewing data on post-school outcomes helps us to focus our attention where it is needed.				
8. We are confident in our team's ability to understand and use data.				
Web-based Tool	Strongly Agree	Agree	Disagree	Strongly Disagree
9. The STEPSS program helps our team.				
10. Using the STEPSS tool is an effective way to understand and use data.				
11. The STEPSS process is helping us to improve post-school outcomes.				

12. STEPSS is a valuable tool to guide our work.				
Networking	Strongly Agree	Agree	Disagree	Strongly Disagree
13. Having time to network with other schools is important for our team.				
14. Our team is able to learn from other school teams.				
15. Other school teams provide helpful feedback to our team.				
16. It is valuable to see how other teams are developing their action plans.				
District Support	Strongly Agree	Agree	Disagree	Strongly Disagree
17. It is helpful to have a district facilitator participate with our team.				
18. The district facilitator is a necessary part of our team.				
19. The district facilitator provides important guidance to our team.				
20. Our team uses the district facilitator to access resources and information.				

Additional Comments:

What have been the most valuable parts of this experience for your team? Why?

Is there any additional information your team would like to provide about this

experience?

APPENDIX D

FOCUS GROUP PROTOCOL

Focus Group Protocol

Welcome! Thank you for agreeing to participate in this focus group. You have provided informed consent, but if at any time you decide you would not like to continue, please let me know. The purpose of this group today is to talk about your experiences in the STEPSS process. I will serve as the moderator for the group, but I hope you will take this opportunity to talk to one another. There are no right or wrong answers and all opinions are valued. It is OK to agree or disagree. My goal is to get a range of perspectives. The conversation today is being recorded and will be transcribed. Do you have any questions?

1. Can you tell me about your experiences participating in the STEPSS process?

2. What has your team learned from participating in this process? (Have your relationships changed? What have you learned from one another?)

3. Can you describe the parts of the process that are most valuable?

4. How will this experience change what you do at your school?

5. Is there anything else we should have talked about but didn't?

APPENDIX E

SEMI-STRUCTURED INTERVIEW PROTOCOL

Semi-structured Interview Protocol

Thank you for agreeing to meet with me today to talk about your participation in the STEPSS process. You have given your consent to participate, but I want to be sure you understand that you can let me know if you would like to stop at any time or if you would prefer not to answer any question. I will be recording our interview so I can remember what we talked about later. I will be transcribing this interview and will review my results with you to be sure I captured what you said correctly. Are we OK to start?

1. Tell me about your experiences participating on the STEPSS team for your high school.

2. How did your team work together to look at your data?

3. Describe what the large-group meeting was like for your team?

4. How did your team interact with other school teams?

5. Did anything about your data surprise you?

6. How is your team narrowing its focus for your action plan?

7. Do you think this experience will change the way your team members view post-secondary transition? How?

8. Do you think the work of your team will have an impact on post-school outcomes for students? How?

9. What were the more valuable parts of this process for you?

10. What were the least valuable?

11. Is there anything else you want to tell me about this experience?

APPENDIX F

CONSENT LETTER

August 26, 2015

Consent to Participate in Research

Dear School Team Member,

      As a doctoral student in educational leadership and innovation, I will be conducting an action research study of the STEPSS Process from August through October 2015. Under the supervision of Dr. Mel Bertrand of the Mary Lou Fulton School of Education at Arizona State University, I will be collecting and analyzing data to understand whether using this process helps teams to collaborate and make changes in their practices and attitudes toward post-secondary transition.

      As with any research study, participation in this study is optional, and you may withdraw from the study at any time. If you decide to participate in the study, you would provide permission to use your team's data discussion worksheet and action plans from years one and two for data collection and analysis. In addition, you would allow me to use observations of the two large-group sessions to further assess the effectiveness of the program. I will collect notes during each meeting and will use audio recording to help me remember details. Teams will also complete a final collaborative team survey at the end of the study to report on the group experience.

      In addition to the large-group activities, this study will further examine the process by completing a case study of one school team. Participants for this part of the study may participate in a one-hour focus group as well as a 30-45 minute individual interview. Observations will also be conducted and recorded in researcher field notes. Confidentiality will be maintained in all aspects of this data collection. However, due to the nature of focus groups, confidentiality in this process cannot be guaranteed. Participants in interviews and the focus group will receive a $10 gift card to a local retail store as a token of appreciation for your time.

      All data collected as a part of this study will be kept confidential and will be stored in a locked drawer at the researcher's home office. All computer files will be password protected. A master list of participants and pseudonyms as well as consent forms will be stored on a secure ASU server. Neither your name nor the name of your school will be identified when presenting the study results. These results will be reported in my dissertation and may be disseminated without identifying information at conferences such as the Arizona Department of Education's Transition Conference and Director's Institute.

      If you have any questions concerning this research study, please contact either Dr. Mel Bertrand (Melanie.Bertrand@) or Jan Cawthorne (jacawthorne@). If you have any questions about your rights as a participant in this research, or if you feel you have been

placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788.

      Please sign below to indicate you are agreeing to be a part of this study. You may withdraw this consent at any time.

Name: _____

Signature: _____

Date: _____

APPENDIX G

INSTITUTIONAL REVIEW BOARD APPROVAL

EXEMPTION GRANTED

Melanie Bertrand
Division of Educational Leadership and Innovation - West
-
Melanie.Bertrand@asu.edu

Dear Melanie Bertrand:

On 8/11/2015 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Using Situated Learning and Data-Based Decision Making to Improve Post School Outcomes for Students with Disabilities
Investigator:	Melanie Bertrand
IRB ID:	STUDY00002963
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Artifact Rubric, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Recruitment letter, Category: Recruitment Materials; • Focus Group Protocol, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Observation Tool, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Collaborative Team Survey, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Janine Cawthorne, Category: IRB Protocol; • Semi structured interview protocol, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Janine Cawthorne, Category: Consent Form;

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 8/11/2015.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Janine Cawthorne
        Janine Cawthorne