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ACCEPTANCE

This dissertation, PRESERVICE TEACHER PERSPECTIVES ON PREREFERRAL INTERVENTION AND STUDENT SUPPORT TEAMS, by KATHRYN ROGERS GROGG, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree Doctor of Philosophy in the College of Education, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chair, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty. The Dean of the College of Education concurs.

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ABSTRACT

PRESERVICE TEACHER PERSPECTIVES ON PREREFERRAL INTERVENTION AND STUDENT SUPPORT TEAMS
by
Kathryn R. Grogg

This qualitative inquiry evaluated the Student Support Team Project and its effects on preservice teachers' knowledge and perceptions of prereferral intervention and student support teams. This investigation is important because prereferral intervention and student support teams have been used increasingly to provide assistance to teachers and to students who need assistance with academic, social and emotional problems. This has created a need to provide preservice education that helps to prepare teachers to use these resources to help their students. This investigation demonstrated a specific approach to such instruction for preservice teachers (i.e., the Student Support Team Project), including an evaluation to determine changes in perceptions and knowledge that resulted during and after participation in this project. Participants were preservice teachers enrolled in an alternative teacher certification program. The research design was qualitative. Data collection included semi-structured interviews, written reflections from the preservice teachers, input from key informants, field notes and research team reflective journals. The collection and analysis of data were done recursively and used constant comparative methods. Analysis of the data revealed three main categories: *Knowledge*, *Knowledge Needed*, and *Project Feedback*. *Knowledge* reflected the participants' understanding of student support teams and their implementation and

included the following themes: Knowledge about Data Collection, Knowledge about Intervention, Knowledge about Student Support Teams, and Generalization of Knowledge. *Knowledge Needed* reflected the knowledge participants needed to understand and work effectively with these teams, including the following themes: Knowledge Needed about Data Collection, Knowledge Needed about Intervention, Knowledge Needed about Student Support Teams, and Other Knowledge Needed. *Project Feedback* included perceived strengths and weaknesses of the Student Support Team Project, including the following themes: Project Helpful, Project Struggles, and Project Suggestions. One key finding was how preservice teachers' understanding of student support teams evolved from vague ideas about teams, to increasingly specific case-focused ideas, and finally, to generalized understandings. Findings are discussed in relationship to the literature on prereferral intervention and teacher development. Implications for preservice teacher education are discussed. Future research is also suggested.

PRESERVICE TEACHER PERSPECTIVES ON PREREFERRAL INTERVENTION AND STUDENT SUPPORT TEAMS

by

Kathryn R. Grogg

A Dissertation

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in
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TABLE OF CONTENTS

Page
List of Figures v
Abbreviations vi

Chapter
1 INTRODUCTION 1
Prereferral Intervention Teams 2
Response to Intervention 4
Need for Teacher Training 4
Purpose of Study 6
Research Questions 6

2 LITERATURE REVIEW 7
Definition and Description of Prereferral Intervention Teams 7
Research on National Policy Regarding Prereferral Intervention 15
Effectiveness of Prereferral Intervention Teams 19
Teacher Perceptions of Prereferral Intervention Teams 25
Prereferral Intervention Team Training 27
Impacts on Schools that Influence Prereferral Intervention 28
Teacher Development and Learning 31
Background of the Student Support Team Project 40
Summary 42

3 METHODOLOGY 44
Context of the Study 44
Description of the Student Support Team Project 46
Participants 49
Data Sources and Collection 52
Coding Team 56
Data Analysis Procedures 57

4 RESULTS 64
Main Category I: Knowledge 64
Main Category II: Knowledge Needed 83
Main Category III: Project Feedback 88
Changes in Preservice Teacher Knowledge and Perceptions across Time 105

5 DISCUSSION.....129
Journey from Novice toward Expert.....131
Changing Attitudes and Perceptions about Prereferral Intervention 135
Helping to Increase Prereferral Intervention.....136
Implications for Practice 139
Limitations and Further Research 142
Summary 144

References.....145
Appendixes 155

LIST OF FIGURES

Figure Page

1 Coding Tree 65
2 Changes in Preservice Teacher Perspectives over Time.....107

ABBREVIATIONS

EBI	Evidence-Based Intervention
IDEA	Individuals with Disabilities Education Act
LEA	Local Education Agency
NCLB	No Child Left Behind
PIT	Prereferral Intervention Team
PST	Preservice Teacher
RtI	Response to Intervention
SEA	State Education Agency
SLD	Specific Learning Disability
SST	Student Support Team

CHAPTER 1

INTRODUCTION

One of the goals of teacher education is to prepare professionals who are able to meet the needs of all students. Students in public schools are increasingly diverse, reflecting changing population trends and economic conditions in the United States, as well as mandates for inclusion and collaboration (National Center for Education Statistics, 2002; No Child Left Behind [NCLB], 2002). These factors converge and influence teaching practices requiring teachers and other education professionals to make well thought out and equitable decisions that address individual needs and learning styles of their students (Darling-Hammond & Synder, 2000). Additionally, influences on the instructional environment include mandates for accountability for student progress in learning (NCLB, 2002), as well as Response to Intervention (RtI) models that require systematic assessment and support for struggling students in the general education environment prior to making special education placement decisions (Graner, Faggella-Luby, & Fritschmann, 2005).

The emphasis on RtI developed in the context of a system of special services for struggling students that used prereferral intervention teams to provide support to teachers as they work to enhance the behavior, development, and performance of all learners. These teams have typically been multi-disciplinary, have employed problem-solving processes, and provided collaborative consultation to teachers (e.g., Fuchs, Fuchs, &

Bahr, 1990; Graden, Casey, & Christenson, 1985; Yoshida, Maher, & Hawryluk, 1984). Inmany cases these existing prereferral intervention teams have been incorporated into emerging RtI models as states respond to new approaches to the assessment of students with suspected disabilities as provided for in the reauthorization and revision of the Individuals with Disabilities Education Act in 2004, and mandates that all children make annual academic progress under NCLB (2002).

Prereferral Intervention Teams

Researchers have found that when prereferral intervention teams are implemented with integrity and reliability they can be effective addressing the needs of many students with learning and/or behavior difficulties and improving teachers' instructional practices with these students. Additionally, prereferral teams have helped reduce inappropriate special education referrals and placements (Burns, 1999; Hammond & Ingalls, 1999; Kovaleski, Gickling, Morrow, & Swank, 1999).

Many models of prereferral intervention teams have been implemented in schools, including Mainstream Assistance Teams (Fuchs, Fuchs, & Bahr, 1990), Teacher Assistance Teams (Chalfant, Pysh, & Moultrie,1979), the prereferral intervention model (Graden, Casey, & Christenson, 1985), Student Support Teams (SST; Georgia Department of Education [GDOE], 2000), and others. These models differ in the specific ways that they implement prereferral intervention, but they have a common goal of addressing school-based problems within the general education classroom by bringing together a multidisciplinary team and their varying perspectives to develop effective classroom-based strategies to overcome these problems (Buck, Polloway, Smith-Thomas, & Cook, 2004). Typically, the multidisciplinary team brings together school personnel

with varied expertise such as curriculum, social work, counseling, psychology, special education, remedial education, and administration, to discuss students experiencing learning and/or behavior difficulties. Many teams use a systematic problem-solving format including problem identification, data collection, generation of interventions and assessment (Nelson, Smith, Taylor, Dodd, & Reavis, 1991). Regardless of the precise procedures, team members work most effectively by valuing and respecting each other's unique perspectives as they work collaboratively to develop approaches designed to benefit the students who are referred to the team for assistance.

There is some evidence that general education teachers feel disenfranchised from the prereferral team process. On some teams, teachers have simply not been present (Meyers, Valentino, Meyers, Boretti, & Brent, 1996). Some teachers have felt "devalued or ignored" (p.15, Slonski-Fowler & Truscott, 2004). Others have been uncertain of their role or felt alienated (Logan, Hansen, Nieminen, & Wright, 2001). In addition to feeling disempowered when participating on these teams, some general education teachers report that these teams create ineffective interventions that are not tailored specifically to the referred student, and are so broad that they are difficult to implement and evaluate (Pobst, 2001; Slonski-Fowler & Truscott, 2004). Even if satisfactory interventions were developed and recommended by these teams, a significant gap has been the failure to provide training and support to assist teachers with the assessment, implementation and monitoring skills needed to work effectively with teams and to implement recommended interventions with high levels of treatment integrity. Too often, responsibility for implementing the interventions has been left to the teacher alone, without providing the

training and support to ensure fidelity or efficacy (Slonski-Fowler & Truscott, 2004; Lane, Mahdavi, & Borthwick-Duffy, 2003).

Response to Intervention

With the reauthorization and revision of the Individuals with Disabilities Act (IDEA) in 2004, language was added to the eligibility criteria for Specific Learning Disabilities (SLD) that opened the door for Response to Intervention (RtI) models in the identification of students with SLD. Many districts and schools are beginning to implement RtI models to address student learning and behavior needs. The construct of RtI is not new, coming from prior practices in special education and reading intervention (e.g., Heller, Holtzman, & Messick, 1982; Phillips, 1968; Vellutino, Scanlon, & Tanzman, 1998). While specific RtI models differ in detail and at times terminology for shared concepts, all involve a multi-tiered approach employing evidence-based instruction and intervention, coupled with continuous monitoring of student progress, and an aim toward prevention (Graner et al., 2005; Reschly, 2005). RtI has been implemented within an already complex system of teaching and learning that includes institutional and teacher variables that can confound student responsiveness (Gerber, 2005). Mastriopieri and Scruggs (2005) note that RtI proponents keep saying that the roles of teachers and diagnosticians will have to change; yet RtI models remain “vague and ambiguous at best with respect to the specific roles of teachers and diagnosticians” (p. 525).

Need for Teacher Training

Given the door that IDEA 2004 opened for use of RtI models, many teachers find themselves faced with changes in prereferral intervention processes they are expected to employ in their classrooms. The advent of the implementation of RtI models

incorporating and/or expanding on prereferral intervention processes adds to the importance of teacher training focused on these processes. While teachers are key players in current prereferral intervention practices, some teachers feel they are not valued by prereferral teams nor do they always feel supported in the process of intervening with difficult to teach students (Logan et al., 2001; Slonski-Fowler & Truscott, 2004). Additionally, all education professionals will need training to assist them in implementing the RtI models (Gerber, 2005; Mastriopieri & Scruggs, 2005; Reschly, 2005). Training can be designed to address both of these needs and will need to be ongoing as new educators enter the field.

In addition to inservice education professionals, preservice teachers will need to be instructed in the processes of prereferral intervention that make up the basic RtI model so that they can participate effectively in these processes. While specific models of prereferral intervention may vary from state to state, even school to school, there are basic prereferral intervention methods used in most models. The Student Support Team Project (SST Project) model detailed in Chapter 3 was developed based on preliminary work that is discussed in Chapter 2 (Meyers, Graybill, & Grogg, 2008). This project was designed to familiarize preservice teachers (PSTs) with prereferral intervention processes that are needed for effective participation with both SST and RtI. These processes include data collection, intervention design and implementation, collaboration with other professionals, and procedures for implementing effective team meetings. Following instruction on each component of the SST Project, each preservice teacher (PST) applied the techniques taught to assist a struggling student in her field placement classroom, and presented that focus child case in an SST Simulation at the culmination of the project.

Purpose of the Study

The purpose of this study was to learn about preservice teacher (PST) knowledge and perceptions of Student Support Teams (SST) and describe the changes in their knowledge and perceptions during and following a Student Support Team Project (SST Project). The study also evaluated the PST perceptions of the project and its effects on their learning.

Research Questions

The following research questions guided the inquiry:

> What are preservice teachers' (PST) knowledge and perceptions of Student Support Teams (SST) during and following participation in instruction on and practical experience with the elements of a systematic prereferral intervention process (i.e., the Student Support Team Project)? Specifically, what changes in knowledge and perceptions occur regarding observation, data collection, intervention, collaboration with other educators, and the SST Project?

CHAPTER 2

LITERATURE REVIEW

This chapter reviews literature on prereferral intervention teams (PITs), federal policies and mandates that affect prereferral intervention teams, as well as teacher development and learning. First, a definition and description of PITs are given, along with background on the development of PITs. Then the research on national policy regarding prereferral intervention, effectiveness of PITs, teacher perceptions of PITs, and team training are explored. Federal policies and mandates affecting PITs are discussed with particular attention to Response to Intervention (RtI) approaches. A discussion of research on teacher development and learning, specifically the areas of expertise in teaching, stages of teacher development, and situated learning, follows. The chapter concludes with background on the development and investigation of the SST Project model.

Definition and Description of Prereferral Intervention Teams

Prereferral interventions teams are collaborative, multi-disciplinary, problem-solving teams brought together to discuss a student experiencing difficulties with learning and/or behavior and address these difficulties by intervening within the general education setting (Buck et al., 2002; Burns & Symington, 2002; Burns, Vanderwood, & Ruby, 2005; Fuchs, Fuchs, & Bahr, 1990; Graden, Casey, & Christenson, 1985; Nelson et al., 1991; Pugach & Johnson, 1989). Members vary from team to team, but typically include teachers from general and/or special education and specialists, such as curriculum

specialists, administrators, parents, school psychologists, school counselors, and social workers (Bahr, Whitten, Dieber, Kocark & Manson, 1999; Chalfant et al., 1979; Eidle, Boyd, Truscott & Meyers,, 1998; Lane et al., 2003; Nelson et al., 1991). Many teams use a systematic problem-solving format including problem identification, data collection, generation of intervention, and ongoing assessment of those interventions; some do not (Nelson et al., 1991). Goals also vary from team to team and model to model; however, common goals include preventing unnecessary referrals to special education, providing interventions to students within the general education classroom, and collaborating with teachers to support them and increase their skills (Chalfant et al., 1979; Chalfant & Pysh, 1989; Graden, 1989; Graden, Casey, & Christenson, 1985; Gravois & Rosenfield, 2006; Hammond & Ingalls, 1989; Nelson et al., 1991; McGreevy, Truscott, Sanborn, & Lewis, 2005; Meyers et al., 1996; Pugach & Johnson, 1988).

Many models of prereferral intervention teams have been implemented in schools and described in the literature. Some of these models include: Child Study Teams (Rucker & Vautour, 1981), Mainstream Assistance Teams (Fuchs, Fuchs, & Bahr, 1990), Teacher Assistance Teams (Chalfant et al., 1979), the prereferral intervention model (Graden, Casey, & Christenson, 1985), collaborative peer problem solving (Pugach & Johnson, 1989), Instructional Consultation Teams (Gravois & Rosenfield, 2006), school based prereferral teams (Hammond & Ingalls, 1999), Instructional Support Teams (Kovaleski et al., 1999), and Student Support Teams (SST; Georgia Department of Education [GDOE], 2000).

Some concern has been voiced in the literature about the term prereferral intervention, suggesting that the name itself implies a process that is based in general

education but inextricably linked with special education (Graden, 1989; Truscott, Cohen, Sams, Sanborn, & Frank, 2005). Instead, it has been suggested that these teams be referred as problem solving teams to better promote their intended purpose and de-emphasize their link to special education (Graden, 1989; Kovaleski & Glew, 2006).

Membership of Prereferral Intervention Teams

Membership of prereferral intervention teams varies depending on the model used, state and/or school district requirements, and goals or purposes of the team (Buck et al., 2003; Carter & Sugai, 1989; Truscott et al., 2005). Team membership typically includes teachers from general and/or special education and a variety of specialists, such as curriculum specialists, administrators, parents, school psychologists, school counselors, and social workers (Bahr et al., 1999; Chalfant et al., 1979; Eidle et al., 1998; Graden, Christenson, & Casey, 1985; Lane et al., 2003; Nelson et al., 1991). Chalfant and his colleagues (1979, 1989) emphasized that teams should be primarily general education teachers or people with experience teaching in classrooms; specialists were to be involved only on an as needed basis and did not typically function as regular members of the teams. Other researchers advocate more inclusion of specialists (e.g., Graden, Christenson, & Casey, 1985). Some models, such as Mainstream Assistance Teams, primarily involve a consultation triad of consultant, referring teacher, and the student with less emphasis on a larger team (e.g., Fuchs, Fuchs, & Bahr, 1990).

Concerns about team membership have been expressed in the literature. Based on their findings, Meyers and her colleagues (1996) expressed concerns about general education teachers not being regular members of PITs and about the role of the referring teacher being unclear. They suggested this may have reduced the effectiveness of the

teams and the impact on the teachers. In a national survey of elementary schools regarding PIT functioning, Truscott and his colleagues (2005) also expressed concerns about team membership. Findings indicated teams had an average of nine members, suggesting schools commit considerable resources to PITs, and frequently included both general education and special education teachers; however, the teams often lacked the involvement of academically oriented education professionals, such as remedial teachers, despite many referrals at the elementary school level being academic in nature (Eidle et al., 1998). They suggested this may decrease the effectiveness of teams to address academic referrals. In addition, Truscott and his colleagues expressed concerns about the inclusion of special education teachers rather than remedial teachers suggesting this may be "counterproductive" (p. 138) to the PIT goal of intervening within the general education classroom. Graden (1989) encouraged inclusion of team members based on skills rather than focusing on their title or position. Concerns have also been raised about the lack of involvement of parents and/or community representatives as regular members of PITs (Meyers et al., 1996; Truscott et al., 2005).

Prereferral Intervention Team Processes

Prereferral intervention teams focus on the concept of collaborative problem-solving (e.g., Chalfant & Pysh, 1989; Graden, Casey, & Christenson, 1985; Hammond & Ingalls, 1999; Meyers et al., 1996). While exact steps vary from model to model, the basic prereferral team process involves identifying the problem, generating interventions, implementing interventions, and evaluating the effectiveness of those interventions (Bahr et al., 1999; Buck et al., 2003; Fuchs et al., 1990; Graden, Casey, & Christenson, 1985; Kovaleski et al., 1999; Meyers et al., 1996). This process comes from behavioral

consultation models which have a four stage process of problem identification, problem analysis, plan implementation, and problem evaluation (Fuchs, Fuchs, Bahr, Fernstrom, & Stecker, 1990). The PIT process typically also includes ongoing evaluation and monitoring of the interventions implemented, so that interventions can be modified as needed or new interventions generated until student performance has improved and the problem is resolved (Hammond & Ingalls, 1999; Lane et al., 2003).

Goals Associated with Prereferral Intervention Teams

Goals most often associated with prereferral intervention teams (PITs) in the literature describing PIT models include preventing unnecessary referrals to special education, providing intervention assistance to students within the general education classroom, and collaborating with teachers to support them and increase their skills (Chalfant et al., 1979; Chalfant & Pysh, 1989; Graden, 1989; Graden, Casey, & Christenson, 1985; Gravois & Rosenfield, 2006; Hammond & Ingalls, 1989; Nelson et al., 1991; McGreevy, et al., 2005; Pugach & Johnson, 1988). Overall, PIT goals are fundamentally preventive in nature (Chalfant et al., 1979; Fuchs, Fuchs, Bahr, Fernstrom, & Stecker, 1990; Graden, Casey & Christenson, 1985).

Decreasing the number or rate of inappropriate special education referrals and placements is a common goal of PITs. Many teams address these special education concerns by intervening with, supporting, and maintaining students in the general education classroom. This is typically done by supporting, empowering, and increasing abilities of general education teachers to address the needs of the referred student and future difficult to teach students (Chalfant et al., 1979; Chalfant & Pysh, 1989; Graden, 1989; Graden, Casey, & Christenson, 1985; Gravois & Rosenfield, 2006; Hammond &

Ingalls, 1989; McGreevy, et al., 2005; Meyers et al., 1996; Pugach & Johnson, 1988). Collaborative teams engaging in problem solving processes are the typical vehicle for providing this support to teachers and indirectly to students (Buck et al., 2003; Eidle et al., 1998; Graden, Casey & Christenson, 1985; Meyers et al., 1996).

Another goal of PITs is to generate and implement interventions to address the learning, behavioral, or other issues of students referred to the PIT (Fuchs, Fuchs, & Bahr, 1990; Graden, Casey, & Christenson, 1985; Hammond & Ingalls, 1989). In alignment with other goals of PITs, these interventions are designed to be delivered within the general education setting and attempted prior to formal referral for special education consideration (Graden, 1989; Graden, Casey, & Christenson, 1985; Kovaleski et al., 1999). Some models aim to intervene and address student problems through an ecological focus, considering classroom, teacher, student and other variables, while also attempting to generate appropriate interventions that are not all student centered (e.g., Graden, Casey, & Christenson, 1985). Quality interventions are essential to effective prereferral intervention (Flugum & Reschly, 1994; McGreevy et al., 2005).

Improving the abilities of teachers to address the needs of difficult to teach students and improving their attitudes toward these students are other goals associated with PITs (Chalfant et al., 1979; Chalfant & Pysh, 1989; Fuchs & Fuchs, 1990; Graden, Casey, & Christenson, 1985; Meyers et al., 1996; Nelson at al., 1991; Pugach & Johnson, 1989). One of the early prereferral intervention models, Teacher Assistance Teams (TATs), emphasized teacher empowerment and support, focusing on assisting the teacher (Chalfant & Pysh, 1989). Later models of prereferral intervention continued to recognize that building teacher capacity for working effectively with difficult to teach students, and

therefore improving student performance and reducing future student problems was an important goal for PITs (Fuchs, Fuchs, Bahr, Fernstrom, & Stecker, 1990; Gravois & Rosenfield, 2006).

Background of Prereferral Intervention Teams

While specific team names, processes, and procedures vary from model to model and across schools, school districts, and states (Buck et al., 2003; Burns & Symington, 2002; Carter & Sugai, 1989; Truscott et al., 2005), the basic conceptual framework for prereferral intervention models has remained consistent since the 1980s (Buck et al., 2002). Most existing models share common elements as mentioned in the definition above.

Prereferral intervention teams or problem solving teams were developed and implemented prior to the 1980s (e.g., Chalfant et al., 1979), but were specifically suggested during that decade as one response to concerns that culturally diverse students were overrepresented in special education referrals and placements (Graden, 1989; Graden, Casey, & Christenson, 1985; Pugach & Johnson, 1989). Thurlow, Christenson and Ysseldyke (1983) specifically recommended that prereferral intervention processes that assist general education teachers to address the needs of difficult to teach students within the general education classroom as one possible alternative to more traditional test and place referral processes. It represented a move toward indirect service delivery models and more integration of general and special education (Graden, 1989; Graden, Casey, & Christenson, 1985; Nelson et al., 1991).

Two approaches to prereferral intervention contributed to the general framework for PITs that exist today (Safran & Safran, 1996) – teacher collaboration models (e.g.,

TAT; Chalfant et al., 1979) and prereferral intervention models emphasizing consultation (e.g., Graden, Casey, & Christenson, 1985). Both approaches are team based, involve problem solving, and provide indirect services. Many current models incorporate elements from each of these approaches.

Chalfant, Pysh, and Moltrie (1979) developed the Teacher Assistance Team (TAT) to assist teachers in addressing student with learning and/or behavior issues in the classroom by assisting teachers. TATs focused on collaborative problem-solving among general education teachers. Special education teachers, school administrators, or other specialists, such as school psychologists or counselors, were only brought in to assist when necessary (Safran & Safran, 1996). It was stressed that teachers controlled and owned the TAT process (Chalfant et al., 1979). Pugach and Johnson (1989) later agreed with Chalfant and his colleagues and concluded that teams should be informal and loosely structured to prevent becoming time-consuming or controlled by the specialists rather than the general education teachers.

Other prereferral models focused on reducing inappropriate referrals to special education by using more formalized, data-driven consultation. Graden, Casey, and Christenson (1985) developed such a consultation model to prevent inappropriate referrals to special education by working with teachers on their skills in teaching and management. This model included assistance from specialists, such as special educators, school psychologists and others, on an as needed basis. Graden and her colleagues conceptualized prereferral intervention as a means for keeping students in the least restrictive environment. Their model delineated four stages in the prereferral process: request for consultation, consultation, observation, and conference. If necessary, referral

for special education consideration would follow with formal referral and formal program meetings. The approach was ecological, stressed intervention assistance for the teacher, and included monitoring and evaluation of interventions effectiveness for decision-making (Graden, 1989). It also espoused this team process of intervening as happening prior to referral for special education consideration, hence the term *prereferral intervention.*

Research on National Policy regarding Prereferral Intervention

Three national surveys (Buck et al. 2003; Carter & Sugai, 1989; Truscott et al., 2005) concerning state level policies and procedures on prereferral intervention are often cited in the literature. All of these studies found that prereferral intervention is commonly required or recommended by state education agencies (SEAs) with teams being the most frequently identified as the delivery model. More detailed findings of each study and suggestions made by these researchers regarding prereferral intervention based on their findings are discussed below.

The first was conducted by Carter and Sugai (1989). They surveyed state directors of special education to assess policies and procedures regarding prereferral intervention at the state level. Despite there being no federal mandate for prereferral intervention, they found that states commonly required or recommended prereferral intervention by local education agencies (LEAs). Teams were most frequently identified as the delivery model for prereferral intervention and general education teachers were identified as being most likely to implement prereferral interventions. When asked if they thought prereferral processes were effective, three-quarters of the respondents indicated that they were effective only sometimes or that they had no basis to judge effectiveness.

Carter and Sugai (1989) suggested preservice and inservice training for teachers on prereferral intervention. They argued that team approaches to problem solving were needed because of the general educator role in the process that was highlighted in their findings. Their analysis revealed a need for increased collaboration between teachers and specialists, as well as better understanding of team approaches to problem solving. They also felt prereferral teams could enhance the skills of general education teachers to serve students with learning problems. Future research on how LEAs implement state requirements or recommendations on prereferral intervention teams, as well as effectiveness of prereferral intervention teams was also suggested.

Buck and his colleagues' (2003) national survey was based on that of Carter and Sugai (1989) with items added for clarification and further judgments of the state education agency representatives regarding prereferral intervention. Still in the absence of a clear federal mandate for prereferral intervention and consistent with Carter and Sugai (1989), this second study found the majority of states require or recommend prereferral intervention with teams being the preferred delivery model. Also consistent with Carter and Sugai, this study found that state policies indicated that general education teachers, and often school administrators, have the responsibility for implementing prereferral processes (Buck, et al.). This study found increases in recommendations or interventions coming from prereferral processes compared to Carter and Sugai, and suggested this may be due to PITs being used more for prevention of learning and behavior problems and less for special education screening. Buck and colleagues found that respondent judgments of prereferral intervention effectiveness were more positive than what was reported by Carter and Sugai. Similarly, Buck and his colleagues, found

that prereferral interventions were viewed as more successful when compared to Carter and Sugai's findings.

New elements in this national survey (Buck et al., 2003) included attention to prereferral team terminology and training. This study added some clarification of terminology regarding prereferral intervention to the literature. Teacher Assistance Team was found to be the most common term used, with Student Assistance Team, Instructional Support Team, and Schoolwide Assistance Team also being other commonly used names for prereferral teams. Training was a new focus in this national survey. Findings indicated 64% of the respondents reported inservice training was provided for teams; 81% of respondents indicated it was provided by the local education agency rather than the state.

Buck and colleagues (2003) concluded that prereferral intervention "remains a process that can best be described as a theme and a variation," (p. 358), meaning that that states view the framework of the process similarly, but that actual implementation varies. Findings suggest that states generally left implementation details to the local education agencies, which is consistent with findings from Carter and Sugai. Changes in prereferral intervention reflected in Buck et al.'s findings included counselors taking a more active role, PITs making more recommendations for instructional modifications and behavior management, and more positive perceptions of effectiveness. Additional research investigating actual implementation of prereferral processes in schools including direct observation of teams was suggested. Research involving persons implementing those processes and evaluation of effects on referred students was suggested as well. Buck and colleagues suggested that the benefits of effective PITs include students receiving help

within general education; development of collaborative relationships for educators; reduction of inappropriate referrals to and placements in special education; and improvement of inclusion and programs for all students. Overall, it was suggested that when prereferral teams are effective students and educators benefit (Buck, et al.).

Unlike previous national surveys, Truscott and his colleagues (2005) surveyed both state education agency representatives and school representatives. Respondents to the state level survey on state policies were the individuals at the state level identified as having knowledge of or responsibility for prereferral intervention policies in the state, rather than special education directors as in previous national surveys (Buck et al., 2003; Carter and Sugai, 1989). Respondents on the school level survey were representatives involved with or familiar with prereferral intervention processes in a national sample of 200 elementary schools (4 schools from each of 50 states). Most details from the school survey will be discussed in this chapter's sections on research regarding the processes and procedures of prereferral intervention teams as it is school based rather than state policy focused.

The state level survey by Truscott and his colleagues confirmed previous findings (Buck et al., 2003; Carter and Sugai, 1989) that prereferral intervention is commonly required or recommended by states and typically through team approaches. It also confirmed previous findings (Buck et al., 2003) that there has been an increase in emphasis on prereferral intervention at the state level since the national survey by Carter and Sugai (1989). Though commonly required or recommended, it was found that states did not provide much guidance to local districts and schools on how to implement prereferral intervention processes; this is consistent with previous findings (Buck et al.,

2003) that state education agencies provide little training to local education agencies regarding prereferral intervention. Findings from the school level survey indicated that prereferral intervention teams existed in 85% of the schools contacted; however, the results also suggested that prereferral teams as implemented in most schools are not consistent with the models found in the literature.

Truscott and his colleagues recommended that states provide more training about prereferral intervention goals and processes to LEAs, because the use of PITs is likely to increase due to the proposed changes to federal special education laws. They suggested professional development be offered on core elements of prereferral interventions, such as assessment, consultation, problem solving, interventions and progress monitoring, and that professional development should not impose a particular model.

Effectiveness of Prereferral Intervention Teams

Research suggests that PITs can be effective in reducing inappropriate special education referrals, intervening with and assisting students, and increasing teacher abilities to work with difficult to teach students (Burns & Symington, 2002; Nelson et al., 1991; Truscott et al., 2005). However, it has been noted that these positive outcomes are found most often in research on prereferral intervention that was part of university sponsored or supported programs, rather than implementation in schools without this support (Burns & Symington, 2002; Safran & Safran, 1996). Researchers have also begun to identify factors that influence the effectiveness of PITs.

Effects on Special Education Referrals

A number of researchers have found that PITs can be effective in reducing inappropriate referrals to special education (Chalfant & Pysh, 1989; Chalfant et al., 1979;

Fuchs & Fuchs, 1990; Graden, Casey, & Bonstrom, 1983; Gutkin, Henning-Stout, & Piersal, 1988; Hammond & Ingalls, 1996; Kovaleski et al., 1999; Nelson et al., 1991). Fuchs and Fuchs (1990) found that teachers participating in the Mainstream Assistance Team process were significantly less likely to refer difficult to teach students to special education than were control teachers. Other studies found that in addition to reducing special education referrals and placements, there was an increase in use of consultation services to address the needs of difficult to teach students (Graden, Casey, & Bonstrom, 1985; Gutkin, Henning-Stout, & Piersal, 1988).

While some research does point to PIT effectiveness in reducing inappropriate special education referrals and placements, some research findings indicate failure or concerns in meeting this goal. In their meta-analysis of research on PITs, Safran and Safran (1996) pointed out that prereferral programs associated with university model programs or training have shown reduction in special education referral and placement rates (Chalfant & Pysh, 1989; Fuchs, Fuchs, & Bahr, 1990; Graden, Casey, & Bonstrom, 1985; Gutkin et al., 1988). However, initial reports from the field have not shown improvements (Flugum & Reschly, 1994). In a study of Iowa's prereferral programs, Flugum and Reschly found negligible impact on special education referral rates due to great variability in program quality and the limited interventions implemented.

Effects on Students

Researchers have found that PITs can be effective in improving student performance by generating and implementing interventions to address the learning and behavioral difficulties of students referred to PITs (Fuchs, Fuchs, & Bahr, 1990; Graden, 1989; Graden, Casey, & Christenson, 1985; Hammond & Ingalls, 1989; Kovaleski et al.,

1999). A meta-analysis by Burns and Symington (2002) found that teams were successful in addressing academic and behavioral problems of students by assisting their teachers. In a study of Intervention Assistance Teams, Burns (2001) found that student retention rates decreased.

Research has also pointed to concerns regarding interventions recommended through PITs and their effectiveness in addressing student issues. In their observations of PITs, Meyers and her colleagues (1996) found that most interventions generated by the teams in the study focused outside the classroom, not on improving classroom instruction, and were not helpful to the classroom teacher. McGreevy and colleagues (2005) found that few interventions suggested by PITs were classroom based, be powerful enough to address the problem, *and* be something that the teacher had not yet tried. This suggested less effectiveness than could be provided by interventions meeting all three criteria. They noted that evidence based interventions were very infrequently mentioned (McGreevy et al., 2005). Truscott and his colleagues (2005) found that interventions suggested by PITs were often simple or standard interventions that had already been attempted by the referring teacher prior to referral to the PIT. Additionally, reported PIT interventions required little effort by the teacher (e.g. change seat, decrease work), seldom asked teachers to alter classroom instruction or management, and were seldom ecological. It was also noted that few teams reported goals related to effective intervention in the general education classroom (Truscott et al., 2005). Poor quality interventions cannot be successful in improving student performance (Flugum & Reschly, 1994).

Effects on Teachers

Improving the abilities of teachers to address the needs of difficult to teach students and improving their attitudes toward these students are additional goals associated with PITs (Chalfant et al., 1979; Chalfant & Pysh, 1989; Fuchs & Fuchs, 1990; Graden, Casey & Christenson, 1985; Meyers et al., 1996; Nelson at al., 1991). A meta-analysis by Nelson and his colleagues (1991) suggested that PITs are meeting these goals of increasing teacher skills and improving teacher attitudes. Researchers have found that PITs assist teachers in gaining skills to more effectively address the needs of difficult to teach students (Chalfant & Pysh, 1989). Teachers also tend to have better attitudes about working with difficult to teach students (Chalfant & Pysh, 1989; Fuchs, Fuchs, & Bahr, 1990; Pugach & Johnson, 1988). Hammond and Ingalls (1996) noted that schools benefited from effective PIT implementation which helped make better use of school personnel time and efforts. Research has also shown that some teachers have negative views of prereferral intervention (e.g., Inman & Tollefson, 1988; Meyers et al., 1996; Slonski-Fowler & Truscott, 2004); this literature is discussed later in this chapter.

Factors Influencing Effectiveness of Prereferral Intervention Teams

Research findings that support the overall effectiveness of PITs are few, but growing (Burns & Symington, 2002; Truscott et al., 2005). In research settings, PITs have been found to meet the aforementioned goals of reducing inappropriate special education referrals, improving student outcomes, and improving teacher attitudes and skills (Truscott et al., 2005). Some research points to specific factors that affect the effectiveness of PITs.

Administrative support can positively affect PITs (Chalfant & Pysh, 1989; Hammond & Ingalls, 1999; Kovaleski et al., 1999; Kovaleski & Glew, 2006). Chalfant and his colleagues (1979) noted that while principal support was a factor in PIT effectiveness, principal participation on the team was not necessary for success. However, other researchers have found that principal leadership added to the effectiveness of teams (Kovaleski et al., 1999). Other researchers have noted that availability of resources (e.g., time and money) was needed for PIT effectiveness (Graden, Casey, & Bonstrom, 1985; Nelson et al., 1991). Hammond and Ingalls (1999) found that district level administrative support contributed to team effectiveness.

Team processes can also affect PIT effectiveness. Process factors, such as working in a time efficient manner (Fuchs, Fuchs, & Bahr, 1990; Hammond & Ingalls, 1999), tracking the progress of cases (Hammond & Ingalls, 1999), using a particular team format (Graden, Casey, & Christenson, 1985; Bahr & Kovaleski, 2006), and parent involvement (Kovaleski & Glew, 2006), contribute to team effectiveness. Providing support for the teacher to implement PIT suggested interventions (Kovaleski et al., 1999; Kovaleski & Glew, 2006) and using data-based decision making (Kovaleski et al., 1999) has been associated with improved team effectiveness. Having clearly defined roles and responsibilities for team members has also been found as a factor contributing to effectiveness (Hammond & Ingalls, 1999; Kovaleski & Glew, 2006; Meyers et al., 1996). Additionally, having sufficient time to meet was found to be an important factor (Chalfant & Pysh, 1989; Graden, Casey, &Bonstrom, 1985; Hammond & Ingalls, 1999).

Team attributes affect PIT effectiveness as well. Having a range of expertise represented on the team appears to have a positive effect (Chalfant & Pysh, 1989;

Hammond & Ingalls, 1999; Graden, Casey, & Bonstrom, 1985; Nelson et al., 1999). Members that are committed to helping students through the PIT process can contribute to team effectiveness (Chalfant & Pysh, 1989; Hammond & Ingalls, 1999; Kovaleski et al., 1999). Teams that truly collaborate and communicate effectively appear to have more success (Graden, Casey, & Christenson, 1985; Hammond & Ingalls, 1999; Kovaleski et al., 1999; Meyers et al., 1996). Teams that have clear objectives and realize the team's purpose appear more effective (Hammond & Ingalls, 1999; Nelson et al. 1991). Being perceived by teachers as supportive appears to contribute to effectiveness (Hammond & Ingalls, 1999; Meyers et al., 1996). Being a well trained team, including initial and ongoing training, appears to contribute to effectiveness (Chalfant & Pysh, 1989; Fuchs, Fuchs, & Bahr, 1990; Hammond & Ingalls, 1999; Kovaleski & Glew, 2006; Meyers et al., 1996; Nelson et al., 1991).

Research has revealed factors that can hinder PIT effectiveness, especially as practiced in field based settings without researcher or university support. Overall, research on field based PITs has shown inconsistent implementation and effects (Burns & Symington, 2002; Burns, Vanderwood & Ruby, 2002). Goals for PITs need clarification from the state level (Buck et al., 2003; Truscott et al., 2005), as well as at the team level (Nelson et al., 1991; Truscott et al., 2005). Time factors, such as insufficient time (Chalfant & Pysh, 1989; Hammond & Ingalls, 1999) and infrequency of meetings (Meyers et al., 1996) can be a barrier to PIT effectiveness. Team effectiveness is affected by lack of training (Buck et al., 2003; Hammond & Ingalls, 1999; Nelson et al., 1991) and lack of readiness for teaming (Chalfant & Pysh, 1989). As previously mentioned, issues with intervention generation, implementation, and monitoring need to be addressed

(Flugum & Reschly, 1994; McGreevy et al., 2005; Meyers et al., 1996; Truscott et al., 2005). A shift in views that PITs are essentially a stop on the path to special education needs to be addressed for teams to be more effective (e.g., Burns, Vanderwood, & Ruby, 2005; Truscott et al., 2005). Teacher perception of PITs can be a factor in PIT effectiveness, and is discussed further below.

Teacher Perceptions of Prereferral Intervention Teams

There has been little research on teacher perceptions of prereferral intervention or PITs and findings are mixed. Some teachers expect PITs to provide them with classroom interventions and professional support (Lane et al., 2003; Papalia-Berardi & Hall, 2007; Pobst, 2001). The teachers may want to receive follow up assistance and implementation support (Lane et al., 2003). Some teachers have found that the PIT process was helpful in providing interventions and support (Chalfant & Pysh, 1989; Graden, Casey, & Bonstrom, 1985). Some teachers have seen PITs having positive effects on student performance (Chalfant &Pysh, 1989; Fuchs et al., 1990; Graden, Casey, & Bonstrom, 1985; Kovaleskiet al., 1999). Some teachers have said that PITs helped develop collaboration among teachers (Kovaleski et al., 1999).

Studies have also found that some teachers have negative views of the PIT process. Some teachers feel disenfranchised from the prereferral team process. Teachers have simply not been participants on some teams (Meyers et al., 1996). Some teachers have felt that their contributions to the team were not valued or were ignored (Chalfant & Pysh, 1989; Slonski-Fowler & Truscott, 2004). Some teachers have felt they were being evaluated by the administrators on the teams and this made them anxious (Logan et al.,

2001). Other teachers were unsure of their role on the team (Logan et al., 2004; Meyers et al., 1996).

Some researchers have found that the interventions suggested by PITs were not viewed as helpful (Chalfant & Pysh, 1989; Harrington & Gibson, 2001; Inman & Tollefson, 1988; Slonski-Fowler & Truscott, 2004; Papalia-Berardi & Hall, 2007; Pobst, 2001). Some teachers complained that PITs suggested interventions that they had already attempted (Inman & Tollefson, 1988; Slonski-Fowler & Truscott, 2004). Other teachers remarked that the interventions were not sufficient to address the student problem, or were difficult to implement and evaluate (Fuchs, Fuchs, & Bahr, 1990; Harrington & Gibson, 2001; Pobst, 2001; Slonski-Fowler & Truscott, 2004). Even when acceptable interventions have been suggested by the PIT, there has typically not been any training or support for the teacher to implement the interventions, nor any monitoring for treatment integrity. Instead, the teacher has been solely responsible for implementing the interventions (Lane et al., 2003; Slonski-Fowler & Truscott, 2004).

In addition, teachers viewed other aspects of the PIT process negatively. Poor implementation of PIT processes contributed to negative perceptions by teachers. Some teachers thought that the PIT process took too much time, involved too much paperwork, or was too difficult (Chalfant & Pysh, 1989; Harrington & Gibson, 2001; Hayek, 1996; Inman & Tollefson, 1988; Logan et al., 2001; Walls, 2005). Walls (2005) found teachers thought there was not enough leadership of PITs to facilitate the existing cases and the existing leaders did not have enough time to devout to the process. Perceptions of poor communication (Slonski-Fowler & Truscott, 2004) and student problem severity (Lane et al., 2003) led teachers to negative views of PITs.

Research has shown that teachers typically connect PITs with special education. Many teachers view PITs primarily as a step to special education (Hayek, 1986; Logan et al., 2001; Meyers et al., 1996; Pobst, 2001). Some teachers approached the PIT process not in search of classroom intervention, but with referral and placement in special education already in mind for their referred student (Logan et al., 2001; Pobst, 2001). However, one recent study suggests some shift in thinking concerning the connection between PITs and special education. The majority of teachers in this study reported that students referred to the PIT are not referred for special education services and did not expect the student to be evaluated for special education (Lee-Tarver, 2006).

Prereferral Intervention Team Training

As mentioned above, training of PIT participants, including general classroom teachers that make referrals to the team, can positively contribute to team effectiveness (Chalfant & Pysh, 1989; Fuchs, Fuchs, & Bahr, 1990; Hammond & Ingalls, 1999; Kovaleski & Glew, 2006; Meyers et al., 1996; Nelson et al., 1991). Conversely, team effectiveness can be diminished by lack of training (Buck et al., 2003; Hammond & Ingalls, 1999; Nelson et al., 1991) and lack of readiness for teaming (Chalfant & Pysh, 1989). Overall, research points to a need for more training regarding PITs (Burns & Symington, 2002; Nelson et al., 1991; Truscott et al., 2005).

Teams in a study by Hammonds and Ingalls (1999) suggested that other teams choose a PIT model and get adequate initial training, arrange ongoing support and training, and provide training for new members as they join the team. They suggested teams get formal training in conflict resolution. Kovaleski & Grew (2006) stressed the importance of training with ongoing support. It has been suggested teams need training

concerning evidenced based interventions (EBI; McGreevy et al., 2005; Truscott et al., 2005). Training for both inservice and preservice teachers regarding effective interventions, collaborative processes, and procedures to generate and refine interventions has been suggested (Nelson et al., 1991). Carter and Sugai (1989) specifically called for preservice teacher training on prereferral intervention processes, as well as differentiated instruction, learning and behavioral difficulties, and how general and special education connect, so that as teachers they could help all students succeed. As discussed below, the trend toward the use of Response to Intervention (RtI) models adds another dimension of knowledge needed by and potential training issues for general education teachers and teams (Gerber, 2005; Mastriopieri & Scruggs, 2005; Reschly, 2005).

Impacts on Schools that Influence Prereferral Intervention

As previously mentioned, prereferral intervention teams were one response to address the criticism that culturally diverse students were overrepresented in special education (Buck et al., 2003). PITs were designed to reduce the number of inappropriate referrals to and placements in special education by intervening in the general education classroom. The Individuals with Disabilities Education Act (IDEA) Amendment of 1997 emphasized the importance of general and special education integration, student outcomes, and preventive programs to reduce placement in education (Telzrow, 1999). Additionally, the No Child Left Behind Act (NCLB, 2002) mandated accountability for student progress in learning for all students. The President's Commission on Excellence in Special Education (2002) also stressed the importance of prevention of inappropriate special education referrals and placements; it added that responsiveness to intervention

rather than eligibility based on psychoeducational evaluation alone should be considered in placement decisions. It has been suggested that these laws would greatly affect the use of prereferral processes (Buck et al., 2003; Truscott et al. 2005). In the IDEA Amendments of 2004, responsiveness to intervention, commonly referred to as RtI, was included as a possibility for evaluation and placement considerations for special education. This change is leading to changes in the use of prereferral intervention at the school and district level. It is likely that more states will include RtI processes in their policies and mandates (Truscott et al., 2005).

Response to Intervention

In the reauthorization and revision of the Individuals with Disabilities Act (IDEA) in 2004, language was added to the eligibility criteria for Specific Learning Disabilities (SLD) that opened the door for Response to Intervention (RtI) models in the identification of students with SLD. The construct of RtI is not new, coming from prior practices in special education and reading intervention (e.g., Helleret al., 1982; Phillips, 1968; Vellutino et al., 1998). RtI is historically linked to SLD and efforts to seek alternatives to the discrepancy formula in assessment of SLD (Graner et al., 2005). The current push for RtI came from many directions, including a National Research Center on Learning Disabilities (NRCLD; 2004) Symposium on Responsiveness to Intervention in 2003 that brought together researchers and education professionals to discuss the issues surrounding and merits of RtI for SLD identification.

While specific RtI models differ in detail, and at times terminology, all involve a multi-tiered approach employing evidence based instruction and intervention, coupled with continuous monitoring of student progress, and an aim toward prevention (Graner et

al., 2005; Reschly, 2005). For purposes of disability identification, RtI models operate from the perspective of ruling out poor instruction as a cause of low student achievement. Typical RtI models include the following core procedures: quality classroom instruction, empirically-based instruction, classroom performance measures, universal screening, progress monitoring at all levels, evidence-based interventions, and measures of treatment integrity (Bradley, Danielson, & Doolittle, 2005; Graner et al., 2005). Various implementation models usually include: 3 to 4 tiers with increasing intensity of interventions; implementation of differentiated curriculum; instruction delivered by educators other than the classroom teacher; varied duration, time and frequency of interventions; and categorical or non-categorical placement decisions (Graner et al., 2005; NRCLD, 2004). Overall, RtI models provide multi-tiered prevention models incorporating primary, secondary and tertiary interventions (Bradley et al., 2005).

Proponents of RtI are not without questions and concerns regarding the implementation of RtI. They acknowledge that RtI models need to be further operationalized (Bradley et al., 2005). Other challenges noted in the Executive Summary of the NRCLD Symposium on RtI were: scaling up; changing roles of teachers and specialists; consistency of decision making; consequences of altering current procedures, especially dropping cognitive measures for SLD assessment; and defining unresponsiveness. Problem-solving requires the most change from current practices and will require a huge continuing education effort (Reschly, 2005).

Gerber (2005) presents further difficulties regarding adoption of RtI related to teachers. RtI has been implemented within an already complex system of teaching and learning that includes institutional and teacher variables that can confound student

responsiveness. Teacher variables may include responsiveness to students, access to resources, teaching tolerance (akin to a confidence interval) for non-responsiveness, and their own responsiveness to instruction. The dynamic teaching that happens in real classrooms is not the idealized, highly controlled instruction spoken of in RtI models and Gerber anticipates problems with teacher acceptance of prescribed ways of teaching.

Mastriopieri and Scruggs (2005) note that RtI proponents keep saying that the roles of teachers and diagnosticians will have to change; yet RtI models remain "vague and ambiguous at best with respect to the specific roles of teachers and diagnosticians" (p. 525). Like Hale and colleagues (2004), they raised questions of operational aspects of RtI, including what the RtI model will look like beyond the primary grades and outside of reading intervention, as well as a myriad of other implementation questions. Current difficulties in consistently applying accountability standards under NCLB may foreshadow similar issues with using RtI to identify students with SLD on the basis of curriculum-based or teacher-developed standards. States are having difficulty setting standards for standardized tests; how will they deal with non-standardized measures espoused by RtI models?

Teacher Development and Learning

The literature on teacher development and learning is vast and varied. Research describing expert and novice teachers (e.g., Berliner, 1988; Carter, Sabers, Cushing, Pinnegar, & Berliner, 1987; Livingston & Borko, 1989; Smith & Strahan, 2004), stages of teacher development (e.g., Berliner, 1988; Fuller & Bown, 1975; Harrington & Sacks, 1984), and situated learning (e.g., Brown, Collins, & Duguid, 1989; Kim & Hannafin, 2008) are discussed below as they have implications for this study.

Expertise in Teaching

There is a good deal of literature describing expertise in teaching (e.g., Berliner, 1988; Carter et al., 1987; Livingston & Borko, 1989; Smith & Strahan, 2004). Like experts in other fields, expert teachers appear to bring a vast wealth of knowledge and experiences that provide frameworks for interpreting, weighing and responding to information presented in their work (Carter et al., 1987). These frameworks are typically referred to as schemata.

Berliner (1988) described the differences between expert and novice teachers in a summation of several of his research studies. Because of a greater wealth of experience to draw upon and richer frameworks, experts interpret, determine relevance of, and predict classroom happenings and student behavior more efficiently and effectively than novice teachers. Novice teachers tend to have difficulty in these areas due to their lack of experience and framework for approaching these tasks. Experts make better use of classroom routines which in turn make their classrooms more efficient; novices have more difficulty because they are just beginning to establish and become familiar with routines. Berliner found that experts and novices differed in their evaluation of their own performance. Expert teachers tended to show more affect about their successes and failures, while novices had much less affect in describing their experiences.

Livingston and Borko (1989) provided descriptions of both expert and novice teachers from a perspective of differences in their abilities to plan and teach lessons. They studied three experienced math teachers and their assigned student teachers, and described the differences in the expert and novice teachers' planning. Expert teachers were found to have elaborate, interconnected and readily accessible schemata to draw

upon as they planned and conducted their teaching. They also had strong pedagogical knowledge upon which to draw. In planning their lessons, expert teachers combined existing schemata with lesson content quickly and efficiently. While teaching their lessons, they were more flexible and could readily improvise because of their ability to draw on extensive, well connected schemata quickly and efficiently. In contrast, novice teachers were found to have schemata that were less elaborate, interconnected and accessible. They typically had to develop new schemata and pedagogical knowledge when planning their lessons. Livingston and Borko found novice teachers were less efficient planners dues to less developed pedagogical reasoning skills, and more difficulty determining relevancy of information. When teaching their lessons, novice teachers were less selective to cues, less flexible, and less able to improvise, because they had fewer schemata on which to draw and these schemata were not well connected.

More recently, Smith and Strahan (2004) described six central tendencies of expert teachers based on their study of three expert teachers. Expert teachers were described as being confident both in themselves and in their profession. They described their classrooms as communities of learners with clear procedures and a student focus. Berliner (1988) found that experts had clear classroom procedures. Developing a relationship with their students was important to the expert teachers and these teachers demonstrated extensive knowledge of individual students. The expert teachers' approach to instruction was student-centered; yet they also took responsibility for student learning, were responsive to student needs, assessed their students, and were mastery goal oriented. This finding is similar to that of other studies suggesting that expert teachers focus more on their own behavior than student behavior when reflecting on instruction (e.g.,

Cushinget al., 1992; Livingston & Borko, 1989). Expert teachers made contributions to the profession of teaching through service and leadership. Lastly, the expert teachers had mastered their content areas. Smith and Strahan (2004) suggested this mastery was indicated by the expert teachers' continual participation in professional development to improve practice, collaboration with other professionals, professional presentations, ability to identify and address student learning differences, and national certification.

Stages of Teacher Development

Researchers have also described stages of development of both preservice and inservice teachers (e.g., Berliner, 1988; Fuller & Bown, 1975; Harrington & Sacks, 1984). Fuller and Bown (1975) proposed three stages of teacher development: survival concerns, teaching situation concerns, and pupil concerns. They then described the sequence of these concerns for preservice teachers, including preteaching concerns, early concerns about survival, teaching situation concerns, and concerns about pupils. In the preteaching concerns stage, preservice teachers identify with the pupils and are typically critical of their mentor or supervising teachers. In the next stage as they begin to become more involved in classroom teaching experiences, they are concerned with classroom control, their mastery of content, and evaluations by their supervisors. Next they have teaching situation concerns, including concerns about limits and frustrations in their teaching context, all the varied demands on them, methods and materials, and their own performance overall. In the last stage, the preservice teachers focus more on concerns about pupils, including their learning and other needs. They also begin to relate to pupils as individuals rather than as a classroom of students.

Harrington and Sacks (1984) identified six stages of transition from preservice teacher to teacher: anticipation, entry, orientation, trial and error, integration/consolidation, and mastery. In the anticipation stage, the preservice teacher is nervous and excited about their field experience and readies to engage in teaching. As the preservice teacher begins to teach in the entry phase, they are not confident in their ability to teach and therefore seek assistance and follow the advice given. At the orientation stage, the preservice teacher begins to see the complexity of teaching, does not feel adequate to the task, and struggles with her role. Pupils are seen as one undifferentiated group. The most time is spent in the trial and error stage, struggling with teaching techniques, classroom management, and being autonomous. The preservice teacher alternates between feeling competent and incompetent, and often seeks the reassurance of others. In the integration and consolidation stage, the preservice teacher truly sees the complexity of teaching and begins to be more consistently effective. She can evaluate her own performance, set realistic goals, and focus on individual student needs. Harrington and Sacks say that few preservice teachers reach the mastery stage. This stage is characterized by the preservice teacher understanding herself as a person and as a teacher, seeing her own strengths and weaknesses, and recognizing that there are many ways to realize effectiveness as a teacher.

In addition to describing the differences between expert and novice teachers noted above, Berliner (1988) described five stages of skill development in teachers. The five stages of teacher development that he described include: novice, advanced beginner, competent, proficient, and expert. Berliner describes the novice teacher (stage 1) as needing to learn the tasks and terminology of pedagogy without attention to context.

They learn these procedures and apply them inflexibly. They are learning facts and gaining experience, the latter being more important to them. Advanced beginners (stage 2) begin to connect experience and facts they are taught, recognize similarities across contexts, and situational knowledge is acquired. They develop strategic knowledge as their behavior is guided by context, but still have "no sense of what is important." (p. 3). Competent teachers (stage 3) are aware of their choice of action, set priorities, and make decisions about plans. Their goals and means for achieving them are rational and reasonable. They can determine relevancy. They feel more connected and responsible for what happens in their classrooms and teaching. The proficient teacher (stage 4) begins to use more intuition and can make adjustments as they teach more readily. They have a greater store of experience to draw upon and a more holistic view of events. While they more intuitively know things about teaching and recognize patterns, their approach to decision making remains analytic and deliberate. Berliner described expert teachers (stage 5) as "arational." (p. 5). They intuitively understand situations and appear to respond to them in ways that are neither analytic nor deliberative, but instead fluid and effortless. They do not consciously choose what is relevant. Since experts usually do things that work, they do not usually have to problem-solve as they go. When things do not go as plan, they easily use their vast experience and knowledge to respond appropriately.

Situated Learning

There has been much research describing teacher experts and novices, and numerous models of teacher development describing the concerns and skills of teachers as they progress from novice to expert through their teacher education and careers. There

is some research on how or what learning experiences assist teachers in progressing from novice to expert. Situated learning is one approach that has been proposed to assist teachers in their journey from novice to expert. Though situated learning approaches have been applied and researched in teacher education, little research has been done on how they support teacher learning (Kim & Hannafin, 2008).

Situated learning is based on the concept of situated cognition. Proponents of situated cognition posit that knowledge and learning are inextricably part of the context of that knowledge and learning, and that learning is social in nature (Brown et al., 1989; Lave, 1988). Situated cognition emphasizes the interaction of the learner, other learners, and tools or knowledge, within a social context. How the learners interact with each other, the tools or knowledge they use, the activity itself, and the context of the activity all contribute to and shape the learning. From a situated cognition perspective, people learn as they participate in and become legitimately involved with the context or situation about which they are learning (Lave, 1988).

Brown, Collins, and Duguid (1989) applied situated cognition to learning contexts adopting the situated cognition premise that what is learned cannot be separated from how it is learned and used. They argued:

> [Learning activity] is not separable from or ancillary to learning and cognition. Nor is it neutral. Rather, it is an integral part of what is learned. Situations might be said to co-produce knowledge through activity. Learning and cognition, it is now possible to argue, are fundamentally situated. (p. 32)

They also posit that all knowledge and its parts are a product of the learning activity and situations that produce them. New conceptualizations are always being developed because they are affected by the situations in which they are learned and used. Brown and his colleagues (1989) posit that in order to learn to use the tools of their trade and acquire knowledge, learners must use them in the context of that culture. Exposure to concrete examples of tools or knowledge being used in the social context and practiced is essential to learning. These situated learning activities produce experiences for the learner that are perceptions of how knowledge is applied and works within the social context. As learners build more experiences, it shapes how they are able to use the tools, promotes efficiency, and enculturates the learner (Brown et al., 1989). This is similar to the acquisition and use of schemata mentioned by Livingston and Borko (1989) in their description of expert and novice teachers. If learning is situated and enculturates the learner, then collective problem solving, exposure to multiple roles, challenging of misconceptions, learning what does not work, and building collaboration skills are important elements of learning (Brown et al., 1989).

Recently researchers have begun to study the application and effects of situated learning on teacher learning and development (e.g. Conkling, 2007; Kim & Hannafin, 2008). One study by Kim and Hannafin (2008) proposed and applied an emerging framework for preservice teacher learning that is based in situated learning. They posited that as novices participate in situated learning experiences they develop conceptual case knowledge, or understanding of concepts in context or situations, and they learn strategic knowledge about how to use those concepts in future situations. These concepts and

strategies are part of the culture of the situation, so novices develop an awareness of their role within that culture.

In a study of the application of this framework, Kim and Hannafin found that preservice teachers developed conceptual case knowledge participating in situated learning experiences. The preservice teachers gained pedagogical knowledge and formed new connections between their experiences throughout the semester. The preservice teachers gained strategic case knowledge as they participated in situated learning activities. In particular, the preservice teachers began to develop routines (Kim & Hannafin, 2008); use of routines has been identified in the literature as a characteristic or central tendency of expert teachers (e.g., Berliner, 1988; Smith & Strahan, 2004). The preservice teachers developed strategies for reflection that promoted generalization to new contexts or situations. As the preservice teachers reflected on their learning, they were able to better assess the presented situations by accessing and applying the schemata they were forming. Collaboration with instructors and peers took place throughout the situated learning activities and assisted the preservice teachers in learning how to collaborate with their colleagues productively. Kim and Hannafin (2008) also analyzed the change in preservice teacher beliefs and identities, finding that as they gained experience, they expanded their perceptions.

Based on their findings, Kim and Hannafin concluded that the framework can assist teacher educators in understanding how preservice teachers transition into the culture of teaching. By using the framework, teacher educators can plan for the development of knowledge and skill, better understand how preservice teachers learn, and look at how preservice teachers interpret and react in situated contexts. They suggest

that the framework might assist in understanding the career long journey from novice to expert in the teaching field.

Background of the Student Support Team Project

The SST Project is an example of a situated learning activity that can build conceptual case knowledge and pedagogical skills, while providing opportunities to participate in a social setting and learn its culture. The project was developed based on the Prospect Center's Descriptive Review (DR) of the Child (Himley & Carini, 2000). In the DR process, teachers practice collaboration and learn to observe, describe, and assess their students in systematic, purposeful, and balanced ways. This process was developed because while teachers at this school continuously observed the learning of their students throughout the school day, they often did not systematically organize and document these observations to assist them in intervening with students and adjusting their teaching practices as needed.

As teachers begin the DR process, they gather information about a student using systematic data collection. The data are then organized into five categories: 1) physical presence and gesture, 2) disposition and temperament, 3) connections with other people, 4) strong interests and preferences, and 5) modes of thinking and learning. After organizing their data, the teachers use the DR model framework to describe the student in a holistic way. The DR process focuses not only on the outcomes of student learning, but how the student learns. Teachers learn the DR process by focusing on one student, but the goal is for the teachers to use the DR process routinely with all their students (Himley & Carini).

Meyers, Graybill, and Grogg (2008) investigated the SST Project as implemented with three cohorts of teacher education students: one preservice teacher cohort, one graduate level cohort of inservice teachers, and one inservice alternative certification cohort. In this study, preservice teachers (PSTs) reported they learned about using data collection techniques, effectively organizing and present their data to others, prereferral processes, data-based decision making, and generating appropriate interventions. The PSTs reported learning to work collaboratively and value the perspectives of others. The inservice teachers reported improved skills in collecting, analyzing, and presenting student data, and feeling more prepared for SST by using the DR process.

The inservice teachers also noted feeling more supported in the DR process and SST simulation than in the SST process at their schools. They commented that the DR process gave them new tools to use when preparing for SST and a desire to share the process in their schools. Similar to the inservice teachers, the alternative certification program teachers reported better understanding of how to participate in SST. They learned how to use systematic data collection techniques, increased their knowledge of intervention techniques, and generalized use of interventions to other students in their classes. They noted collaborating more with other educators during the project.

Overall, the preservice and inservice teachers felt empowered by the project, gained confidence, and valued collaboration with others (Meyers et al., 2008). This finding stands in contrast to previous research indicating that teachers often feel disenfranchised from and unappreciated by prereferral intervention teams in schools (Slonski-Fowler & Truscott, 2004; Logan et al., 2001). Meyers and her colleagues suggested that projects like the DR process and SST simulation be integrated into teacher

education programs with collaboration across departments that prepare other education professionals (e.g., school psychologists, special educators, administrators) to give all these educators opportunities to learn about and practice multidisciplinary collaboration. Their hope was that this would enhance collaboration in the field.

Summary

This chapter presented information about prereferral intervention teams (PITs), federal policies and mandates that affect prereferral intervention teams, and teacher development and learning. Discussion of PITs focused on description of, concerns about, and effectiveness of teams as found in the literature. Background of PITs and models contributing to currently used models were discussed. Research on the effects of PITs on special education referrals, students, and teachers, as well as factors affecting team success was reviewed. Research regarding teacher perceptions of PITs was reviewed. Federal policies and mandates affecting PITs were discussed with particular attention to Response to Intervention (RtI) approaches. The chapter concluded with a discussion of research on teacher development and learning, specifically the areas of expertise in teaching, stages of teacher development, and situated learning.

A study of PITs leads to a conclusion that there are many variations how the process is viewed and implemented by researchers and in the field. Research on effectiveness of PITs suggests that these teams are effective in reducing special education referrals, improving student learning and behavior, and improving teacher abilities. While some factors that lead to more effective teams have been identified in the literature, further research in this area is needed. Additionally, more teacher training at both the preservice and inservice level has been suggested for PITs to be more effective. The

literature on teacher learning and development suggests some ways in which this training might be conducted to maximize learning at various stages of teacher development.

Knowledge of data collection and intervention are important for PITs to be effective in addressing the needs of students and teachers. Knowledge of prereferral processes, including collaboration and problem solving, can help improve team effectiveness. Preservice and inservice training to address these areas has been suggested as one way that could improve team effectiveness. Teacher perceptions of PITs can have an impact on team effectiveness. Training has also been shown to impact inservice teacher perceptions of PITs. In addition, the implementation of prereferral intervention has increased over the years, and will likely continue to increase as RtI models that often incorporate existing PITs are implemented. Teachers and other educators will need to be trained about RtI so that it can be effectively implemented.

There is little known about how training effects PST knowledge and perceptions about PITs. This study was designed to investigate PST knowledge and perceptions of Student Support Teams (SST) and describe the changes in their knowledge and perceptions during and following a Student Support Team Project (SST Project). The study also evaluated the PST perceptions of the model and its effects on their learning.

CHAPTER 3

METHODOLOGY

Context of the Study

This study investigated preservice teacher (PST) perceptions of the Student Support Team Project (SST Project) as implemented in an alternative teacher certification program. The SST Project was implemented in a Critical Issues in Education course of an alternative teacher certification program in an early childhood education department at an urban university in the southeast United States. Specific steps in the implementation of the SST Project for this study follow in the next section.

The project was developed by a professor in an early childhood education department at the same university (Meyers, Collier, Rogers-Grogg, & Alaimo, 2004; Meyers, Collier, Rogers-Grogg, & Graybill, 2004; Meyers, & Grogg, 2003). The project was modeled on the Prospect Center's Descriptive Review of the Child, in which teachers collaborate and learn how to be systematic, intentional and balanced in their observations, descriptions and assessments of children (Himley & Carini, 2000). Previous implementations and studies of the SST Project model of training have focused on the interdisciplinary and collaborative nature of the approach during implementation at a university (Meyers, Graybill, & Grogg, 2008).

The alternative teacher certification program in which this study was implemented was developed to address the problem of decreasing numbers of competent, qualified teachers in urban schools. The program emphasizes pedagogy, content and knowledge

through practical classroom experience supported by intensive coaching and continual professional development. It prepares teachers for preschool through fifth grade classrooms, with a focus on urban settings. Candidates selected for the program hold baccalaureate degrees in a field other than education. PSTs in the alternative teacher certification program begin their instruction during summer term. University faculty and school district personnel collaborate on instruction and supervision of the PSTs throughout the program. At the end of the first year of coursework and practical experience, successful PSTs earn initial certification as K-5 teachers. Successful participants may elect to continue into the second year of the program to seek a Masters of Education (M.Ed.) degree in early childhood education while working fulltime as a classroom teacher. The second year of the program emphasizes refining instructional skills with particular attention to the areas of reading and mathematics.

In the Critical Issues in Urban Education I course (Critical Issues course) of the alternative teacher certification program, the PSTs study issues including diversity, urban school culture, reflective teaching, and classroom management. They learn how these are applied or addressed in classroom practice. Current issues relevant to urban education are explored. The course is taught during the fall semester of the first year of the program. The SST Project was implemented within this course as a way to integrate university instruction on learner diversity, reflective teaching, and classroom management with practical experience addressing the needs of a struggling learner in the PSTs' field placement.

Description of the Student Support Team Project

Within the Critical Issues course, the PSTs participated in an ongoing assignment referred to as the Student Support Team Project (SST Project), which involved choosing a focus child for observation, assessment, and intervention. The case of this focus child was then summarized and presented in a simulated SST meeting. Throughout the project, the PSTs collaborated with their instructors, colleagues and mentor teachers to identify the most appropriate courses of action to address the needs of their focus child within the context of the assignment. At all times, pseudonyms were used to protect the identity of the focus child and any other persons (i.e., mentor teachers, parents, other school personnel, other children) mentioned in these assignments. A general outline of each stage of the SST Project is discussed below. Specific questions for each PST Reflection assignment are included in Appendix A. The SST Project is an enrichment of a similar unit taught in previous years in the Critical Issues course. Permission of the course Instructor and Department Chair were secured for implementation of this project and study. The following sections give a detailed description of each component of the project: Identifying Focus Child, Observation, Assessment, Intervention, Student Support Team Simulation, and Information Gathering on SST.

Identifying Focus Child

The PSTs observed children in their field placement classrooms and, with assistance from their mentor teacher, identified a child experiencing a learning and/or behavior difficulty. The child chosen could not already be involved in any prereferral process or SST in the school and was not in special education. This child became the focus of the SST Project and is referred to as the focus child throughout this manuscript.

Observation Component

The PSTs received instruction on observation methods and then applied this information to observe their focus child. The PSTs documented their observations and submitted a two to three page written reflection on the assignment. Based on their observations and in consultation with their peers, instructors, and/or mentor teacher, the PSTs identified at least one area of concern for their focus child.

Assessment Component

Following the observation stage, the PSTs received instruction on assessment and applied this information to assess their focus child in the area of concern. The PSTs chose an assessment based on their initial observation, identified area of concern, and input from their peers, instructors and/or mentor teacher. They then conducted their assessment activity and submitted a two to three page written reflection on the assignment.

Intervention Component

Based on the information gathered from the observation and assessment, the PSTs planned an intervention to address the area of concern for their focus child. The PSTs collaborated with their peers, instructors, and/or mentor teachers to design an intervention and follow-up assessment. The PSTs then implemented the intervention and assessed the response of the focus child over a period of approximately 2 weeks. The PSTs documented this activity and submitted a two to three page written reflection on the assignment. Intervention implementation was limited to 2 weeks for the purposes of turning in the reflection on the intervention and teacher program time constraints. Many of the PSTs continued the intervention through the end of their field placement that semester.

Student Support Team Simulation

At the end of the intervention phase, the PSTs prepared a brief summary of their focus child case to present in an SST Simulation that took place in one class session of the Critical Issues course. For the simulation, other preservice and/or in-service school psychologists and faculty members in early childhood education and school psychology volunteered to join the class to participate as SST consultants in each simulation group. The simulation participants were divided into groups of four PSTs and at least two SST consultants. Each PST presented their focus child case during a 45 minute SST meeting simulation, where the team generated ideas to address the case presented. During the simulations, each PST took a turn as the meeting facilitator for the case presentation of another PST. In addition, each PST took a turn as the recorder for another case presentation. Following the SST simulations, the entire class and the SST consultants participated in a brief discussion of their experiences during the simulation. The following week, the PSTs handed in a two to three page written reflection of their experience during the SST Simulation.

Information Gathering on Student Support Team

Throughout the semester, the PSTs consulted with their mentor teachers and others in their field placement regarding prereferral intervention and SST in their field placement schools. As scheduling permitted, many of the PSTs attended actual SST meetings or other collaborative meetings of teachers in their field placement schools. Information gathered during these experiences was integrated into their reflections throughout the SST Project. Their experiences with SST in their field placement schools was specifically solicited in their final two to three page reflection at the end of the SST

Project that summarized the information gathered, as well as their overall experience regarding the project as a whole.

Participants

Participants in the study included preservice teachers (PSTs), key informants, and the researcher. Further details regarding each type of participant are described below.

Preservice Teacher Participants

Participants in the study were 15 PSTs enrolled in the alternative teacher certification program during their second semester in the program. During this semester they were interns in urban elementary school classrooms. All PSTs enrolled in the Critical Issues course were invited to and elected to participate in the written portion of the study, comprised of the PST Demographic Sheet and PST Reflections described later.

All of the participants were female; there were no males in this cohort of the alternative certification program. The participants ranged in age from 22 to 45. Five participants indicated their ethnicity on the form as African American, nine indicated White or Caucasian, and one indicated Hispanic. Six of the PSTs reported having previous experience in education settings, including college administration, after school programs, preschool teaching, private middle school teaching, mentoring students in a public school, and substitute teaching. Field placements of the participants were as follows: two were in kindergarten (K) classrooms, four in first grade, three in second grade, five in third grade, and one in fourth grade.

Preservice Teacher Interview Participants

Eleven of the fifteen PST participants expressed interest in participating in the interview portion of the study on their PST Demographics Sheet. Four participants for the

PST Interview portion of the study were randomly selected from the interested PSTs already participating in the written portion of the study. Of these four interview participants, one self-identified as African American, two as Caucasian, and one as Hispanic. Three of the four interview participants reported previous experience in education settings. Their field placements were as follows: two in third grade, one in first grade, and one in kindergarten.

Key Informants

Key informants are people recognized as having particular expertise in a topic germane to the research and/or person that are part of the system being studied (Schensul, Schensul, & LeCompte, 1999). Key informants were used throughout the study to provide input and feedback on emerging themes, interview questions, and other elements of the study. Key informants included the instructor of the Critical Issues course and the faculty member that developed the SST Project model.

Lead Researcher

The lead researcher was a doctoral student in School Psychology, as well as a certified school psychologist at the Educational Specialist level. She has worked in urban, suburban, and rural public schools as a teacher, school psychologist, consultant, and researcher. In her work as a school psychologist, she has been very involved in the SST process at her assigned schools. As a consultant, she has assisted two urban charter schools in developing their SST procedures and training the faculty and other staff about the SST process.

The researcher completed academic coursework in qualitative methods (Ethnography I and II), and has worked on multiple qualitative research projects with

various faculty members in the College of Education. These studies have included the following: (a) a needs assessment in a small, urban school district; (b) multiple studies related to the implementation and evaluation of a violence prevention intervention in an elementary school and later across the school district; (c) an evaluation of a mentoring intervention in an elementary and middle school; and (d) an investigation of parent involvement in an urban school district. The researcher also has previous experience with implementation of the SST Project with cohorts of preservice and inservice teachers in an early childhood education department. She served as a participant in the SST simulations with three teaching cohorts, as well as member of a research team completing a descriptive study of the implementation of the project with those cohorts. She has presented about the model at national and state conferences (Meyers, Collier, Rogers-Grogg & Alaimo, 2004; Meyers, Collier, Rogers-Grogg & Graybill, 2004; Meyers & Grogg, 2003). To stay abreast of issues and developments concerning SST statewide, she participated in a local consortium of education professionals involved in the implementation of prereferral intervention teams at the state and district levels prior to and throughout this research study.

During the study, the researcher was a participant observer (Creswell, 1998). She was a Graduate Teaching Assistant (GTA) for the Critical Issues course during the semester prior to and during data collection. She participated in instruction of and consultation with the PSTs on their assignments and experiences during the Critical Issues course, but did not have any grading responsibility or influence during the semester data were collected.

Researcher bias includes past experiences, assumptions or beliefs that may influence the approach to the study and the interpretation of data (Creswell, 1998). Creswell recommends that a researcher explain any bias that may influence the research. As described above, the lead researcher was a participant observer in the current study, and she had participated in previous implementations and studies of the SST Project. Additionally, the lead researcher has extensive experience with SST as implemented in schools. These experiences have led to the following beliefs that influenced the lead researcher's approach to this study. The lead researcher believes teacher input during prereferral processes is essential to effective and efficient use of these processes. She believes specific training in data collection, intervention and collaboration is necessary in teacher education and professional development. She further believes preservice experience with prereferral processes and interdisciplinary collaboration benefits both teachers and their students. The researcher held an assumption that information gained from this study would assist teacher educators in addressing the learning needs of future PSTs in the areas of prereferral intervention and collaboration.

Data Sources and Collection

Data collected during the study consisted of the PST Demographic Sheet, the PST written reflections on the SST Project assignments, field notes on classroom observation of the Critical Issues course sessions, and semi-structured interviews with four participating PSTs and two key informants. In addition, the researcher kept a reflective journal throughout the study. These methods are described below in more detail.

Preservice Teacher Demographic Sheet

PSTs participating in the study filled out the Preservice Teacher (PST) Demographic Sheet consisting of basic demographic questions (see Appendix B). The PST Demographic Sheet was collected when the participants signed the informed consent for the study. Responses from the PST Demographic Sheet were used to more fully describe the participants as a group and to indicate who was initially interested in participating in the interview phase of the study.

Preservice Teacher Reflections

The instructor of the Critical Issues class required written reflection assignments for each component of the SST Project. These two to three page written reflections were guided by questions provided by the instructor prior to the beginning of each component (see Appendix A). Written reflections included careful consideration of the topic and how it affected the PST, her teaching, and/or her student(s). Six reflection papers from each participant were collected for the purposes of this study: Focus Child Description, Observation Reflection, Assessment Reflection, Intervention Reflection, SST Simulation Reflection, and Overall SST Project Reflection. Each reflection was submitted to the researcher in hard copy and via email according to the schedule in the course syllabus. The researcher provided feedback to the PSTs regarding their reflections to assist them in addressing the needs of their focus children and completing the project components; however, the researcher did not have any grading responsibility or influence during the semester data were collected. Grades for the Reflections were assigned by the instructor of the Critical Issues course and the PSTs were informed of this before they consented to participate in the study.

Preservice Teacher Interviews

Each interview participant took part in three face-to-face, individual, semi-structured interviews at each of the following junctures in the semester in which the SST Project was implemented: 1) prior to the completion of the observation assignment; 2) following the SST simulation; and 3) after the completion of all SST Project assignments. The first interview lasted approximately 20 minutes, and subsequent interview lasted between 45 and 60 minutes. The lead researcher conducted all of the PST Interviews at pre-arranged times and locations convenient for the participant. All interviews were digitally recorded, then transcribed by a member of the research team.

Interview 1 questions were developed by the researcher prior to the first interview (see Appendix C). These questions were based on experience with and research on implementing a prior version of the SST Project and input from key informants and the dissertation chairperson. These questions were aimed at assessing interview participants' existing knowledge and perceptions of prereferral intervention and SST.

Questions for interviews 2 and 3 were developed based on data gathered from and initial analysis of previous interviews and reflection assignments, field notes, and input from key informants and the dissertation chairperson (See Appendix C). Questions for interviews 2 and 3 were aimed at clarifying and enriching reflections regarding the SST Project assignments and the participants' perceptions regarding prereferral intervention and SST. Interview 2 focused on the participants' experiences during participation in the SST Simulations. Interview 3 focused on the participants' experience with the SST Project as a whole.

Key Informant Input

As described in the participants section, key informants included the instructor of the Critical Issue course and the faculty member who developed the SST Project model. Key informants were consulted throughout the study to provide input and feedback on the SST Project implementation, interview questions, and data analysis and interpretation. Semi-weekly consultations with the instructor of the Critical Issues course took place throughout the semester to enrich the classroom observation field notes, followed by an end of the semester interview of approximately one hour to clarify these ongoing conversations and discuss the SST Project as a whole. Questions for the instructor interview were developed from review of the weekly consultation notes and emerging codes from the PST reflections and interviews (see Appendix D).

The lead researcher was interviewed by another member of the research team to gain further insight into her role as an instructor and consultant to the PSTs during the implementation of the SST Project. The questions used to interview the instructor of the class were used for this interview. The interview took approximately one hour. Both of these key informant interviews were digitally recorded, then transcribed by a member of the research team.

Other key informant input included feedback on the coding manual from the developer of the SST Project. Input was given on the coding manual that was developed from the initial reading of the PST Reflections, coding of the PST interviews, and coding of the reflections of the interview participants. This key informant also assisted in the development of the final coding manual, the development of which will be detailed later in this chapter.

Field Notes

The researcher observed and participated in the Critical Issues course sessions and kept field notes regarding classroom instruction and class discussions regarding the SST Project and its component assignments. Any adaptations of the SST Project model were noted. These notes were used to inform instruction during implementation of the SST Project and enrich the description of the SST Project as implemented during this study.

Researcher Reflective Journal

Throughout the study, the researcher kept a reflective journal in addition to her field notes on classroom observations. The journal contained documentation of the instructional process, as well as thoughts, ideas and questions related to the qualitative research process and emerging themes. The journal included all memos and annotated coding charts created throughout the data collection and analysis processes (LeCompte & Schensul, 1999).

Coding Team

The coding team consisted of the lead researcher and three research assistants who were graduate students in education: one masters student in counseling, one doctoral student in school psychology, and one doctoral student in special education. Two of the graduate students had participated in the SST Simulations in previous implementations of the SST Project. All team members were trained in coding qualitative data prior to or as part of this study. The chairperson of the dissertation committee served as a research advisor and had participated in the SST Simulations previously. The developer of the SST Project served as a key informant and consultant throughout the coding process.

Data Analysis Procedures

There were three phases of data analysis: I. Initial review of PST Reflections; II. Coding of PST Interviews and Key Informant Input Analysis; and III. Final Coding, Inter-rater Agreement and Analysis across Codes. Graphical organizers or matrices were used in each phase of data analysis to help organize the coded data and assist in analysis of the data. These matrices were tables that contained emerging themes and sub-themes, illustrative quotes, and coder annotations or reflections on the data and/or coding process. Review of these matrices was used to develop the coding manual, as well as provide reorientation when returning to the data and an aid to analysis (Miles & Huberman, 1994). Specific coding procedures and matrix use within each phase of analysis are discussed below.

Phase I Analysis: Initial Review of PST Reflections

Phase I analysis took place throughout the semester during which the data were collected. Immediately following collection of the consent and PST Demographic Sheet, the demographic data were organized into a matrix to aid in description of the participants (Miles & Huberman, 1994). During this analysis phase, the lead researcher did an initial reading of each set of PST Reflections as they were submitted in order to inform instruction, the development of questions for the second and third interviews, and the coding manual (Creswell, 1998; Strauss & Corbin, 1998). Researcher reflections regarding possible emerging themes were made during the initial reading of the PST Reflections. Field notes were also read and emerging themes noted to help inform interview questions and the coding manual. These researcher reflections and emerging

themes were shared with the research advisor and key informants to get their input regarding the emerging coding manual.

Phase II Analysis: Coding of PST Interviews and Key Informant Input

Data from PST interviews, reflection assignments from the interviewees, and key informant interviews were coded by a team that included the lead researcher and two of the graduate student researchers. These data were coded using constant comparative methodology throughout the data analysis process (Creswell, 1998; Lincoln & Guba, 1985; Strauss & Corbin, 1990).

Emerging themes from the initial reading of the PST Reflections and field notes developed by the lead researcher during Phase I Analysis were summarized into an initial list of emerging themes or codes, then shared with the coding team and used for coding of the PST Interview transcripts. The team coded one set of interview transcripts (Interviews 1, 2, and 3 from one PST Interview participant) together and new themes were added to the initial list of emerging themes. All coding was discussed and consensus reached among the three coders as they read through the transcript together. A coding manual was developed from this coding session and used for subsequent coding sessions during this phase of analysis.

The coding team then independently coded a second set of interview transcripts from another PST Interview participant. The coding team met to review their coding. New codes were documented and consensus was reached regarding any differences in coding. The coding manual was updated to reflect the revised code definitions and the new codes were added. The coding team then repeated this process with the remaining two sets of PST Interview transcripts.

Following the coding of all PST Interviews the lead researcher, research advisor and one of the graduate student researchers met to review the coding manual and simplify the coding schema. Themes were discussed in the context of the study purposes, similar themes were collapsed, code names were standardized, and coding definitions revised as needed for clarification. The coding manual was revised to reflect these refinements. The entire coding team met to review and discuss these refinements. For training and confirmation purposes, the refined manual was used to recode one set of PST Interviews. The coding team met to discuss this coding and consensus was reached on any differences in coding.

The next step in this phase of data analysis was to use the refined coding manual to code the PST Reflections from the interview participants to further refine the coding manual and inform the third PST Interview and the Key Informant Interviews. The coding team independently coded the first set of PST Reflections from one interview participant. The coding team met to review their coding. New codes were documented and consensus was reached regarding any differences in coding. The coding manual was updated to reflect the revised code definitions and the new codes were added. The coding team then repeated this process with the remaining three sets of PST Reflections from the interview participants.

The resulting coding manual was then used by the lead researcher and one of the coding team members to code the Key Informant interview of the Critical Issues course instructor. This two person coding team met to discuss their coding and reached consensus on any differences in coding. The coding manual was then updated to reflect the revised code definitions and any new codes were added. The two graduate students on

the coding team then coded the Key Informant interview of the lead researcher using this coding manual. They met to discuss their coding and reached consensus on any differences in coding. No new codes were added to the coding manual at this time.

Following the coding of the Key Informant Interviews, the lead researcher and research advisor met to review the coding manual and simplify the coding schema again. Themes were discussed in the context of the study purposes, similar themes were collapsed, and coding definitions revised as needed for clarification. The coding manual was revised to reflect these refinements. The lead researcher and one of the graduate student researchers met to review and discuss these refinements. The revised coding manual was used to independently recode one of the sets of PST Reflections from an interview participant. The coders met to discuss their coding and reached consensus on any differences in coding.

Phase III Analysis: Final Coding, Inter-rater Agreement and Analysis across Codes

Phase III analysis took place after all data were gathered and the coding manual was developed. Data from all 15 PST participants were coded during this phase of analysis, including the 11 sets of PST Reflections not previously coded. The four sets of PST Reflections from the PST Interview participants were also recoded, as were the PST Interview transcripts.

The Phase III coding team consisted of the lead researcher and a graduate student researcher that had not previously participated in coding study data. The new coder had participated in the SST Simulation portion of the SST Project that took place prior to this study, so was familiar with the project. She was given a summary of the current study to read prior to any coding. The research advisor, the developer of the SST Project, and one

of the coders from previous analysis phases served as consultants during this phase of analysis.

The new coder was trained on the coding manual by reviewing the coding manual with the lead researcher, coding a set of PST Reflections from an interview participant with the lead researcher, and discussing any coding differences. The lead researcher and the coder then independently coded another set of PST Reflections (not an interview participant), met to compare coding, and reached consensus on any differences in coding. After these initial coding sessions, the Phase III coding team independently coded three subsequent sets of PST Reflections one at a time, compared coding, and reached consensus on coding differences. The coding scheme overall was discussed and the coders proposed simplification of the coding manual.

The lead researcher consulted with one of the Phase II coders for her input, then met with the research advisor and the developer of the SST Model to discuss and further refine the coding manual. The matrices of the coded data with annotations and charts detailing coding differences from the initial Phase III Analysis were discussed, codes were collapsed, and the coding manual revised to reflect these changes.

The Phase III coding team independently recoded one set of PST Reflections from an interview participant using the revised coding manual. They then met, compared coding, and reached agreement on any coding differences. This was done for two more sets of PST Reflections. Inter-rater agreement was calculated at this point and found to be 0.90. The rest of the PST Reflections were coded independently by the lead researcher with every fourth transcript also coded by the graduate student researcher for inter-rater agreement and to check for coder drift. Inter-rater agreement was calculated for forty

percent of the PST Reflections. Overall inter-rater agreement was 0.90 for the PST Reflections coding.

The coding team then recoded the twelve PST Interviews using the same coding manual used for the final coding of the PST Reflections. A transcript from Interview 1 was coded independently by each coder. The coding team then met to compare codes and consensus was reached on any coding differences. The coding team then repeated this process with the remaining three PST Interview 1 transcripts. Inter-rater agreement was calculated for these coded transcripts and found to be 0.86. The lead researcher then independently coded five of the remaining twelve interview transcripts. The other three interview transcripts were coded by the teams as intermittent checks to ensure coder drift was not taking place and inter-rater agreement was calculated at 0.87. Overall inter-rater agreement across the interview coding (50% of the interview transcripts) was calculated and found to be 0.87.

Once all PST Reflections and PST Interviews were coded with the final coding manual, the coded data were organized into matrices to aid in interpretation of the data. These matrices were used to analyze the data within and across codes. The matrices were assembled within spreadsheets to facilitate efficient sorting of the data. Various sorts of the matrices were used to aid in the analysis of the data within and across codes, as well as across time. For example, to analyze code emergence across time, the matrices were sorted by reflection and by interview, then by code. These time-sorted matrices were then analyzed to determine what codes were emerging at the beginning, middle and end of the SST Project. Narrative summaries with illustrative quotes were created for each code, and for within and across code sorts, then reported as the results of this study.

Trustworthiness

Trustworthiness of the current research was strengthened through rigorous methodology recommended when conducting qualitative research (Creswell, 1998; Lincoln & Guba, 1985; Strauss & Corbin, 1990). Multiple informants were used, including 15 preservice teachers (PSTs), two key informants, the researcher as a participant observer, and multiple coders. Multiple data sources were collected which provided triangulation of data, including: the PST Demographic Sheet; three interviews with four PSTs; an interview with the course instructor and the lead researcher; and six PST reflection assignments from the 15 PSTs. Constant comparative analysis and recursive methods were used throughout data collection and analysis (Meyers, Truscott, Meyers, Varjas, & Collins, 2008). Thick description (Creswell, 1998; Lincoln & Guba, 1985) was used by providing detailed description of the context of the study and the methods of the SST Project. Thick description was also provided by using verbatim transcripts of the interviews and written reflection assignments as sources for specific comments from participants to describe results and demonstrate emerging themes. The researcher's reflective journal, annotations and memos from coding and data analysis, and information from key informants was used to verify, validate, and confirm or disconfirm the coding, as well as aid in interpretation of the results. Additionally, the researcher had prolonged engagement with the participants.

CHAPTER 4

RESULTS

The purpose of this study was to learn about preservice teacher (PST) knowledge and perceptions of Student Support Teams (SST) and describe the changes in their knowledge and perceptions during and following the SST Project. The study also evaluated the PST perceptions of the project and its effects on their learning.

Throughout the data analysis process, three main categories emerged repeatedly across the individual interviews and the PST Reflection data sources. These main categories were: I. *Knowledge*, II. *Knowledge Needed*, and III. *Project Feedback*. The results are organized based on these three main categories. Each main category contains themes and sub-themes that more fully describe the category. A visual depiction of the coding system with each category, theme, and sub-theme is provided in the coding tree in Figure 1. The following sections describe each main category in more detail with its definition, salient themes and sub-themes, and illustrative quotes. Following the description of the categories, themes, and subthemes, results are presented examining cross category analyses. The parenthetical notations following each quotation indicate the PST and the reflection (R) or interview (i) that the quote came from (e.g., PST1-5R would indicate the quote is from Reflection 5 of PST1).

Main Category I: Knowledge

Knowledge was a main category defined as awareness through experience or study and included perceptions, interpretation, insight, intuition, knowledge gained

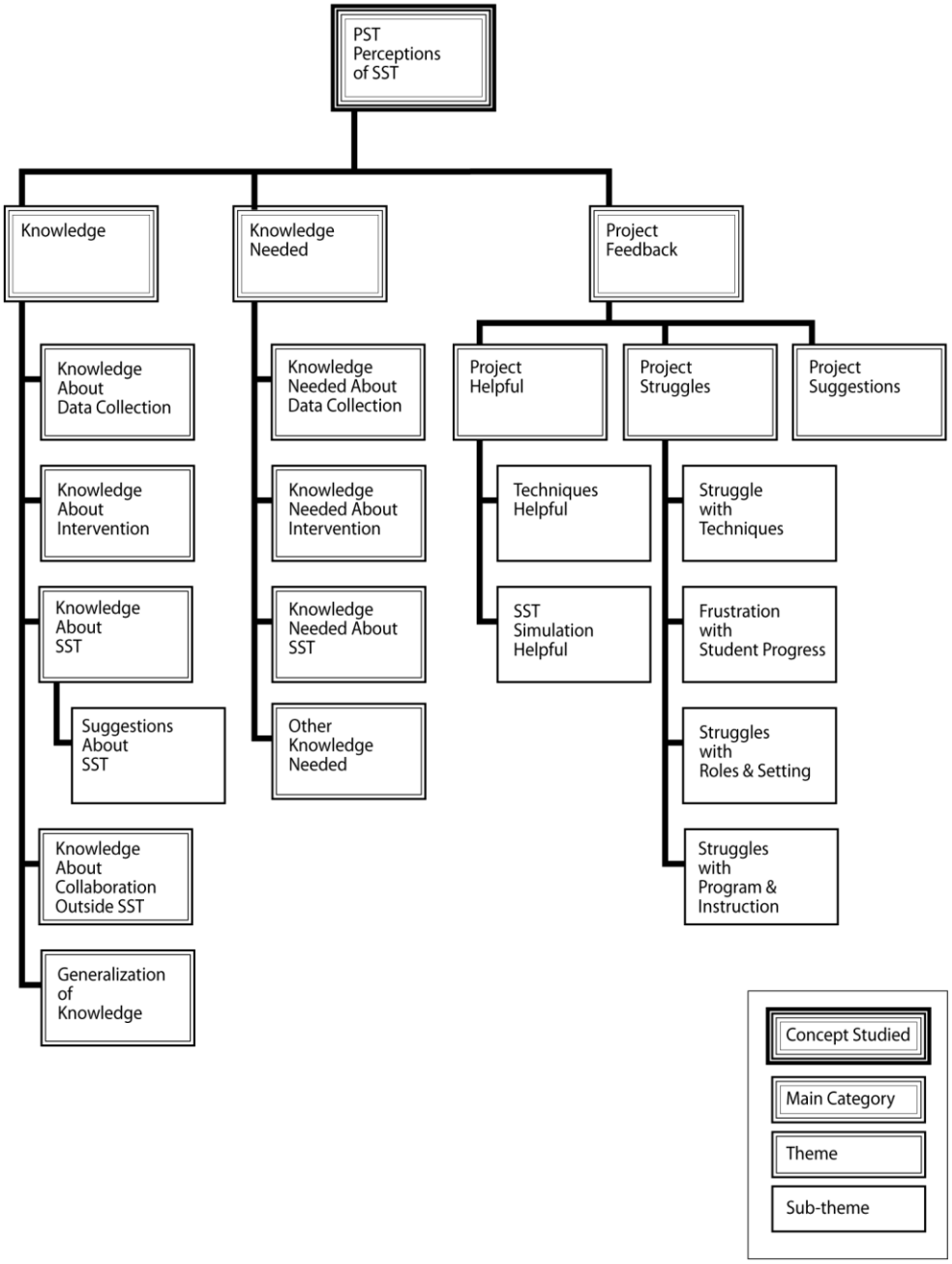

Figure 1. Coding Tree

and/or understanding. This category emerged in data from all 15 PSTs. The overall percentage of codes in the *Knowledge* category was 63%. Themes that emerged within this category included Knowledge about Data Collection, Knowledge about Intervention, Knowledge about SST, Knowledge about Collaboration outside SST, and Generalization of *Knowledge* (see Figure 1).

Knowledge about Data Collection

The theme Knowledge about Data Collection was defined as PST knowledge about data collection and/or its benefits, techniques, procedures, and connections, that was demonstrated or reported by the PSTs. Data collection includes knowledge about observation, assessment, problem identification, and other formal or informal data collection techniques. This theme emerged in the Reflections of all 15 PSTs, as well as in the interviews.

All the PSTs indicated that data collection is a useful, valuable, and/or important tool for teachers to use in the classroom to assist students that are struggling:

> Through the simulated SST process, I have learned that it is important not to jump to conclusions about a student! Collecting data, though it takes time, is important. Data Collection allows the teacher to see the child's issue (hopefully) through unbiased eyes. (PST10-5R)

PSTs specifically mentioned that data collection was helpful for recognizing patterns of behavior, revealing student behaviors previously missed while teaching, and revealing teacher behaviors that may influence student achievement or behavior. PSTs noted that data collection can be helpful by revealing unexpected information about students that

challenged their previous thinking about that student. After collecting data using a structured observation of on/off task behavior, one of these PSTs noted:

> From doing this observation, I noticed that she is sometimes able to concentrate on an assignment for longer than I had previously thought. I typically notice when she is not on task much more than when she actually is on task. (PST15-1R)

One of the interviewees remarked about observation:

> It seems like it was interesting because in some ways it confirmed your expectations and in other ways you might be surprised that the behavior wasn't what you anticipated it would be or maybe what you thought the trigger for the misbehavior was slightly different than what you had guessed it would be. (PST6-i3)

The PSTs demonstrated knowledge about general data collection procedures and practices, such as different data collection techniques, conducting multiple types of assessments, conducting data collection across multiple times and settings, doing pre/post assessments, and being objective when collecting data. The PSTs mentioned specific data collection techniques, such as unstructured observations, analyzing work samples, reading assessments (e.g., San Diego Quick Assessment, Dolche word reading, running records), student interviews or questionnaires, structured observations (e.g., on/off task analysis charts, antecedent-behavior-consequence charts), and getting input from other people (e.g., parents or administrators).

The PSTs reported that conducting multiple types of assessments may be needed during the data collection process or related a need to conduct further data collection because more information was needed to address the needs of their focus child.

> From the assessment process I have learned that doing just one assessment is generally not enough to be able to determine what steps to take to successfully help the child. I also learned that it is important to differentiate the assessments to get a clearer picture of what exactly is going on. (PST5-2R)

The PSTs reported conducting data collection across multiple times and/or settings in order to get a clearer picture of their focus child though the project assignment only required one informal observation and one formal assessment or structured observation.

The PSTs varied the time of day, type of activity observed, and/or setting (e.g. their classroom, specials classes, recess, etc.) in their data collection efforts. They related that collecting data across multiple times and/or settings was helpful and/or an element of data collection they expected to do:

> I think I was observing her over the course of a week and observing her at different times in the day provided a great insight into what she liked, her interests, what areas she is lacking. (PST12-i3)

> I learned that it would beneficial to observe [my focus child] in a variety of atmospheres. She has good and bad days as well as good and bad parts of her day. I plan to observe her in different atmospheres but always in a

> social situation where interaction with other students is occurring. (PST3-1R)

The PSTs also recognized that pre/post-intervention data collection could be used to evaluate the effectiveness of interventions. The PSTs further related that objectivity was important to maintain during data collection, particularly when doing observations.

In addition, all 15 PSTs related information that showed they were making connections between data collection and other components of the project. They related that data collection was integral to planning an intervention by helping identify specific behaviors to address and/or formulating strategies that may be effective with the student:

> I have learned that the intervention process relies heavily on the outcomes and findings of the assessments made on the focus child. Had I used a different type of assessment, I may not have found that [my focus child] enjoys working in small groups. Had I not realized this, then my intervention may have differed and may not have had the positive outcome that it has had on [my focus child]. In the future, I will definitely cater the intervention on the types of assessments that I make. I have found this to be truly helpful. (PST4-3R)

Another connection to other components of the SST Project is the previously mentioned point that data collection could be used pre/post intervention to evaluate the effectiveness of an intervention. The PSTs recognized a connection between data collection and SST processes. They related that teachers should collect data before referring a student to SST. They noted that having data to illustrate student needs would assist SST members in

giving more effective feedback to the teacher and in designing more effective interventions.

Knowledge about Intervention

The theme *Knowledge* about Intervention refers to knowledge about intervention and/or its benefits, techniques, procedures, and connections that was demonstrated or reported by the PSTs. This theme included experiences implementing and/or choosing interventions, as well as revelations about the outcome of interventions. This theme emerged in the Reflections of all 15 PSTs and in the interviews.

The PSTs related that intervention is a useful, valuable and/or important tool for teachers to employ in their classrooms. They recognized that student needs vary and that teachers need to address the needs of all their students through appropriate instruction and/or intervention. For example, one of the PSTs wrote: “I believe interventions are extremely important because we do not live in a one size fits all society, so our classroom should also not be one size fits all” (PST11-3R).

The PSTs demonstrated knowledge about general intervention practices or procedures, such as intervention techniques or strategies, adjusting intervention plans, getting student input on intervention strategies, setting goals for interventions, and/or phasing out of intervention strategies. The PSTs mentioned more than 20 types of intervention strategies, such as small group instruction, positive feedback or encouragement, differentiating instruction, seating changes and/or proximity control, specific redirection techniques, one on one instruction, parent involvement, teacher modeling of appropriate behavior, and conferencing with students regularly. The PSTs

and the instructor of the Critical Issues course mentioned getting to know students or relationship building as an important strategy for intervening with students:

> I then decided to just deal with our Teacher:Student relationship….I have decided to have real, meaningful conversations with [my focus child] every day. I began starting and ending each day on a positive note. Even if it was a stretch, I found something positive to say to him. I also assured him that I was here to help him by constantly checking on him during independent work times and just stopping to lend a helping hand when he appeared to be off task. I made an honest effort to seek out the good in him and to not just look to catch him in the wrong. (PST15-5R)

> Going through this process with a student they got to be so close and the student felt cared for, the student received attention, felt that someone believed in them and that makes as big a difference as any strategy that they implement. Yeah, it is a strategy. But it is almost like a strategy that they are not aware of until they have gone through the process. (Instructor)

The PSTs indicated that it may be necessary to adjust intervention plans by making changes to a strategy already in place or by employing new strategies as needed to more effectively implement it in the classroom setting and address student needs:

> I learned that the intervention process is a very dynamic and ongoing process. I see myself using interventions in the future in order to determine what works best for my students. It is easy to hypothesize what may work after assessing students, but it is entirely different to actually

> implement an intervention which may have unforeseen effects. It is a starting point above all; one that needs constant revision and remodeling in order to be most effective. (PST2-3R)

The PSTs noted that student input regarding intervention strategies can be helpful in shaping an intervention and/or contributing to its effectiveness. They found by discussing their intervention plans with their focus child and getting the student's input on details of the intervention that the student was more likely to be a willing participant in the intervention process.

The PSTs connected outcome goals or expectations to their intervention strategies. They reported setting short term intervention goals (e.g. increasing time on a specific task, increasing participation in class) for their focus child. They reported expectations or goals for more generalized improvements (e.g., improved academic performance across the curriculum or in other classes, improved social skills outside the classroom). PSTs noted that even small or simple interventions could have large positive effects on student functioning. The PSTs realized that changing student behavior is a process, and that it takes time for interventions to show results or to determine if an intervention is effective:

> I learned that the intervention process is a slow process. You have to celebrate even the smallest of victories. The process is as much about the child experiencing individual success as it is about getting the child at or above grade level. (PST7-3R)

The PSTs shared information about the success of the specific intervention strategies they were implementing with their focus child.

In addition, the PSTs reported connections between intervention and other components of the SST Project. As mentioned in the above section regarding the theme Knowledge about Data Collection, the PSTs demonstrated knowledge about the connection between data collection and consequent intervention. One PST noted that information gained from implementation of an intervention could lead a teacher back to more data collection: “I have also learned that intervention itself can provide information about a student and lead to further observation and assessment that could be helpful for increasing that student’s positive characteristics and abilities” (PST13-3R). The PSTs noted connections between intervention and SST, which are discussed further in the section on Knowledge about SST.

Knowledge about Student Support Team

The theme Knowledge about SST refers to knowledge about SST and/or its benefits, procedures, participants, and connections that was demonstrated or reported by the PSTs. This theme included PST awareness of attitudes others have about SST. The PSTs demonstrated their knowledge of SST by describing and reflecting on their experiences with the SST Simulations, experiences with SST in their field placements, and the information gained from others regarding SST. This theme emerged in the Reflections of all 15 PSTs and in interviews of all four interviewees.

All the PSTs felt SST was a useful, valuable, and/or helpful process. The elements of SST the PSTs found useful, helpful or valuable revealed their knowledge of the purposes of SST, such as providing support, generating intervention ideas, and tracking student progress. They commented on how one of the purposes of SST is to provide support within the general education classroom for the student, teacher, and sometimes

the parent(s). They noted another helpful purpose of SST was to generate new ideas or interventions to implement with students:

> My first assumption with my situation was to figure out how to refer my focus child for special services to get help with reading. However, I learned that it is important to first come up with strategies that can be implemented in the classroom. The goal [of SST] is to try to help and support the student without having to send them out of the classroom and to get valuable input and feedback throughout the process. (PST5-6R)

The PSTs specifically found that it was helpful to obtain input from the range of professionals involved in the SST meetings (other teachers, parents, specialists or consultants, etc.):

> Through the simulation, it was also confirmed for me how helpful it can be to talk to others in the field for suggestions and ideas once you have implemented all those that you have generated. (PST13-6R)

The instructor of the Critical Issues course similarly noted how the PSTs learned about the different professionals involved in the SST process and how their input could be helpful to a teacher. Another helpful purpose of SST mentioned by the PSTs was documenting and tracking the response of students to the interventions implemented during the SST process.

The PSTs demonstrated knowledge of SST processes, procedures and requirements. The PSTs were able to delineate the general steps in the SST process: referral to SST, meeting to problem solve and generate interventions, intervention implementation and documentation of student response, and holding follow-up meetings to discuss the

student's response and adjust intervention plans as needed. They were aware that this process could continue to cycle through the steps until the student was exited from the SST process. The PSTs noted that documentation was an important element throughout the SST process. With respect to this general process, the PSTs noted more specific procedures or practices, such as the people involved in SST, timing, processes prior to referral to SST, and connection to special education processes. Additionally, the instructor of the Critical Issues course commented on how the PSTs had a better understanding of the SST process at the culmination of the project.

Concerning the people involved in SST, the PSTs had knowledge of the minimum number of people present at an SST meeting as required by state regulation. The PSTs mentioned that people involved in the process were generally the referring teacher, the SST chairperson, and parents. They reported that other specialists within the school or school district may participate as needed, including the school psychologist, school social worker, school counselor, administrators, and sometimes special educators. Regarding parent involvement in SST, the PSTs noted that while parents must be invited to SST, it is not required that they attend, and that an SST meeting can proceed without parent involvement. In their field placements in urban schools, half of the PSTs noted that parents often did not attend SST meetings in their field placement schools.

The PSTs noted several time factors in the SST process. They generally realized that the SST process takes time: "From watching my mentor teacher fill out the paper work, documenting a plan and caring it out, the process takes a while and is time intensive." (PST10-6R) Two of the PSTs reported that the specific time between SST meetings was generally six to eight weeks in their field placement schools. In relating

their experiences with SST referrals in their field placement schools, the PSTs mentioned that often several months would pass between a teacher's initial referral to SST and a first SST meeting. The PSTs viewed this delay negatively. Other PSTs noted that their schools required teachers to wait a certain amount of time after the beginning of the school year before referring students to SST. The PSTs realized that often SST cases continue for more than one school year.

The PSTs made connections between SST, data collection, and intervention, by describing knowledge about processes prior to SST referral. For example, the PSTs commented that data collection and documentation of classroom interventions prior to SST was a necessary and important part of the overall SST process:

> You've got to be monitoring your students, figuring out what some of the behaviors are and what some of the correlated behaviors are and see if you can't tease out what is going together. And try a couple of interventions before you even get there [to SST], because I know that…our [SST chairperson] would have said if you brought him in, you haven't tried anything yet. She would have said come back in a month when you have tried a couple of these things and then we'll see if we really need to SST this child. (PST9-i3)

The PSTs saw this prior data collection and intervention as helpful to the teacher so that she could adequately present her needs as well as the student's needs to the SST. They recognized that this prior data collection and intervention was necessary so that student needs and prior interventions could be documented and the SST members could offer better intervention suggestions.

Connections between SST and special education were mentioned by the PSTs. The PSTs made the connection that if a student does not respond to interventions within the SST process that the student may be referred on to evaluation for special education. One of the PSTs noted that if the student was found ineligible for special education that he/she would be referred back to the SST. In observing the SST process in their field placements, the PSTs noted that SST often appeared just to be a path to special education despite its purpose as a general education process:

> I find it disappointing how something that was intended to be a resource for teachers to get help and strategies to use in the classroom has become the gateway to special education. I see how much pressure the [statewide student assessment] puts on teachers to put students who may just need to be taught in a different way out of their classroom. (PST7-6R)

The PSTs reported that this conceptualization of SST was not constructive.

In addition to the PSTs demonstrating knowledge of the purposes and procedures of SST, the PSTs related knowledge about negative attitudes that exist regarding SST and negative experiences they had with the SST process in their field schools. The PSTs encountered teachers who viewed the SST process as not helpful, felt SST was a "formality", or disregarded the suggestions made during SST as unrealistic or not credible:

> There was a teacher, at my placement, that went through the SST process and she said it really was not helpful. According to her, the suggestions were not realistic and there was not any long-term support. I must admit, after hearing her description, I wanted no part of the SST process. I could

> not understand how something that was supposed to be helpful to the children could be so painstaking. The process seemed to have been tedious. (PST15-6R)

> My mentor teacher consistently complains about how the SST process is no help to her as a teacher in her classroom. This is why I question who is dropping the ball because I have several students that are in the SST Process and she constantly says the SST Process is not helpful to any of her students. I have asked several times why does she think the SST process does not help and she states because, “these people do not know what my kids need.” She goes on to say that these people who are not in the classroom do not know what these kids need. (PST8-6R)

The PSTs reported negative experiences with SST in their field schools, such as too few people in the meetings, the process taking too long, no clear roles or problem solving process in the meeting, no clear plan of action resulting from the meeting, too few or too many interventions being suggested, or that the suggestions were not helpful.

Suggestions about Student Support Team

A sub-theme that emerged within the theme of Knowledge about SST was Suggestions about SST. This sub-theme refers to suggestions made by the PSTs regarding SST as a process or as practiced in schools. These suggestions for changes or improvements in the SST process reflect knowledge about how SST is practiced in the schools and things that might increase the effectiveness of the SST process. These

suggestions emerged from the PSTs' comparison of their SST Simulation experience with their SST experiences in their field placement schools.

The PSTs suggested that more voices or people be involved in SST meetings, so that more input could be generated:

> This simulation also made me wish that real SST meetings would have as many concerned teachers present as we had at the simulation. I think that the multiple opinions and suggestions were very helpful, especially when another group member had experienced a similar problem. (PST9-5R)

The PSTs specifically suggested that involving a previous teacher would be helpful to discuss background and previous interventions that were attempted. Involving other grade level teachers was suggested to gain perspective on expectations for other grades. The PSTs suggested inviting specialists, such as the school psychologist, social worker or special education teacher, to SST meetings in some cases. More parent involvement was suggested as a way to improve SST effectiveness.

In addition to suggestions regarding who is involved in the SST process, the PSTs made suggestions about a more collaborative approach in meetings and follow up support after meetings. One of the PSTs related an experience in which the SST Chairperson gave a large number of suggestions to the teacher during an SST meeting; the PST suggested that a more collaborative approach may have been more effective:

> Maybe [the referring teacher] needs to be more vocal or maybe [the SST Chairperson] need to slow down a little bit and stop and talk to that teacher a little bit more on a collegial level. Because when I left those meetings I felt like I had been, you know, basically told that, gosh, here

> are all the answers and why haven't you tried them and bye-bye. (PST9-i2)

Another PST suggested that there should be support for the teacher in the classroom following SST: "I have not seen anyone in the mentioned teacher's room trying to help her. I really think SST will be successful only if there is ongoing support." (PST15-5R)

Knowledge about Collaboration outside SST

The theme Knowledge about Collaboration outside SST refers to knowledge about and benefits of collaboration or working together or seeking input from others outside of the formal SST process. This theme emerged in interviews with all four PSTs participating in the interviews and in reflections from two of these interviewees.

The PSTs participating in the interviews reported that collaboration outside of the SST process was valuable or helpful. After relating a specific collaboration experience with a teacher, one PST remarked, "That helped. I think the fact that you can go to your colleagues in a school and they are more than likely going to help you try and think of some things that is very positive." (PST4-i3) These PSTs reported knowing about or having attended various non-SST collaboration meetings within their field schools, such as vertical teams (teams that involve teacher from each grade level), grade level teams, or other groups of teachers that met to discuss student and/or classroom concerns. The PSTs reported consulting or collaborating with other PSTs in their cohort prior to the SST simulations.

Generalization of Knowledge

The theme Generalization of Knowledge refers to ways the PSTs demonstrated applying something learned or knowledge gained to a situation other than the one in

which it was learned. The PST demonstrated generalization by relating experiences where they applied something learned in a new situation, or reflected on how they might use that knowledge in the future with a different student or situation. This included generalization from one student to all students or from the SST Project to future teaching. This theme emerged in Reflections from all 15 PSTs and in the interviews.

The PSTs generalized the knowledge they learned through the SST Project to future application in field or their later teaching career. The PSTs demonstrated generalizations regarding data collection and intervention. They made generalizations based on their experience in the SST Simulation and the SST Project as a whole.

When reflecting on their learning about data collection, the PSTs noted how they could use observations or assessments with other students in their current class or future classes:

> I really see myself using observations when I have my own classroom not just for behavioral problems but in all subject areas. Observation can help you address problems that could go on and on and escalate into bigger problems. I believe that observations are one of the key elements to being an effective teacher. (PST11-1R)

The PSTs recognized that they could use data collection with all of their students to assist in planning instruction or intervention:

> In the future, I see myself doing assessments in the classroom on a regular basis with all of my students to determine their strengths and weakness in different areas which will help me to narrow down where various

> interventions could positively help them grow in the classroom. (PST8-2R)

The PSTs generalized knowledge about intervention. They reflected that they expected to use interventions in the future:

> I have a strong feeling that I will always be using interventions of all types in my classroom. Some students will need help redirecting their attention. Others may have behavioral issues that need attention. Basically, having a good store of techniques will help me be efficient and benefit those in need of a little extra push. (PST10-3R)

The PSTs related how interventions being used with their focus child affected other students or the class as a whole, and/or how they planned to use that intervention with another student in their current class, the class as a whole, or future students or classes:

> The interventions I am using with him definitely have had an impact on his classmates. Praising on-task and appropriate behavior does seem to have a ripple effect in general….I definitely see myself using this in my next student teaching assignment as well as continuing it currently. I feel that once I have my own classroom I will use this strategy from the beginning which hopefully will prevent some problems from escalating to this level. (PST6-3R)

The PSTs said they gained knowledge about interventions from other cases presented during the SST Simulations. When reflecting on their experiences in the SST Simulation, the PSTs remarked that this knowledge would be of benefit to them with

other students in their current classrooms or with students in future classes. In writing about her experience in the SST Simulation, one PST noted:

> With the other issues that the other [PSTs] brought up, that was interesting hearing about the problems and challenges and trying to come up with some other solution. You know, things that maybe I have either tried in my class or I've seen other people do, maybe things that I have read about…it also made me connect with, wow, I may have a similar issue. I wonder if I can try…those possible solutions with my [student]. (PST6-i2)

The PSTs noted how their learning in the SST Project as a whole would impact their future teaching:

> Now that I have gone through [the SST Project], it will undoubtedly help me in the future with ideas of how I can help other students with issues that they are having, particularly if they are similar issues. While I am sure that every student will not have identical issues that lead to similar behavior, I have several ideas of things to think about and intervention ideas to try to see if they can help. (PST15-6R)

Main Category II: Knowledge Needed

Knowledge Needed emerged as a main category in both the PST Reflections and the individual interviews. *Knowledge Needed* was defined as information or knowledge that the PSTs requested relating to the SST Project or its components, SST in general, or related education concepts. This category emerged in data from all 15 PSTs. The percentage of total codes in the *Knowledge Needed* category was 8%. Four themes emerged within this main category: Knowledge Needed about Data Collection,

Knowledge Needed about Intervention, Knowledge Needed about SST, and Other Knowledge Needed.

Knowledge Needed about Data Collection

The theme Knowledge Needed about Data Collection refers to information or knowledge that the PST requested regarding assessment, observation, and/or formal or informal data collection. Five of the 15 PSTs requested additional knowledge or information about data collection, such as more assessment resources, more specific techniques of data collection linked to specific focus child difficulties, and/or further instruction on how to use or conduct data collection in the classroom context. For example, a PST asked:

> Another question I have about the process involves how to collect data like our observations when we are teaching in our own classrooms. It seems like it would be difficult to document problems if you cannot take the time out to observe your class. (PST9-R6)

Knowledge Needed about Intervention

The theme Knowledge Needed about Intervention refers to information the PST requested relating specifically to intervention strategies and their implementation. All 15 PSTs requested more knowledge about intervention, such as more intervention strategies and information on intervention as a process. Most of the requests for more intervention strategies were for specific issues concerning the focus child for the SST Simulation. These included attention/focus, absenteeism/truancy, social skills, anger control, reading, and differentiation of instruction for students who are far below grade level academically.

The PSTs requested information on intervention as a process, such as how to phase out or fade the use an intervention, or how to effectively implement individual interventions while teaching their entire class:

> I need some feedback about how to progress [my focus child] from just feeling comfortable reading one-on-one with me, to being able to participate with his class. (PST5-R4)

Knowledge Needed about Student Support Teams

The theme Knowledge Needed about SST refers to information the PST requested relating specifically to Student Support Teams, including the purpose, effectiveness, processes, policies, participants, differentiation of SST from other programs, etc. This theme included questions about what teachers could do to find assistance or to improve SST if it was not functioning well in their school.

All four of the interviewees asked general questions regarding the overall purpose and process of SST. For example, an interviewee asked: “Specifically, I want to know what the [SST] process is. If I think that a student needs extra help, who do I go to?” (PST4-i1). These questions by the interviewees about the overall purpose and process of SST were reflective of questions posed by the other study participants during initial instruction about SST during the Critical Issues course.

In addition to general questions about the overall purpose and process of SST, the PSTs asked more specific questions about SST processes and procedures, such as documentation, referral criteria, exiting students from SST, and how long the process takes. For example, a PST asked:

> How can the process for entry be sped up for a child who needs the assistance desperately? I don't mean to sound as if I would know immediately at the beginning of the year, but in certain situations you, as a teacher, will know quickly who should be SST'd. The one student my mentor set up I the process this fall is just now having his first meeting. That worries me. Why does paperwork take so long and what can be done to shorten that? (PST3-R6)

The PSTs asked about persons involved in the SST process and/or their roles or levels of involvement in the SST process or meetings. The PSTs specifically asked about the involvement of parents, students, and administration. One PST inquired about the credibility of input from non-teaching personnel who participate in SST:

> The main question that continues to linger in my mind is how are people who are not in the classroom long enough to monitor these children, how are they considered qualified to give accurate feedback. Not forgetting to mention that these people have all kinds of fancy titles that at the end of the day equates to not being in the class. (PST8-R6)

Another PST asked about support for the teacher beyond the SST meetings:

> Like I said, the simulation was great, but I am wondering how much support is lended by the schools. The process could be helpful but what happens after the meeting? Are there periodic assessments or check-ups done after the meeting? [Do] model teachers demonstrate the possible solutions suggested? Or, is it now up to the recommending teacher to implement everything? (PST15-R5)

Questions emerged regarding relationship of the SST process to other intervention programs in their schools. Clarification of the difference between SST and special education was requested:

> I don't know if this was an SST meeting or it might have even been a meeting about an IEP, because I think the student had an IEP, that's where I don't know what the difference is between these different meetings. (PST6-i3)

Questions were posed about whether being in certain programs, such as an early intervention program or remedial instruction program, meant a student was automatically involved in the SST process.

In addition to requesting information about the SST process, how it works, and who is involved, the PSTs inquired about how to improve the SST process when it did not appear to be effective. For example: "What do I do as a teacher, when others do not respect the process and are not giving meaningful and thoughtful suggestions?" (PST12-R6). They also asked for other resources for seeking assistance when SST was not helpful.

Five PSTs stated in their Reflections that they had no further questions about SST; however, one of these five did go on to ask questions regarding how to improve the SST process in her final Reflection and when interviewed.

Other Knowledge Needed

In addition to questions about data collection, intervention and SST, five PSTs had questions regarding other concepts related to the SST Project and/or its components. These included questions about how to increase parent involvement in their child's

education, specific school policies (e.g. truancy) or personnel (e.g. differences in social worker and school counselor), and cross grade communication about struggling students: "It'd be important to have helpful ideas of how to explain this to the teacher next year, without labeling and remaining open minded about the child" (PST12-R4).

Main Category III: Project Feedback

Project Feedback emerged as a main category in both the PST reflections and the individual interviews. *Project Feedback* was defined as feedback about the SST Project, its components, and/or the instruction associated with the project. It included how the project or components were helpful, struggles or difficulties with the project or components, and suggestions regarding the project. This category emerged in data from all 15 PSTs. The overall percentage of codes in the *Project Feedback* category was 29%. Themes that emerged within this category included Project Helpful, Project Struggles, and Project Suggestions (see Figure 1).

Project Helpful

The theme Project Helpful refers to positive feedback about how the SST Project and/or its components were helpful. This included what worked about doing the project, positive experiences with the project, or feedback about instruction provided in relationship to the project. This theme emerged in data from all 15 PSTs. Within this theme, the PSTs related positive feedback about the SST Project as a whole, as well as more specific feedback which is detailed in the sub-themes Techniques Helpful and SST Simulation Helpful.

All 15 PSTs commented that they found the SST Project to be helpful, useful, valuable, or that it was a good experience. They noted that they liked the SST Project: "I

have seen the benefits in the SST process by being part of this assignment. This assignment was actually my favorite part of the class this semester" (PST3-6R). The PSTs commented that as a result of the project they understood the purpose of SST and that they felt prepared to participate in the SST process in the future:

> I feel as if I have a good foundation as to what the [SST] process looks like and how to move forward with the process in my future classroom when needed. I appreciate the fact that I was able to get such a good overview of the process this semester, and I know all of the information I have learned will come to good use in the future. (PST5-6R)

The PSTs further noted that the SST Project positively affected them by increasing knowledge of their focus child and their ability to address the child's needs:

> This SST project has made a huge impact on my knowledge of my focus child. In a way, I was forced to find something that interested him. I learned about his interests through our daily briefing. I was able to find out what motivates him and why he shuts down and seems to 'fail' in the classroom. I think the biggest lesson I have learned or have received from the project deal with perception and responsibility. (PST15-6R)

The instructor of the Critical Issues course noted that the impact of getting to know the focus child well:

> When we come back together and they say what helped…we go around the room having everybody share what helped and it's obvious that they all feel a close relationship with these particular students. And that as

> much as anything was very powerful for helping the student improve. (Instructor)

The PSTs related that they felt the SST Project affected their teaching or instructional knowledge and made them feel better prepared to address various student needs. They noted that they learned from and valued the input of others throughout the project because it affected their knowledge and ability to meet their students' needs:

> I have learned that there is so much more than meets the eye with behavior issues that students have. At the beginning of the semester, I never would have thought that there could be so much I could do about a child's lack of focus. This project has made me see how many options we have, and that we do not necessarily have to do everything alone, even though they are our student. It is nice to know that we have options in helping our students. Talking with others about issues our students are having can be a wonderful help. They may be able to share their experiences and what has worked for them, or they may simply think of things to try that I might not think of on my own. Two (or more) heads are certainly better than one. (PST15-6R)

In addition to describing the SST Project as valuable or useful, the PSTs commented on the format of the SST Project. Overall they liked the format and noted that the structure was helpful to their learning:

> I liked the whole project step by step. I'm going to tell you why because a lot of times people say go do a focus child project. Do your focus child in math or do your focus child based in theories. Well do them and just turn

> it in and no one takes you through the steps of how to really apply this….Where as with this project it was step by step. No one ever got lost and the learning was very clear and because this is something that you were seeing in your schools, you were able to compare what it is supposed to be and this is what it really is and how you can change that and how you can work within the classroom. (PST12-i3)

The instructor of the Critical Issues course made similar comments about how the structure of the SST Project was helpful to the PSTs:

> When they are in a real classroom quite often some of this goes faster or they don't have as much time to spend half a day observing one student. I think at this point having the processes sort of slowed down and concentrated [allows] them to maybe not skip all the steps, be able to do these things in real time in the heat of a very complex role of teaching. (Instructor)

The PSTs and the instructor noted that having input from others throughout the project was helpful. One PST noted the value of working with an actual student: "I appreciate having a real child to observe and with whom to try interventions" (PST9-6R). Another PST remarked that she wished she could do the project with all of her students because of how useful it was in addressing the needs of her focus child.

In addition to commenting generally about how the SST Project was helpful, useful or valuable, the PSTs found specific components of the project helpful. These comments emerged as the following sub-themes: Techniques Helpful and SST Simulation Helpful.

Techniques Helpful

The sub-theme Techniques Helpful refers to feedback from the PSTs about how specific techniques or components (assessment, observation, and/or intervention) were helpful. This sub-theme emerged in data from all 15 PSTs.

The PSTs commented that the data collection component (observation and assessment) of the Project was helpful, useful or valuable:

> At first I was very hesitant and unexcited about the assignment to complete an assessment. After completing it though, I have realized how helpful it is to the teacher in order to be helpful to the student. It was a very energizing experience and I am excited to use the results to help [my focus child]. (PST13-2R)

The PSTs remarked about how data collection helped them learn about their focus child. In speaking about doing her focus child observation, one PST said:

> I got a chance to see how nice it is, how important it is to sit back and take time to do that. It helped me to kind of clarify what was going on with him as far as I could tell. Things that I wouldn't have gotten to see if I had been in the middle of teaching, so it helped me kind of see that it is important to take that time out. (PST9-i3)

They noted that specific data collection techniques were helpful, such as On/Off Task analysis, ABC charts, specific academic assessments, and observation.

The PSTs found the intervention component of the SST Project helpful, useful or valuable. For example, the PSTs reported that the interventions they implemented with their focus children were helpful in addressing the students' needs:

> I have seen improvement with [my focus child]. He seems more confident in reading and is eager to answer questions and take risks. He still needs to be re-directed; however, not as often. He is also able to get back on task more quickly than before I started implementing the intervention. (PST7-4R)

One PST shared that because of the success of the interventions implemented during the SST Project, that her mentor teacher no longer felt the focus child needed to be referred to the school's SST: "The mentor teacher had originally considered an official SST for [my focus child] in mathematics instruction, but his success has caused her to reevaluate." (PST9-3R) In addition to reporting how intervention assisted their focus child, the PSTs reported that their interventions often positively affected their entire class:

> The fact that [my focus child] is now behaving a little better, the students have noticed. It's almost like the students look up to him and they want to do what he does, not only at times negative things but positive things too. Now with this intervention plan in place, student are seeing more of a positive [focus child], which is in turn making them more positive as well because they look up to him. This intervention plan has been great for everyone involved, not to mention me and my mentor teacher. (PST8-3R)

SST Simulation Helpful

The sub-theme SST Simulation helpful refers to feedback from the PSTs about how the SST Simulation component of the SST Project was helpful, how it helped them

feel more prepared for SST, or what worked regarding the simulation format. This sub-theme emerged in the data from all 15 PSTs.

The PSTs commented that the SST Simulation was a good experience that enhanced their understanding of what an SST meeting can be like: “I enjoyed my experience as a team member in the SST simulation and felt like I really gained a better understanding of the SST process” (PST5-5R). The PSTs commented that the SST Simulation helped them feel more prepared to participate in SST and less anxious about participating in SST: “The SST process wasn’t as intimidating as I had anticipated. After experiencing the simulation, I feel better prepared to actually go through one” (PST2-5R).

The PSTs noted that getting ideas from others through the SST Simulation was helpful and that the simulation was a good resource for new ideas regarding their focus children:

> I felt like it was really helpful even though it was a simulation. I felt like…people were really listening to the issues and asking good questions and also gave some really helpful input, things that I haven’t necessarily thought of. (PST6-i2)

The PSTs noted that they gained specific intervention ideas for their focus child during the SST Simulations that they subsequently used or planned to use. One of the PSTs shared her success in implementing one of the suggested interventions: “It is interesting the way our mock SST simulations worked out because I saw real results after putting recommendations into action for my focus child” (PST13-5R). In addition to gaining

intervention ideas for their focus child, the PSTs commented that participating in and learning from the other cases presented in the SST Simulation was helpful:

> So, that was tremendously helpful, not only to hear the cases of what other people are hearing about and not just feeling lucky. But to sit there and go okay let's try and really figure out what's going on here and hear other people's suggestions of, well you, if you have a child like this, these are some strategies that I've used before or hear some of the things that other people have tried or I've read about. That was really, really helpful. (PST9-i2)

Like the PSTs, the instructor of the Critical Issues course commented on the helpfulness of the SST Simulations for the PSTs in gaining intervention strategies:

> Coming to the SST Simulation really help them get feedback from a variety of experts on how to really help with that particular student's needs and to have a resource and hopefully that builds their library when they go to class and have a student similar to that. And they also of course hear about other students who were in their simulation. They leave I think with more strategies with how to help students that have a variety of difficulties whether they are behavioral or learning. (Instructor)

The PSTs commented on how the SST Simulations felt like genuine SST meetings and how their group members worked together well:

> Overall, I really enjoyed our group. It did not feel as if this was a simulation. Everyone took their roles seriously and was genuine with their

> responses. By that I mean no one seemed to be hurried along and the suggestions were thought out. (PST15-5R)

They felt the SST Simulation was an encouraging place to share their concerns about their focus child: “I felt that the mock SST group did a great job in being supportive and offering professional and personal suggestions. It was a very comfortable space to discuss my focus child” (PST7-5R). The PSTs remarked that they liked the format of the SST Simulations, including the problem solving steps used, the different SST consultants participating, and getting an opportunity to play different roles during the simulations:

> I enjoyed being an SST team member. I played the role of facilitator and managed the time. I liked the protocol of the meeting. Being a facilitator helped keep the pace and helped the group stay focused. I also enjoyed hearing so many different opinions. Everyone has a different teaching style and brought many different views to the table. I think that if used properly the SST process is a great resource for teachers. (PST7-5R)

Project Struggles

The theme Project Struggles refers to negative feedback from the PSTs about the SST Project, its components or the instruction given during the project. It includes struggles or difficulties encountered by the PSTs during the project or with the project or its components. Rather than providing negative feedback about the SST Project as a whole, the PSTs comments reflected sub-themes relating to Project Struggles: Struggles with Techniques, Frustration with Student Progress, Struggles with Role and Setting, and Struggles with Program and Instruction.

Struggles with Techniques

The sub-theme Struggles with Techniques refers to feedback that indicated the PST struggled with or had difficulties in implementing specific techniques (e.g. data collection, observation, assessment, interventions, SST Simulations). This sub-theme emerged in reflections from eleven of the PSTs and in the interviews.

The PSTs indicated that they struggled with data collection techniques. They had difficulties implementing specific techniques; for example, one PST commented about conducting an on/off task analysis:

> This assessment was not easy! As the clock ticked away seconds, I noticed that in between recording times [my focus child] was sometimes off-task. For example, he would flick something at a neighbor three seconds before the recording time or throw lose mulch from the rug at a girl. When the second hand hit 30 he was then on-task. Also, I found myself wanting him to be off-task when it was time to record! I don't like that. Most likely, that feeling came about because I wanted to make sure I was correct with my first observations of him, which were unrecorded and earlier in the school year. (PST10-2R)

Other struggles with data collection noted by the PSTs included operationalizing the behavior being systematically observed, identifying antecedents when using an ABC observation, observing without students knowing, choosing the right data collection technique to assess the student or situation, and remaining objective. The instructor of the Critical Issues course made specific note that remaining objective during observations was difficult for the PSTs:

> It is really hard for some of them…to stay objective and not be subjective and not be automatically judging what the problem is from the get go…Though it is an important piece of that particular aspect of the overall project, really letting them see how teachers maybe jump to judgments too quickly sometimes and part of it is how fast teaching happens. (Instructor)

The PSTs had difficulty with time factors concerning data collection. They commented about struggling to balance teaching and data collection. In relating her experiences with data collection, one of the PSTs commented: "It became more difficult as time went on to be able to pay close attention to him because I was doing more instruction, so that was kind of trying to fit it in where it worked out" (PST9-i3). The PSTs anticipated that they would have difficulties finding time for data collection when they had their own classrooms and were responsible for all the teaching.

The PSTs sometimes struggled with the information they got from their data collection efforts. The PSTs reported feeling that the data collection did not seem representative of the behavior previously observed informally: "This was nothing like prior behaviors. Ultimately, I do not think the results of my assessment reflected any of the behaviors I have previously witnessed and even commented on" (PST15-2R). The PSTs commented that their data collection left them feeling that they needed more data collection:

> The results of this assessment are limited. It did not seem to differ greatly from the observation. The observation was actually more useful because I was able to see more of the why in her behavior. I found it hard to come

> up with intervention ideas because it left me feeling like I need to do more assessment. (PST1-2R)

The PSTs reported struggles with intervention techniques, such as other students wanting to do an intervention designed for the focus child, feeling their chosen intervention strategy could have been more successful with adaptations, student disinterest in the intervention, or keeping up with intervention implementation while teaching:

> I learned that it is hard to keep up with a sticker chart while I was teaching! There was so much to do in the classroom: prepare for the next lesson, make sure the students were engaged, little classroom management tasks. Close to the end of my teaching time, I asked [my focus child] to tell me when he thought he earned a sticker for finishing his work in a timely manner. That worked for a while. It seemed I had to remind him to remind me! (PST10-6R)

When considering input from others, the PSTs expressed concern that some of the suggested interventions were not possible to implement:

> Although I appreciated some of the advice that was given to my colleagues, I also questioned how helpful some of it was. One suggestion, which was given regarding a student who has difficulty making it through an hour without an outburst, was to set up a token economy for the child using a system of stickers or checks to reward him. I questioned this strategy because the same strategy was offered to my mentor teacher by the [SST Chairperson] for a student in our classroom. Although the system

> worked for the first two or three days, it soon became difficult to manage. The child also became self-conscious about the feedback because he worried that other children would tease him about it. My mentor teacher eventually stopped using the system because it was too difficult to maintain and the student constantly asked if he would receive a reward; he would sometimes interrupt her to ask if he was "being good." It just seems like there must be a better way. (PST9-5R)

The PSTs related difficulties with the SST Simulations. They had difficulties with the format of the SST Simulations, such as the groups being too big, needing more of a break between case presentations, or finding the role of note taker difficult or unpleasant. One PST expressed that processing all the information received was difficult: "It was somewhat difficult because of the amount of information that we received for each student and the amount of overlap that existed between the different sections." (PST2-5R) Another PST struggled with feeling that she might not have something meaningful to contribute to the meeting:

> We had heard about each other's cases a couple of times and that was kind of like, well, I don't really know what else I might suggest to you because I haven't been in the classroom long enough to give a ton of suggestions. (PST9-i3)

Frustration with Student Progress

The sub-theme Frustration with Student Progress refers to feedback that indicated the PST was frustrated with how their focus child responded to the components of the SST Project. This sub-theme emerged in reflections and interviews from two of the PSTs.

These PSTs reported concerns with the progress of their focus child for different reasons. One PST reported that her focus child seemed to backslide early in the intervention component of the SST Project. When interviewed, she shared: “I don’t know if you’re going to get to this question at some point, but in my reflection I was thinking about this and if anything [my focus child] seems to have gotten worse.” (PST6-i2) She also commented in her intervention reflection: “What is frustrating about it is that the results are very slow in coming.” (PST6-3R)

The other PST struggled with feeling that she could not address all of her focus child’s difficulties. She wrote in her reflection:

> I mention these new details because I now feel less prepared to meet his needs than I did at the beginning of the semester. The seat change in the middle of September made a significant difference in his attending, but his continued absences are not something that can be so easily remedied. (PST9-6R)

This PST further explained in an interview that she may not have gotten as much out of the SST Project as her PST peers, because of the early improvement her focus child made in the classroom:

> Yeah, for me, I think some people learned a tremendous amount about one child from this and, yeah, it was almost too easy. So sometimes it was like, okay, I should probably go and try and find out about some more interventions out there because I didn’t have to use a whole bunch of them with him. (PST9-i3)

Although they did not write about it in their reflection assignments, other PSTs expressed frustration with their focus child's functioning and progress during Critical Issues class discussions as noted in the lead researcher's field notes.

Struggles with Role and Setting

The sub-theme Struggles with Role and Setting refers to feedback from the PSTs that indicated difficulties related to the PST's role as a student teacher, relationship with their mentor teacher, and/or field setting. This sub-theme emerged in data from eight of the PSTs, including 3 of the interviewees.

These PSTs felt there were limits placed on them because of their role as a student teacher, such as restricted access to SST records, having to go through their mentor teacher to contact parents, restriction about how they could intervene because of set lesson plans within their classroom or school, or just feeling their role as a student teacher restricted their ability to contribute. One PST reflected: "I am comfortable with the teachers, but with my status as a student teacher I was slightly uncomfortable speaking up or offering information without being asked to do so" (PST13-6R).

The PSTs noted different ways in which their mentor teachers were not supportive of their efforts to complete the SST Project components. For example, one PST shared:

> Quite honestly, the relationship or rapport between this focus child and me is tainted. I think there is a negative rapport because of lack of support by my mentor teacher. I can deal with behavior problems but I believe there has to be a united stance within the classroom. [My focus child] does whatever, whenever. (PST15-1R)

Other struggles with mentor teacher support expressed by the PSTs included not sharing important information about the focus child, opposing or being extremely critical of interventions, or chastising the PST when an intervention did not go as planned. One PST reported that she was unable to attend any SST meetings at her field school because she was used as coverage for her mentor teacher to attend SST. Another PST reported she felt her school lacked resources that may have helped her with the SST Project.

Struggles with Program and Instruction

The sub-theme Struggles with Program and Instruction refers to negative feedback that indicated PST struggles or difficulty with completing the SST Project in the context of their teacher education program because of other requirements or program structure. It includes negative feedback about the instruction directly related to the SST Project. This theme emerged in data from six of the PSTs, including all four interviewees.

These PSTs commented that other requirements of their teaching program made some of the SST Project components difficult. One PST noted that participating in the SST Simulations after a full day of teaching was difficult because she was tired. Another PST commented that her other program classes had assignments that were similar to the SST Project and keeping up with all the different requirements was difficult. The PSTs also pointed out that they were unable to attend SST at their field schools because the school held SST on the same day that the teaching program required them to be at the university for the full day.

With respect to elements of the SST Project, the PSTs noted a few difficulties. One of the PSTs commented that she did not like the reflection assignments because they seemed redundant. Another PST complained that the amount of time allotted for the

intervention component was not long enough to see results. The PSTs made suggestions for improving the SST Project, which reflected on problems they perceived with the structure of the project. These suggestions are detailed in the next section.

Project Suggestions

The theme Project Suggestions refers to suggestions made by the PSTs to improve the SST Project, its components or related instruction. This theme emerged in data from all the interviewees, in the reflection of one other PST, and in the interview with the instructor.

Two PSTs suggested combining the SST Project with similar projects in other classes to reduce assignment redundancy and the amount of work overall. Another PST suggested a checklist to help in choosing the focus child. Sharing more resources for data collection techniques was suggested by one of the PSTs. The instructor suggested spending more time on learning and trying different data collection techniques during the project. She specifically noted spending more time on how to select an intervention to match the focus child difficulties would be helpful for the PSTs.

The PSTs made several suggestions about the timing or structure of the SST Simulations. One PST suggested the SST Simulation take place before the intervention component of the SST Project so that she would have more intervention ideas from which to choose. The instructor suggested that this change in sequence of the components might be more appropriate for the PSTs since they are still learning to teach and acquiring new intervention strategies. Three PSTs suggested having someone play the role of the parent for each case during the SST Simulation. Smaller groups and more time per case were suggested.

Two PSTs suggested that doing the project again would be beneficial. One commented:

> For me, because we will be going to different placements, I think it will still be great to do it, because then you are still going to have different resources and a different child. You're going to have a different age level and so you are really going to have different elements because you don't know what you're going to teach. So I think the project would be wonderful to do again, personally. (PST12-i3)

When asked if she had any other suggestions, this PST commented: "I think you should have to do it with every cohort. I really do, I really think that this is a valuable project" (PST12-i3). In addition, the instructor expressed that she would like to continue doing the project in her class, particularly the SST Simulation.

Changes in Preservice Teacher Perceptions and Knowledge across Time

This section of the results reports how the main categories, themes and sub-themes emerged across time. The focus of this section is on the themes and sub-themes which changed over the course of the SST Project and data collection. Particular attention was given to connections between categories, themes, and sub-themes, and generalization of learning as the PSTs progressed through the components of the SST Project. The data were divided into the following time periods: 1) Prior to SST Project Instruction (derived from Interview 1); 2) During Focus Child Case (derived from reflections covering data collection, intervention, and case summary); 3) After SST Simulation (derived from reflections and interviews about the SST Simulation); and 4) Completion of SST Project

(derived from the final reflections and interviews regarding the project as a whole). A summary of the changes in PSTs' knowledge and perceptions is presented in Figure 2.

Prior to SST Project Instruction

In the interview prior to SST Project instruction, the main categories of *Knowledge* and *Knowledge Needed* emerged. The PSTs demonstrated vague knowledge and a desire to know more about intervention and SST. For example, the PSTs demonstrated limited Knowledge of Intervention. One PST commented that her intervention approach would be trial and error: "I try and if that doesn't work then you try something else" (PST4-i1). The PSTs demonstrated vague Knowledge about SST. They noted that it was a way for teachers to get help with struggling students, but were unsure of any details of the process or its differentiation from other programs:

> Well as far as I am aware…its IEP or EIP, like we go through there. But like for one student [that] is currently in it, he is not heading toward that. So it's more of a way to help the classroom teacher figure out how to deal with him…how to cope with his behaviors. So I am not sure. (PST9-i1)

The PSTs demonstrated *Knowledge Needed*; specifically, the themes Knowledge Needed about Intervention and Knowledge Needed about SST emerged. Concerning Knowledge Needed about Interventions, the PSTs acknowledged that as teachers they needed to assist struggling students, but that they needed assistance in knowing what interventions would be appropriate and where to find assistance: "You would definitely need to assist. In terms of how to assist, I think I'm still learning…how to help? I'm still learning" (PST4-i1). Knowledge Needed about SST included broad questions concerning the purposes and processes of SST:

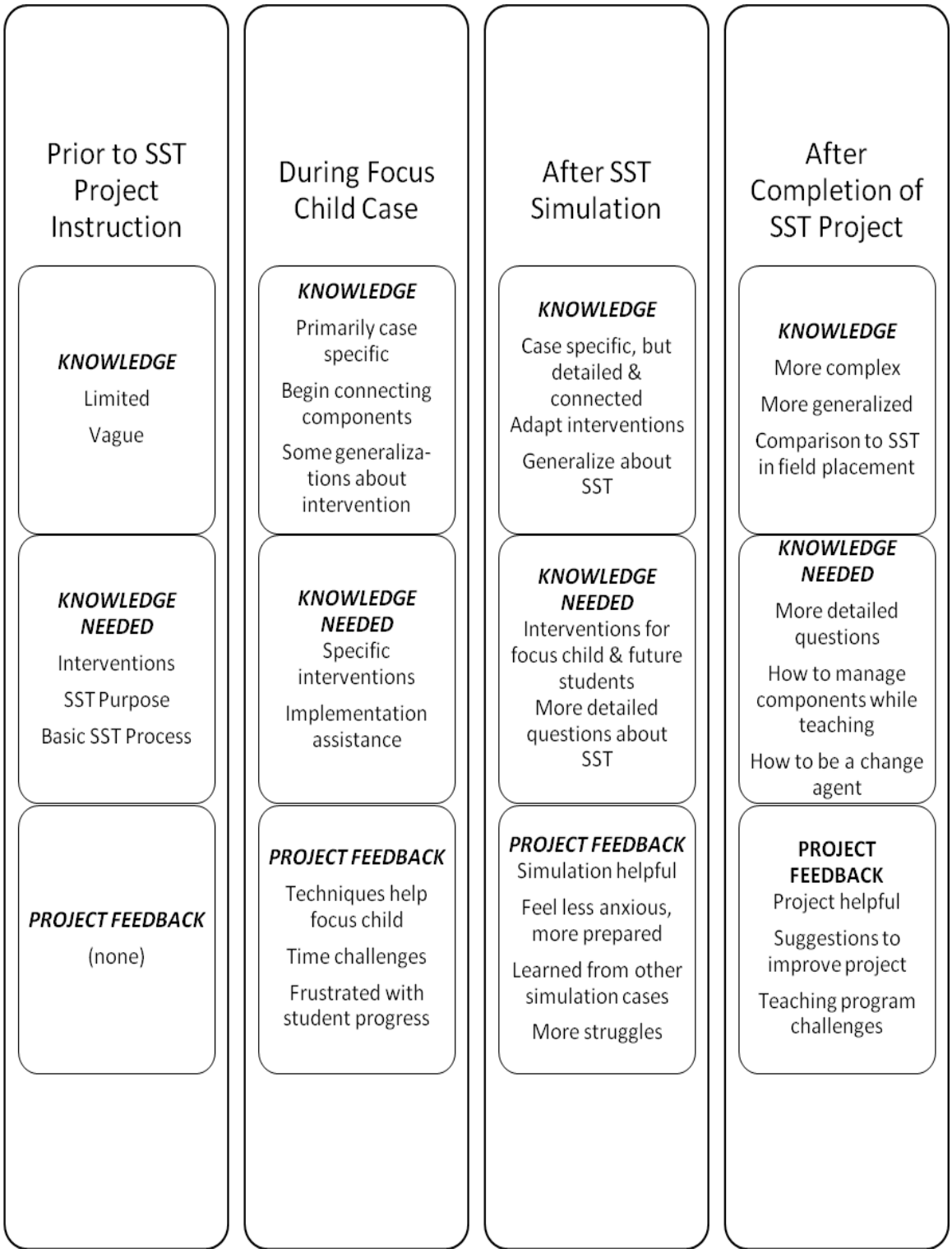

Figure 2. Changes in Preservice Teacher Perspectives over Time

> I want to know what the [SST] process is. If I think that a student needs extra help, who do I go to? Because as far as I know, you don't go just to the social worker, but you don't go to the counselor. Right now I just go to my mentor teacher but what's going to happen when I'm a teacher? I don't know what the process is. And do I need to, I'm guessing, keep everything written, any type of documentation? But I would definitely want to know what the process is – how to find the help, so that I can help my student. (PST4-i1)

They asked questions about basic SST procedures, such as who attends SST and how students are chosen for referral to the SST process. The PST comments reflected need for assistance in differentiating SST from other processes, such as special education (e.g., IEP meetings) and remedial instruction (e.g., EIP).

During Focus Child Case

As the PSTs began to work with their focus children during the data collection and intervention components of the SST Project and summarize their cases prior to the SST Simulation, additional themes in the main categories of *Knowledge* and *Knowledge Needed* began to emerge. The main category *Project Feedback* began to emerge as the PSTs noted ways in which the project components were helpful (Project Helpful) or ways in which they struggled with the components (Project Struggles). Overall, comments and questions in this phase of the SST Project were different from before the project because they were primarily tied to specifics of their focus child case. This was true across all of the categories. Exceptions that reflect more generalized thinking about the project

components are noted below. The PSTs began to make connections between project components that were primarily case specific.

Knowledge during Focus Child Case

Knowledge about Data Collection was one of the primary themes emerging during this phase of the SST Project. Their comments about data collection were tied primarily to their focus child cases. The PSTs reported details of their data collection efforts with their focus child, such as how and when they collected data and the results of these efforts. They felt data collection was helpful in identifying the needs of their focus child. Many of the PSTs began to realize that observing or collecting data multiple times and/or in multiple settings would be beneficial for addressing their focus child's needs and shared that they had done this or planned to do so. They commented that multiple types of assessments may be needed for their case, and reported doing multiple assessments or planning to conduct other assessments with their focus child:

> I have learned that one assessment in itself is insufficient. In this case, I conducted the same assessment on two different days (two different times of the day). I was able to gather a bit of information. Even so, I feel that it is essential to conduct a brief interview with [my focus child] before planning any type of intervention. (PST4-2R)

The theme Knowledge about Intervention emerged in the data as the PSTs reflected in their descriptions of data collection and intervention efforts with their focus child and in their case summaries. The PSTs primarily described specific interventions they implemented, planned to implement, and/or thought were useful with their focus child. The PSTs noted that some of their interventions needed to be adjusted to enhance

effectiveness, that input from their focus child was helpful in planning the intervention, or that even small changes could have large effects on their focus child.

The PSTs began making connections between the intervention and data collection components in ways that were specific to their focus child cases:

> After observing and assessing [my focus child] I concluded that she needs more opportunities for social interaction while working. Many of the times that I observed her off-task she was interacting with a classmate. I deduced that if those interactions were directed and had purpose, she would still be on task while fulfilling her social need. I decided to try having the class work in pairs during reading instruction time. I instructed them to take turns reading a piece of informational text from the basal reader aloud to their partner. They were also given 5 questions to answer about the story. I expected [my focus child] to stay on task more during this assignment than when she was working on her own. (PST1-3R)

One PST began to make connections between data collection, intervention, and SST, which also reflected the theme of Knowledge about SST: “This knowledge would give the teacher more solutions to try before moving to SST…the knowledge may provide support to the teacher’s theories allowing the team to make a more informed decision” (PST12-3R).

Though less frequent than comments tied to their focus child case, some PSTs did begin to make more generalized comments about intervention. For example, they noted that intervention was an important and useful tool: “Basically, having a good store of

techniques will help me be efficient and benefit those in need of a little extra push" (PST10-3R).

The theme Generalization of Knowledge emerged during the PSTs' reflections on the data collection, intervention and case summary components of the project. Generalization of Knowledge comments from the PSTs were most often linked to specific data collection techniques or intervention strategies they were using with their focus child. Their comments were mainly grounded in the context of their field placement; however, the PSTs began to make some connections between project components and future contexts in which they might use these specific techniques.

The PSTs related how they could use specific data collection techniques with future students or classes. In reflecting about the On/Off Task Analysis assessment, one PST wrote:

> This assessment can be good for all students regardless if a behavior problem is cited or not. It is always good to know how many of your students are on task and off task during instructional time in the classroom. Also, this is good information to show at Teacher/Parent conferences to show the parent how their child is doing. (PST8-2R)

They shared plans to use previously implemented interventions with future students or classes:

> Praising on-task and appropriate behavior does seem to have a ripple effect in general….I definitely see myself using this in my next student teaching assignment as well as continuing it currently. I feel that one I have my own classroom I will use this strategy from the beginning which

> will hopefully prevent some problems from escalating to this level. (PST6-3R)

As mentioned previously, the PSTs made connections between data collection and intervention that were primarily specific to their focus child cases; however, they also related plans to extend their efforts to their entire field placement class: “From the observation, clearer instructions would be helpful. This is something I am working on in general and likely would be beneficial for all of the class.” (PST6-2R) A few PSTs began to make more generalized connections about data collection and intervention use in the future: “I see myself using assessments as much as possible because if a behavior can be assessed and then plans of action can be considered the behavior will hopefully go down, and if that is the case the time that goes into the assessment is well worth it” (PST11-2R).

Knowledge Needed during Focus Child Case

The main category *Knowledge Needed* emerged during the focus child case phase of the SST Project, specifically the theme Knowledge Needed about Intervention. The PSTs primarily asked for interventions specific to their focus child cases: “What intervention strategies could be used with this child, especially when active participation is not an option? How can I help him finish his work on time? Any suggestions for keeping his shoes on?” (PST11-4R) The PSTs requested information about implementation of intervention strategies they had implemented with their focus child:

> I need advice on how I can go about managing and teaching the rest of the class while engaging [my focus child] and encouraging her to become a contributing member of the class. I am open to any suggestions on how to help [her] academically, behaviorally, and socially succeed. (PST2-4R)

One of the PSTs asked about how interventions with her focus child would be continued when her field placement ended:

> What will happen when I am no longer there and cannot give him individualized attention? What will happen when he can't always pick a reading topic he is interested in and has to read books the teacher has chosen based on the curriculum? How can [my focus child] become a reader who is engaged and enjoys reading about all different topics? How can [he] continue to develop his reading skills and progress to a second grade reading level when the class is always taught through whole group instruction? (PST5-4R)

Project Feedback during Focus Child Case

The main category *Project Feedback* began to emerge during the focus child case phase of the SST Project. Specifically, the themes Project Helpful and Project Struggles emerged. Overall, the PSTs comments were tied to their focus child case, specific data collection techniques they were using, or specific intervention strategies they were implementing.

The theme Project Helpful emerged during this phase, specifically the sub-theme Techniques Helpful. The PSTs felt that data collection was helpful for gaining new insight about their focus child or in addressing the needs of their focus child: "I believe that [my focus child's] growing process will take time, but at least for now I have some insight and it's a start to improving her academics as well as her social acceptance." (PST3-2R) The PSTs commented on the helpfulness or usefulness of specific data collection techniques they conducted: "One of the things I really like about the ABC

observation is noting what occurred just prior to the behavior. I think too often we simply concentrate on the negative behavior instead of what may be causing it" (PST6-2R). The PSTs noted that the intervention strategies they were implementing were successful in addressing the needs of their focus child and/or were of benefit to their class as a whole:

> The fact that [my focus child] is now behaving a little better, the students have noticed. It's almost like the students look up to him and they want to do what he does, not only at times negative things, but positive things too. Now with this intervention in place, students are seeing more of a positive [focus child] which is in turn making them more positive as well because they look up to him. This intervention plan has been great for everyone involved, not to mention me and my mentor teacher. (PST8-3R)

The theme Project Struggles emerged during this phase, specifically the sub-themes Struggle with Techniques and Frustration with Student Progress. The PSTs struggled with specific data collection techniques and/or conducting them in their specific field placement:

> I chose to conduct an on/off task analysis. I thought this assessment would document the frequency of off task behavior. I believe being on and off task is somewhat hard to detect because children may be paying attention with their head on the desk. In addition, in classroom most whole group activities are conducted on the carpet without worksheets. Therefore, tracking [my focus child's] focus may be difficult. (PST12-2R)

They described struggles finding time to conduct data collection in their field placement classrooms as their teaching time increased. The first incidence of the sub-theme

Frustration with Student Progress occurred in this phase. One of the PSTs commented: "What is frustrating about it is that the results are very slow in coming." (PST6-3R)

After Student Support Team Simulation

After completing the data collection, intervention and case summary components, the PSTs participated in Simulated SST meetings and followed by a reflection on their experience in this simulation. The main categories of *Knowledge*, *Knowledge Needed* and *Project Feedback* continued to emerge. The PSTs' comments and questions continued to be primarily specific to their focus child case, but reflected more detailed knowledge of data collection and intervention. The PSTs continued to form connections between the components of the project that were primarily tied to their focus child cases. More PSTs began to make generalized connections, commenting about future use of their learning.

Knowledge after the SST Simulation

Knowledge about Data Collection continued to emerge in the data collected after the SST Simulations. The PSTs' comments about data collection techniques continued to be primarily specific to their focus child case, but reflected more detailed knowledge about data collection. They related how their simulation group had suggested different and/or more systematic data collection techniques to more fully understand their focus child's needs and/or influence intervention choices:

> The SST team suggested that I need to gather more data and have very specific goals. Knowing specifically when [my focus child] is off task and if it is at a consistent time of day will help me decide how to intervene. (PST1-5R)

One PST did express a more generalized conclusion about the value of data collection:

> Through the simulated SST process, I have learned that it is important to not jump to conclusion about a student! Collecting data, though it takes time is important. Data collection allows the teacher to see the child's issue (hopefully) through unbiased eyes. (PST10-5R)

Another PST made a connection between data collection and the SST process, noting that data were important to bring to SST meetings.

The PSTs' comments relating to Knowledge about Intervention continued to be specific to their focus child cases, but reflected more detailed knowledge. The PSTs recounted specific intervention strategies for their focus children that were suggested by their simulation group:

> It was also suggested that I differentiate instruction more. I may need to set lower academic goals for [my focus child] because she does not comprehend material at the same rate as her peers. Along the same lines, the group thought it might be beneficial to differentiate [her] homework as well and ask her mother to read to her at home so that she hears more spoken text. (PST2-5R)

They noted how their simulation group assisted them in adapting the intervention strategies already in place for their focus child and some of the PSTs began to set more specific intervention goals:

> We came to the consensus that she should only be allowed to go to her special workplace four times a day. I want to reduce the number of times she can go there because she is starting to use it as an isolation mechanism from the other children….She still needs that space because it is helping

> her to accomplish her tasks, however I don't want her to stay there all day. Over time I want to continue to reduce her number of visits to her workplace. Ultimately when she is more confident and comfortable with herself and her abilities, I hope she will interact in a more positive manner with other children. (PST3-5R)

As she reflected on what she learned from the SST Simulation, one of the PSTs had a more generalized realization about time being a factor in intervention: "Also, that implementing a strategy takes time. Changing behavior does not happen with one sticker – it is a process" (PST10-5R). Another PST noted that multiple interventions may be necessary: "It's not just a matter of one main intervention….I'd always thought that an intervention is one, but you can make a couple of different changes at the same time" (PST4-i2). One of the PSTs made a connection that data collection leads to intervention and that doing these prior to SST referral is important:

> Oh, other assessments that can be used before a child is recommended for SST because for me the assessment is driving the intervention, is driving the guidelines, and of course, that's going to be recorded and will travel with the child to the next teacher. (PST12-i2)

As the teachers reflected on their experience in the SST Simulation, their comments regarding Knowledge about SST began to be more generalized rather than case specific. They noted that SST was useful or helpful by providing new intervention ideas, support or resources for the teacher to address student needs:

> I have learned, through the SST Simulation, that SST meetings can be very helpful and informational when held in a productive manner. They

> can be very useful tools for teachers and other adults who work with students. As teachers, or just as people, we often feel that we have tried everything. An SST meeting is helpful in reminding us that we have not and that there are still things we can do that can help us better serve our students. (PST13-5R)

In addition, they noted the problem solving nature of SST. The PSTs commented that having multiple people giving input in SST meetings was helpful. One PST continued to make connections between data collection and SST, noting that bringing data to SST meetings would help a teacher better present her student case to the team:

> The process when done thoroughly is somewhat consuming. Therefore, it requires the teacher to present well thought and supported issues. These issues need evidence which gives the others a better view of the situation. (PST12-5R)

Some PSTs began sharing negative experiences with SST at their schools, such as teachers not finding SST useful, SST seeming like just a first step to special education, or SST meetings that were not collaborative or were generally unproductive.

Within the theme Knowledge about SST, the sub-theme Suggestions about SST emerged in the post-SST Simulation data. These suggestions were revealed in the PSTs' comparison of their SST Simulation experience with experiences with SST in their field placement schools. At this time, the PSTs suggested that SST in the schools should involve more people in the meetings, involve prior or other grade level teachers in the meeting, be more collaborative, and provide support for the teacher in the classroom after the meeting.

The theme Generalization of Knowledge continued to emerge in the post-SST Simulation data. These comments continued to connect to larger contexts as during the focus child case phase, but were somewhat more generalized overall. The PSTs noted that they gained knowledge of intervention strategies from hearing the other cases presented in the SST Simulations. They concluded that this range of intervention strategies would be helpful with other students in their field placement classrooms or with students in the future:

> The benefit of hearing other cases for me was like brain exercise…because sometimes you have to remember that there are different kinds of students. And maybe you don't have that student that makes you want to wring their neck in your class this year, but you may next year. So it keeps you fresh in coming up with interventions. Because sometimes you have to come up with interventions on the spot when you get into the classroom. (PST12-i2)

Knowledge Needed after the Student Support Team Simulation

The main category *Knowledge Needed* continued to emerge in the post-SST Simulation data, specifically, the themes of Knowledge Needed about Intervention and Knowledge Needed about SST. The PSTs' questions regarding Knowledge Needed about Interventions continued to be related to their focus child cases, but began to link to future situations or cases:

> I wanted more interventions, ideas, because sometimes things wear off and they stop working. What are some other ways to help [my focus child], I

> guess. Or if it was another child and the one I already tried didn't work, what are other ways that I could help? (PST12-i2)

The PSTs also asked for exposure to more intervention strategies.

The PSTs' questions reflected Knowledge Needed about SST. While their questions about SST at the beginning of the project were broad (i.e., What is SST all about?), their questions after the SST Simulation were more specific about the SST process. The PSTs needed more specific knowledge about SST referral, such as how to decide if and/or when to refer a student to SST: "What are the appropriate triggers? How do I decide when to seek out assistance from SST?" (PST6-i2) Another PST wanted to know how the SST process differed for academic rather than behavioral issues. One PST wanted to know how teachers were supported after SST meetings, such as modeling of intervention techniques, or if the teacher is left to implement the interventions on her own without assistance or feedback. One PST asked how she could improve the SST process in a school where it was not functioning well:

> My question is aimed from what do I do as a teacher who understands the process of SST and how valid it is, when I am met with…mediocrity, laxidazical (sic) behaviors, pure ignorance in the schools by teachers who don't care, and when I say that, they go to SST and it's just a formality. I go seriously looking for an intervention and then when I get there, there will be crazy people there. What do you do to change the thought process of the teachers and how will the thought process affect us? (PST12-i2)

Project Feedback after the Student Support Team Simulation

The main category *Project Feedback* continued to emerge in the post-SST Simulation data. The themes of Project Helpful and Project Struggles continued to emerge as well. The PSTs comments continued to include information specific to their focus child case or to the SST Simulation activity; however, they also made more generalized comments about the overall helpfulness of the simulation.

As the PSTs reflected on their experience in the SST Simulation, the sub-theme SST Simulation Helpful emerged and became the PSTs' focus. The PSTs felt the SST Simulation was helpful. They noted that the input they received concerning their focus child during the SST Simulation was helpful and would assist them in addressing that child's needs:

> Now that I have these other wonderful interventions I think the feedback will have a positive effect with the work that I am doing with my focus child. I can now offer him more and help to channel his energy into other areas. (PST11-5R)

Overall, the PSTs felt less anxious about SST as a process and better prepared to participate in SST in the future: "I liked having the simulation before actually going to an SST real meeting. Because I kind of knew what to expect, I wasn't very scared anymore" (PST4-i2). They noted the simulation helped them understand SST processes and procedures better. The PSTs particularly liked the aspect of learning from other cases and getting input from various voices or people during the SST Simulations:

> I learned that I really need to talk to other people to see other points of view because it really is helpful. I like the different suggestions that were

> thrown out. I tend to try and do things on my own most of the time and sometimes when it comes to students you shouldn't always do things on your own. (PST4-i2)

The theme Project Struggles began to emerge more frequently in the post-SST Simulation data. During the focus child case phase of the SST Project, struggles reported by the PSTs were primarily Struggles with Techniques, specifically data collection techniques and finding time to collect data. After the SST Simulation, the PSTs reported Struggles with Techniques related to the SST Simulation, such as difficulties with the note taking role in the simulation and difficulty managing the information they received during the simulation. One of the PSTs questioned the usefulness of some of the interventions suggested during the SST Simulation: "Although I appreciated some of the advice that was given to my colleagues, I also questioned how helpful some of it was" (PST9-i2).

The sub-theme Struggles with Role and Setting began to emerge at this point. The PSTs felt limited by their role as a student teacher, by school rules, or by having to go through their mentor teachers for certain resources.

> I guess the counselor is the person I'm talking about. I just get the impression that I'm not allowed to access that resource really, or my teacher doesn't like to…Maybe not not allowed to. But she doesn't see that as a resource that would be helpful but I have a couple of kids that I think it would be, and just does not seem to be receptive to it at all. So, I just get the impression that it is at all seen as a genuine resource for

> whatever reason. And I don't feel comfortable asking those direct questions. (PST6-i2)

Several of the PSTs indicated that their mentor teacher was not supportive of some interventions proposed to address their focus child.

Completion of Student Support Team Project

In the reflections and interviews at the completion of the SST Project, the main categories of *Knowledge*, *Knowledge Needed* and *Project Feedback* continued to emerge. While the PSTs continued to comment on the specifics of their focus child cases, some of their comments began to reflect more knowledge of the complexities of the SST Process as a whole. Other comments began to be more generalized.

Knowledge at Completion of Student Support Team Project

Knowledge about Data Collection continued to emerge at the completion of the SST Project, but the PST comments were more generalized than previous comments about data collection. Their comments reflected more understanding of data collection use beyond immediate application with their focus child: "I learned that gathering data and making formal observations do a lot to pinpoint behavior. Recognizing patterns can be very enlightening" (PST1-6R). They recognized the need to collect data before referring student to SST and that data are essential to the SST process: "I think that it is important to gather the data and document the information even if there is not a strong [SST] team at my school. I think that being prepared as the reporting teacher will allow the team to be more helpful" (PST1-6R).

Knowledge about Intervention continued to emerge in the data collected at the completion of the SST Project. The PST comments about intervention continued to be

primarily specific to their focus child cases, such as adapting implemented interventions to better serve their focus child or describing a specific intervention that they implemented. One PST continued to make generalized connections between intervention and SST.

Similar to after the SST Simulations, the PSTs continued to convey Knowledge about SST that was generalized, rather than specific to their cases. Their comments began to show greater understanding of the purpose of SST, as well as SST processes and procedures:

> I also learned that it is very important to go into the SST meeting with the mindset of what can be done in the classroom to help the student, and not on trying to initially get them outside help. Following all these steps in the SST process is an important way to make sure that the child and teacher are getting as much help and support as needed to provide a successful learning experience in the classroom. (PST5-6R)

In addition, they made comparisons between the SST Simulations and SST in their field placements that reflected more detailed knowledge about SST processes and procedures. They generally noted that the SST Simulations were more structured and more helpful. They related negative experiences with SST in their field placement schools, such as referral taking a long time or SST appearing to be just a step to special education. The PSTs reported that they encountered teachers who felt SST was not helpful. The sub-theme Suggestions about SST continued to reflect that more voices or people or input would be helpful in SST at their field placement school.

Generalization of Knowledge continued to emerge after the completion of the project. As in the Post SST Simulation data, these comments continued to be generalized in nature. The PSTs noted that they planned to use data collection and intervention with their students in the future. They more generally recognized that students have varying needs: “I know that all students learn in different ways and it is important for me to get to know all of my students and to address all of their needs” (PST11-6R).

Knowledge Needed after the Student Support Team Project

The main category *Knowledge Needed* continued to emerge in the post-SST Project data. Whereas their questions prior to beginning the project were very broad, and questions during the project primarily specific to their focus child case, the PSTs’ questions at the end of the project reflected more knowledge of the SST process and its complexities.

Comments reflecting Knowledge Needed about Data Collection included questions about how to manage data collection while teaching, what documentation was needed for SST, and a general call for more data collection techniques. The PSTs asked for more Knowledge about Intervention, including how to manage intervention implementation while teaching and more intervention techniques in general:

> A question I have about the SST process regards what happened with [my focus child]. I was very preoccupied with the other classroom activities that his on-task chart was put on the backburner. What are some suggestions to keep this from happening? (PST10-R6)

Knowledge Needed about SST included asking for more detail regarding SST processes and procedures, such as specific referral criteria, exiting students from SST, timing of SST processes, and parent involvement in or reaction to SST:

> I would like to know how parents react in an SST meeting. How familiar they are with the process. I mean one parent brought an advocate with her and for a child who it wasn't anything I would necessarily guess a person would need an advocate for, but I would like to have know why they felt that was necessary and how that advocate was used I the meeting, what they did. (PST9-i3)

The PSTs also requested information on how to deal with or change an ineffective SST in a school:

> What do you do when you are in a class, when you are in a school, where there are…the ideas are few, the participation is less and the invigoration is none? You know, what do you do when that is your problem with, you know, a group of people. (PST12-i3)

There were several PST that said they did not have any lingering questions about SST at the end of the project.

Project Feedback at Completion of Student Support Team Project

The main category of *Project Feedback* continued to emerge at the completion of the SST Project, including the themes of Project Helpful and Project Struggles. PSTs were asked for suggestions about the SST Project at this time, and this is the phase where the theme Project Suggestions first emerged.

The theme Project Helpful continued to emerge at the end of the SST Project. In contrast to previous phases where comments focused on the helpfulness of particular project components or techniques, the first comments regarding the overall helpfulness of the SST Project first emerged at this time. These comments included remarks that were specific to their focus child cases and others that were more generalized in nature. Specifically, the PSTs felt that the project helped them get to know their focus child very well. More generally, the PSTs liked the SST Project and found it useful, helpful and/or valuable. They felt they better understood SST and were more prepared to participate in SST in the future:

> Overall this project gave me a sense of the SST process, and I appreciate having a real child to observe and with whom to try interventions. I feel that I learned more about how to document students' problems and some of the assessments that I might try with different children….I feel I have a better grasp on how the process proceeds after doing this project. (PST9-6R)

The PSTs also made remarks about the overall or general helpfulness of data collection and intervention as tools for teachers.

The sub-theme SST Simulation Helpful continued to emerge in this phase. The PSTs continued to remark that they found the SST Simulation helpful in general and with their focus child case specifically. They liked the format of the simulation, the various voices or people participating, learning from other cases, the suggested interventions, and the supportive nature of the groups.

The theme Project Struggles continued to emerge in the post-SST Project data, including the sub-themes of Struggles with Techniques, Frustration with Student Progress, and Struggles with Role and Setting. The sub-theme Struggles with Program and Instruction first emerged in this part of the data. While many comments continued to be specific to their focus child cases, some more generalized comments began to emerge. Considering Struggles with Techniques, the PSTs anticipated difficulties with finding time for data collection while managing the instruction for an entire class. Frustration with Student Progress continued to emerge at this point from two of the PSTs. One PST continued to be frustrated with the slow progress her focus child made during the SST Project. The other PST expressed frustration about not being able to address all the difficulties her focus child was having. Some of the PSTs continued to express Struggles with Role and Setting, such as lack of support from their mentor teacher and feeling limited or restricted because of their role as a student teacher. Struggles with Program and Instruction first emerged in the post-SST Project data. The PSTs noted scheduling issues and redundancy of assignments within the project and across courses in their teacher education program.

CHAPTER 5

DISSCUSSION

The purpose of this study was to learn about Preservice Teacher (PST) perceptions of Student Support Teams (SST) and describe the changes in their knowledge and perceptions during and following a Student Support Team Project (SST Project). Three main categories emerged repeatedly during data analysis: *Knowledge*, *Knowledge Needed*, and *Project Feedback*. The main category of *Knowledge* and its corresponding themes and sub-themes represented PST comments reflecting awareness regarding data collection, intervention, SST and other collaboration opportunities, as well as the generalized application of this knowledge. The *Knowledge* category represented 63% of all the coded data. The main category of *Knowledge Needed* and its corresponding themes and sub-themes represented comments reflecting PST desires for more information regarding data collection, intervention, SST, or related education concepts. The category *Knowledge Needed* represented 8% of coded data. The main category of *Project Feedback* and its corresponding themes and sub-themes represented PST comments regarding the SST Project, including how the project and/or its components were helpful, how they struggled with project components, and suggestions for improvement of the project. The main category *Project Feedback* represented 29% of coded data.

Analysis of the data revealed that the categories, themes, and sub-themes evolved over time throughout the SST Project. This analysis revealed changes in the way themes

were expressed that reflected progression that began with vague ideas, moved to comments that were grounded in the PST's focus child case, and resulting in a more generalized and sophisticated understanding that included information about how project components were related to each other.

For example, the PSTs comments regarding *Knowledge* changed from vague ideas about intervention and SST, to knowledge about project components (e.g., data collection, intervention, and SST) specific to their focus child case, to more generalized realizations about how to use project components such as data collection and intervention in future practice. At the end of the project the PSTs' comments also reflected more understanding of the complexities of the SST process. As the PSTs completed each component of the SST Project, they formed growing connections among the components that also changed from being case specific to being more generalized. Perceptions of *Knowledge Needed* changed from wanting basic information on SST to needing case specific information to wanting more detailed information about components to enrich their growing knowledge about SST processes. *Project Feedback* changed from case specific (e.g., helpfulness or struggles specific to their focus child case) to reflecting overall helpfulness of the project.

The findings about the knowledge the PSTs gained during the SST Project replicate some findings from a previous investigation about the initial implementation of the SST Project (Meyers, Graybill, & Grogg, 2008). The participants in both investigations learned about data collection techniques, organizing and presenting data, intervention strategies, and prereferral intervention teams and processes. They learned the value of collaboration, felt the SST simulation was more supportive than those in their

field placements or schools, and felt prepared to participate in SST in the future. Also, the participants in both studies liked the SST Project overall and found it to be helpful to their learning.

An important finding from this research that makes a unique contribution to the literature is that PST knowledge and perceptions about prereferral intervention developed and changed over time during the SST Project. As described above, analysis reflected movement from vague ideas, to comments being grounded in the focus child case, then to ideas being more generalized. This is similar to the development of teachers as previously reported in the literature (e.g., Berliner, 1988; Livingston & Borko, 1989). Additionally, the perceptions of the PSTs regarding prereferral intervention were more positive than those reported in the literature (e.g., Meyers et al., 1996; Slonski-Fowler & Truscott, 2004). These contributions are discussed further in the sections below.

Journey from Novice toward Expert

Changes in the PSTs' knowledge and perceptions of prereferral intervention during the SST Project reflect growth in expertise in this area. Prior researchers have described expert teachers as having more elaborate, interconnected, and readily accessible schemata to draw upon when teaching (Berliner, 1988; Livingston & Borko, 1989). Experts have also been described as being more student-centered, such as demonstrating extensive knowledge of individual students and being responsive to student needs (Smith & Strahan, 2004). Additionally, situated learning has been suggested as one way to assist teachers in building expertise (Kim & Hannafin, 2008). The SST Project is a situated learning activity that appears to have assisted the

participating PSTs in beginning to gain these types of expertise about prereferral intervention teams and processes.

For example, during the SST Project the PSTs formed new schemata regarding data collection, intervention, and SST, as well as forming connections between these concepts. They gained knowledge of and experience with data collection, intervention and SST, and realized that these processes would be useful to call upon to address the needs of future students. The PSTs demonstrated greater knowledge about students and their varying needs. They got to know their focus child very well, connected this to their work throughout the SST Project, and desired to get to know all their students as well as their focus child. They built skills in and greater awareness of the value of collaboration and learning from others. This knowledge and these experiences added to the PSTs fund of schemata (Livingston & Borko, 1989) and showed ways of thinking that are more like expert teachers as described in the literature (Berliner, 1988; Livingston & Borko, 1989; Smith & Strahan, 2004). This change toward more expert ways of thinking suggests that the SST Project may be one way to assist preservice teachers to develop expertise in prereferral intervention and move along the path from novice toward expert.

The findings from this investigation may also contribute to prior work about the stages of preservice teacher development and what their supervisors and teacher educators might do to assist the PSTs' learning and progression through these stages (Fuller & Bown, 1975; Harrington & Sacks, 1989). The PSTs in this study were initially in the orientation stage (Harrington & Sacks), which is characterized by beginning to understand the complexities of teaching, not feeling adequate to the task, struggling with their role, and seeing pupils as one undifferentiated group. Their concerns were primarily

about the teaching situation, which is characterized by concerns about limits, varied demands, methods, and their own performance (Fuller & Bown). The PSTs expressed feelings of inadequacy in meeting the needs of their focus child. They struggled with their role as a student teacher and perceived limitations of that role.

Congruent with recommendations from Harrington and Sacks, the SST Project provided scaffolding and support to the PSTs that encouraged increasingly complex views of children and teaching, and that supported effective decision making by these beginning teachers. The project assisted the PSTs in building skills that helped them better meet the needs of their students by giving them a structured approach that had them learn about and practice data collection, intervention, and collaboration. During these structured experiences, the PSTs were required to make a range of decisions about data collection and intervention with their focus child, and to practice implementing techniques with their focus child. As a result of this scaffolding, the PSTs indicated they felt empowered by the SST Project, reflected in comments that they had strategies they could employ in the future and that they desired to become change agents when faced with ineffective SST practices in the field. As a result, these teachers demonstrated movement toward higher stages of teacher development.

The PSTs demonstrated movement into higher stages of development with respect to their knowledge about SST. The PSTs' reflections showed evidence of movement into the trial and error stage of development, which is characterized by struggling with teaching techniques, classroom management, and autonomy. PSTs at this stage alternate between feeling competent and incompetent, and often seek reassurance of others (Harrington & Sacks, 1984). The PSTs in this study struggled with implementing data

collection and intervention techniques during the SST Project. They began to adapt interventions and to consider how they could balance data collection and intervention for one student while teaching the entire class.

Changes in the PSTs knowledge and perceptions also reflected shifts in their teaching concerns. As mentioned above, the PSTs were initially focused on teaching situation concerns (Fuller & Bown, 1975), including the varied demands placed upon them, perceived limits, implementing techniques, and their own performance. Toward the end of the project they began to have more understanding of the complexities of the SST process as reflected by their increasingly integrative thinking that spanned key components of the SST process (i.e., data collection, interventions). This led them to have a better understanding of the individual needs of students that reflected a shift toward their concerns being more about their students (Fuller & Bown, 1975).

Findings from this study support the use of Kim and Hannafin's (2008) situated learning framework. They posited that as novices participate in situated learning experiences they develop conceptual case knowledge and strategic knowledge within a social context. This is expected to help novices move toward becoming expert teachers. Similar to the PSTs in Kim and Hannafin's study, changes were found in the current study for PSTs' knowledge and perceptions about prereferral intervention that suggested progression from novice toward more expert ways of thinking. The PSTs in the current study developed conceptual case knowledge, learned prereferral skills, and formed connections between their knowledge and experiences throughout the semester. The PSTs began to generalize their knowledge in their reflections. Collaboration with peers and instructors and in the SST Simulations also contributed to PST knowledge about and

perceptions of SST. The findings of this study support the use of Kim and Hannafin's situated learning framework to assist teacher educators in understanding how preservice teachers transition into the culture of teaching. This requires planning for the development of knowledge and skill, better understanding how preservice teachers learn, and looking at how preservice teachers interpret and react in situated contexts. The SST Project appears to be a useful approach to situated learning about prereferral intervention and SST for preservice teachers.

Changing Attitudes and Perceptions about Prereferral Intervention

The literature about teacher perceptions of prereferral intervention indicates some teachers have negative views of prereferral intervention teams, including feeling unsure of their roles, disenfranchised, anxious, and/or devalued (Chalfant & Pysh, 1989; Logan et al., 2001; Meyers et al., 1996; Slonski-Fowler & Truscott, 2004). In contrast the PSTs participating in this study found the SST or prereferral process to be valuable, helpful, useful, and supportive. They reported feeling prepared for participation in SST, having less anxiety about the SST process, and a willingness to use the process in the future. The PSTs expressed a desire to be change agents when they encountered situations where the SST was not functioning effectively or when they were met with negative attitudes about SST.

As reported in the literature, PITs are often perceived as direct links to special education or as hindering referral to special education (Hayek, 1986; Logan et al., 2001; Meyers et al., 1996; Pobst, 2001). The PSTs in this study encountered this perception in their field experiences, but found this conceptualization not to be constructive. In contrast, the PSTs viewed SST or prereferral intervention as grounded within general

education. They perceived the purpose of SST was to assist the student and teacher *within* the general education classroom. This is a shift away from linking PITs to special education that has recently been documented in the literature (Lee-Tarver, 2006). This suggests that training in prereferral processes may help change this perception.

The findings of this study suggest that training can influence teacher's attitudes and perceptions about prereferral intervention processes and begin to effect change in these perceptions beginning at the preservice level. This was accomplished in these PSTs despite their exposure to pre-existing negative attitudes of experienced teachers in their school placements.

Helping to Increase Prereferral Intervention Effectiveness

The PSTs' overall perception was that SST is valuable, helpful, and useful, based on their participation in the SST Project and particularly the SST Simulation. However, they did report some negative experiences with SST in their field placements. These negative experiences included exposure to inefficient SST processes, unclear roles, lack of problem solving, problems with interventions, lack of follow up support for teachers, and feeling devalued. These negative experiences are similar to factors that hinder the effectiveness of PITs as reported in the literature (e.g., Buck et al., 2003; Chalfant & Pysh, 1989; Hammond & Ingalls, 1999; Meyers et al., 1996).

The PSTs response to these negative experiences with SST was to suggest changes and/or to inquire about how they could act as change agents in schools that have ineffective SST processes. The PSTs' suggestions included involving more teachers in SST, more parent involvement, more collaborative approaches in meetings, and follow-up or intervention implementation support for the referring teacher. All of these

suggestions are mentioned in the literature as factors that can improve SST effectiveness (Bahr & Kovaleski, 2006; Graden, Casey &Bonstrom, 1985; Hammond & Ingalls, 1999; Meyers et al., 1996; Truscott et al., 2005). This suggests that training in prereferral processes at the preservice level may help improve the effectiveness of teams in schools as new teachers bring better understanding of and skills in prereferral intervention to the table.

The literature about PITs suggests that team member training and improved readiness for teaming may help improve team effectiveness (Chalfant & Pysh, 1989; Fuchs, Fuchs & Bahr, 1990; Hammond & Ingalls, 1999; Kovaleski & Glew, 2006; Meyers et al., 1996; Nelson et al., 1991). It has been suggested that teams receive training regarding data collection, intervention, the purposes and goals of prereferral intervention, and collaboration or teaming (Buck et al., 2004; Chalfant & Pysh, 1989; McGreevy et al., 2005; Hammond & Ingalls, 1999; Nelson et al., 1991; Truscott et al., 2005). Findings of this study suggest that the SST Project increases PST knowledge in these areas and therefore appears to address at the preservice level some of the training suggestions mentioned in the literature.

It has been found in prior research about prereferral intervention that appropriate data collection is often not used in prereferral intervention processes and this hinders the effectiveness of PITs (Meyers et al., 1996). The advent of the use of the RtI model also increases the need for training and familiarity with data collection procedures. During and after the SST Project, the PSTs demonstrated increased knowledge of and experience with data collection gained through application of techniques with their focus child and collaboration in the SST Simulations, suggesting this model may address training needs

regarding data collection. The PSTs formed connections between data collection and its importance in generating and evaluating interventions. They realized the important role that data collection played in prereferral processes, including the need to collect data before referral to SST, the importance of data to the problem solving process of the team, and the need to collect data systematically to evaluate intervention efficacy. The PSTs' increased knowledge about data collection may assist them in making better use of SST in the future, and possibly help effect positive change in SST processes in their schools.

Prior research has also suggested that there can be limitations to the intervention component of prereferral intervention and that training about intervention may increase PIT effectiveness (Flugum & Reschly, 1994; McGreevy et al., 2005; Meyers et al., 1996; Truscott et al., 2005). Implementation of RtI models also requires training in intervention, specifically evidence based intervention (e.g., Bradley et al., 2005; Reschly et al., 2005). The SST Project was an effective way to enhance teacher expertise regarding intervention. These PSTs demonstrated increased knowledge of and experience with intervention gained through working with their focus child and collaboration in the SST Simulations. The PSTs developed the perception that intervention was an important tool for teachers to employ in their classrooms to address the varying needs of students. They gained knowledge about intervention strategies, adapting or changing interventions to increase effectiveness, and setting goals for intervention. As previously mentioned, they realized the connection between intervention, data collection, and SST. They realized that data collection was important to assist in generating and monitoring interventions. They saw one of the purposes and benefits of SST as the generation of interventions. Over time, the PSTs also began to generalize the knowledge they gained about intervention to

future students or situations, and realized they had a growing library of strategies to draw upon in the future.

The SST Project also supported prior literature suggesting that training about the purposes and procedures of PITs may help increase team effectiveness (e.g., Burns & Symington, 2002; Chalfant & Pysh, 1989; Kovaleski & Glew, 2006; Meyers et al., 1996; Nelson et al., 1991; Truscott et al., 2005). The PSTs reported gaining knowledge about prereferral intervention teams and processes throughout the SST Project. The PSTs demonstrated increased knowledge about the purposes of SST, including providing support, generating inventions ideas, tracking student progress, and support within general education. They also demonstrated knowledge about SST processes, procedures and requirements, including the basic steps of SST (e.g., referral, meeting, problem solving, generating interventions, implementing and monitoring interventions, and follow-up), the importance of documentation in the SST process, the multidisciplinary membership of teams, and the importance of data collection and intervention prior to initiating the SST process. Additionally, the PSTs recognized that a collaborative approach to SST and problem solving in general was valuable and helpful. They appreciated the input from various team members and noted learning new ways of approaching, evaluating, and intervening with students through these collaborations. The SST Simulations were particularly helpful in developing this appreciation for and knowledge of collaboration.

Implications for Practice

The findings from this study suggest several implications for practice. Feedback about the project indicates that it was an acceptable learning activity for the PSTs. They

reported that they enjoyed the project and felt they learned from the project. They also reported that they would do the project again. Given that the SST Project appears to be an acceptable (Wolf, 1978) intervention for these PSTs and the gains in knowledge and experience that were demonstrated, the SST Project appears to be a good way to increase PST knowledge of and develop positive perceptions of SST and prereferral intervention. As such, teacher educators could include this project in their preservice teacher education programs to better prepare their PSTs for participating in prereferral intervention and RtI processes in their field placements and future schools (Meyers et al., 1996; Meyers, Graybill, & Grogg, 2008).

Findings of previous research on the SST Project (Meyers, Graybill, & Grogg, 2008) also suggested increased knowledge and improved perceptions of inservice teachers after completion of the SST Project. The inservice teachers in that study reported increased knowledge of and skills in data collection, felt more prepared for SST, and felt more supported in SST simulation than in the SST process at their schools. They also commented that the project gave them new tools to use when preparing for SST and a desire to share the process in their schools. Given the negative attitudes and experiences that the PSTs in the current study encountered in their field placement schools and indications in the literature that some teachers have negative attitudes about PITs, the SST Project may also be an appropriate approach to help change inservice teacher perspectives about SST and prereferral intervention. The SST Project model could readily be adapted for use with inservice teachers in a university course setting as previous demonstrated or in a professional development course.

Findings of this study suggest some possible changes to the implementation of the SST Project. Alignment of the project implementation with the stages of teacher development may better facilitate the PSTs' learning and journey from novice toward more expertise by providing scaffolding appropriate to their developmental level. Implementing the project over more than one semester with more attention to and time for data collection and descriptive review of the student in the beginning, followed by more instruction about intervention, may also facilitate more knowledge about each component. Additionally, focusing on evidence based interventions (EBIs) during the intervention component may assist the PSTs in more effectively intervening with students and being prepared to implement RtI processes.

While school psychology students and faculty participated in the SST Simulations in this study, more purposeful approaches to cross-departmental and cross-disciplinary collaboration would strengthen the project. This would help to prepare a wide range of potential SST members to learn how to collaborate on these teams (e.g., school psychologists, school counselors, special educators, remedial educators, school social workers, and administrators). Involvement of these preservice educators could facilitate increased impact for the SST Project by more fully representing the multidisciplinary nature of SST. It would also expose the PSTs to the greater diversity of perspectives and knowledge that these disciplines would bring to the process, and give the PSTs experience working with these disciplines at the preservice level. In turn, the other preservice educators would gain experience from working with the PSTs and other involved preservice educators. This could result in effective interdisciplinary teams where "everybody wins"!

Limitations and Further Research

While the findings of this study are promising and have possible implications for practice, these findings may not generalize from this PST cohort to the larger population of preservice teachers. Research about the SST Project or similar situated learning activities regarding prereferral intervention with various types of preservice teacher cohorts (e.g., traditional undergraduate programs, middle and high school PSTs) is suggested. Research on the effectiveness of the SST Project with inservice teachers in various settings (e.g. graduate programs, professional development within schools) is also suggested. Research is also needed to examine the effects of the SST Project on all participants when there is an emphasis on multidisciplinary, cross-departmental training.

Features of this implementation of the SST Project may have limited the findings. The structured nature and page limitations of the reflections may not have allowed the PSTs to fully convey their knowledge and perceptions. Future research using ongoing journaling, larger page limits, and/or interviews may reveal other findings. The time limitations in implementing the SST Project (1 semester for entire project, approximately 2 weeks for each component) may not have allowed sufficient time to measure change in PST perceptions. Future research might include implementation of the SST Project over a longer (e.g., 2 semesters) period to see if this reveals greater or different changes in PST perceptions and knowledge. Another possibility would be to provide co-training to the PSTs and their mentor or supervising teachers.

An important characteristic of this study was that the lead researcher was a participant observer, assisted in the instruction of the PSTs, and provided assignment feedback to the PSTs during the SST Project. While this provided in depth knowledge of

the participants and the study context, it may have influenced PST reactions and comments about the SST Project as the PSTs may have responded in ways that they perceived as being socially desirable. To address this limitation, regular reminders were given to the participants stating that all feedback, positive or negative, regarding the project was welcome in their class discussions, reflection assignments, and interview responses. Additionally, the PST interviews were used to specifically probe for any negative feedback about the project, struggles the PSTs experienced, and suggestions for improvement of the project to clarify or add to the PST Reflection assignments. The instruction and assignment requirements also likely influenced the PSTs Reflection and Interview. For example, the emergence of themes reflecting the project components was a predictable result since these components were important elements of this project that helped to meet the objectives of this instruction.

Future research is also needed to determine whether the effects of the SST Project on teacher perceptions and knowledge are sustained over time and whether the PSTs act on their learning in future contexts. Follow-up with the PSTs could be done at the end of the semester following their participation in the SST Project, at the end of their teaching program, after their first year teaching, and so forth, to see if they have continued to use the tools they learned during the SST Project, expanded their learning on prereferral intervention, and formed connections between the components (i.e., data collection, intervention, and SST). Research is also needed to determine whether their perceptions of prereferral intervention continue to change, if they continue to believe that SSTs can have positive effects on children in the general classroom, if they still think the SST Project was useful, and if they become change agents for ineffectual SSTs.

Summary

Findings of this study suggest the SST Project facilitates learning about and positive perceptions of prereferral intervention and SST in preservice teachers. Hopefully they will take this knowledge and positive perception into the field to better address the needs of their students. The SST Project also represents an approach to training preservice teachers about prereferral intervention and SST that may help begin to improve the perceptions and effectiveness of PITs in schools as these teachers enter the field. With further development and research, the SST Project may also represent a way to address inservice teacher perceptions and knowledge about prereferral intervention.

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APPENDIXES

APPENDIX A

Preservice Teacher Reflection Assignment Questions

SST Project: Focus Child Data Sheet

When you have chosen your focus child, complete the following questions. You will use this information as an introduction to each reflection in the SST Project to remind the reader of the details regarding your focus child.

1. Pseudonym for Focus Child
2. Age
3. Grade
4. Problem the child is experiencing

SST Project Reflection 1: Focus Child Description and Observation

With the help of your mentoring teacher, you will choose a Focus Child that has some sort of behavioral problem(s). Behavioral problems may include: attention problems, social problems, lack of work, disrespectful conduct, etc. You should not choose a child that is already in the SST process or in Special Education. You will conduct a formal observation of your focus child. Choose a pseudonym that you will use both in your written assignments and classroom discussions to protect you focus child's identity. Then reflect on the questions below (2-3 pages, double spaced). ***Remember*** a reflection requires more than just answering and describing; it includes careful consideration of the topic and how it affects you, your teaching, and/or your students.

1. Describe your Focus Child and why you chose him or her?

2. What kind of rapport do you have with your Focus Child?

3. What themes or insights did you learn about your focus child during the observation?

4. What have you learned from the observation process? How do you see yourself using observation in the future?

Remember to include your observation record form with your reflection.

SST Project Reflection 2: Focal Child Assessment

Now that you have chosen your focus child and have completed an observation, you should have a hypothesis about what may be causing you focus child's behavior. Your task now is to find an appropriate assessment, administer it, and then based on the results of that assessment develop a plan of action to help your focus child grow in positive ways. You will then reflect on the following statements/questions below (2-3 pages, double spaced). ***Remember*** a reflection requires more than just answering and describing; it includes careful consideration of the topic and how it affects you, your teaching, and/or your students.

1. In the first sentence of your reflection, remind the reader of your focus child's name (pseudonym), what grade he/she is in, and what problem you are addressing this semester with your focus child.

2. Describe the assessment you chose to use and why you chose it.

3. Describe the results of the assessment.

4. Based on the results of the assessment, what are possible plans of action you might consider to help your focus child grow in positive ways?

5. What did you learn from the assessment process? How do you see yourself using assessment in the future?

Remember to include your assessment record form with your reflection.

SST Project Reflection 3: Focus Child Intervention

Based on your assessment, an intervention to aid your focus child's growth should be planned and implemented. You will then reflect on the following statements/questions below (2-3 pages, double spaced). ***Remember*** a reflection requires more than just answering and describing; it includes careful consideration of the topic and how it affects you, your teaching, and/or your students.

1. In the first sentence of your reflection, remind the reader of your focus child's name (pseudonym), what grade he/she is in, and what problem you are addressing this semester with your focus child.

2. What is your intervention plan? How do you expect that this plan will help your focus child?

3. Initially, what effect does the intervention have on your focus child's behavior? Does the intervention affect anyone else's behavior?

4. What have you learned from the intervention process? How do you see yourself using intervention in the future?

Remember to hand in examples of any forms, etc. you may be using in your intervention.

SST Project Reflection 4: Focus Child Case Summary

Following your completion of the observation, assessment and intervention assignments with your focus child, you will prepare a brief summary (1 page) describing your focus child, the problem you chose to address, how you are addressing it, and what change (if any) you have seen thus far. You will use this summary to present your focus child in a Student Support Team Meeting Simulation during class and receive feedback/input from your team. ***Your summary may be a bulleted list or outline if you prefer.***

1. In the first sentence of your reflection, remind the reader of your focus child's name (pseudonym), what grade he/she is in, and what problem you are addressing this semester with your focus child.

2. Summarize data from your observation and assessment of your focal child.

3. Briefly describe the intervention you are implementing with your focal child and summarize how it seems to be working at this point.

4. Is there any other or new information that could help the Student Support Team (SST) understand your focus child?

5. What input or feedback do you need from the Student Support Team?

SST Project Reflection 5: SST Simulation

Following the SST Simulations, you will write a reflection (2-3 pages, double spaced) regarding your experience in the SST Simulation guided by the statements/questions below. ***Remember*** a reflection requires more than just answering and describing; it includes careful consideration of the topic and how it affects you, your teaching, and/or your students.

1. In the first sentence of your reflection, remind the reader of your focus child's name (pseudonym), what grade he/she is in, and what problem you are addressing this semester with your focus child.

2. In the second sentence, tell the reader which SST Simulation group you participated in.

3. What feedback/input did you receive concerning your focus child? How will it impact your work with your focus child?

4. What was your experience like as a team member? What roles did you play during the simulation?

5. What have you learned about the SST process through the SST Simulation?

Remember to hand in a copy of the SST Minutes from the presentation of your case.

SST Project Reflection 6: Overall SST Project Experience

Carefully consider your overall experience in completing the SST Project – choosing your focus child, observation, assessment, intervention, and SST Simulation. Then reflect on the following statements/questions below (2-3 pages, double spaced). ***Remember*** a reflection requires more than just answering and describing; it includes careful consideration of the topic and how it affects you, your teaching, and/or your students.

1. In the first sentence of your reflection, remind the reader of your focus child's name (pseudonym), what grade he/she is in, and what problem you addressed this semester with your focus child.

2. Has the SST Project had an impact on your knowledge of the focus child? How has this project prepared you to meet his/her needs?

3. What did you learn from this process and project?

4. How did the SST Project process compare to the SST process at your school?

5. What questions do you still have regarding the SST process?

APPENDIX B

Preservice Teacher Demographic Sheet

Demographic Sheet

Name _____ Circle one: Male / Female

Age _____ Ethnicity _____

Phone _____ Email _____

Undergraduate degree (major/minor/date) _____

Do you have previous experience working in education? Circle one: Yes / No

If yes, in what capacity and for how long? _____

_____

What grade level is your current practicum placement? _____

Are you willing to participate in the interview portion of the study as described during the explanation of the study?* Circle one: Yes / No

*Please note this is not an agreement to be interviewed, only to be considered as a possible interview participant. If you are selected, further information and consent forms regarding interview participation will be provided for your consideration.

APPENDIX C

Preservice Teacher Interview Questions

Interview Protocols

Interview 1: Initial PST Interview Prior to SST Project Instruction

1. Tell me why you chose to return to school to become a teacher?

2. What previous experience do you have with teaching, schools or education?

3. What are your beliefs about the classroom teacher's role in addressing student learning and/or behavior difficulties?

4. What do you know about Student Support Teams?

Follow up probes will be asked as needed to clarify interview participant responses.

Interview 2 Questions: Post SST Simulation Interview

1. What was the Simulation PROCESS like for you?
    1.1. What did you contribute?
    1.2. What worked?
    1.3. What didn't?
    1.4. How would you change the process?
    1.5. How did the presenting teachers respond to the group's suggestions and/or feedback?
    1.6. How did data affect the process?
2. What was helpful about the Simulation group with respect to your CASE?
    2.1. What did you learn about your focus child?
    2.2. What did you learn about yourself?
    2.3. What did you learn about intervention?
    2.4. What kind of feedback did you get regarding your EXPECTATIONS for the student? (Not suggested interventions, but EXPECTATIONS.)
3. If any, what were the benefits of hearing other cases?
4. Someone described the SST Simulation process as "Puzzle Solving"….what do you think?
5. How do you see yourself involved with SST in the future?
6. What questions do you still have about SST meetings specifically?
7. Have you had an opportunity to implement anything suggested in your simulation?
    7.1. How did it go?
    7.2. Did you need to adapt the suggestion? How?

8. [Describe a specific intervention from their reflection.]

    8.1. What did you think about this suggestion?

    8.2. Have you implemented it?

    8.3. How did it work in your room?

        8.3.1. Did you have to adapt it for your classroom? How?

Interview 3 Protocol: Post SST Project

Let's talk about each component of the SST Project.

1. How did the SELECTION of your focus child go?

    1.1. What worked?

    1.2. What was difficult or didn't work?

    1.3. What would have been helpful to add to or change about this component?

    1.4. What key things did you learn?

    1.5. What impact did this have on your teaching and/or classroom?

    1.6. Any questions?

2. How did the OBSERVATION component go?

    2.1. What worked?

    2.2. What was difficult or didn't work?

    2.3. What would have been helpful to add to or change about this component?

    2.4. What key things did you learn?

    2.5. What impact did this have on your teaching and/or classroom?

    2.6. Any questions?

3. How did the ASSESSMENT component go?

    3.1. What worked?

    3.2. What was difficult or didn't work?

    3.3. What would have been helpful to add to or change about this component?

    3.4. What key things did you learn?

    3.5. What impact did this have on your teaching and/or classroom?

    3.6. Any questions?

4. How did the INTERVENTION component go?

    4.1. What worked?

    4.2. What was difficult or didn't work?

    4.3. What would have been helpful to add to or change about this component?

    4.4. What key things did you learn?

    4.5. What impact did this have on your teaching and/or classroom?

    4.6. Any questions?

5. Any new thoughts since our last interview concerning the SST Simulations? Suggestions?

6. Did this project impact more students than just your focus child? How?

7. Any new involvement with SST in your field placement since we last talked? What did you observe or learn?

8. What impact do you think this project has had on your skills as a teacher?

    8.1. On your future students?

APPENDIX D

Key Informant Interview Questions

1. Thinking about the SST PROJECT as a whole from an instructional standpoint...

    1.1. What key things do you feel the PSTs learned? How did it impact their teaching?

    1.2. How did the class sessions go in general?

    1.3. What worked?

    1.4. What was difficult or didn't work?

    1.5. What would have been helpful to add to or change?

    1.6. What did you learn as an instructor? How would you implement this project in the future?

    1.7. How did the implementation of the project this year compare to years past?

    1.8. How do you plan to use the SST Project with future cohorts?

2. How did the SELECTION of the focus child go for the PSTs?

    2.1. What worked?

    2.2. What was difficult or didn't work?

    2.3. What would have been helpful to add to or change about this component?

    2.4. Did any of the selections surprise you? Disappoint you?

3. How did the OBSERVATION component go?

    3.1. What key things do you feel the PSTs learned? How did it impact their teaching?

    3.2. What worked?

    3.3. What was difficult or didn't work?

    3.4. What would have been helpful to add to or change about this component?

    3.5. What did you learn as an instructor? How would you implement this component in the future?

4. How did the ASSESSMENT component go?

    4.1. What key things do you feel the PSTs learned? How did it impact their teaching?

    4.2. What worked?

    4.3. What was difficult or didn't work?

    4.4. What would have been helpful to add to or change about this component?

    4.5. What did you learn as an instructor? How would you implement this component in the future?

5. How did the INTERVENTION component go?

    5.1. What key things do you feel the PSTs learned? How did it impact their teaching?

    5.2. What worked?

    5.3. What was difficult or didn't work?

    5.4. What would have been helpful to add to or change about this component?

    5.5. What did you learn as an instructor? How would you implement this component in the future?

6. How did the SST SIMULATIONS go?

    6.1. What key things do you feel the PSTs learned? How did it impact their teaching?

    6.2. What worked?

    6.3. What was difficult or didn't work?

    6.4. What would have been helpful to add to or change about this component?

    6.5. What did you learn as an instructor? How would you implement this component in the future?

7. Is there anything else you'd like to add?