LOW-ACHIEVING STUDENTS' PERSPECTIVES REGARDING THEIR

EXPERIENCES AS RECIPIENTS OF INSTRUCTIONAL SUPPORT

DELIVERED IN A GENERAL EDUCATION SETTING

By

LYNN KELLER CARMAN

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Written Under the Direction

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Dr. Carrie Lobman Chair

_____

Dr. Dan Battey Committee

_____

Dr. Edith Ferris Committee

New Brunswick, New Jersey

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Low –Achieving Students' Perceptions of Their In-Class Support

Abstract

Similar to administering support services for special education, basic skills instruction (BSI) for low achievers is increasingly being delivered in general education, or heterogeneous, classrooms. These practices have become more common as a result of research findings suggesting that an in-class setting is favored for struggling students. However, whereas some studies have shown heterogeneous compositions of students to be more beneficial than homogeneous settings, characteristic in pull-out instruction, conflicting evidence exists.

While the intent of this study was not to confirm or deny whether the benefits of push-in settings outweigh those of pull-out settings, this phenomenology research examined this topic in a manner that has largely been ignored: examining students' perspectives relating to their support experiences. Data collection methods consisted of interviews, observations, and students' drawings. Participants were asked to draw pictures of classrooms they felt would be an ideal setting to receive their support instruction in.

Data analysis of this qualitative study provides insight about why there are contrasting findings between existing studies. This research found that participants felt that in-class BSI support was a generally positive experience, and they credited much of the progress they have made during the school year to that program. According to these students, one of the most valuable aspects of receiving support in a heterogeneous setting was the fact that they receive help from the higher-performing students. By contrast, their drawings demonstrated that they favored being in a homogeneous setting for their support instruction. The participants preferred being in smaller group settings and being among students who performed similarly to themselves. Findings in this study also demonstrate that, when teachers provide a supportive classroom environment that includes differentiated instruction and mastery experiences, the support program works well.

Results of this study suggest that policy makers and administrators should consider revisiting how their support programs are delivered. The results of this study provide them with a resource of valuable real-life information that other research has largely omitted. The participants' perspectives of how they experience this phenomenon can help towards the construction of more effective support instruction for the low-achieving student population.

DEDICATION

I would like to dedicate this work to my family and friends. They have been instrumental with their encouragement and reassurance throughout the time it has taken me to complete this endeavor. I am grateful to have had them as my cheerleaders and sources of continual support.

I also owe so much of this doctoral accomplishment to my parents. It was their focus on learning and education that was the catalyst for me to pursue this degree. Although my dad, Richard, has been gone for many years now, he was truly an inspiration. He attended eleven years of night courses, and balanced this with his demands of raising a family and working full time. His perseverance enabled him to finish his B.S. degree despite suffering serious medical issues during that time in his life. He taught me a valuable lesson: Keep going on the road leading towards your goal, even if it might be a slow travel.

Finally, I dedicate this work to my mom, Evelyn. She grew up in less plentiful times, and her family could not afford for her to go to a university. However, she did attend college when she was in her forties, and she completed her degree a short time afterwards. It was no wonder then, that her example of never being too old to learn was an inspiration for me to decide to go back to school later in life to pursue my doctoral degree. Despite the fact she wasn't a teacher, she nevertheless read my educational research over and over and had suggestions and encouraging words for me even until the final few months of her life. Despite her sudden illness and subsequent rapid decline in health, she continued to support and had the upmost confidence in me. She consistently listened to and gave me suggestions for my writing. Mom was a true "supporter" of mine, but tragically lived a few months shy of not seeing me complete this research. Her one hope, as she confessed to me just a few weeks before she lost her battle with cancer, was for me to finish my degree. This work is for you Mom, with Love and a tremendous THANK YOU!

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CHAPTER I

Statement of the Problem

Just as each person is a unique individual, each student is a unique learner. Meeting the needs of all learners is one of the challenges of teaching; educators working with students who are struggling may face even greater challenges. This, in part, is a result of recent mandates and standardized testing ranging from No Child Left Behind Act of 2001, Race to the Top initiatives, and more recently, PARCC testing. As in the case of the No Child Left Behind Act of 2001, schools were faced with the responsibility of ensuring that all students meet or exceed academic proficiency by 2014 (U.S. Department of Education, 2002). Although these testing-related goals might have been created with the objective that all children meet the same high standards on standardized tests, not all low-achieving students have received or are receiving sufficient and consistent support needed to help them attain academic proficiencies.

Despite considerable efforts by government to achieve the lofty goal of educating all students to the same standards, few attempts have been made to examine how best to accomplish this for the low-achieving student. Not only does funding for support instruction differ among schools, *where* and *how* the instruction is delivered varies as well. Furthermore, decisions about implementing support instruction have been made by adults at the expense of knowing more about how these services are experienced from the perspective of the low-achievers. Few studies, in fact, have included students' voices regarding how and where support services are impacting them academically, emotionally and/or socially. With all of the increased pressures of late for low achievers to perform, the absence of qualitative research that investigates this empirically is long overdue. This present study will address that issue by including low-achieving students as participants and examine how they experience their instructional support. Results of this

research will provide valuable information for creating support instruction that best reflects the needs of these students and thus potentially help them achieve greater academic success.

The Low-Achieving Student

For the purpose of this study, the definition of a "low-achieving student" includes non-classified students who are struggling academically or performing below proficiency. These low achievers have been identified by their teachers as needing academic support, whether the students perform poorly on assessments or during classroom work. Additional characteristics of low-achieving students may include below-level grades and making little or no academic progress.

Noteworthy is the fact that some studies in this literature review include low- achieving students who are in the category of learning disabled. Whereas some low achievers (also referred to as LA) may indeed have learning disabilities, not all of them do. Low achievers who meet specific criteria, which include having a discrepancy between their IQ and achievement, qualify to receive special education services. However, the low-achieving students in this present study, regardless of whether or not they have learning disabilities, do *not* qualify to receive special education services. As such, they receive different support instruction frequently known as "basic skills instruction" (also referred to as BSI), the purpose of which is to provide supplementary, not replacement, support.

Whereas both classified and non-classified students share some similar characteristics in that they perform below academic proficiency, funding provided differs for each group of students. Students who qualify to receive special education services receive mandated funds, whereas non-classified low achievers may receive federal government funds known as Title I. Not all schools qualify for this, as it is based on criteria involving percentages of poverty rates

(van der Klaauw, 2008). If a school does not qualify to receive Title I school funding, the amounts and delivery of instructional support for these students is at the discretion of the school board or district.

When low-achievers qualify for support instruction, they may receive these services from a BSI teacher either in the general education classroom (also referred to as "push-in") or are removed from the general education classroom to a setting that includes smaller homogeneous groups of students (also referred to as "pull-out" instruction). Regardless of where the instruction takes place, however, various negative characteristics and labels may have been used to describe low-achieving students. Some of these may include, but are not limited to, inattentive, disorganized, lacking social skills, discipline problem, reluctant, alienated, or lacking motivation (Johannessen, 2004). The potential repercussions that can evolve from such categorizing can lead to a self-fulfilling prophecies effect of their teachers' expectations (Good & Brophy, 2003; Good, 1981; Montague & Rinaldi, 2000). For this reason, understanding some of the contributing factors that can serve to reverse or prevent such negative effects certainly would benefit the struggling students.

Basic skills instruction can serve more than one function. As a supplemental program, BSI services are designed to help struggling students reach proficiency levels of performance. Additionally, BSI can act as a first intervention before a student is referred and assessed to receive special education services (Henley, Ramsey, & Algozzine, 2002). Within the last few decades, changes in how and where struggling students receive instructional support have been implemented. Currently, there is a greater focus on delivering basic skills instruction in the general education classroom ("push-in") rather than in a "pull-out" setting (Rathvon, 1999; Churton, Cranston-Gingras, Blair, 1998, Falvey, 1995; McGregor & Vogelsberg, 1998; Heron,

1978; Stanovich, Jordan, & Perot, 1998; Villa & Thousand, 2003; Fuchs, Fuchs, & Bishop, 1992; Woodward & Baxter, 1997). This recent trend has mirrored, in part, the changes in delivering support for special education students.

History of Support Services for Low-Achieving Students

Push-in practices follow on the heels of special education mandates that require classified students be educated in the least restrictive environment (LRE) possible (Henley, Ramsey, & Algozzine, 2002). This trend of servicing the needs of special education students in the general education classroom is relatively new. Over a century ago, students who did not meet educational requirements were segregated from the "normal" children and placed in special schools. With the Civil Rights movement of the 1960s, however, a shift in attitude, followed by changes in the law, emerged. Federal legislation reflected a move away from a focus on deficit models and supported the premise that it was important for students to learn along with typical peers. Delivery of instruction for special education students thus progressed from being delivered in self-contained schools to self-contained classrooms, followed by resource rooms and finally inclusive settings.

Since its inception over 30 years ago, the concept of inclusion has evolved. Recent research related to this topic provides updated information about this practice and its current implementations. Educational reform that promotes inclusion instruction and access to general education curriculum is not an idea adopted solely in the United States. Countries throughout the world are embracing this idea as well (Allan, 2003; Donnelly & Watkins, 2011; Hwang & Evans, 2011; Smith & Tyler, 2011). Interestingly, studies related to inclusion conducted both in and outside of the United States, reveal similar findings with respect to positive aspects of inclusion

and, conversely, concerns related to this practice (Casale-Giannola, 2012; Kamens, Loprete, & Slostad, 2003; Hwang & Evans, 2011; Trent, Driver, Wood, Parrott, Martin & Smith, 2003).

Studies that provide evidence of the benefits of inclusion are found in the works by Casale-Giannola (2010), Hwang and Evans (2011), and Trent et al. (2003). Findings of their research demonstrate that teacher-participants generally supported the concept of inclusion. These professionals saw some definite strengths of this practice; one of which was that inclusion increased social benefits for special education students (Sruggs, Mastropieri, & McDuffie, 2007). Positive aspects of inclusion were examined in Casale-Giannola's research on inclusive academic classes in vocational secondary schools as well. Her observations of these classes showed that students performed well when meaningful and positive rapport was developed between teacher and pupils. There was good collaboration between co-teachers, and this appeared to be a key point of student success reiterated in studies by Hwang and Evans (2011) as well as Trent et al. (2002). In both of these studies, positive outcomes of inclusion involved the high degree to which this practice/policy was supported by administration.

However, although inclusion has been increasingly practiced, results of recent research show that concerns regarding its implementations continue to surface. Many of these challenges are recurrent in these studies, and they provide evidence that effective inclusion requires a "high degree of cooperation between teachers and other school personnel, particularly school psychologists" (Solis, Vaughn, Swanson, & McCulley, 2012, p. 498). Some negative aspects found in relation to inclusion involved co-teacher role confusion (Scruggs et al, 2007), insufficient amount of planning time (Kamens et al., 2003), apprehension due to lack of training (Hwang & Evans, 2011; Kamens et al., 2003; Trent et al., 2003), infrequent implementation of

effective teaching strategies (Burns & Ysseldyke, 2009; Jones, 2009), and inadequate administrative support (Casale-Giannola, 2012; Kamens et al., 2003; Scruggs et al., 2007).

For non-classified low-achieving students, instructional support during the early part of the last century followed the segregationist practice implemented with special education students; their instruction was delivered in an environment that was isolated from others. This meant that low-achieving students also received support in a homogeneous environment. Some supported this setting, arguing that if low achievers were put in a mixed-ability instructional setting, it would be detrimental to their development of self-confidence (Loveless, 1999). Others disagreed; equity questions arose when it was found that these students were taught by a disproportionate number of less qualified and less effective teachers, and the "pace and complexity of instructional tasks" were "simplified and fragmented in lower-ability classes" (Anthony & Jacobson, 1992).

During the latter part of the twentieth century, there was a realization that students who did not meet eligibility criteria for specific remedial programs (such as, in the case of this paper, the low achievers) received no help and therefore, "fell through the cracks." During the 1980s and 1990s, Assistant Secretary for Special Education, Madeline Will, found that the students who were in need of extra assistance but whose learning problems were not severe enough to qualify for special education were overlooked, or, when they did receive assistance, they were removed from the general education class. She believed separate classes were problematic because the time the students spent outside of the classroom was time that they missed out of the regular classroom instruction. Will was concerned since she viewed schools as social environments in which, if students are isolated from their peers, their self-esteem would decrease

and they would develop increasingly negative feelings regarding school (Henley et al., 2002, p. 222).

Thus, paralleling the trend of delivering all services in the general education classroom, this practice was extended to low-achieving students as well. Increasingly, it has become more accepted that low achievers should remain in class as opposed to being pulled out for instructional support. Settings for these students have changed from segregationist practices toward addressing all children's needs within a general education classroom (Stainback, Stainback, & Forest, 1989). Changes in the law, however, did not end the controversies relating to push-in and push-out types of services. The issue of which is the more effective method of delivering instructional support is an issue of continued debate.

Controversies Related to Support Instruction for Low Achievers

Proponents of inclusion argued that inclusion is beneficial for disabled students in a number of ways. Indeed, some studies focusing on the social, emotional, and academic functioning of children with learning disabilities who were placed in an inclusion classroom indicate that there are positive effects for these students (Wiener, Tardif, 2004; Marston, 1996; Vaughn & Klingner, 1998). In contrast to this, however, some research findings demonstrate drawbacks of in-class settings for low-achieving students. Some low achievers, for instance, show passivity in specific instructional contexts while in that setting (Peterson & Miller, 2004). Also, they have been more reluctant to seek help (Ryan & Shin, 2011) and have experienced more depression (Valas, 1999).

Further discrepancies exist in regard to funding for low achiever's instructional support services. Unlike special needs groups of students who receive federal mandates and monetary appropriations for special educational instruction, providing funds for support services for the

low-achieving students are appropriated much differently and less consistently. If a low

achiever's academic problems are not considered classifiable, however, a school may or may not

receive funding for BSI depending on whether or not the school is located in an area with a

significantly low-income population. If it is, he or she is eligible to receive instructional support

services funded by Title I of the Elementary and Secondary Education Act (ESEA). Grants are

given to local educational agencies with the purpose of serving these "economically

disadvantaged" students. Currently, when schools serving low-income families are determined as

eligible for federal assistance, they are required to participate in the National Assessment for

Educational Progress (NAEP). Their state must develop a single, statewide accountability system

(Hombo, 2008).

In *non-Title 1* schools, however, support services for low-achieving non-classified

students are not similarly regulated. My conversations with colleagues in various school districts

show that there are rampant inconsistencies regarding how, what type, and how often support is

delivered. This happens because, unless a school receives Title I funds, the amount of support

allocated for basic skills instruction is more dependent on the discretion of the school board and

district administration. With less federal or state regulations and appropriations for these low-

achieving students, low achievers' academic needs in these non-Title 1 school districts are

affected considerably.

More recently, school districts' financial constraints have reflected weak economic

conditions in the nation. As scrutiny dictates, schools may find that, unless classrooms revert to

more homogeneous compositions, it will be more costly to have push-in services. Having one

teacher go into three different classrooms to provide instructional support to two students in each

classroom, for example, means that three time slots would be needed to render services. But if

two students in each of these three classrooms come out and meet with the basic skills teacher at one time, only one time slot would be needed to deliver the same support instruction for these same six students.

Another point of concern, one that I saw from personal experience as a BSI teacher, relates to a lack of co-teacher planning time. Although common planning time was allotted for general education and special education teachers, the basic skills teacher did not have similar opportunities. Working with as many as ten different teachers daily leaves little time for co-planning or communicating with the general education teacher. This is truly unfortunate, since one of the reasons that inclusion practices are thought to be successful is that the professionals collaborate together to coordinate instruction (Henley, Ramsey, & Algozzine, 2002).

Purpose of This Study

An important point that remains is that we know little about low-achieving students' experiences of instructional support from the students *themselves*. What we do know is that research has found that perceived self-efficacy plays a pivotal role in high performance attainments (Bouffard-Bouchard, 1990). Self-efficacy is the belief that one has capabilities to organize and execute the courses of action required to achieve a given goal. To that effect, hearing low-achieving students' voices would be informative as to what practices and learning environments are most effective toward building their self-efficacy beliefs and, ultimately, improve their chances for greater successes.

It may be that few studies have investigated these students' perspectives as a result of inconsistencies and controversies with regard to how and from where support instruction is delivered. Adding to this lack of cohesiveness is the fact that until very recently, studying children from children's perspectives was done much less frequently. Few studies used

qualitative methods of research to interpret students' experiences (Christensen & James, 2008; Freeman & Mathison, 2009; Lloyd-Smith & Tarr, 2000; Greene & Hogan, 2005; Graue & Walsh, 1998). Studies were *on* children as opposed to *about* them. According to Christensen and James (2008), "When we brought together the chapters for the first edition of this book, discussions about research with children as central informants of their own life worlds were relatively uncommon and were scattered through a diverse literature."

The value of capturing the voices of students is evidenced by researchers Freeman and Mathison (2009). They view children's input in research from a social constructivist perspective; acknowledging that "humans, children, and adults, play an active role in their own socialization process" (p. 4), and they detail this further with the following statements:

By focusing on how children and youth construct meaning, social scientists began to acknowledge children's active role in society, not just absorbers of it. From a social constructivist perspective, the actions and interactions of children play a key role in shaping the environment, which, in turn, shapes them. To study children as only recipients of information within environments misses this important interaction. Not only does environment play a role in shaping how children behave, think, act, and talk, but how they do these things, in turn, shapes the environment. (p. 4)

Some teaching practices increasingly became common for non-classified struggling students despite the fact that decisions for implementing these often were "explored solely through the views and understandings of their adult caretakers who claim to speak for children. This rendered the child as object and excluded him/her from the research process" (Christensen & James, 2008, p.2). Unfortunately, in education, "all too often those most affected by educational policy and programmatic decisions—the students—are absent from inquiry"

(Marshall & Rossman, 1999, p. 115). An exhaustive search of studies involving low-achieving students' voices about their instructional support experiences revealed that there are few qualitative investigations that have been conducted from the perspectives of the low-achieving students themselves.

Research that *has* included input from low-achieving students provides little qualitative data, as responses in general were limited to questionnaires and surveys. In addition, many of these studies involved high school or college-age students as opposed to using in-depth interviews that can serve in "understanding the experience of other people and the meaning they make of that experience" (Seidman, 1991, p.3). If the respondent in the interview is empowered, "we establish a space for the respondent's *own* story to be heard" (Gubrium & Holstein, 2003, p. 38). When low-achieving students have ownership about their experiences, we may be better informed as to whether support instruction in the general education environment helps build self-efficacy for these students on an optimal basis.

Research Questions

In summary, few studies have examined how struggling non-classified students who are receiving support instruction are themselves feeling. More research on this topic is needed because of the limited number of qualitative studies that have explored this topic. By examining this subject from a perspective that focuses on the voices of the low achievers themselves, the educational community ultimately will gain a better understanding of how these students are experiencing push-in practices.

The major purpose of this research is to conduct an in depth examination of the low achiever's experiences and perceptions of support instruction. Therefore, the following research questions will be addressed and guide this study:

1. From the perspective of the low-achieving students, what are their academic, emotional, social, and classroom environmental experiences of their math in-class support instruction?

2. During basic skills instruction, what are low-achievers' experiences of classroom occurrences that are related to the sources of how self-efficacy beliefs are formed?

3. What do low-achieving students identify as supports and barriers to their learning?

CHAPTER II

Review of the Literature

This study investigates low-achieving students lived experiences relating to their instructional support. This research includes an examination of these students' self-efficacy beliefs in relation to the environment where this support instruction is delivered. This chapter is a review of literature that informs this study, and it consists of three sections. The first section focuses on self-efficacy beliefs. It begins with the definition of this term together with a review of pertinent research. Addressed next is how the school "functions as the primary setting for the cultivation and social validation of cognitive capabilities" (Bandura, 1997, p. 174). Following this are descriptions of sources from which self-efficacy beliefs are formed. These sources, because they are embedded in classroom structures and school practices, are detailed further in this last part of section one.

The second section examines literature pertaining to low achievers' support instruction. Included are reviews the research that involves teaching practices that have been implemented for supporting low-achieving students. This is followed by a review of studies pertaining to instructional group compositions and the interactions low-achieving students have with their peers in these settings. The concluding part, which also serves as a connection between sections one and two, reviews literature regarding the *sources* of self-efficacy beliefs in relation to the low achievers' instructional support: low achievers' peer affiliations, social status, and acceptance in classroom settings. The third and final section of this review summarizes the literature covered in this chapter. It also addresses inconsistencies in the studies and substantiates reasons why further research on this topic is needed.

Self-Efficacy Beliefs

Regardless of whether low-achieving students receive their support instruction in a push-in or pull-out environment, social dynamics occurring within those settings contribute significantly towards their self-efficacy beliefs and ultimately their academic performances and outcomes (Lane, Lane & Kyprianou, 2004). Therefore, for the purpose of this study, the self-efficacy construct of Bandura's social cognitive theory will provide a framework for exploring and obtaining a deeper understanding of how instructional support impacts students' self-efficacy and is experienced by low-achieving students.

Bandura's definition of self-efficacy. Bandura is the theorist who has been associated most often with the social cognitive theory and its construct of self-efficacy. According to Bandura, people guide their lives by their beliefs of personal efficacy. Perceived self-efficacy refers to "beliefs in one's capabilities to organize and execute the courses of action required for producing given attainments. The events over which personal influence is exercised vary widely, however. Influence may entail regulating one's own motivation, thought processes, affective states, and actions, or it may involve changing environmental conditions, depending on what one seeks to manage" (Bandura, 1997, p. 3).

Although the term "self-esteem" often is used interchangeably with self-efficacy, Bandura distinguishes between the two. According to his definitions, self-esteem is concerned with judgments of self-worth whereas self-efficacy is concerned with judgments of personal capability. Bandura further details this with the statement that there is "no fixed relationship between beliefs about one's capabilities and whether one likes or dislikes oneself" (Bandura, 1997, p. 11). People may feel very inefficacious with respect to a specific activity, for example, but because their self-worth is not invested in that activity, their self-esteem is not diminished.

Bandura postulates that when people are engaged in ongoing pursuits, their perceived personal efficacy predicts goals they will set for themselves in addition to their performance attainments. Self-esteem, on the other hand, does not affect either goals or performance. This was confirmed in a study by Mone, Baker, and Jeffries (1995) in which the results indicated that self-efficacy had "greater predictive validity than self-esteem and was more influenced by personal goals and performance" (p. 716).

Self-efficacy beliefs in educational context and the low-achieving student. Perceived self-efficacy plays a pivotal role in high performance attainments (Bouffard-Bouchard, 1990). For example, students rely on efficacy beliefs in determining which course of action they will take and how long they will continue it. This is particularly critical for the low-achieving student who has been at risk for academic failure. The educational context plays an important part for these students, for Bandura (1997) has found that less efficacious students will expect poor performances of themselves in some of the academic activities -- and this in turn will conjure up negative outcomes for them. It follows, then, that low-achieving students might avoid pursuits they feel they cannot perform successfully, choosing instead to actively pursue tasks at which they believe they can be successful and which they believe would bring them valued rewards.

Further evidence corroborating Bandura's postulate that self-efficacy plays an integral part in successful cognitive performance are the results of studies by Skaalvik and Skaalvid (2004) and Boufford-Bouchard, Parent, and Larivee (1991). Boufford-Buchard et al. (1991), who studied children of various levels of ability and found that regardless of whether the children were of average or high cognitive ability, those who had a high sense of efficacy "were more successful in solving conceptual problems than were children of equal ability but lower perceived efficacy. The more self-efficacious students at each ability level managed their work

time better, were more persistent, and were less likely to reject correct solutions prematurely"

(Bandura, 1997, p. 215). In their study, Skaalvik and Skaalvik used a series of regression

analyses of high school participants and found that self-efficacy was the strongest predictor of

subsequent grades.

Research by Meece (1997) and Boufford-Bouchard (1990) reinforces this further as they

examined self-confidence in abilities and their influence on achievement in different academic

domains. Bouffard-Bouchard's study, for example, explored the influence of self-efficacy

judgments on cognitive performance with subjects who had equivalent experience and

knowledge in a performance domain. Results showed that students who were in the high self-

efficacy group "had determined higher achievement goals than those in the low self-efficacy

group" (Bouffard-Bouchard, 1990, p. 362). Perception differences were related to the number of

problems completed, the accuracy of self-evaluation of responses, and the efficiency of problem-

solving. Bouffard-Bouchard's study also supported the premise that, although an individual may

have the requisite skills for a particular task, perceived self-efficacy operates partially

independent of those skills. In addition, the results of this study showed that students who

received positive feedback judged themselves to be more efficacious than those who judged

themselves after receiving negative feedback.

As will be discussed later, this implies the pivotal role that social persuasion has on the

construction of self-efficacy and also underscores the important role teachers play in providing

students with signals to assist them in adequately evaluating their capabilities. It is important to

note, however, that Bouffard-Bouchard herself acknowledged several limitations arising from

this study, which in effect reduces its generalizability. Self-efficacy and actions were measured

at widely disparate times, making it possible that intervening experiences might have interfered

with the students' level and/or strength of self-judgment of their own competence.

Finally, whereas some may feel that low-achieving students simply do not have the same capabilities as others, Bandura feels that it is not so much *what* you have, but a matter of how you use it regardless of the capabilities with which an individual is born. It is the self-assurance with which that individual meets and manages difficult tasks, for example, that determines if he or she makes good use of those capabilities. Furthermore, in addressing those born with more capabilities, Bandura states that "a capability is only as good as its execution" (1997, p. 35*).* But questions remain: how are low-achieving students feeling about their capabilities when they are either pulled-out or given support in the classroom? Does the mere fact that they are in need of extra help lead them to question their capabilities? These uncertainties suggest the need for further research that gives low-achieving students themselves an opportunity to answer these questions in greater depth.

These studies confirm the importance of a resilient sense of efficacy. As Bandura summarized, individuals' strong self-efficacy enables them "to do extraordinary things by productive use of their skills in the face of overwhelming obstacles" (1997, p. 37). In relation to education then, and as demonstrated here, perceived self-efficacy appears to be a more significant contributor to performance accomplishments than a student's underlying abilities. Having knowledge, skills, or high ability may not necessarily produce high attainments if students do not have the self-assurance to use them well (Meece, 1997). Therefore, knowing the sources from which students form their self-efficacy beliefs are important for educational considerations.

Sources of self-efficacy in relation to the school environment. As stated previously, in Bandura's social cognitive theory, he hypothesizes that students form their self-efficacy by

interpreting information from four sources: mastery experiences, vicarious experiences, social

persuasions, and physiological and emotional states. The most powerful of these, mastery

experiences, refers to people's interpreted results of past performance. With respect to the

participants in this study, these past performances may include grades and scores on standardized

tests.

Vicarious experiences, which occur when people make comparisons with others, are

another source of self-efficacy perceptions. When individuals observe others whom they

perceive to be similar to themselves performing tasks successfully (or not), this contributes to

their beliefs about their own capabilities. Thus, seeing others performing well in comparison

with themselves raises their efficacy beliefs. Social or verbal persuasions that one receives also

influence a person's beliefs about his or her personal competence. Whereas social

encouragement can serve to build one's personal efficacy, messages also can serve to undermine

efficacy beliefs. Individuals depend on the feedback of others when evaluating their own ability

to perform a task; it follows, then, that students depend on evaluative feedback, judgments, and

appraisals from others who are important to them, including teachers, parents, and peers.

Finally, Bandura postulates that a fourth source of information affects an individual's

beliefs regarding his or her capabilities. This source is physiological and emotional states.

Although tension, stress, depression, anxiety or despair can lead to a reduction in self-efficacy

beliefs, optimism and a positive mood can do the opposite.

Mastery experiences. Bandura (1997) and research by Usher and Pajares (2008) as well

as Lopez, Lent, Brown and Gore (1997) concur that mastery experiences, or those formed from

previous performances, are the most influential source of self-efficacy beliefs. As students

receive grades, test scores, and results of standardized assessments, they interpret this

information and evaluate their academic capabilities. Students interpret the results of what they achieved on their task and revise their competence accordingly (Usher & Pajares, 2008). This interpretation is explained by Bandura as he emphasizes that it is not merely the performance successes that are powerful persuaders. Children's self-efficacy beliefs are enhanced when, in conjunction with the performance attainments, they were reminded that they were "exercising better control over academic tasks by using the strategies well" (Bandura, 1997, pp. 80-81).

Usher (2009) found that for all students who were interviewed, strong academic performance went hand-in-hand with confidence. Usher's study further revealed that students who experienced "low grades in math and perceived difficulty with math were factors that undermined their beliefs in their capabilities" (p. 292). Usher's findings clearly mirrored the work of Bandura. Usher's eight-student interview study examined how students formed their self-efficacy beliefs from interpreting information from mastery experiences. The students relied heavily on whether their teacher confirmed their mathematical abilities. Interestingly, the course placement (i.e., high or lower level) appeared to communicate important information about their mathematical capabilities as well. An important point that bears mentioning here is that the four low-self efficacy participants in this study were middle school students.

Once again, Lopez, Lent, Brown and Gore conducted a study with results consistent with Bandura's premise that mastery experiences are related to self-efficacy beliefs. Findings of their study suggested that mastery experiences in math give rise to math self-efficacy percepts. Unfortunately, their study included high school students as participants. Whether or not their findings would hold true for younger student populations might serve as the impetus for further studies.

Vicarious experiences. With regard to students' vicarious experiences in a school setting, when children see other students performing better than they are, it serves as their source for making informative comparisons. Bandura (1997, p. 234) wrote, "Students publicly label, rank, and discuss with one another how smart their classmates are." Thus, students' self-appraisals of their own intellectual abilities are related closely to the appraisals that their classmates have of them (Bandura, 1997).

The work of Festinger (1954) revealed that students tend to compare themselves with their academic peers. Additionally, students compare their progress with that of others on similar tasks, and a person "low in ability chooses a task that will discriminate between low-ability levels" (Wood, 1989, p. 235). As Bandura pointed out, "It is the attainment of others similar to themselves that are the most predictive of their own operative capabilities" (Bandura, 1997, p. 171).

When low-achieving students see those who are similar to themselves achieve successes, the low achievers believe they have the capability of mastering similar activities (Wood, 1989; Schunk, 1984). Simply stated, they convince themselves that if other, similar, students can do it, "they too have the capabilities to raise their performance" (Bandura, 1997, p. 87).

The school also serves as an agent for social comparison when emphasis is on social-comparative versus self-comparative appraisals. A study by Rosenholtz and Rosenholtz (1981) found evidence that this greatly impacts students' self-appraisals of their cognitive abilities. The researchers found that less able students suffer the greatest when the entire class studies the same material and when teachers make comparative evaluations frequently. In settings where social comparative standards are stressed, students rank themselves according to their capabilities, and the ensuing reputations are not easily changed.

Research conducted by Trautwein, Ludtke, Marsh, and Nagy (2009), examined within-school social comparisons. Results of their study, conducted with secondary school-age students, are particularly relevant with regard to the environment in which struggling students receive instructional support. Findings of their study showed that students' academic self-concept is a reflection of their relative position in class. These results are particularly insightful in relation to where low-achieving students receive support; that is, whether students stay in or go out of the general education classroom for BSI.

These two different instructional environments produce differing points of reference for low-achieving students. In a homogeneous setting, generally a characteristic in pull-out instructional support, students compare themselves to like-ability students. Because a heterogeneous instructional grouping includes higher ability students, however, low achievers' points of reference in that classroom setting will differ. Interestingly, these researchers found that high-ability students "were less affected by the negative frame of reference effect than were low-achieving students" (Trautwein, Ludtke, Marsh, & Nagy, 2009, p. 260).

Social persuasions. Another source of a person's self-efficacy beliefs proposed by Bandera is from feedback received from others, or social persuasions. Whereas social encouragement can serve to build a person's personal efficacy, messages also can serve to undermine efficacy beliefs. This is confirmed in a study by Chen, Thompson, Kromrey, and Chang (2011) which revealed a high relation between positive academic oral feedback and academic self-concept. Individuals depend on the feedback of others when evaluating their own ability to perform a task. Students depend on evaluative feedback, judgments, and appraisals from others that are important to them. It is in the classroom setting that students have numerous opportunities for teacher feedback that can be either positive or negative. That, in turn, either can

help build a child's self-efficacy or lessen it.

Brophy and Good (1970) conducted an observational study of dyadic contacts between teachers and individual students and investigated how teachers communicate performance expectations. Results showed that teachers communicated disparities of performance expectations to different children. This study not only confirms findings of research conducted by Lee (1989), but also suggests that teachers' expectations of and their ensuing behaviors toward low-achieving students are critical. Using the results from their study, Brophy and Good created a model to explain their findings. Their model states that early in the year, teachers form different expectations for student behavior and achievement and, as a result, behave differently toward different students. This behavior "tells" students how they are expected to behave in class as well as perform on academic tasks.

Other research concerning teacher's responses that contribute to a student's self-evaluation was conducted by Montague and Rindaldi (2001). This work consisted of two studies. The first was an investigation of classroom dynamics between second and third grade students who were at risk for developing learning, emotional, or behavioral disorders. In this first study, results showed that there were significant differences between the at-risk and not-at-risk students in relation to the type of teacher responses and engaged time in academics. The teachers made considerably more negative and nonacademic responses to the at-risk students. Additionally, these at-risk students spent significantly less time on task as opposed to the not-at-risk students.

The follow-up study, when the same students were in third and fourth grade, once again compared to not-at-risk students. Here, at-risk students spent less time on task and perceived themselves more negatively. Unfortunately, the students perceived that their teachers' expectations of them were negative.

Last, a study that examined help-seeking tendencies, or feedback that a child can give a teacher, was examined by Ryan and Shin (2010). They investigated this in relation to students' self-efficacy and academic achievement of 217 sixth graders. After the first marking period, results demonstrated that academic self-efficacy was positively related to adaptive help-seeking, whereas avoidant help seeking was negatively related. The significance of this study is that communication in this manner between student and teacher is vital for the teacher in understanding whether or not a student comprehends the material. The benefit of a teacher having this information prior to written assessments is helpful for preparing lessons that address any misunderstandings more immediately and effectively (Rudduck & Flutter, 2003).

In this proposed study, hearing from low-achieving students themselves about their instructional experiences will help provide a greater understanding about why they may be reluctant to seek help. This will fill in the gap that has been left by studies that have only used questionnaires or surveys for obtaining information.

Physiological states. The fourth source of efficacy that emanates from emotional and physiological states, Bandura hypothesizes, includes anxiety, fatigue, stress and mood. Students may experience high anxiety which, in turn, can "undermine self-efficacy. Students who experience a feeling of dread when going to a particular class likely interpret their apprehension as evidence of lack of skill in that area" (Usher & Pajares, 2008).

A qualitative study conducted by Usher (2000) examined this issue in-depth. Usher examined physiological and affective states of students with reported low self-efficacy in math. Interviews with middle school students revealed that these students experienced several emotions ranging from depression, anger, impatience, agitation, and rage which, in turn, they interpreted as "a sign of incompetence" (Usher, 2008, p. 305). Usher found that all students in her study,

which included students with high and low self-efficacy, expressed that they had experienced "heightened physiological and affective arousal" (Usher, 2009, p. 305) at least some of the time during math class. However, whereas the students with high efficacy were not negatively impacted, those students with low self-efficacy interpreted the heightened arousal states as signs of incompetence. Usher found that, for boys particularly, this cognitive dissonance led to impaired functioning.

A multi-method qualitative study by Ahmed, van der Werf, and Minnaert (2010), investigated the emotional experiences of students in the classroom. In this multiple case study, they used a variety of methods; such as heart rate monitoring and video stimulated recall interviews, to explore emotional states of six 7th grade students. These researchers had three purposes for this study: (1) to examine the correspondence of nonverbal expressions, subjective feelings, and physiological reactivity (changes in heart rate); (2) to see if task difficulty matters in emotional experiences; and (3) to explore the relationship between students' emotions and value appraisal and competence.

Here, the low-achieving students reported that they experienced negative emotions that included anxiety or anger regardless of the task difficulty. Their study revealed that the two low-level students expressed anxiety during tasks -- those they appraised as highly competent and of high value to themselves -- of easy difficulty. As the tasks became moderately difficult (these same students appraised the tasks again as highly competent in and of high value to themselves), these students demonstrated anger.

In the difficult task, however, one low-ability student appraised this task as one in which he had low competence and value. His response in this task was anger. The other low-level student, when engaged in the difficult task that he appraised himself as being highly competent

and of high value to him, demonstrated enjoyment. Analysis of this study has important

implications for teachers to provide "a variety of activities that are within the range of the

students' ability. Such activities are likely to enhance students' perception of competence as well

as their perception of the value of math, which subsequently influence their emotions and their

performance" (Ahmed et al., 2010, p.149).

       In short, the school and classroom structure contribute significantly to a student's self-

appraisal of his or her ability to perform the tasks that will lead to successful performance

outcomes. As previously described, the school is "an agency for cultivating self-efficacy"

(Bandura, 1997, p. 174). Important as this may be, there have been few qualitative studies that

examine students' *own* voices about their school experiences (Rudduck & Flutter, 2004). This is

concerning considering that, as Rudduck & Flutter (2000) examined, the social dynamics

occurring in the classroom influence judgments of low-achieving students' capabilities. In light

of these points, the following section reviews research about teaching practices and instructional

groups that impact these beliefs for this student population.

Instructional Support Environments and the Low-Achieving Student

       Fortunately for students, educators increasingly have become aware that it is important to

recognize the way students learn (Burrows-Horton & Oakland, 1997). The challenge for

educators, however, is using this research information for the purpose of ensuring that *all*

students, regardless of their ability, develop to their optimum capabilities. Building on the review

of research already presented, which demonstrated how self-efficacy beliefs contribute to

academic achievement, this second section of Chapter Two includes reviews of studies that

investigated the dynamics involved with instructional support in relation to various classroom

settings and groupings.

Three areas of research within this section will be reviewed. The first area begins with a review of studies that examine academic achievements of low-achieving students who receive support instruction in different classroom environments. This includes homogeneous and heterogeneous settings as well as sizes and compositions of groupings. Results of these studies differ with respect to the effectiveness of these for low-achieving students. Therefore, the next area in this section includes a review of research relating to teaching practices in support environments and their impacts on low-achieving students. The final area of this section reviews studies having findings that suggest a link between self-efficacy beliefs and academic achievement (Wentzel & Caldwell, 1997; Bandura, 1997; Pintrich & deGroot, 1990). The sources of self-efficacy beliefs, derived from the experiences low-achievers have from the peer interactions and social dynamics that occur in instructional settings, can promote or erode academically fragile students' feelings of their capabilities (Bandura, 1997). To that end, studies pertaining to the sources of self-efficacy in relation to classroom environments will be included.

Academic achievement and classroom environments. Low achievers' instructional support can be delivered in different environments. This can include either a general education setting (push-in) or out (pull-out) setting. Whereas pull-out instruction is primarily homogeneous in composition, in the general education setting, small groups can be arranged either heterogeneously (mixed-ability) or homogeneously. Homogeneous grouping, or ability level grouping, is defined by Slavin (1990) as "any school or classroom organization plan that is intended to reduce the heterogeneity of instructional groups; in between-class ability grouping the heterogeneity of each class for a given subject is reduced, and in within-class ability grouping the heterogeneity of groups within the class (e.g., reading groups) is reduced" (p. 471).

This research review begins by examining studies pertaining to one aspect relevant to this

study--academic gains low-achieving students make in particular instructional settings. In addition to reviewing studies that focus on same-ability and mixed-ability settings, research that explores size of instructional groups and the selection of students in those groups will be included in this section.

Low-achieving students and academic gains in homogeneous and heterogeneous groupings. Many studies have investigated academic outcomes of students who receive instruction in both heterogeneous and homogeneous learning environments. Huber, Rosenfeld, and Fiorello (2001) examined incremental changes in general education students' achievement scores of high, middle, and low achievers across three years. During this time, inclusion and inclusive practices were implemented at the school. Research was conducted in general education classrooms in which students with disabilities were included. Results were academically favorable for the below-class group of students, with the data showing that they achieved greater gains than did the on-level and above-level group of students. Although academic gains in both reading and math were most pronounced in the first year of this study, the results nevertheless support claims that in-class instruction for low-achievers can provide academic benefits.

Another study, conducted by Meijnen and Guldemon (2002), examined heterogeneous as well as homogeneous settings and their academic impact for low achievers. Their examination of low achievers' performances in these two types of small group compositions consisted of homogeneous groupings (n=16) and heterogeneous (n=14) groupings that involved 3,648 students in 176 schools. Data included achievement scores of individual students. Again, quantitative results confirmed that low-achievers' performances were lower in the homogeneous cluster compared with that of low-achieving students who were in the heterogeneous group.

Research conducted by Saleh, Lazonder, and DeJong (2005) also suggested positive effects associated with heterogeneous environments. They examined grouping arrangements on the achievement of fourth-graders. Their work, which included examining the students' motivation as well, involved 104 participants who were classified as being high, average, or low ability according to performance on the Science Elementary Achievement Test. Students were assigned randomly to homogeneous or heterogeneous groups. Results of this quantitative study indicated that low-ability students were more motivated to learn and achieved more in the heterogeneous groups. Limitations of this research include the fact that science was the only content area examined, and the study was conducted in Kuwait.

Conflicting evidence about settings is found in a study conducted by Klingner, Vaughn, Hughes, Schumn, and Elbaum (1998). In their research, there were little or no academic gains for low-achieving students in grades one through three when they received instruction in an in-class environment. Despite the presence of having two teachers co-teach using instructional practices that were identified by research as being effective for a wide range of achievement levels, fewer low- and average-achieving students improved than did the students with learning disabilities. Results of their work demonstrate that the presence of two teachers co-teaching in an inclusive classroom does not necessarily guarantee support effectiveness for low-achievers.

Betts and Shkolnik (2001) corroborate this further with their empirical evidence in relation to the impact of ability grouping and tracking on inequality of student achievement. They list major difficulties that researchers face when investigating these effects. Their findings lead them to conclude that, "based on the existing evidence it is difficult to make a clear policy prescription as to whether 'detracking' America's schools will lead to gains or losses for all, some, or even any students" (2000, p. 21).

Group sizes and compositions. In addition to research regarding academic achievement of low-achievers in homogeneous and heterogeneous environments, other aspects of settings that impact struggling students, such as the size and selection of groups, have been explored as well. Fuchs, Fuchs, Kazdan, Karns, Calhoon, Hamlett, and Hewlett (2000) investigated the effects of workgroup size and structure on third and fourth grade students who worked together on complex tasks. Participants were 36 students who were randomly assigned to two workgroup sizes consisting of pairs and small groups. Results of videotaping and classroom performance assessments showed that low achievers working in dyads earned higher scores on participation, helpfulness, cooperation, and quality of talk. Low achievers also collaborated more in dyads than did their middle or higher ability students. Once again, data did not consist of students' input; rather, data was gathered from videotape, observations, and assessments.

Expanding on this topic is research by Manhenthiran and Rouse (2000). They investigated whether giving students some control over the group selection process would improve their performance and attitudes. Participants were assigned to one of two types of groups. In one group, students were allowed to pair up with a friend prior to being randomly assigned to a group. In the second type of group, students were randomly assigned. These groups were in effect for the entire semester, and the students' performance on group projects was evaluated before they knew their grades. Quantitative results showed that the low-ability students performed better in a group in which they had chosen a close friend than when they were randomly assigned to a group in which they had no acquaintances. In addition, the low ability students who were paired with a friend scored as high as the high ability students who were assigned to the random groups. This research by Mahenthiran and Rouse suggests that the compositions of small groups, whether in heterogeneous or homogeneous settings, are vital

considerations for the low-achieving student population.

Once again, however, there are limitations to this study. First, the participants were college-age students. It is uncertain if these results would be similar if participants were elementary-age. Furthermore, because this was a quantitative study, what these students were thinking about their relationships with their peers in these groupings is not clear. More qualitative data would have provided greater understanding about how these students' experiences impacted their performances.

These research findings reveal discrepancies with regard to which setting is effective in helping low-achieving students attain successes. In an attempt to account for this, following are reviews of studies related to teaching practices that impact low-achieving students.

Teaching Practices and the Low-Achieving Students

Specific instructional practices have been implemented to help the low-achiever achieve success in heterogeneous and homogeneous settings. Some researchers have examined the effectiveness of these practices and their impact on these students. Certain teaching practices, such as cooperative learning and peer-assisted learning groups, lend themselves well to push-in instructional settings as opposed to pull-out settings that generally are comprised of same-ability students. Although these two instructional practices can be adapted to a homogeneous grouping, they are designed primarily to include students of various ability levels in order to accomplish their primary academic objectives.

Cooperative learning groups.

One practice currently implemented with low-achieving students more frequently in a heterogeneous setting is cooperative learning groups. This is an instructional strategy in which students work in small cooperative groups to master academic materials and are rewarded for

doing well in that group. There is a socially structured exchange of information within each group, and the end result is that each student is accountable for his or her individual learning as well as the learning of the other members in the group. Cooperative learning groups, which can be used to teach any part of the curriculum, are designed to have students share ideas, brainstorm, ask questions, experiment, and find solutions. The goals of this type of structuring are to help students learn through mutual planning and decision making. Generally, because cooperative learning groups are heterogeneous in composition -- that is, they include students of different levels of ability -- this practice is used primarily in heterogeneous, or mixed-ability, settings. Cooperative learning groups, which have and continue to be widely used by teachers (Antil, Jenkins, Wayne, & Vadasy, 1998), have been the subject of research studies for several decades. How, then, does this practice specifically affect the low-achiever?

Evidence suggesting positive effects of cooperative learning groups.

There has been some evidence that this practice appears to promote higher achievement for low-achieving students than does individual learning (Johnson, Johnson, Roy, & Zaidman, 1985; Peterson and Miller, 2004). The success of cooperative learning is due in part to the fact that "it is interactions that occur in groups that facilitate learning" (Gillies, 2000, p. 98).

Supporting the fact that there are definite advantages to the implementation of small-group cooperative learning is research by King (1993) who found that "cognitive achievement is possible" (p. 424). In King's study, results were obtained from using stimulated recall methodology with third graders showed that low-achieving students were active in the learning process.

Conflicting evidence about effectiveness of cooperative learning groups.

Although King's study revealed these advantages for low achievers, results also indicated

that this practice produced less than positive effects for them as well. Specifically, it was in this heterogeneous environment that several details emerged: (a) low-achieving students were vulnerable to the influences of the more dominant leadership style of high achievers, (b) high-achieving students took on dominant roles when engaging in group tasks, and (c) high achievers led in group decision-making as well as in the quality and quantity of contributions to the endeavors of their groups.

Low achievers' engagement with peers in cooperative learning activities was also examined by King (1993). King conducted research that focused on the thought processes of 22 students in a third-grade math class by examining the low achievers' interactions with others in a small-group cooperative learning environment. The small-group cooperative learning model was used in which groups of four, each consisting of two high achievers and two low achievers, were formed. Each member was assigned a specific role in the working of the group. All groups worked on the same problem or problem-solving activity. Each group worked toward one product, from which each member received a group reward. This model was designed to focus on "students learning to solve problems involving cognitive learning processes as well as social relationships within groups" (King, 193, p. 403).

King videotaped the lessons and later used these tapes to help with stimulated recall interviews. All interviews were audiotaped and later transcribed. Subsequently, a second researcher monitored the audiotapes of the interviews to confirm the neutrality of King's questions and questioning style. Results of data collection indicated the presence of the student passivity phenomenon. In other words, there was "(a) maintenance of the status differential between high and low achievers (b) the inability of low achievers to take command of learning situations, (c) the difficulty the lows experience when seeking explanations and understanding,

and (d) the inclination of lows to engage in self-presentation behaviors" (King, 1993, p. 406).

Although the low-achieving students' perceptions of their performance as related to the assessments generally were positive, King found that these students' comments were not specific in nature. The low-achieving students did not experience much failure in the group work, and this may have resulted in few negative self-assessments. These same students, however, also expressed some concern about their feelings concerning their performance. One student said, for example, "It worries me a bit when I can't do what others do. I didn't know anything about it. I just listened" (King, 1993, p. 413). Another student mentioned that the other group members were going faster than she was, and that made her sad. The students' perceived lack of progress in this type of small-group work may have led them to adopt self-presentation behaviors in order to maintain their sense of self-respect. Here again, these vicarious experiences (comparing themselves to others), is contributing to the formation of their efficacy beliefs. According to Bandura's theory, these will not lead toward the formation of higher self-efficacy beliefs.

To summarize King's research, despite the fact that low achievers were active in the learning process, the small-group model did not result in a significant reduction of the differential status effects between the low and high achievers. Therefore, these results led King to conclude that, in order for the seeker of the help to gain from cooperative group learning experiences, it may be necessary for teachers to prepare students in how to work and learn in small groups.

Studies that examine training and increasing the effectiveness of cooperative learning groups.

This "training" idea was studied by Gillies (1993). She investigated whether children who had been trained previously to help each other and cooperate would be able to use those

trained behaviors in similarly created groups one year later without undergoing additional training.

Hoek, Terwel, and van den Eeden (1997) studied whether training in the use of cooperative groups could improve the effectiveness of this practice by examining three instructional programs for cooperative learning. Hoek et al. (1997) addressed the general and differential effects of a training that incorporated social and cognitive strategies for 511 secondary math students. The study involved three instruction programs. One was an experimental program that contained special instruction in the use of social strategies. The second was an experimental program that provided instruction in the use of cognitive strategies. The third was a control program with no training in either social or cognitive strategies. The design included a pre-test and post-test control group design. Data included the participants' results of a mathematical reasoning test administered prior to, and at the conclusion of the experiment. Results suggested that the teaching intervention had positive effects, particularly for the struggling student.

Finally, a variety of strategies have been developed to support low achieving students in the heterogeneous setting (Meece, 1997). One specific approach is the focus of the Strategies Intervention Model created by Deshler, Scumaker and their colleagues at the University of Kansas Institute for Research in Learning Disabilities. This model includes strategies that help students "acquire information from written materials, identify and store important information, and facilitate written expression and demonstration of competence. The structure and demands of a particular general education setting determine which strategies are emphasized, leading to greater student success in the general education classroom" (McGregor & Vogelsberg, 1998, p. 19). Although this research supports the effectiveness of strategy training, whether teachers have the

opportunity to teach these strategies or how many students *actually* receive this, is not addressed.

Further evidence suggesting that cooperative learning is not necessarily the panacea of practices used with low-achieving students is findings resulting from research conducted by Tan, Sharan, and Lee (2007). They investigated academic gains of 241 7th grade students who were taught geography in either the traditional whole-class method or group investigation method (a form of cooperative learning). Students in this study were grouped into high- or low-achieving, the low achiever category was based on scores from a Ministry of Education examination administered at the end of sixth grade (ages 11 and 12).

Tan et al. (2007) obtained results using scores on two geography tests given at the conclusion of each curricular unit. In addition, at the end of the research experiment, students completed a questionnaire, which included open-ended questions that allowed for students to write about their feelings and experiences toward the group investigation method. Statistical analysis of data showed that the group investigation method did not exert a more positive effect on low-achieving group of students. Interestingly, low-achievers were more dependent on external information (such as their teacher's evaluation) when judging their own success or failure.

Students' perceptions of the group investigation method were obtained through statements that low achievers provided on questionnaires. Low-achieving students wrote some positive statements: Group investigations enabled them to learn new things (10.9% of all statements), and this method promoted teamwork and helping one another. However, low-achieving students also expressed some negative perceptions of the group investigation method. They found it difficult to work in groups and were "more concerned about social relations than were the high-achieving students" (Tan, Sharan, & Lee, 2007, p. 151). Also, some felt that they

were not as well prepared for the test as they had been when they were instructed in a whole-group method.

This study used both qualitative as well as quantitative methods. It included students' perceptions of this type of cooperative learning experience as part of the data source. However, interviews -- which would have generated additional information about the students' experiences of group investigations -- were not included.

Another point of concern is that group investigation was newly implemented as an instructional method. Students' opinions therefore may have reflected the fact that they had little time to adjust to this new method of learning cooperatively. Lastly, this research was conducted in Singapore and included participants who were in secondary school. These findings cannot therefore be generalized to elementary-aged students in the United States. This is further reason why this present study is needed: to fill in the gap and determine how cooperative learning in experienced by students in this country.

Inconsistencies.

While some studies showed that cooperative learning was related to higher achievement for the low achievers, other studies revealed otherwise. Upon closer examination of some studies that found cooperative learning to be beneficial for low-achieving students, several cautionary considerations emerge. One, for example, is that participants in many studies were either secondary or college-aged, and this proposed study will include elementary-aged participants. Another factor is that studies do not consistently support that this type of practice is the panacea for low-achievers. King, along with Good, Mulyran, and McCaslin (1002) showed that low-achievers were more passive during cooperative learning and high-achieving students dominated the group activities.

Furthermore, although cooperative learning was used by a majority of teachers (Antil, Jenkins, Wayne, & Vadasy, 1998), few elementary teachers were applying the criteria for cooperative learning that are consistent with research literature. For example, Bennet, Desforges, Cockburn, and Wilkinson (1984) found that when teachers simply placed students in groups, only one-sixth of the time were the students interacting with other students, and when these interactions *did* occur, most were not related to the task. Additionally, Good and Brophy (2003) warned of potential problems that may inhibit the benefits of cooperative group learning: students can shift dependency from their teachers to their peers, and students may focus and put value on the group product rather than on the process.

In light of conflicting results of studies regarding the positive and negative impacts of cooperative learning on low-achieving students, further study appears warranted. "Less is known about student behaviors during lessons where such teaching strategies are used. Even less is known about students' perceptions when the students are engaged in small-group cooperative learning" (King, 1993, p. 399). Once again, the qualitative study proposed here will allow low-achievers the opportunity to describe their experiences with this practice, thus adding to the body of research that exists on this topic.

Peer tutoring.

Another instructional practice involving low-achieving students, and organized into dyads, is peer tutoring. This is a practice in which "the acquisition of knowledge and skill through active helping and supporting among status equals or matched companions" (Topping, 2005, p. 631). Several studies have documented the benefits of this process for academic acquisition (Cohen, Kulik, & Kulik; Greenwood, 1997; Fuchs & Fuchs (1997).

Benefits of peer tutoring for low-achievers are dependent on a combination of factors including grouping and effective implementation of this practice. Similar to cooperative learning (although there is more evidence that peer tutoring may work well for low-achievers) contrasting evidence of its effectiveness exists as well. For example, Person and Graesser (1999) warned that the tutoring behaviors can be primitive. In other words, tutors can give positive feedback when it is inappropriate and/or make infrequent correction of errors. Taking this into consideration, this could be problematic for the low-achievers, especially if the erroneous feedback they receive serves as one of the sources of their self-efficacy. Detailed information from the low-achieving students concerning how they experience such instances is missing from the literature.

Furthermore, although most studies have involved higher-achieving peers as tutors that were implemented in a heterogeneous setting, peer tutoring practiced in a homogeneous setting (as is the possibility in a pull-out method of instruction), was studied by Menesses and Gresham (2009). They examined the effectiveness of peer tutoring when the dyads consist only of at-risk students. Their research compared academic gains of reciprocal tutoring, non-reciprocal tutoring, and a waiting-list control group. The one-way peer tutoring consisted of one student always being the tutor and the other student was always the tutee. In the reciprocal tutoring condition, students switched roles between tutor and tutee within the same session. Students in the control group (the waiting-list group) received conventional classroom instruction and did not have knowledge of peer tutoring until the study was concluded. Fifty-nine below-average students in second through fourth grades were participants in this study.

Results confirmed that students using the two types of peer tutoring made comparable gains in basic math facts. In addition, these two types of peer tutoring produced more academic gains than the waiting-list control group. Although the results showed promise that peer tutoring

use would extend into pull-out classroom environments, there were specific limitations of this study. Unfortunately, although the peer tutoring practice showed academic gains for some low-achieving students, only math facts progress was investigated. Another unanswered question is whether or not peer tutoring practices promote higher academic gains in content areas as well as rote learning.

Although some studies have examined which teaching practice may be most supportive for low achievers and others have looked at the effectiveness of group composition and sizes within instructional settings, these still do not provide an understanding of *how* these students are experiencing their support. To that end, additional research studies, which provide more information about their interactions with classmates, will be reviewed. Interactions between low-achieving students and their peers, including feedback and social comparisons, are important contributors toward building these students' self-efficacy beliefs. Socialization experiences with peers have been shown to have a powerful influence on students and their achievement motivation (Wentzel, Calwell, 1997; Berndt, Laychak, & Park, 1990). Included next are reviews of studies that examine dynamics that occur in different instructional support environments and their impact on the sources by which self-efficacy beliefs are formed.

Low achievers and instructional settings in relation to feedback, affiliations with peers, acceptance, and comparisons with others.

In order to optimize the advantages of teaching practices used with in-class support, low-achieving students may need explicit instruction about how to "learn" in a general education environment (McGregor & Vogelsberg, 1998). This point is supported by results in the research of Bruininks (1978) as well as Churton, Cranston-Gengras, and Blair (1998). They concur that student-to-student interaction is an important factor in developing academic skills. Churton et al.

(1998) found that children who have social skill deficits often demonstrate difficulties in content subject area. They concluded that a student's learning ability, although it may not be directly related to cognitive difficulties, nevertheless is impacted by the inability to get along with peers. The relationship between social adeptness and academic outcomes, therefore, is of utmost concern as it relates to low-achieving students' social and instructional environments.

As previously noted, peer interactions involve experiences that impact the vicarious and persuasive sources of self-efficacy. Thus, these play important roles in building low-achievers' self-efficacy beliefs. To *whom* these low achievers compare themselves and what feedback they get from their peers contribute greatly towards this.

Low achievers: feedback and help-seeking. Low achievers' social persuasion experiences, which Bandura maintains is one source of self-efficacy, involve feedback that these students receive from others. Do these struggling students get the positive encouragement from their peers or teachers in order for them to feel comfortable enough to seek help if they need it?

The ultimate effectiveness of instruction is contingent on the "helpee requesting appropriate help, receiving the appropriate explanation, and being able to apply it to the learning task and obtaining corrective feedback" (Gillies, 2000, p. 99). Turner, Midgley, Meyer, Gheen, Anderman, Kang, & Patrick (2002) found that in a heterogeneous setting consisting of low achievers who were ten to twelve years old, students who were concerned about their competency were "least likely to request help when it was needed" (p. 89).

This was reiterated in work by Hoek, Terwel, & van den Eeden (1997), who found that low achievers weren't always capable of asking for the appropriate type of assistance since it was difficult for them to explain what it was that they did not understand. These avoidance-of-help behaviors are significant since they have been found to be negatively related to students'

academic efficacy (Ryan, Gheen, & Midgley, 1998). Finally, in Butler's study (1998) it was revealed that some low-achieving students used inefficient strategies (including disruptive behavior such as cheating) when they feared appearing unable to perform.

This research reveals some interesting findings but stops short of providing an answer to *why* this may be occurring. What social persuasions and vicarious experiences do low-achieving students encounter in such settings? What are low-achievers thinking when they may want to ask a question, yet are hesitant to do so, and why? Observing students' lack of help-seeking behaviors does not provide insight about *what* is going on in their minds that prevents them from asking for assistance. Again, more qualitative study on this matter could provide more valuable information regarding how low achievers experience these dynamics.

Peer affiliations and self-efficacy beliefs. In addition to interactions that low-achieving students have with others during more structured times in the general education classroom, they establish peer affiliations with others as well. Social networks/structures and student affiliations were examined by Farmer and Farmer (1996). They detailed three classrooms consisting of students from third and fourth grades. Written questionnaires were given to all classroom participants with the intention of identifying peer clusters. Findings showed that students formed clear peer clusters around shared characteristics; there was a tendency for students to associate with others who had similar salient social and demographic characteristics.

Furthermore, whereas many study findings favored heterogeneous groupings for low achievers, findings of a study conducted by LeMare and de la Ronde (2000) indicate otherwise. They conducted research that included 40 low-achieving students in grades 2-4 and 6-7. The children were asked to assess their service delivery preference using forced-choice responses (choosing either in-class or pull-out) in addition to ratings. Students completed sociometric

rating scales in which they were asked to what degree they liked to play and work with each classmate and then conversely, how much classmates liked to play and work with them. Most students preferred pull-out service and rated this setting higher than in-class delivery of instruction.

   Peer acceptance. Bakker and Bosman's study (2002) sheds more light on peer acceptance in relation to where students receive support instruction. In their study, participants included students from three low-achieving groups: students who attended a school for special education, low-achieving students who attended a school at which general education students receive additional help, and low-achieving students in general education who did not receive additional help. Students were administered a self-image study that consisted of 39 statements. Peer acceptance was determined through sociometric nomination and rank-order procedures.

   These researchers found that students' self-images were related significantly to performance level. Students in the special education school had higher self-images compared to the poorly performing students who attended a general education school and received remedial support. Further analysis of the data showed that peer acceptance of low-achieving general education students who received remedial help share the same popular or unpopular status as the poorly performing general students who did not receive support. Particularly interesting is the fact that students who received special education services were more accepted and respected by their peers than were the low-achieving general education students who received remedial help. In addition, the special education students' self-images were substantially higher and they had more self-confidence.

   In another study focusing on this topic, Stanovich, Jordan, and Perot (1998) provided data regarding the social functioning of 2,011 second- to eighth-grade students. Stanovich et al.,

(1998) compared three groups of students (those who had disabilities, those who used English as a second language, and those who had been identified by their teachers as being educationally at risk) with their general education classroom peers. The instruments used to measure the academic self-concept and social integration of these students in an inclusive setting included The Perception of Ability Scale for Students (PASS) and the Perception of Social Closeness Scale (PSCS).

The academic self-concepts of the low-achieving students, as well as those of the students in the disabilities or English as a second language groups, were lower than the non-categorized general education students. Lower measures of social integration were scored by the three groups in relation to the non-categorized general education students as well. Also, this study found that when comparing the children with learning disabilities, the English as a second language group, and the at-risk students, the at-risk students were relatively accepted by their peers but had low perceptions of their own academic abilities. Interestingly, pupils who had disabilities were relatively higher in academic self-concept than in social closeness.

Another study, by Lam and Phillipson (2009) examined affective and social outcomes of low-achieving students in an inclusive school. Four hundred and ten primary-age students responded to four instruments that measured academic self-concept, alienation from school, teacher-student relationships, and social integration. Responses revealed that students in the low-achieving group reported increased levels of alienation and lowest social integration levels when they were studying the regular curriculum. Interestingly, when these low-achieving students studied a differentiated curriculum, they reported responses of affective and social outcomes similar to high-achieving students. Lower peer ratings of low achievers also were corroborated in research conducted by Vaughn, Elbaum, and Schumn (1996). How do these research results

impact low-achieving students? According to Bandura, feelings of no confidence in themselves and their capabilities could result in giving up more easily and lower performance outcomes.

The impact on low achievers when they are working in these heterogeneous groups was studied by Cheng, Lam and Chan (2008). They examined the "interaction effect between students' within-group achievement and group processes on their self- and collective efficacy" (Cheng et al., 2008, p. 205) and the collective efficacy of 1,921 Hong Kong secondary students as they worked in this type of instructional practice. Interestingly, results revealed that low achievers (as well as high achievers) reported higher collective efficacy than self-efficacy when group processes were of high quality. An important point regarding these results, however, is that rather than the group heterogeneity being the determinant factor in students' learning efficacy, it was instead the quality of the group. But once again, this study falls short because of the lack of qualitative information. Questionnaires will not provide detailed descriptions of *what* those quality processes were and what low-achievers are revealing about those experiences.

Low-achieving students: comparisons with others. Who low-achieving students associate with and who they compare themselves to are important sources toward developing their self-efficacy beliefs. Because students' point of references varies in either homogeneous or heterogeneous settings, these students will be impacted differently. This has been the topic of Meijnen and Gludmond's (2002) study. In addition to examining the performances of low-achievers in homogeneous groupings, they investigated reference processes in two forms of within-class grouping: homogeneous and heterogeneous.

Results confirmed that, when low achievers were clustered together in a homogeneous grouping, their points of reference were particularly focused on how others performed in their group. That group, containing other low-achieving students, tended to have a negative rather than

positive effect. This is interesting, since Bandura states that if students compare themselves to similar students and if they see *those other low-achieving* students succeed, they may view themselves as possibly succeeding as well. The negative effect on the low achievers may have been caused by the homogeneous group members failing to achieve success, but unfortunately this cannot be determined since the lack of further information is a flaw of this study. It also warrants caution: If a low-achieving student references other students in her or his homogeneous group, and those others are performing poorly or unsuccessfully, this might have a negative effect toward building the low-achiever's self-efficacy beliefs.

In summary, Bandura's postulate states that feelings of self-efficacy play an important role toward one's exercising the courses of action required to produce given attainments. His research findings further espouse the fact that students interact with others by continually comparing themselves and getting feedback from their peers. Quantitative studies cannot fully explore how low-achieving students are experiencing these important factors that contribute towards building their self-efficacy beliefs? The current study will take into account the students' lived experiences of those aspects as related to self-efficacy theory.

Chapter Summary

This chapter included two sections of literature review that pertain to topics relevant to this study. The first section included a review of research that addresses the social-cognitive theory, self-efficacy beliefs and sources by which they are formed. The second section of this literature included reviews of studies concerning (a) academic achievement of low achievers in different instructional groupings and settings; (b) teaching practices used for low-achieving students; and (c) low achievers and their interactions and affiliations with classmates, feedback from others and comparisons to peers in learning environments.

Disconcerting is the fact that my extensive search of studies relating to delivering academic support for elementary-age low achievers demonstrated that there is a lack of or conflicting evidence concerning what is most supportive for low achievers. Many of the studies included participants who were disabled (Shah, 2007; Vacuous, Didaskalou, & Argyrakouli, 2006; Baker, 1995) or college/high-school age children (Lee, 1999), and much of the data were gathered from surveys, ratings, observations, or were quantitative in design. In addition, little research has been conducted on how or what teaching practices are implemented with students who receive their instructional support delivered in a *pull-out* setting. Likewise, there is a dearth of research that examines the sources of self-efficacy beliefs for low achievers when they receive support in a pull-out context. Perhaps the inconsistencies involved with pull-out services that stem from few regulations associated with its delivery could account for the near absence of studies on this topic.

In summary, missing from the research, and from which could be explained, are studies that include low-achieving students' perceptions of their instructional support experiences. Whereas in the past, most researchers have observed children's actions and interactions through an adult perspective (Freeman & Mathison, 2009; Graue & Walsh, 1998), this study will advance what has already been explored about low achievers' instructional support by focusing on how the students themselves construct their own meaning from it. Listening to these students will lead to a better understanding about *their lived* experience*s* of those aspects of instructional support that will influence their future educational endeavors. It is critical to help build low achievers' self-efficacy beliefs at an early time in their academic development. If students face frequent failures, they may give up and run the risk of dropping out of school (Holt, 1964). This study will expand the findings of related research by providing information that will be derived from a

clearly subjective source: the students themselves.

CHAPTER III

Methodology

"Who is asked to speak shapes our knowledge of a topic in significant ways" (Freeman and Mathison 2009, p. 30). Whereas there have been data on the *effects* of some in-class support instruction, little is known about *how* the students *experience* this support. Therefore, because the objective of this study was to explore the experiences of low achieving students, the methodology used in this research followed the phenomenological tradition of qualitative research.

Creswell (1998) defines phenomenology as "a study that describes the meaning of the lived experiences for several individuals about a concept of the phenomenon" (p. 51). Wiersma asserts that a phenomenological study "emphasizes" that the meaning of reality is, in essence, in the "eyes of the beholder," or the way the individuals being studied perceive their experience" (2000, p. 238). In educational research, a phenomenological study is called for when we have very little information about how students experience a phenomenon. To best capture those lived experiences of the students in this study, therefore, a phenomenological tradition of qualitative research is the most appropriate approach to employ to accomplish the study's goal: describing students' own experiences from, and as recipients of, the phenomenon that is in-class instructional support.

Setting

This research took place in a public elementary school located within north-central New Jersey where demographic highlights from the 2005-2007 American Community Survey estimates indicated the population to be 26,043. Of this figure, 83.4% were white, 1.6 % was black or African American, 12.3 % were Asian, and 6.2% were Hispanic or Latino. With an

average median family income of $ 115,722 in 2006, this town would be considered to have an upper-socioeconomic rated school district.

This was a Title-I school, and statistics provided by www.greatschools.org show that student ethnicity in this school in 2012 consisted of 49% white, 25% Hispanic, 20% Asian, 4% African American, and <1% Native Americans and Multiracial. The percentage of students who were eligible for free and reduced- price lunch was 16%.

There were several reasons for choosing this school district to include in this research. Conducting the study within this town gave me the advantage of being familiar with the district's math curriculum and basic skills policies because of my previous experience teaching in this school district. This district had a well- defined basic skills program in which specific and consistent practices were followed. This program was continually monitored and was overseen by a supervisor who reviewed and met with the basic skills teachers to ensure that the program maintained its effectiveness. Additionally, convenience sampling used in this study enabled me to conduct the frequent visitations that were required for this type of research. Finally, Randolph filled the support instruction criteria necessary for the purpose of this research, whereas other districts I contacted did not.

At the time of this investigation, basic skills services at this school were delivered both in pull-out and in-class settings. Instructional schedules for 2012-2013 were made early on in the school year, and the location/composition/times reflected the district's requirements that BSI students receive a minimum of 60 minutes/per week of instructional support in the students' subject area for which they had been qualified to receive such services.

Participants

In a qualitative study, "the purposeful selection of participants represents a key decision point" (Creswell, 1999, p. 118). In phenomenology research, the purpose is "to describe the meaning of a small number of individuals who have experienced the phenomenon" (Creswell, 1999, p. 122). Therefore, "criterion" sampling that ensures that all "individuals studied represent people who have experienced the phenomenon" (Creswell, 1999, p. 118), was utilized in selecting the participants for this study.

Possible participants included five low-achieving students in fourth and fifth grade who received basic skills instruction, or otherwise known as BSI. These grades were chosen because students at this age can be competent responders of their experiences and old enough to be able to communicate more fluently than students in the early primary grades (Christensen & James, 2008, Freeman & Mathison, 2009). Students' social/peer relationships are more developed in the latter elementary-grade years, and low achievers' interactions with classmates and teachers are an important aspect of their school experience (Doddington, Flutter, & Rudduck, 1999).

Students qualified to receive BSI based on specifically met criteria. According to the basic skills teacher, these students were initially identified to receive these support services based upon a previous year's partially proficient score on the NJASK test. A score of below 200 was considered as Partially Proficient. This, as well as with their teacher's feedback, were considerations for inclusion in the BSI program.

Basic skills services were offered to students who qualified in either the math or language arts content area, and a total of approximately 44 fourth and fifth grade students received these services in this school. According to the basic skills teacher, the gender composition of fourth-grade students receiving basic skills math instruction for 2012-2013 consisted of four girls and

four boys. Fifth-grade math basic skills students included four girls and one boy. Generally,

students remained in the basic skills program for the entire school year. However and according

to the basic skills teacher, the list of students receiving services was fluid and could increase.

Additional children might be added to receive support instruction if they had been struggling

academically (having low test grades in the first semester exams) and/or if their teacher felt they

needed support and recommended them to receive such services.

Several steps were included for selecting those students who participated in this research.

First, I obtained a list of students receiving in-class BSI math support. Since not all math support

instruction was delivered in the general education classroom (push-in), I consulted with the

school's BSI teacher to identify classrooms in which this support is given in-class. I asked the

teachers of these students to complete a consent form (see Appendix A) granting their permission

to allow me to conduct the study in their classroom. Additionally, I gave these teachers, as well

as the BSI teacher, a questionnaire form to fill out. Since it was vital that students "can articulate

their conscious experiences" (Creswell, 1999, p. 111), information from the teachers' responses

helped me determine whether a student was able to meet this essential criterion (see Appendix

B). After reviewing these, I generated a list of five participants. An additional list of possible

participants were kept in anticipation that some parents of these selected students may not have

given consent for their child to be included in this study. Students with a variety of types and

ranges of difficulties in the content area of math were included. This diversity provided a more

complete understanding about the experiences that this student population has in relation to their

instructional support.

Following this, letters requesting consents were sent home to parents/guardians of these

five selected participants (see Appendix C). The consent letters contained statements that briefly

explained the significance of the research and the method and timeline of data collection. It

emphasized that the names and other identifying information would not be recorded, any linked

code that I used would be securely stored in a location separate from the data records, and the

data was password protected in addition to being physically secure, and the collected data would

be destroyed after the study was completed. I also informed the parents that interviews would not

take place during instructional time. Two possible times were available for interviews: during

lunch time or during homeroom period. Once parents signed and returned the permission form, I

retained the original and sent a copy to them. Any non-responding parents or non-consenting

parents or students, were not considered for this research. In response to this, I ensured that the

video camera was positioned so that these non-consenting students were not visible in the

camera. Additionally to protect privacy for the non-consenting students during the videotapings,

if teachers or other students referred to any non-consenting students, the camera was paused or

edited so that these (non-consenting) students' names and/or voices were not recorded.

After I read the permission slips (Appendix E) aloud to the five students selected to be

participants, I answered any questions they had before asking them for their consent to

participate. These students represented three classrooms. Two fifth-grade participants, Wanda

and Sue, were in the same homeroom class. Mary, Edward and Candace were fourth graders,

with Edward and Candace having the same homeroom teacher. All five participants had the same

teacher as their basic skills instructor.

In addition, students (not participants per se in this study but who may have been visible

in the videotapes and referenced to by participants during the interviews) and their parents were

asked to sign a consent form as well (see Appendix D and F). Due to the difference of

involvement in this study, the non-participant consent letters were less detailed.

The participants represented a variety of previous experiences related to support instruction. Wanda and Edward were newer students in this school, and this was Edward's first year in the district. Wanda experienced basic skills instruction delivered only in a push-in setting. Fourth graders Candace, Mary, and Edward all experienced support instruction delivered in both a push-in and pull-out setting during the 2012-2013 school year. Sue experienced pull-out delivery of services during previous years of BSI at this school.

Math classes in this school were one hour in length. Participants in this study were given two one half-hour support services/per week. For fourth graders, the BSI teacher came into the classroom during math one time per week. The other one-half hour was scheduled for a pull-out setting and delivered outside of the math content time. The fifth graders only received their math support as a push-in type delivery of services.

Prior to conducting my interviews, I observed each classroom where the participants received their instructional support. This enabled me to capture the quality of differentiation that the teachers set within the setting. The observation provided me with a sense of the children's learning environment which, in turn, contributed to a more effective data analysis.

A goal of the first meetings with the participants, was to begin establishing a researcher-participant relationships with them. By showing my sensitivity to their needs, careful listening to what they said, displaying of warmth, projecting empathy and interest in the topic of study, I hoped to develop rapport and help build their trust in me. In addition, it was important to create a comfortable environment to help the students feel welcome. This was accomplished, in part, by providing comfortable chairs, a friendly space, and an informal atmosphere.

During my initial individual meeting with each of the students, I gave them pertinent information and asked if they had questions in order to help them make a more informed

decision about participating in this research. I began by helping them to understand why this study was important by stating that, "I want to learn from you." I assured them that there are no right or wrong answers to questions, that they didn't have to answer any question that they didn't want to answer, and that their responses would remain confidential. I further assured them that they could withdraw from the study at any time if they wanted, and I explained that students didn't have to participate even if their parent(s) say they could. Finally, I will clarified that anything that they said would not be held against them in any way (for example, their responses would be independent of school evaluations and would not be associated with or affect their grades at all). Following this, the students were the option of participating or not; those who agree were asked for their informed consent. (Appendix E).

Data Collection

"Decisions about how to gather data with various age groups requires sensitivity to their needs, their developmental issues, and flexibility" (Marshall and Rossman, 1999, p. 116). In-depth interviews, which were used extensively in this research, are integral data collection methods employed in phenomenological studies (Creswell, 1999). Greene and Hogan (2005) describe the importance of using interviews in this type of tradition. "Phenomenology of children relies mainly upon data given through language, as the primary carrier of experience and meaning" (p. 221). In addition to interviews, other data sources were used to study this phenomenon. Additional information were gathered from documents, direct observations, and physical artifacts. The relationship between the data sources helped with the understanding of how BSI students were experiencing their in-class instructional support.

The general education teachers were responsible for the low-achieving students' instructional needs outside of the BSI program. Therefore, reference to the general education

teachers were addressed as well. A detailed description of where the participants' supports were

delivered, and the teachers involved in providing those services, is presented later in Table 3.

Table 1 describes the data collection methods used in addressing the three research

questions. This is followed by a narrative that explains these methods in greater detail.

Table 1: Research Questions and Summary of Methods of Data Collection

Research Questions	Interviews	Observa-tions	Artifacts	Documenta-tions
From the perspective of the low-achieving students, what are their academic, emotional, social, and classroom environmental experiences of their math in-class support instruction?	X	X	X	
What are their experiences of classroom occurrences specifically related to the sources of how self-efficacy beliefs are formed?	X	X	X	X
What do low-achieving students identify as the supports and barriers to their learning?	X			

Interviews

One benefit of interviewing *children* is that this method of data collection allowed them

"to give voice to their own interpretations and thoughts rather than rely solely on our adult

interpretations of their lives" (Eder & Fingerson, 2003, p.33). A further benefit of interviewing

occurs when, as in this study, there is more than one kind of question. This research used both

semi-structured and open-ended questions that "provide multiple opportunities for children to narrate their experiences and the meaning they ascribe to them" (Freeman & Mathison, 2009, p. 94).

The quality of the data obtained from interviewing depends on a number of factors, all of which I took into consideration while gathering information for this study. These points included ensuring "the appropriateness of the topic" and that the ''questions really do measure the desired concept; that the questions are unambiguous; and that children interpret the question in the way the researcher intended" (Scott, 2000, p. 96). Finally, and because the intent of this study was to examine children's experiences of the phenomenon, I kept in mind that their words would be the essence of this research and therefore it was necessary for me to create and maintain nonjudgmental responses.

However, as with studies that involve children as participants, particular concerns arise with respect to the interviewing process. For example, when interviewing children, it would be necessary to consider the fact that distances between the ages of adults and children physically, socially, cognitively, and politically make the relationships very different from each other. Children generally look at adults as power figures. Therefore, it was important for me to be cognizant of the fact that, because interviewing is a social encounter, the unique relationship between the researcher and children could affect the latter's responses. Additionally, the interviewing would occur within a school setting, and the children could view the researcher as a teacher. These all could be threatening to the child and, consequently, he or she may tend to agree with the interviewer or respond to questions without fully understand the meaning of what was asked (Graue & Walsh, 1998). For that reason, establishing a researcher/participant

relationship conducive to eliciting genuine and thoughtful responses, as well as one where the

interviewer is accepted and the students can relate to, therefore became crucial.

The interviewing did present some challenges. Initially, the students' responses were

brief and appeared restrained. In an attempt to rectify this, I encouraged detailed responses by

posing fill-in-the blank questions to the participants, engaged them in ice-breaking activities,

introduced an "emotions chart", and asked students to create drawings to depict their thoughts

and ideas. The "emotions chart" became particularly useful because, during the initial interview,

students' long pauses were frequently followed by responses that were nondescript. Subsequent

to the first set of interviews, the chart was displayed. The chart contained adjectives representing

various emotions (i.e., happy, sad, angry, surprised) which were accompanied by visual

depictions of those words. When students appeared to have difficulty finding words to detail

their feelings, I suggested they refer to the emotion chart to see if anything posted on it would

accurately depict how they felt. Thus, if participants saw any adjectives that were appropriate to

describe their emotions, they were given the option of using one or more of those words that they

may not have been otherwise able to produce. Although this chart was posted during most

interviews, it was particularly helpful for eliciting responses related to the first research question,

which is described next.

In addition to the audiotaping, I took notes in my journal during the interviews to

describe non-verbal responses that audio tapings are unable to record. A Sony IC recorder, model

ICD-PX312 were used to capture the verbal comments made during the interviews. While

recording, the times were displayed. This allowed me to add the time when each recording was

made to my written notes. The audio recordings were transcribed as soon as possible after the

interview occurred. Nuance Dragon, version 11, was used to assist me in this transcription

process.

Semi-structured individual interviews.

Two individual interviews were scheduled. The first set of interviews were semi-

structured and relevant to the children's classroom experiences that related to the four sources of

self-efficacy beliefs (see Appendix G). To investigate a student's vicarious experiences,

contributors to his or her efficacy beliefs, a pertinent question included, "Who do you compare

yourself to in math?"

In keeping with the phenomenological approach, the second set of individual interviews

included more open-ended questions (See Appendix H)**.** I attempted to establish a less formal

atmosphere in which the students felt comfortable and inclined to engage in conversational-type

format. A major focus of this study was to examine how low-achieving students experience their

math in-class instruction academically, socially, emotionally and from the classroom

environment itself. In order to accomplish the goal of this research, uncovering the essence of the

phenomenon of in-class math instructional support, interview questions were designed to reflect

this. For example, interview questions included, "When the BSI teacher comes into the room,

can you describe how you feel?" "If she stands by you, how do you feel and why?"

Stimulus recall interviews, or asking students to reflect on sections of a videotape

recorded in their classroom at an earlier time, were also employed. Students were asked to

respond to certain parts of the tape which were of particular significance to the research question.

Students were encouraged to talk or reflect on these as I posed open-ended questions to them. An

example of such questions included, "Can you tell me what you might have been thinking during

the time this happened?" The children's responses helped me to clarify the accuracy of the data

or assisted me in developing the probing questions necessary to unearth additional information relevant to the second research question.

Observations

Observations involve "the systematic noting and recording of events, behaviors, and artifacts (objects) in the social setting chosen for study" (Marshall & Rossman, 1999, p. 107). Observations were used in conjunction with the stimulated recall interviews for participants to clarify, describe, and enhance the descriptions of their experiences. Also, when reviewed over and over, it was expected that this method of collecting data could unveil information that might generate additional interview questions or, if necessary, revise the protocol.

Field Notes.

As a non-participant observer, I made field notes that were used to support this data collection method. These field notes consisted of running records. Running records can be described as documenting events objectively, as if the written words record exactly what appears through a camera lens. In a former managerial position that I held with the Department of Defense, part of my job responsibilities included observing caregivers on a regular basis. This experience enabled me to develop proficiency with creating written accounts in the form of running records.

While making field notes, I used one side for descriptive and objective data. The other side was used for my thoughts, comments, and possible additional questions that emerged from the events. If, while conducting my written observations, there were classroom occurrences that involve non-consenting students, I omitted any identifiable references to these students in my field notes. Lastly, all note entries contained the date and time and were reviewed as soon as possible afterwards.

Videotapes.

The purpose of videotaping is threefold. Videotaping has the advantage of being reviewed over and over again for obtaining more information. Similar to my field notes, a recorded segment may spawn an idea for possible future interview questions. Second, videotaping allows the researcher to capture the nonverbal behaviors of the participants and provide details that can enhance the observational notes. Third, the tapes may be used in conjunction with stimulus recall interviews.

I used a Sony Video Recorder that was secured on a tripod in a location close to where I took notes. Being near the camera allowed me to adjust the camera viewfinder when it was needed. This recording device was placed in an area that was secluded enough so that the hazards of tripping over the equipment were significantly reduced. It was also necessary for the video recorder to be in an unobtrusive area that caused minimal distraction to students. Of further importance was to arrange the camera location close enough to each of the students to acquire enough data from the video recordings. Camera proximity to the participants was crucial if I was to obtain both close-range behaviors/audio of the participants as well as their interactions with classmates seated near them. Each student was observed/videotaped for an hour, which is the length of the entire math period.

Prior to beginning this study, I explained to the students how this equipment was going to be used in gathering information. Without setting the camera on recording mode, I placed it in the classroom so that the students become more comfortable with its presence. Thus, with the camera less of a novelty, more "natural" pupil behaviors were captured when the actual video recordings began.

Artifacts/Documents

I reviewed documents and artifacts pertinent to the academic performances of the low-achieving students. I examined the policies pertaining to the district's basic skills program. These documents were, in part, to answer the question of how push-in services are delivered in this school. Additionally, I obtained information regarding standardized test results from the prior school year, report cards, test grades and any documents that qualified each student to receive basic skills support. Information gathered from these sources were used in developing interview questions.

Artifacts from around the classroom were described either in notes or photographed, and then they were secured in the child's folder and labeled as physical artifact evidence. Children's displays of work provided valuable information pertaining to the mastery experiences, vicarious experiences, and social persuasions that have be shown to help form students' self-efficacy (Bandura, 1997). These also provided information that assisted in formulating possible additional interview questions.

Table 2: Data Collection Schedule

Session	Description of Data Collection Activity	Date
Interview Protocol # 1: Sessions 1 & 2 (1/2 hour each)	Individual Interviews: Semi-structured	March – April, 2013
	Classroom Observations/Videotapings	March – May, 2013
Interview Protocol #2 Sessions 3 & 4 (1/2 hour each)	Individual Interviews: Open-ended	April – June, 2013

Data Analysis

Characteristic of a phenomenological tradition of study is the fact that assumptions are not made about what things mean to people. Rather than being presumptuous and analyze data in terms of what one already knows, the phenomenological research uses descriptions as presented to the researcher, or 'exactly as it is presented to itself' (Greene and Hogan, 2005, p. 222).

This study followed the data analysis approach used frequently in phenomenological studies and described by Creswell (1998) and Wiersma (2000) . Creswell describes the steps as:

> The original protocols are divided into statements or horizonalization. Then, the units are transformed into clusters of meanings expressed in psychological and phenomenological concepts. Finally, these transformations are tied together to make a general description of the experience, the textural description of what was experienced and the structural description of how it was experienced. (pp. 54-55)

For horizonalization, I divided the interviews into statements about how the students are experiencing the phenomenon. Next, I looked across the statements and grouped them into "meaning units" and described what happened in relation to that experience. Then, along with considering all possible meanings, I reflected on the descriptions in order to see what the phenomenon is for the students. Last, I constructed an overall description of the meaning of their experiences.

The following procedures detail my data analysis process. I begin with describing my organization of the data. Next, I describe looking across the statements and grouping them into "meaning units" by *generating of categories* and *coding the data*. Following this, I detail the reflection and construction of the meaning of their experiences step as well as how I *tested*

emergent understandings/finding alternative explanations. Finally, I describe the *writing the report* phase of the analysis process.

Organizing the Data

The purpose of obtaining the descriptive information that is generated from such sources as field notes and interviews was to show the daily events of the phenomenon being studied. Analysis in qualitative research includes an emphasis on "describing the phenomenon in its context and, on that basis, interpreting the data" (Wiersma, 2000, p. 203). However, because an enormous amount of collected data is involved with qualitative research, developing a system that enabled me to effectively handle the sheer volume of it was crucial. Thus, organization of the collected data was an ongoing process throughout this study.

The initial step in organizing the data was to create files on each individual participant. Data in each file was accumulated from each student's interview transcriptions, observations, artifacts, field notes, and documents. Audio and videotapes were labeled/referenced with the beginning-ending counter number, date and time of recording, and name of child who had been recorded. Organizing data in this manner enabled me to look at each student's own experiences of in-class instruction support and, in so doing, I did not lose sight of the fact that each child experiences basic skills instruction differently.

Although the data was divided by participants, I looked across students in order to address the research questions and obtain what the lived experiences of support instruction are from the perspective of the recipients of this service. I coded-coded each student's records so that when files were rearranged during the time I developed meaningful concepts, I was able to trace the data back to the student from whom the data emanated. As part of data management, minor editing was performed continually. Data not pertaining to the research questions were not

included in the data set as they were not relevant and did not contribute to the purpose of this

study. Extracting unrelated material and the data reduction process was needed to handle the

otherwise overwhelming amount of collected information.

Generating Categories

The next part of the data analysis process was to generate categories. I used the research

questions and the related literature to suggest categories/themes that lead to the initial coding and

thus a reduction of the data. I was able to get a sense of this by engaging myself in the prolonged

reading and re-reading of the collected information gathered from the interviews, observations,

artifacts, and related field notes in order to identify "the salient, grounded categories of meaning

held by participants in the setting" (Marshall & Rossman, 199, p. 154). I began my search for

descriptive patterns of thinking and behaviors, phrases and/or words that reflected the research

questions or conceptual framework of my study. To that effect, it became clear that I needed to

separate the data into separate sets that were specific to each of those questions. Data reduction

occurred as I examined the data by searching for the events that appeared frequently and seemed

noteworthy. Thus, these themes/ ideas and the words describing the phenomena paved the way

for developing categories and thus formal representation of analytical thinking: coding the data.

Coding the Data Phase

Coding, as described by Weaver and Atkinson (1994), is "The strategy whereby data are

segmented and tagged according to the researcher's definition of meaning, so that those

segments which have common or related meaning can be drawn together in one placed for

analysis. (p. 31).

The first and third research questions were coded inductively. In other words, similar to

phenomenological studies, the codes basically came out of the data. The first research question

involved interview questions related to how the students experience classroom instruction

academically, socially, emotionally, and as well as how the classroom environment impacts his

or her support performance. For example, if a question in the interview included, "How do you

feel if the BSI teacher talks to you when you have difficulty with a math problem and she gives

up help in front of your classmates?" The student's response that he or she doesn't like it because

of feeling embarrassed by receiving that type of attention was tagged as embarrassed and data

coded as an emotional response. I used color-coding categories that were continually modified as

the analysis progressed as the major codes became divided into more detailed categories.

        Deductive coding was used for the second question of this study. As I read and re-read

through the data, codes were created when data related to both the literature and research

questions emerged. For coding data related to this question, I used categories generated from the

research literature. For example, I developed codes and tagged them to chunks of data that

reflected the sources of self-efficacy: mastery experiences, vicarious experiences, social. Once

again, I color-coded the data according to the category. During this coding process as well as

throughout the study, new understandings emerged that required me to revise my plans, and I

accommodated for this when necessary for subsequent analysis.

        In relation to the third research question, I began to look across the entire data and sorted

the students' input that were described as either supports or barriers relating to instructional

support. I examined the participant's words and began to identify categories and patterns and,

once again, color-coded them as they emerged.

        Once this data were classified and sorted, the level of analysis progressed more deeply as

the codes were grouped with the goal of making meaning of the words. By examining them at

another level, themes emerged resulting in my constructing an understanding of what students

felt helped or hindered them in relation to the phenomenon of their instructional support.

Testing Emergent Understandings/Searching for Alternative Explanations Phases

I used the coding to begin the process of evaluating the data and incorporating them into larger constructs. While the previous two phases were underway, I began to explore the data for plausibility of emerging understandings in relation to the objectives of this study. Data relating to first two research questions were reviewed for understanding the specifics of how the students are internalizing their in-class instructional support experiences. Because each individual is unique, students experience the same instruction differently -- and consequently that impacts their self-efficacy beliefs. Additionally, when looking across the data set, I found similarities and differences about their experiences that lead toward developing thematic structures and meaning related to the research questions. Thus, I began the process of capturing the essence of these students' experiences of the phenomenon.

It is not sufficient to discover patterns in the data without considering alternative explanations for these as well. Thus, I looked to identify other explanations that may have existed. Following this, I illustrated how the explanation offered is the most reasonable of all. Finally, the analysis "will be sufficient when the critical categories are defined, the relationships between them are established, and they are integrated into an elegant, credible interpretation" (Marshall & Rossman, 1999, p. 152). Evaluation of the data was useful for addressing the questions being explored and central in developing a clear story about this phenomena.

Writing the Report Phase

Creswell summarizes how a phenomenological research should conclude. He states, "This study ends with the reader having a better understanding of the essential, invariant

structure (or essence) of the experience" (1998, p. 55). I continually reflected upon this premise while conducting the writing phase of this study.

Within this section of my phenomenological study, I presented the data along with a narrative interpretation of the findings related to the research questions and the themes which emerged from them. Additionally, I included a summary of the study that contained a synthesis of meanings and essences of the experience. Lastly, the data were linked to more general constructs and culminated in suggestions for educational practices and recommendations for future research.

Validity and Reliability

Qualitative research has undergone some criticism for its "failure to 'adhere to canons of reliability and validity'" (Creswell, 1998, p. 197). It has been proposed that the two terms be replaced with "credibility," "dependability," and "transferability" in qualitative studies (Creswell, 1998). Lewis and Lindsay (2000) expound on this point with their contention that although answers must be shown to be valid, that does not mean that the identical answers be must replicated, but only that the study itself could be replicated. They mention a case study in which the evidence was not necessarily generalizable to others. Rather, they state, such generalization is not its purpose because perceptions of the participants provide a "rich source of material to challenge current ideas, and further replications could explore the generalizability of the findings" (Lewis & Lindsay, 2000, p. 192).

Creswell suggests the word *verification* be substituted for validity. He believes that verification is a term that sets qualitative research apart as a distinct approach to inquiry. Greene and Hogan (2005) go one step further by stating that the validity of phenomenological research is unique in the fact that "such research must guarantee its own validity in its own language"

(p. 225). This is accomplished by the study that is described by Greene and Hogan (2005) as having vividness, accuracy, richness, and elegance.

Triangulation was used in this study to ensure corroboration of evidence. Triangulation "assesses the sufficiency of the data according to the convergence of multiple-data sources or multiple data-collection procedures" (Wiersma, 2000, p. 252). In the case of this research, those different sources of information were gathered from observations, individual as well as stimulus recall interviews, and artifacts/documents.

CHAPTER IV

Results

As I explored the three research questions of this study, a picture of the participants' experiences relative to their math in-class support instruction emerged. This process began as the data were read and reread. As patterns surfaced, I created categories and then explored and coded data accordingly. Four major focuses emerged, evidenced by observations, artifacts and interview responses: 1) Participants' relationship/interactions with their teachers, 2) social interactions and relationships with classmates, 3) self-efficacy beliefs and academic progress in relation to math and 4) perspectives about the program structure/environment in relation to BSI delivery**.** Ultimately, my examination and interpretation of the data revealed how these students feel about the dynamics of the program.

This chapter begins with a brief introduction describing the participants. An analysis of the participants' data as related to the aforementioned themes is included next, followed by a brief chapter summary. Important to note: Although the primary topic of this research is in-class support instruction, a thorough examination of that phenomenon required inclusion of data beyond in-class BSI delivery of services. For example, these struggling students do not receive their support exclusively from their BSI teacher. In-class support provided by the general education teacher is also part of that instructional equation; consequently, data referring to the general education teacher are included in this study. Another noteworthy point is that for three participants, support instruction also is delivered in an out-of-class setting, and those data were considered as well.

Getting to Know the Participants: Descriptions and Background

Included herein are general descriptions of the participants. This information adds to the

depth of this study by helping with understanding the lenses from which these students viewed

their experiences and puts the comments they made in perspective. The descriptions also

contribute to the realization that the subjects are not merely statistics or objects of study, rather

as human beings, they bring to this research their own unique backgrounds and life experiences

that are the essence of this work. The table included below gives a brief overview of the

participants and their grade levels, general education teacher, BSI teacher, and where they

received support delivery during the time this study was conducted.

Table 3: Descriptions of Participants

	Grade Level	Gen Ed teacher	BSI teacher	Received push-in support?	Received pull-out support?
Mary	4	Ms. C.	Ms. A.	Yes	Yes
Edward	4	Ms. B	Ms. A	Yes	Yes
Candace	4	Ms. B	Ms. A	Yes	Yes
Wanda	5	Ms. D	Ms. A	Yes	No
Sue	5	Ms. D	Ms. A	Yes	No

The five participants' distinctive personalities created specific challenges during the

interview process. Whereas some participants readily responded to my questions, not all were

outgoing and forthcoming with comments. With the understanding that not all students are

verbally fluent and comfortable with the interview process, I found that asking them to draw a

picture provided them with an additional way of communicating and responding to my inquiries.

Student # 1: Sue

At the time of this study, Sue was a fifth-grade student who had also received BSI services the previous school year. Her verbal tone could be characterized as strong and direct, and she responded to questions with no hesitation. Sue appeared confident about how she was doing in math, evidenced by her quick reference to the fact that she has made substantial progress during the school year.

My discussion with her general education teacher in June 2013 confirmed these points. According to the teacher, "Sue has been successful and gets less of the modified work" (referring to independent work time, when her general teacher groups the students into homogeneous groups with different classwork assignments). Sue's teacher added, "Sue keeps trying, works hard, asks questions, has drive and has shown improvement. She is more organized and has never really failed." Sue enjoys sports, particularly football – illustrated when she occasionally wears a football jersey to school and frequently talks about professional sports.

Student #2: Wanda

Wanda, another fifth-grade student, is slightly built and soft-spoken. She tended to be quiet both during the interviews and classroom observation. Wanda confirmed that she is shy, particularly when surrounded by people she doesn't know. Wanda's BSI experience was limited to push-in delivery. She appeared eager to participate in this study, always displaying enthusiasm and cheerfulness when she came for interviews. Although reserved, she responded to the interview questions with conviction and without hesitation. Wanda expressed self-confidence about her math progress during the school year.

Wanda's general education teacher validated that Wanda is a shy and quiet student who tends not to ask questions and still receives modified tests. According to her teacher, although

Wanda has shown improvement, she tends to be slow to learn concepts and needs to try hard to do well. Her teacher expressed concern for Wanda's future math success, and feels that Wanda would need more support from home to avoid falling behind.

Student #3: Mary

Mary, a 10-year-old fourth grader, is a quiet student who responded to interview questions in a soft voice. Mary used incorrect grammar at times and, I attempted to assess her command of the English language and determine whether she would fully understand my interview questions and be able to verbalize her responses descriptively. I devised an ice-breaking activity and presented it to her before the interviews. The results of that game demonstrated that she was able to answer my questions with enough detail necessary to meet the participant requirements of this study. Mary rarely smiled during the interviews and her monotone reactions and vocal intonations appeared to indicate that she was not as enthusiastic as the other participants in this study. However, although her initial remarks were brief, her comments became more detailed during subsequent interviews.

My June 2013 discussion with Mary's general education teacher provided additional information about Mary and the progress she had made during the year. This teacher recommended that Mary continue to get BSI services the following year, noting that she has not made much improvement during the school year, in part because she has difficulty with retention. Although Mary's teacher advised me that she organizes her class into heterogeneous groups, Mary would sometimes work one-to-one with the BSI and special education teachers the latter of whom co-teaches full-time in the classroom. Her general education teacher again remarked that Mary does not do well unless she has direct instruction and guidance from the special education teacher, noting that if Mary has received good test grades, much of it is

attributable to the direct assistance of the special education teacher. Mary's area of strength, according to both classroom teachers, is a command of multiplication facts.

Student #4: Candace

Candace, a 10-year-old fourth grader, appeared eager to participate, always smiling and upbeat when she arrived for her interviews. Candace maintained a polite, cooperative and pleasant disposition, and her relaxed body language demonstrated that she felt comfortable during the interview process. Candace did not hesitate to answer questions that I posed to her, and her responses were generally thorough. She engaged in conversations easily and, on a few occasions, deviated from the topic to tell me stories that extended beyond relevance to the interview questions.

This was not the first year in which Candace has had difficulty with math. However, Candace's general education teacher informed me that Candace has made improvement during the year. Despite this progress, her teacher feels that Candace still needs BSI support for the following year, and Candace admitted that she still has difficulty with some concepts.

Student #5 Edward

Edward is a fourth grader who came into the district at the beginning of the school year. Being new to this district, he qualified for BSI services because of his low test scores in his previous school. Edward was an extremely soft-spoken participant – to the point that his voice was barely discernible on the audiotape. He appeared to be very serious, and rarely smiled. I also observed these characteristics in his classroom demeanor. Edward stated that he likes art, a point confirmed during the drawing activity in our fourth interview.

Edward mentioned that he has difficulty on math problems and tests. The basic skills teacher concurred, saying she feels that Edward struggles with the math program. The fact that

the Everyday Math Program is new for Edward may contribute to his adjustment difficulties and lack of math progress. The BSI teacher recommends that he receive support services the following year.

<div align="center">**Participants' Perspectives**</div>

All of the participants view their overall BSI support experiences as favorable. Although there were response commonalities, participants also have unique perspectives about specific aspects of their BSI instruction. Even positive reactions among respondents included some contrasting points. The following analysis includes results and interview comments from all participants listed under each of the four previously described themes. In instances where significant and relevant contrasting perceptions surfaced, those differing views are included and analyzed.

Relationships/Interactions with teachers

This theme begins with how participants view their relationship with the BSI teacher. In other words, how the participants feel when working with the BSI teacher and the rapport that they have developed with her. Next, I include student perspectives of their interactions with both the BSI and general education teachers. This includes the participants' comments about requesting help, perspectives about the feedback they receive from the teachers, and responses about their teachers' instructional practices involved with delivering support.

Relationships with BSI teacher. Overall, the participants' responses indicate that they enjoy favorable relationships with their BSI teacher. Their comments show that students appreciate the BSI support they receive. Additionally, they are in agreement that they need help and are happy to receive it.

The students use words like "happy," "proud," "great," "excited" and "hopeful" about

how they feel when the BSI teacher enters the room. An example of those reactions appears in

Wanda's statements when she explained how she feels both when the BSI teacher enters the

room to provide assistance and when that support teacher exits.

L:	Why do you feel proud when you see her come in?
WANDA:	Because I know I am getting help from her.
L:	Okay, and then when she leaves, you feel hopeful because…
WANDA:	Because now I know that I can do something.
	(interview 4 with Wanda: 5/28/13)

Participants' positive feelings about their BSI teacher appear connected to believing that

the teacher is there to help them improve in math. Candace's words best exemplify this, as seen

during our April 29, 2013 interview: "I feel loved because [the BSI teacher is] coming in and

helping us and doing what she needs to do." Comments by Edward, Mary, Wanda and Sue

indicated that they, too, understand and appreciate that the BSI teacher is giving them assistance

they know they need. In fact, most of the participants attribute progress made during the year to

the BSI teacher and the program, and are open to the idea of having the BSI instructor's

assistance the following year. Edward's comment (March 22, 2013) demonstrates this when he

said he is happy when the BSI teacher is there, and he "feels a little better so I wouldn't get that

bad."

 In summary, data suggests that the participants have built a trusting rapport with the BSI

teacher. This is supported by comments that they feel comfortable enough to ask her questions

and that this teacher answers them adequately.

Interactions with the teachers. The students' interactions with their teachers are

impacted by the fact that, just as every person is unique, each teacher also has his or her own

teaching style. Sue and Wanda's general education teacher's practices differ from Edward and

Candace's teacher. In addition, a special education teacher is present in Mary's classroom throughout the day. Although the primary responsibility of that teacher is to assist a special needs student, that special education teacher is also available to give assistance to Mary when the BSI teacher is not present. Thus, Mary's responses included how she interacts with a third teacher as well.

   Requesting help from the BSI teacher. The participants stated that they feel comfortable enough to ask questions of the BSI teacher if needed. All participants, with the exception of Wanda, mentioned that they raise their hands to let the teacher know that they need help. Mary detailed that, in addition to raising her hand, she tilts her head and looks down at her paper/problem. Wanda responded that, when she sits still, her teacher notices that she is not working on the problem.

   Although the participants feel that the BSI teacher answers their questions satisfactorily, their statements show that they are cognizant of the fact that the BSI teacher also helps non-BSI students during class time and that this results in less time the she spends assisting them. The participants realize this impacts the number of questions that they may have been able to ask the BSI teacher. As an example, in the March 14, 2013 interview, Candace stated that sometimes the teacher doesn't come over to help because she is busy with other students. Candace stated that when this happens, she responds by putting her hand down. She continued with the acknowledgment that her questions, therefore, go unanswered. Mary also described (on March 26, 2013) how she feels angry when other students' blurt out answers before she has an opportunity to do so, and that "when another student comes by, the BSI teacher helps him a lot because maybe he doesn't have anything written or he just needs some help with it or he's having trouble." Thus, even though the BSI teacher answers some of their questions sufficiently, these

two participants' feel that they want more assistance. Candace and Mary said that the moments the BSI teacher spends with the non-BSI students takes away from the time they have with her.

  Feedback. Students' comments suggested that they like even the very simple feedback that teachers gave (i.e., "good job"), but they are also susceptible to being offended or hurt when teachers give them negative feedback. In addition to the traditional or verbal feedback that the participants responded about, they commented about nonverbal forms of teacher practices, including a "thumbs up" and erasing their journal work answers, thus suggesting that they considered these a type of feedback as well.

  As far as verbal feedback, I observed the BSI as well as the general education teacher providing some positive and encouraging verbal feedback to the students during the interviews. In addition to using a "thumbs up" non-verbal signal of positive recognition to the participants, the BSI teacher was overheard saying "good", "great" and "very good" to the students. As might be expected, the participants reacted favorably to this. Sue stated that the encouraging words "help me to become a better student." The teachers' positive comments also appear to have a confidence-bolstering effect on Sue. She explained, "My teacher comments to me, she's like, 'you are doing really good in math'. I think she puts them in my group so I can like, help them (3/26/13)." In that same interview, Sue remarked that she feels better when the teacher gives her positive feedback because, "It tells me that she has looked over my paper."

  While they appreciated the feedback they received, four of the five participants stated that their teachers, both general education and BSI, do not give them frequent verbal feedback. Edward mentioned that his teachers don't make comments to him much, and Wanda stated likewise. Mary's said that if the teacher makes comments, they are only brief. Candace gave some examples of the verbal feedback her teacher makes to her. That feedback included, "you

just need to focus or concentrate". Interestingly, Candace responded (March 14th interview), that

these types of statements do not make her upset because "I do just what I have to do."

I observed that, in addition to the infrequent number of positive or encouraging words

articulated by the BSI teacher, her one-word responses did not reference what specific skills the

complements referred to. Thus, the BSI teacher missed chances to make the comments more

effective. She did not provide follow-up remarks that specified what in particular they had

mastered.

The teachers also provide feedback other than verbally. Three participants reacted

similarly concerning something that the BSI teacher does with their workbooks: The BSI teacher

erases some of the students' work in their practice journals. Although the participants stated that

they do not mind some of the constructive or adverse comments that the BSI teacher says to

them, they do not like it when the BSI teacher erases some of their answers in their journals. The

participants interpret the teacher's actions as negative feedback. Both Mary and Candace

remarked that the BSI teacher's erasing makes them feel embarrassed. Candace responded with,

"Because she never erases anyone else's (4/19/13)." Candace's comment indicates that she feels

she is the only one in class that the teacher singles out to both find and correct her inaccurate

responses. Mary feels embarrassed as a result of the BSI teacher's erasing because, "I did not do

it right (April 26, 2013)." Edward stated that he is angry when his teacher erases in his practice

book (May 31, 2014). He remarked that, "I, like, try to work hard on that. And then, she just

erases it and says like I had a little problem in there." His related comments suggest that he

believes that the teacher's erasing his work discredits the effort he puts in towards answering the

question.

In summary, feedback from teachers occurred and was witnessed during the observations and all of the students commented on receiving feedback. The feedback was either provided verbally and/or through subtle teachers' actions. Participants' responses suggest that they are both positively and negatively impacted by feedback. Their teachers did provide positive verbal feedback such as encouraging or acknowledging their progress, which the participants are understandably happy to receive. However, the students revealed that this did not occur frequently. In addition, few comments such as describing the skills that students had mastered were written on their tests. Also, the BSI teacher's actions of erasing the students' work served as a point of nonverbal feedback for the participants. Their responses to this teacher's actions demonstrate that this impacted the participants negatively. These results suggest that, whereas feedback has the potential of being beneficial and constructive for students, it can produce negative effects as well.

Participants' experiences related to their teachers' instructional practices. As part of teachers' instructional practices, information related to classroom seating arrangements is significant. The importance of this, and as will be examined later, stems from the fact that these seating arrangements involve how the BSI students interact with their peers.

Although the general education classrooms consist of various ability levels of students, within that setting the teacher decides to have students sit either in mixed-ability groupings or homogeneous clusters. Mary's general education teacher described her class as primarily heterogeneously arranged however, she added that, on occasion, she gathers together a few students who are having difficulty and helps them. My observation of her classroom confirmed that the students are almost always organized into heterogeneous groupings during the entire class period.

By contrast, Edward and Candace's general education teacher commented that she arranges the lower skill level groups homogeneously following the whole class teacher-led portion of the math period. According to this teacher, this would enable her to give them more "teacher-directed" (May 23, 2013 email) assistance whenever needed. During the observations in her classroom, I did see the students split into smaller homogeneous groups after the whole-class teacher-directed part of the lesson concluded. However, I saw little student interaction occurring between students within that homogeneous group. Edward's statement confirms that his teacher doesn't particularly promote talking to other students

EDWARD: Well, I would like the BSI teacher to be there too because
        she sometimes comes in and then, she, I can kind of raise my hand
        and she helps me a little bit.

L: Okay, so then when she's not in the room and the teacher tries to
        explain something and you still don't understand it, then what
        happens at that point?

EDWARD: Well, I would try my best to do it or else I will go to the teacher
        and just ask her.

L: Is there anyone else around you that you could ask besides the
        teacher, and if the BSI teacher is not in there? There anyone else
        around?

EDWARD: Well, my neighbor at the tables. Well, the teacher really does not
        allow it, to ask that much.

L: Okay she does not like a lot of talking in the room?

EDWARD: No, not that much.
        (interview 2 with Edward: 4/ 2/ 13)

Similar to Candace and Edward's teacher, Sue and Wanda's teacher arranges her math students homogeneously after the whole-class teacher-directed portion of the lesson. However, she addresses the level and needs of the struggling learners group and provides them with classwork that consists of differentiated in-class assignments. Classroom observations revealed that the teacher encourages the lower-level students to work collaboratively. In addition, she provides another opportunity for students to choose to work with a classmate of their choice. In her email, this teacher detailed how she welcomes the advanced learners acting as "expert

helpers" to assist the struggling students when she is "unable to meet with that student right away" (May, 15, 2013).

As far as when the BSI teacher is in the room, participants stated that they are not embarrassed when she singles them out and helps them in front of their classmates. Participants also remarked that they feel comfortable when the BSI teacher circulates around the classroom and leans next to them for help. These students view the fact that the BSI teacher frequently bends over to speak individually (and in front of the entire class), as helpful. In addition, the BSI students made no negative comments about being taken aside to a small group within the classroom for receiving assistance.

The participants also detailed particular teacher practices that they feel are very useful. One involved the BSI teacher giving students ideas of how they can approach a problem. This point was verified during observations. During the observing/videotapings, I witnessed the BSI teacher giving help to Edward and Wanda and heard her providing the two students with strategies about how to solve their problems.

Sue and Wanda spoke about another practice that they like: The general education teacher posts the results of the math facts timed-tests on a chart located near the front of the classroom. Although both of these students' timed-results are listed in the lowest category, there are non-BSI students in that category as well. Wanda and Sue do not view the display of their numbers unfavorably. Rather, for these students, posting their results elicited positive responses. For Wanda, the display helps make her feel good about herself. For Sue, the chart validated that she is making strides.

L: I know that the teacher has math facts of the wall? I don't know if she still has that up there, you know when you get X amount, she has the whole class and where you know your math facts (are)? I guess when you have your timed-tests.

WANDA:	All year!
L:	How does that make you feel? Would you have that up…if you had your choice, would you have that (chart) up there or not?
WANDA:	Yes.
L:	You would…because…?
WANDA:	Because so people can know where they are at.
L:	Okay, how about for yourself? Do you feel good about having where you are up there?
WANDA:	Yes.
L:	Because?
WANDA:	Because (long pause…no response)
L:	In other words, when you see it up, you feel good? Is there any reason why you feel good?
WANDA:	Because I am further than other people?
L:	And everybody can see it?
WANDA:	YEAH!
	(interview 4, part one, with Wanda: 5/28/13)

Sue's reaction to the display of timed math facts test is also similar to Wanda's. Sue's

response suggest that this practice helps validate her progress.

L:	I noticed when I went in the room, that there was a poster hanging up displaying your multiplication tables and division. Now, she (the general education teacher) puts that up and everyone sees how everyone is doing. How does that make you feel having it displayed on the wall? Can you tell me how you feel about that?
SUE:	I feel proud and happy.
L:	Because…?
SUE:	I am proud because my name is up there and it's like I, like, mastered…And sometimes in division I have a little trouble but I can do it. I finished it today.
	(interview 2 with Sue: 4/2/13)

Wanda and Sue both spoke favorably about how their general education teacher provides

them with an option to retake their tests if their first test grades are low. In her May 28th

interview, Wanda detailed why she is grateful for this opportunity. She explained it is because

the teacher is giving her the chance to improve so "my mom can be proud…happy for me".

In addition with these positive comments, the students also made some negative

statements about some specific teachers' practices. One of the strongest reactions that was

referenced in the above paragraphs, involved participants being called on when they do not know the answer to the question being asked. Although the students commented that they liked raising their hands and responding to the questions correctly, they feel the opposite when they are called on by surprise, without their hands being raised, and do not know how to respond accurately. The participants used various adjectives to describe how they feel when this occurs. Sue and Edward remarked that they are embarrassed when this happens; Mary stated that she becomes nervous, and Wanda mentioned she is scared.

However, I witnessed an exception to this during Candace's observation. An episode occurred that could have potentially embarrassed Candace, but her general education teacher's quick interceding led to what became a more positive outcome for her. This began when Candace was called on to answer a question and she did not know the answer. Her general education teacher diffused the situation by asking her to call on another student to help her. Candace's immediate response was to turn to the student sitting nearby her and request his help. That student answered it correctly. In the April 19th stimulus recall interview, I asked Candace to describe her reaction to this; she stated that her feelings "weren't really hurt, like, it was okay".

Comments about another teaching practice, the use of the Smartboard and in this case its usefulness, were confirmed in participants' interviews and are exemplified in Wanda's comment (interview 3 on 4/24/13), that it "helps when she's like explaining it and, like, showing me examples." The fact that the students welcome the use of the Smartboard is further supported (and later in this chapter will be addressed), by their drawings depicting a setting they would like to have BSI support delivered in. Although I witnessed that all of the general education teachers used the Smartboard as part of their whole-class instructions, Wanda and Sue's teacher added active student participation to this aide's implementation as well. In other words, in Edward,

Candace and Mary's classroom, I observed the Smartboard being used as a tool that only the

teacher wrote on, whereas in Sue and Wanda's class, students went up to the Smartboard and

worked there as well.

However, as evidenced by Sue and Wanda's interview responses, although going up to

the Smartboard was a positive experience at times, it also had the potential to be negative as

well. For example, although Wanda mentioned she likes using the Smartboard, there were times

when she becomes nervous when working with it. She remarked that this happens when the

teacher calls on her and she is unsure of the answer. I was able to witness this during her class

observation (3/25/13), and she commented on it in her post observation interview (3/26/13).

Wanda described how she felt when she volunteered to go up to the Smartboard and worked on a

problem there.

L:	So, you feel a little bit nervous when you went up (to the Smartboard)? When you volunteered to go up, you felt like you had the answers and that is why you volunteered to go up?
WANDA:	I felt a little scared because I could have gotten it wrong.
L:	So you felt nervous because you could have gotten it wrong?
WANDA:	Yes.
L:	Well there was a part in here, let me see if I can find that, there was a part when you were reducing to the least common denominator and you had six over six on the board. The teacher was trying to get you to reduce it more, remember that?
WANDA:	Yes.
L:	Okay, so she was prompting you. How did you feel at that point?
WANDA:	That's how I didn't know what to say because I didn't know the answer that time. So I just did stand there and I didn't know what to say until another person got the answer.
L:	And how are you feeling at that point? (When) you are up there?
WANDA:	I was feeling like (inaudible). I was feeling…
L:	Sad, nervous, happy and excited? Anxious? Were your feelings different at that point than when you first went and you were writing on the board? When she was trying to get you to…
WANDA:	Yes, it changed. I was happy at first when she picked me and I got the answer right but when she said I had to reduce it more I got really like….. stronger than nervous.

I also saw Sue use the Smartboard during the time of the observation (April 15th), and she

commented about that experience. When I questioned how she liked working at the Smartboard,

she responded, "It's fun." I probed further, waiting for more details. Sue talked about feeling

proud when she goes up to the Smartboard in front of others, and she completes the problems

accurately. However, Sue continued to say that her positive emotions are quickly dashed

whenever some of her answers are incorrect.

L:	What are those instances when you don't [feel proud]… What are they sometimes?
SUE:	When I don't get it right, I kind of feel embarrassed.
L:	Now, does that change your mind… how does that…. If you do feel embarrassed, does that make any difference to how you're going to volunteer an answer in the future?
SUE:	Not really because when I'm embarrassed it actually helps me build on how I know about math. And like, because sometimes when I am embarrassed, or proud, it helps me get higher in math and like I learn from my own mistakes. (interview 1 with SUE: 3/26/13)

In both Wanda and Sue's cases, despite the fact they liked using the Smartboard, this

piece of technology was still unable to eliminate times in which they experience anxiousness.

That occurs when they are called on to go up (in front of the other students) and they don't know

the answer to the problem they are asked to work on. Interestingly, although Sue feels the

contrasting emotions of proud and embarrassed when using the Smartboard, she focuses on how

even not knowing the answer is a learning tool. This reasoning is characteristic of one with high

self-efficacy beliefs (Bandura, 1997).

Social Relationships and Interactions with Classmates

The social dynamics occurring among peers in an in-class setting dramatically impact

self-efficacy beliefs of students (Bandura, 1997), and thus affirms why the investigation of such

interactions and relationships with low-achieving students in that heterogeneous environment is

important to address in this research. The findings described next highlight aspects of the social relationships that occur in the heterogeneous setting. The input from the BSI students in relation to seeking help, how these students interact with their peers, the feedback they receive from their classmates, and who and why they chose to compare themselves to, are the focus of this section.

Receiving and giving help. All participants commented favorably about receiving help from classmates, and this included receiving assistance from the high-ability students in their class as well. Although I did not see much collaboration or help-seeking by participants during all of my observations, I did witness an example of this occurrence when I was in Wanda and Sue's classroom. The general education teacher told the students that they could work with any other student of their choice. Wanda walked across the room to work with a higher-level student, thus reinforcing that she seeks the help of others outside her ability level in order to receive assistance. Wanda also mentioned that she chooses assistance from classmates who are good at explaining things and "help me more" (April 24, 2013 interview).

Wanda also spoke about times when her teacher is not assisting her and what she does or who she asks for help. She described receiving assistance from those sitting around her, something which I saw during her observation. The composition of students at her table during the second half of the math lesson was homogeneous, and she was actively engaged in conversations with her peers. At no time did I observe their teacher tell the students to stop discussing math amongst themselves.

L:	Okay, if you wanted to get help, do you ever ask the child next to you in addition to the boy across from you? Do you ask people around the table if you need help too?
WANDA:	Yeah. Sometimes, when he is like, when he is on another paper, I ask the person next to me or the person like diagonal to me.
L:	So, you kind of all work together then? Because I noticed in the video, a lot of times…Well when you didn't ask the teacher then you do talk to each other (another way)?

WANDA: Yeah.
                        (interview 2 with Wanda: 3/26/13)

Wanda detailed other instances when she works with her classmates. Her general education

teacher encourages working with others and suggests they can choose to work with any

classmate they want. Wanda explained why she chooses certain classmates to help her.

L: Okay, you can break away and work with someone else you want?
WANDA: Hmm, Hmm (meaning yes). That's only sometimes.
L: Sometimes? Okay. Other than those that you're working with (the
                        students) at your group?
WANDA: Yup.
L: Okay, and who would you choose to work with then, let's say
                        during those times when she..
WANDA: The person across from me because.
L: Because why?
WANDA: Because she helps me more.
L: Okay, how would you describe her math ability?
WANDA: Good.
L: So you find that she helps quite a bit?
WANDA: Yeah.
                        (interview 3 with Wanda: 4/24/13)

Sue also described that she is agreeable to receiving assistance from her peers. During the

March 26th interview, she spoke about when she works with the students in the higher-level math

group and needs help.

SUE: Sometimes I get confused and….
L: With the other group (higher)?
SUE: Yes. But then, I get used to it because the people around me help
                        me and, like help me, and get me….more stuff in my head.
L: So you feel comfortable, in that group after a while?
SUE: Yeah.
                        (Interview one with SUE: 3/26/13

Sue's remarks show that she finds the classwork difficult at times, but she is comforted

by the fact that she knows the higher-level classmates around her will be there to help her.

Although she is initially confused when working with higher-level students, Sue is willing to

accept that uneasiness because ultimately, with the high achievers' help, she improves.

Interestingly, further in that same interview Sue revealed that students in the higher math group are not the only ones she received help from. She commented about when she works with students in the lower math group that, "Sometimes they help me too because I have….I just can't depend on me to help them. They have to help me too so they can get me higher than them." Thus, she expects for help to be a two-way direction. Sue feels she is capable of providing assistance to others, but believes that at other times, others can and should help her, regardless of their ability. Ultimately, with this exchange of assistance, Sue says that perhaps she can get better grades than them.

Edward also responded favorably in relation to working collaboratively with classmates and receiving help from the students who had consistently good grades. During his second interview (5/2/13) he told me, "They can at least help me out with problems…with those groups." His comment reveals that he looks at this favorably because, as a result, he benefits from their aid.

I also asked him what he would do if his teacher is busy and not able to help him. His remarks illuminate how his general education teacher's classroom policy regarding student collaboration differed in relation to that of Wanda and Sue's teacher.

EDWARD: Well, I would try my best to do it or else I will go to the teacher and just ask her.
L: Is there anyone else around you that you could ask besides the teacher, and if the BSI teacher is not in there? Is there anyone else around?
EDWARD: Well, my neighbor at the tables. Well, the teacher does not allow it, to ask that much.
                 (interview 2 with EDWARD: 4/2/13)

Unfortunately, without promoting collaboration, this teacher misses the chance to capitalize on the benefits, particularly within a heterogeneous composition of students, that peer interactions could provide. The mixed-ability groupings enable higher-level students to help

those in the lower-level groups. In Edward's case, this is truly an opportunity lost, since Edward stated that he is very open to receiving help from his higher-level peers.

In addition to being happy about *receiving* help from some peers, all participants are glad to *give* help to classmates as well. This two-way receiving/providing assistance to peers was spotted, once again, during the observations in Wanda and Sue's classroom. I witnessed that their general education teacher allows, and even endorses, that type of collaboration between students during independent work time. For example, Sue stated that she is not just content to be on the receiving end of instruction, but that she likes being helpful to others as well. Sue discussed how she prefers being in the group that she is usually is in (the lower-level group) and that, "I like helping people." In that April 2nd interview, Sue detailed further that she likes working with similarly-performing groups of students when they are confused with math. Her reasoning provides interesting insight regarding her feelings about herself and attitude towards her classmates.

> SUE: I would get the people who are confusing with math and who don't really understand it. So then I can help them and make them become like me, a better math student.

In that same interview, Sue went on to comment that although she is alright with working in groups containing higher-level students, she feels more comfortable in groups where the students may not understand. As a result, this would enable her to do what she enjoys doing: having more chances to assist the confused students.

In Sue's case, her response in the March 26th interview also suggests that helping others plays a part in building her confidence. Sue commented that, "My teacher comments (to) me, she's like, 'you are doing really good in math,' and I think she puts them in my group so I can,

like, help them." Her statements reflect her self-assuredness and are characteristic of one having

high self-efficacy beliefs: A point that is verified in her self-ratings of this.

For Edward, assisting others appears to be a positive experience. He spoke about specific

times and classmates that he prefers helping.

L:	Okay, great. Is there any time when you can help other students too?
EDWARD:	Well, yeah. Only if I understand.
L:	Okay, and do you ever have those chances when you are in your homeroom class?
EDWARD:	Yeah.
L:	You do? Great! And I'll bet that makes you feel…..
EDWARD:	Happy.
L:	When you are helping others?
EDWARD:	Yeah.
	(interview 4 with Edward: 5/31/13)
EDWARD:	I'm kind of happy being with my friends.
L:	Your friends are in this group, in your math group?
EDWARD:	Yeah. And helpful most because I, if it's an easy problem that I know and the other kids don't know, I would help them.
	(interview 2 with Edward: 5/2/13)

The participants' comments reinforce the point that they have no problem with and even

welcome help from their peers, regardless of the classmates' ability level. Positive benefits of

this are possible because the classroom setting consists of a mixed-ability composition of

students. The participants are also happy to *give help* to other struggling classmates. Again, this

is possible when similarly-performing peers are in the participants' general education classroom.

Remarks by the participants suggest that helping others builds their self-confidence.

Interactions with peers. Although the BSI students unanimously feel that they are able

to participate actively during mixed-ability group activities, this does not mean they are without

concerns when working alongside them. The participants described some of their experiences

involving interactions they have with the higher-performing peers.

As an example, Sue, described how she initially felt when the teacher had her work in groups that included higher-ability students. At first, she was confused when working with students in that group. However, she became more comfortable working with those students as time progressed because they help her to "get more stuff in my head" (March 26, 2013). In addition to commenting that the students treat her "good" (6/7/13 interview), Sue elaborated further.

SUE:	Well, they let me…They actually let me do a lot of things. Because they can't do it all by themselves, sometimes I can hold the tape measure. Or like, I can read the lengths or widths. Yeah, and then they can help…They actually let me do a lot of things…They…Sometimes she puts us into partners like me and those other people. And sometimes I measure one person and then he measures…and then the other person measures me. (interview 1 with SUE: 3/26/13)

By contrast, Wanda's interactions with others aren't always so positive. During the March 13th interview, Wanda mentioned specifically that she does not like it when others sitting close to her persist on wanting to know her grades. Wanda's comments suggest that she wants to maintain her privacy despite others attempting to invade her personal space. Wanda's details, provided during the Mary 28, 2013 interview, are very revealing.

L:	Yes, if these children around you… I think you said, "If the children around me find out about my grades" and you felt that you really didn't like that too much. Would you feel differently if you were in a setting where all the children were all similar to you sitting by and they found out your grades? Would you feel differently, would you care as much, or about the same? About the same, now all the kids are struggling. Would it make you feel differently?
WANDA:	HUMM, it wouldn't make me feel differently because they all got the same grade as me.
L:	Okay, so when you're sitting in the same group you're in now, you didn't feel comfortable when the kids know your grades. Is that because these kids are not like you in math... seeing your grades?
WANDA:	Like now……..

L:	(attempted to clarify) Maybe you've changed your mind. But I think you said when other kids around you ask your grades, you didn't like that.
WANDA:	I didn't like that.
L:	Is it because the kids are not like you? I am trying to figure this out. Would it be different if the kids **like you** are asking…would you feel differently, not as badly, or?
WANDA:	(Interrupts) Not as badly.

Wanda's responses show that her feelings about peers seeing her marks vacillate according to who sees her grades. I probed in order to clarify her contradictory statements. Wanda previously mentioned that she did not like it when others saw her grades, and then stated that it was okay if some students saw her marks. Although her hesitation in responding (above dialogue) may have been due to her being confused by how I worded the questions, it appears that Wanda was attempting to get across that she does not mind similarly-performing classmates seeing her grades as she takes comfort in knowing that she is not different than all the others in her class.

Social persuasions. All participants except Mary, who made no comments regarding this topic, stated that they receive favorable feedback from their classmates. Whereas almost all the participants view the feedback from others as encouraging or constructive, Edward also finds some of his classmates' comments to be less so.

Although Sue said that she receives positive feedback from other students in her class, she did not elaborate much about it. However, Wanda and Candace provided more details by mentioning that it is their friends who provide them with praise or support. Wanda provided a comment exemplifying what her friends say to her, "At least you tried. At least you tried your best and did a great job" (March 13, 2013). On March 14, 2013, Candace provided more illustrations about the type of feedback she receives.

CANDACE: Sometimes my friend will like, she would come up to me and say, "Do you need help?" And I'm like, "No, I really don't need help. And then she just looks at my paper and she says, 'Wow, that's really good. You got farther than me.' Or something like that.

Edward was the only participant to mention that he receives both positive and negative feedback from his classmates. He did not provide (March 20th interview) many details about others' positive feedback, and the only example he gave of that was "good job". In that same interview, Edward described instances when he receives negative feedback.

L: All right. Now let's talk about how the kinds of feedback, in other words the kinds of things other people say or tell you about your math abilities. Does your math teacher or your BSI teacher or anybody in the class, do they ever comment to you about your math? Do they give you an idea of how you think they think about you in math? Do they ever say anything to you about your math?

EDWARD: I think if I get a good job in my grade they would say, like," good job." But otherwise, if I get a bad grade they would not, like, make fun of me but kind of make me feel bad.

L: And how did that make you feel? But how do these children know what you got? Are they sitting around you in the classroom?

EDWARD: Yes, they are sitting around me.

L: So they see your grade?

EDWARD: Yeah.

These occurrences, coupled with Edward's experience of hearing that another boy did not want to sit by him, provide possible reasons why Edward preferred being in groups with students who he later described would be *kind* to him.

Vicarious experiences. Each class involved in this study is composed of pupils having a wide range of abilities, and therefore establishes the choice of peers that the BSI students can compare themselves to. According to Bandura (1997), **"**People appraise their capabilities in relation to the attainments of others (p. 86). He adds that, "More often in everyday life, people compare themselves to particular associates in similar situations, such as classmates, work associates, competitors, or people in other settings engaged in similar endeavors" (p. 87). The responses of all the participants' show that there are similarly-performing students in their in-

class settings that the participants could measure themselves up to, and that the BSI students do indeed use them for comparisons.

Sue remarked (March 26, 2013) that she compares herself to other students who(m) she believes are similar to her in math capability. She added that when those students do well, it makes she feel good. Sue rationalized, "And, like, then we say, 'Oh, you got the same grade as me. You probably got some questions wrong that I did, and you probably have some of the same comments as me." Her responses show that she feels good knowing others are performing similar to her. In addition, she appears comforted in her rationalization that she is not alone when performing either well or not.

Edward and Wanda's comments regarding who they compared themselves to, were similar to Sue's. In his first interview of March 20th, Edward stated that he liked to compare himself to similar others because "I feel comfortable instead of being lonely if they have a bad grade." Likewise, Wanda revealed (March 28, 2013) that she chose to compare herself to a friend who got the same grade because, "Well, we got the same grade. And, like, I'm not the only one." These comments show that these BSI students were seeking similar-performing students to compare to so as not to feel different and/or alone. However, Wanda commented further and elaborated about how comparing to similar others could evoke positive or negative feelings for her. She mentioned that she felt proud of herself when she learned that she received higher grades than her similarly-performing peers. When that occurred, she felt better about herself. But by contrast, when Wanda found out that others in her group got better grades, she was embarrassed.

It was apparent that the BSI students seek the company of others who also perform poorly at times. They can relate to them and not feel alone. It is a source of comfort for the

participants to experience opportunities to out-perform, or at least receive the same grades as their similar-performing peers. These types of peer comparisons are possible when there are similarly-performing students in the general education classrooms.

Participants' Self-Efficacy Beliefs and Academic Progress

In order to assess the strength of participants' self-efficacy beliefs, I implemented a modified form of the Bandura (1997) self-efficacy scale. Each of the students were asked to rate themselves on their capability in math. They were instructed to use a scale of 1 (nearly no feelings of being capable) to 10 (feeling most capable). I explained that the lower the number, the less he or she felt capable of performing successfully in math. The students' self-efficacy scale ratings ranged from mid-to high. The highest ratings were made by Candace and Wanda. They rated themselves "10". Sue gave herself a rating of an "eight", while Mary and Edward rated themselves the lowest with a "six". Interestingly, not all students' assessments of their own self-efficacy beliefs were congruent with their test grades or how the teachers viewed their math successes. These contradictory results will be addressed further in Chapter 5.

On another note, according to Bandura, when students attribute low test grades to not studying well enough (rather than feeling they don't have the *capability* of doing better) this is characteristic of one who has higher self-efficacy beliefs. To that point, I asked the participants to what, when they got a low test score, did they attribute the grade to? All of the participants attributed their low grades/tests to a lack of effort, and/or stated that they could improve if they tried harder or studied more. Bandura's premise is that attributing one's low performance to not trying enough as opposed to they just do not have the capability to improve, is characteristic of one having high self-efficacy beliefs. Thus, the students' statements demonstrate that they

believe their low performances are not fixed and that if they put in more effort, they are able to improve.

Mastery experiences. As per my request, copies of participants' test results were provided to me by the participants' general education teachers. These were reviewed to assess to what degree the teachers' remarks on the assessments provided the students with mastery experiences. As Bandura states, past performances coupled with reminders "that they were exercising better control over academic tasks by using the strategies and conveying the success feedback as evidence that they were applying the strategies well substantially enhanced the children's efficacy beliefs and their subsequent intellectual attainments" (Bandura, 1997, pp. 80-81).

Close examination of the participants' tests, revealed that Wanda and Sue's general education teacher provides the students with the type of feedback that Bandura characterized as mastery experiences and that would most effectively contribute toward building their self-efficacy beliefs (see Figures 1-3). Only Wanda and Sue's general education teacher wrote specific comments as opposed to giving them merely general descriptors such as "good". Their teacher included detailed responses about the strategies and skills they mastered. Thus, this teacher's written feedback helped provide them with the type of information that, according to Bandura, would be helpful for building self-efficacy beliefs.

Note that Edward, Candace, and Mary's teachers wrote only numerical marks on their assessments (Figures 4-6). Thus, opportunities to create more mastery experiences for these students were lost. Borrowing from Bandura, "Changes in perceived efficacy result from cognitive processing of the diagnostic information that performances convey about capability rather than from the performances per se. Therefore, the impact of performance attainments on

efficacy beliefs depends on what is made of those performances" (Bandura, 1997, p. 81). The

following samples illustrate the differences between how the general education teachers have

provided written feedback and mastery experiences to the BSI students.

Figure 1: Wanda's Assessment Sample #1

Name - _____ ___   Date - _____ -

YOU ARE BRILLIANT! SHOW ME WHAT YOU KNOW!

Ch. 3 Test

Angles	12	/15
Type of Triangle	3	/3
Congruency	3	/3
Opposite and Adjacent Angles	2	/4
How Many Degrees?	5	/12
Polygons	16	/16
Place Value	5	/5
Landmarks	4	/6
TOTAL	51	/65

Teacher Comments:

Great job on your polygons and place value! Remember that a straight line is always 180°, so two adjacent angles must add up to 180° Keep practing the median and mean, too!   (78%)

Figure 2: Sue's Assessment Sample # 1

Name - [redacted]   -30-12

YOU ARE BRILLIANT! SHOW ME WHAT YOU KNOW!

Ch. 3 Test

Angles	12.5	/15
Type of Triangle	3	/3
Congruency	3	/3
Opposite and Adjacent Angles	4	/4
How Many Degrees?	12	/12
Polygons	15	/16
Place Value	5	/5
Landmarks	4	/6
TOTAL	59.5	/65

Teacher Comments:

AWESOME, [redacted] I can tell you worked hard and tried your best. You did a great job with polygons, place value and determining degrees in an angle. Keep practing the median and mean!

92%

Figure 3: Sue's Assessment Sample # 2

Name - _____   1,25,13 _____

YOU ARE BRILLIANT! SHOW ME WHAT YOU KNOW!

Ch. 5 Test

Equivalent Fractions	6	/6
Simplifying Fractions	6	/6
Least Common Multiple	3	/3
Improper to Mixed Fractions	6	/6
Mixed Fractions to Improper	4	/6
Comparing Fractions	6	/6
Adding and Subtracting Fractions	7	/8
Fractions and Decimals	3	/6
Word Problems	5.5	/6
Total	46.5	/53

Sign here please:

88%

Teacher Comments:

Nice work! You did a great job comparing fractions, simplifying fractions and adding/subtracting fractions. Be sure to read all directions carefully and simplify answers when you can.

Figure 4: Mary's Assessment Sample # 1

Name	Individual Profile of Progress – Grade 4	
	Trimester Three	
1	Draw and identify lines and angles. 4.G.1	2 out of 2
2	Recognize a line of symmetry for a 2-d figure. 4.G.3	1 out of 7
3-6	Relative sizes of measurement. 4.MD.1	1 out of 7
7-9	Measurement and conversion of measurement. 4.MD.2	3 out of 3
10-12	Apply area and perimeter formulas for rectangles in real world and mathematical problems. 4.MD.3	0 out of 6
13	Represent and interpret data. 4.MD.4	0 out of 1
14	Extend understanding of fraction equivalence and ordering. 4.NF.1	2 out of 2
15	Compare two fractions with different numerators and different denominators. 4.NF.2	1 out of 1
16	Extend understanding of fraction equivalence and ordering. 4.NF.3	1 out of 1
17	Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. 4.NF.4	1 out of 1
18	Express a fraction with denominator 10 as an equivalent fraction with denominator 100. 4.NF.5	1 out of 1
19-20	Extend understanding of fraction equivalence and ordering. 4.NF.6	0 out of 8
21	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. 4.NBT.2	1 out of 1
22	Use place value understanding to round multi-digit whole numbers using base-ten numerals. 4.NBT.3	1 out of 1
23	Multiply a whole number of up to four digits by a one-digit whole number. 4.NBT.5	1 out of 1
24	Multiply or divide to solve word problems involving multiplicative comparison. 4.OA.2	1 out of 1
25	Interpret a multiplication equation as a comparison. 4.OA.1	1 out of 1
26-27	Solve multi-step word problems involving multiplicative comparison. 4.OA.3	2 out of 3
28	Gain familiarity with factors and multiples. 4.OA.4	1 out of 1
29	Generate and analyze patterns. 4.OA.5	8 out of 8
30	Extend understanding of fraction equivalence and ordering. 4.NF.2	3 out of 3
31	Use decimal notation for fractions with denominators of 10 or 100. 4.NF.6	4 out of 4
32	Fluently add or subtract multi-digit whole numbers. 4.NBT.4	1 out of 1
33	Find whole number quotients and remainders with up to four-digit dividends and one-digit divisors. 4.NBT.6	1 out of 1
34	Relative sizes of measurement. 4.MD.1	1 out of 1
35-36	Measurement and conversion of measurement. 4.MD.2	2 out of 2
37	Draw and identify lines and angles. 4.G.1	1 out of 1
38	Classify 2-d figures based on presence or absence of parallel or perpendicular lines. 4.G.2	2 out of 2
39	Recognize a line of symmetry for a 2-d figure. 4.G.3	1 out of 1
40	Generate and analyze patterns. 4.OA.5	3 out of 4
		70 out of 75

Extended Constructed Response Problem Solving		
Apply area and perimeter formulas for rectangles in real world and mathematical problems. 4.MD.3	Score	4 (3) 2 1

Figure 5: Edward's Assessment Sample # 1

Name_____   End of Unit ___3___ Test

Summative These skills have been mastered during this unit.	**Formative** These skills will be revisited for future mastery.	**Open- Ended Problem Solving** Scored using standard Everyday Math rubric.
Problems 1-17 19-22 29-31	Problems 18 a-c	Score 4 3 2 (1)
Score $\dfrac{27}{34}$	Score $\dfrac{1}{3}$	

Figure 6: Candace's Assessment Sample # 1

.me: ____   Unit 5 Test

Summative These skills should have been mastered during this unit	Formative These skills will be revisited for future mastery.	Open-Ended Problem Solving Scored using standard Everyday Math rubric
Problems 1-6 7-11 12-21	Problems $\frac{0}{0}$	Score 4 3 2 (1)
Score $\frac{25}{37}$		

*See note on last page!

must explain steps
to be counted.

        we need to make sure
we are handing in your best work!

Physiological states. Bandura postulates that anxiety, tiredness, or stress can negatively impact performance. For the most part, participants' physiological states were positive. With the exception of Edward, the remaining participants did not appear to come to math class with fear or nervousness, nor did they express that they were overly anxious during math time. Although there were some instances when Wanda and Mary revealed that they are nervous, for instance when they are called on and do not know the answer, they generally remained optimistic about how they feel during their BSI instruction. The majority of Wanda and Mary's verbal statements did not indicate that they are anxious during their support time.

Edward's responses showed that he feels negative emotions and physiological states more often than the other participants. This was demonstrated by the fact that he made frequent references to feeling anger and nervous during math. He is particularly concerned when he lags behind in finishing classwork. During his observation, I observed his inability to finish his classwork while others in his class had already completed theirs and went on to another activity.

Sue and Candace showed fatigue during the observations and/or interviews. They attributed their tiredness to circumstances that occurred outside of the class. For example, Sue mentioned that she went to bed late and woke up early. Candace revealed that she woke up early to go to music practice and therefore did not eat breakfast. Aside from that, there was no evidence that they were experiencing excessive negative emotions either coming to or during their math instructional support period. Due to the time period as set forth for this study, it was prohibitive for assessing whether these feelings of hunger or fatigue were recurrent.

Participants' perspectives about their academic progress. All the participants responded that they have made progress since the beginning of the school year. The participants used adjectives such as "good" and "better" to describe how that improvement makes them feel.

Not only did Wanda and Sue feel that they have improved since the beginning of the school year, they credit that at least in part, to BSI. Wanda stated that she, "learned stuff I didn't get it. But now, I'm getting help from the BSI teacher and I feel good" (May 28, 2013). Sue also believes that she "grew in math" (May 29th), because BSI is helpful. In addition, Sue feels that basic skills helps build her confidence.

The students all stated that they would be agreeable to having BSI the following school year. Candace, Mary, and Edward said that they would - want to receive support services the next year because they might need more support. Candace, although initially stating that she "doesn't need that much help anymore" (June 4, 2013), later reversed that thought by admitting she might need a little more help. Although Mary felt she began as a struggling student and now she is a "medium", she wants to have basic skills next year because she "might be struggling more" (June 4th). Edward also feels he has improved since the beginning of the school year, and that he is now doing well. However, during his first interview (March 22nd), Edward acknowledged the fact that he "needs a little bit more help." To that point, he agreed that he might need BSI the next year.

To summarize, the students feel they have made progress since the beginning of the school year. They credit this, in part, to the BSI program. However, despite stating that they have improved, the participants still want to receive services the next year and acknowledged that they may continue to need support.

Participants' Perspectives About the Program Structure/Environment in Relation to BSI Delivery

Students' responses to this theme were analyzed and are presented in three sub-themes. First, data results related to what the students believe to be the barriers of their BSI program are

addressed. Next, is an examination of students' comments of what they feel are supportive

aspects of their current basic skills instruction. Concluding, is an analysis of data involving

students' drawings that depict what their ideal setting for basic skills would incorporate if they

had a chance to design such an environment.

Low-achieving students: what they identify as barriers to their learning. Parti-

icipants' comments showed that they do have some concerns related to their support instruction.

Although most all of the adverse comments mentioned here involve in-class support, Edward and

Mary included an issue associated with their pull-out delivery of support as well.

Bandura (1997) states that comparison to others could lead towards increasing a student's

self-efficacy. He qualifies that premise with the assertion that people compare themselves to

people who are *like* themselves and evaluate their own potential ability on when those they

compare themselves to, do well. In the case of Wanda and Edward, not only did they compare

themselves to similarly performing peers in their general education classroom, they also

compared themselves to others who typically performed higher than they did. Instead of it

resulting in a positive effect, it led to them feeling embarrassed or disappointed. Furthermore,

Edward and Wanda were unhappy when other students saw their grades. Wanda particularly

made it clear that she wanted a more private setting where this would not occur.

Whereas most of the participants had no issues with working alongside students who

performed similarly to themselves, Sue admitted that she sometimes feels confused with the

work that the students in the higher level are doing. Her general education teacher has placed Sue

in that higher-level group where the work is differentiated and more difficult. While initially

feeling confused, after working in the higher-level group for a while, Sue said that she now feels

more at ease. Sue rates her self-efficacy as high, perhaps accounting for why she was able to

sustain her positive attitude and persistence.

Whereas Sue believes the work is more difficult in the higher-level group, both Edward

and Candace commented that they think the work is hard just in the general education setting

itself. These students' classrooms are not divided into differentiated groups. Edward commented

further and stated that the pace is too fast for him as well. He felt upset when others finish their

work long before he does, and that he would prefer being around students who complete their

class assignments at about the same time or pace as he does.

As mentioned before, unlike in the general education classroom of the other participants,

the classwork in Sue and Wanda's room is differentiated. The general education teacher assigns

them with level-appropriate work that they do after they split into their small homogeneous

groups and after the whole-class lesson is presented. Interestingly, neither Wanda nor Sue

mentioned that their level-appropriate group assignment is too difficult for them. An interesting

point here too, is that Wanda and Sue's self-efficacy ratings are among the highest of all

participants.

Also noteworthy, is that during the observations there was no evidence that the BSI

teacher comes to class with her own lesson plans ready to execute. She did not bring any of her

own teaching materials to supplement during the time she spent with her students. It appeared

that the basic skills teacher's instruction consisted of following the general education teacher's

lesson plan. With this being the case, there is little opportunity for assisting the participants more

individually and in a manner that addresses students' particular needs or learning styles.

Three of the participants also spoke adversely about another instance that occurs in the

general education classroom. This involved the general education and BSI teacher talking

simultaneously. Mary stated that she becomes nervous when this happens. Wanda said if the two

teachers speak at the same time, she becomes confused. During the stimulus recall, Edward

explained that he is nervous and conflicted when the teachers speak at once because each teacher

tells him to do something different. He added that he resolves this by listening to the BSI first.

In fact, Mary, Wanda, and Sue also stated that they just listen to the BSI teacher first. Candace's

comment differed somewhat. She has no issue with the teachers talking simultaneously because,

as she described in the June 4th interview, "The (BSI) teacher, she just tells the teacher to like,

'hold on.'"

Finally, two students made negative comments regarding their *pull-out support*. Edward

and Mary were the only ones who mentioned a concern they have with going outside their

general education classroom for BSI support. They feel they could be missing things during the

time they are not in their general education classroom.

Low-achieving students: what they identify as supports to their learning. There were

more positive responses from the participants regarding their experiences with their instructional

support as opposed to negative ones. Despite some of the unfavorable comments, which were

detailed in the previous section, students described many of their feelings about this program as

happy, comfortable, and proud.

Also included in this sub-theme are the data results of the students' drawings depicting

what would be their ideal setting in which to receive support instruction. Interestingly, although

there were distinct and unique details in each of the participants' drawings, their pictures

contained several similar characteristics as well.

In general and as mentioned previously, the participants feel the basic skills program is

helpful in providing them the assistance they need. They also feel that they have made progress

since the beginning of the year. Furthermore, whether that support was due to in-class or push-

out services, the participants generally attribute that improvement to the BSI program.

All participants, except Edward, believe that the other students in class treat them well during

times when they work collaboratively. Edward was happy when his small group consists of

friends or those being kind to him. During small group activities, the participants remarked that

they are actively engaged in the activities rather than being mere observers.

Although all participants stated that they did receive some positive verbal feedback from

teachers, only Sue and Wanda's general education teacher have provided them with much

mastery-type feedback. In other words, the type of teacher's comments written on their tests

affirms that they used skills effectively. Since mastery experiences contribute greatly to high

self-efficacy ratings, the teacher's feedback are, in part, why the students own self-efficacy

ratings were very high.

On another note, few of the participants' works are displayed in classrooms. Wanda and

 Sue's room is, once again, the exception. A math-facts time test chart is hung up near the front

of the class, and these two students are happy to see their results posted. Although Sue and

Wanda's scores are among the lowest, the visible display of their performances appears to have

positive effects on them. Sue believed that the display acknowledges her effort. Wanda's

reaction is that she feels good because "she is farther than other people" (5/28/14).

Wanda and Sue's teacher also gives the students an opportunity to retake their tests if the

initial grade is very low. None of the other teachers offer that as an option to their students.

Both students, particularly Wanda, like that practice because it "is giving me a second chance

which I can actually get a higher grade and my mom can be proud…happy for me"

(5/25/13).One aspect of in-class support that all participants mentioned they like is helping other

students in class. This was particularly the case when they feel the work is easy or they believe their work is correct. Based on their previous responses, it was understandable that they enjoy assisting similarly performing students. However, not only are the participants happy to give help, they are content to receive assistance from the higher-performing peers as well. Wanda remarked further (3/13/13) that another student is able to help her when the BSI is busy with another student. Thus to summarize, the participants' most frequently mentioned positive aspect of receiving in-class support is the giving/receiving of help with mixed-ability students (heterogeneous settings).

Participant's Drawings: Depictions of Their Ideal Environment for BSI. The drawing activity provided opportunities for the participants to respond to the research questions in a less formal way. During their fourth individual interview that occurred within that more relaxed atmosphere, participants expressed what they think is positive about their current basic skills delivery. They also addressed what they would incorporate in a setting for their support program to be most effective for them. The open-ended questioning and related dialogue that emerged while they were engaged in their drawings were valuable for gathering rich data. All students, except Wanda, were able to draw on their experiences of also having had basic skills support delivered in a pull-out setting. The drawings, although similar in several aspects, include some characteristics unique to each of the five participants.

The participants' drawings show classrooms consisting of considerably fewer students than in their in general education classroom. Candace, Mary, and Sue explained their rationale for having fewer students in their class. Candace stated that when they go out (for their BSI support), it's only them and, "someone is there by your side to help…more than in the classroom" (6/4/13).   Mary feels she could do better in an environment where there are "just a

few kids" (6/6/13) because she is more apt to raise her hands to ask questions. Sue prefers to have four to six students in her classroom because, "I can get the help I need and because I am working with not a lot of people" (5/29/13). Edward's drawing (May 31, 2013) is different from the other participants with respect to the number of students he depicted in his picture. Edward drew more students in his classroom than did any other participant, and he stated that he would have drawn more if he had been given additional time (interview time was limited to one-half hour in length due to scheduling constraints). Edward's picture included several high-performing as well struggling students. Edward explained that he prefers to have more than a few students because that would include those who are "A" students and, "Well, they can help me on stuff (when I'm stuck) on a problem."

The participants labeled their drawings. This, in addition to their verbal descriptions of the pictures, provided information about the composition of classmates the BSI students would prefer to have in their class. Although the participants' responses show that they find a major benefit of a heterogeneous composition of students is that the higher-performing classmates can help the struggling students, the participants also appear to feel comfortable in a setting where they are with similarly-performing peers. Thus, all the participants consider their ideal support setting to include some students who are performing either similarly or lower than they do. This was reflected in almost all of the participants' drawings. Most of the participants drew a majority of these level students. However, although Mary depicted lower-level students in her picture, she also included almost an equal number of higher-level students as well. Edward's drawing differed the most. He drew a majority of higher-level students in his drawing. The participants' drawings and explanations of why they chose to include the composition of students that they did are detailed next.

Figure 7: Wanda's Drawing
(see * below drawing)
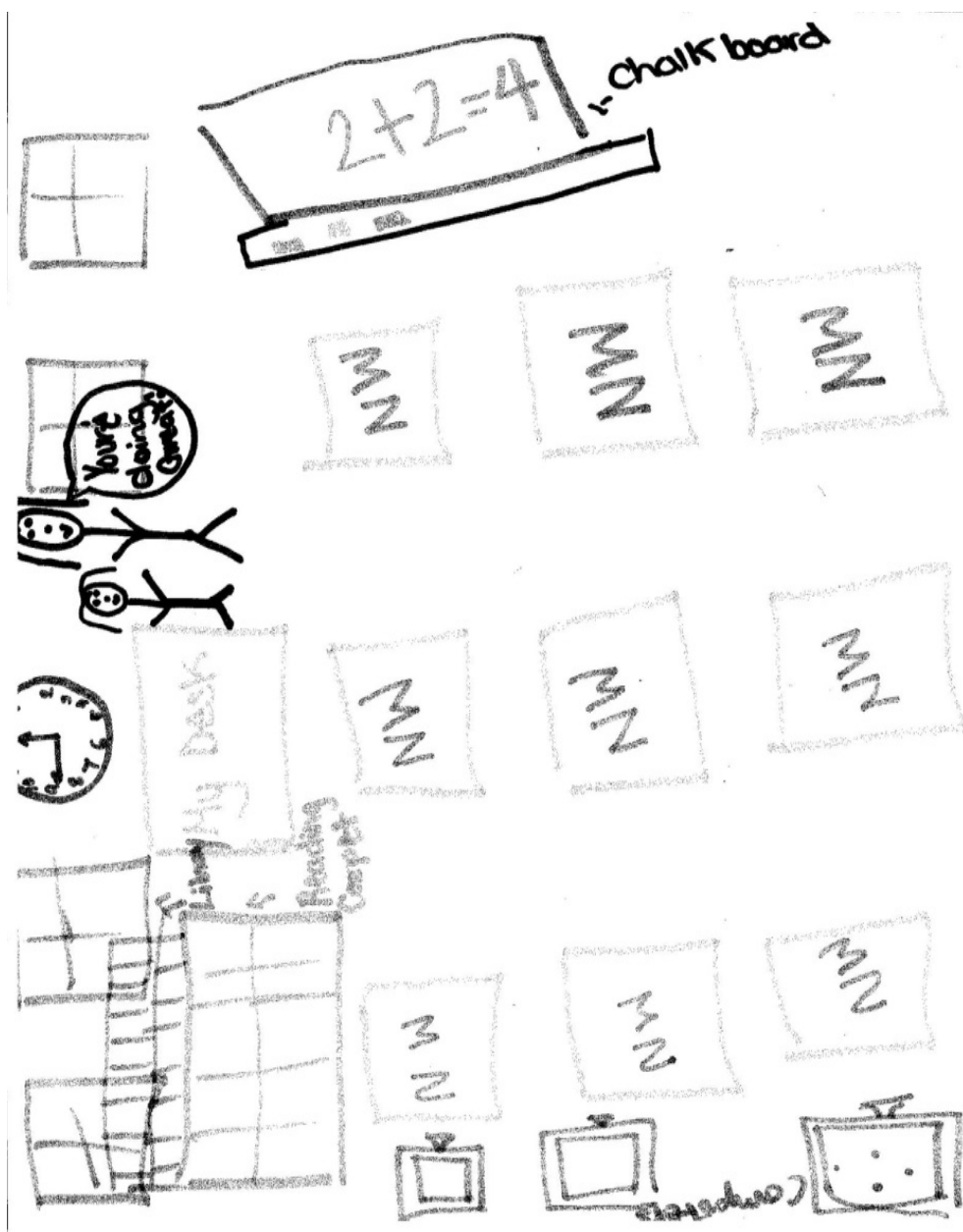
* Note: Participant stated that NW represents "not doing well" student
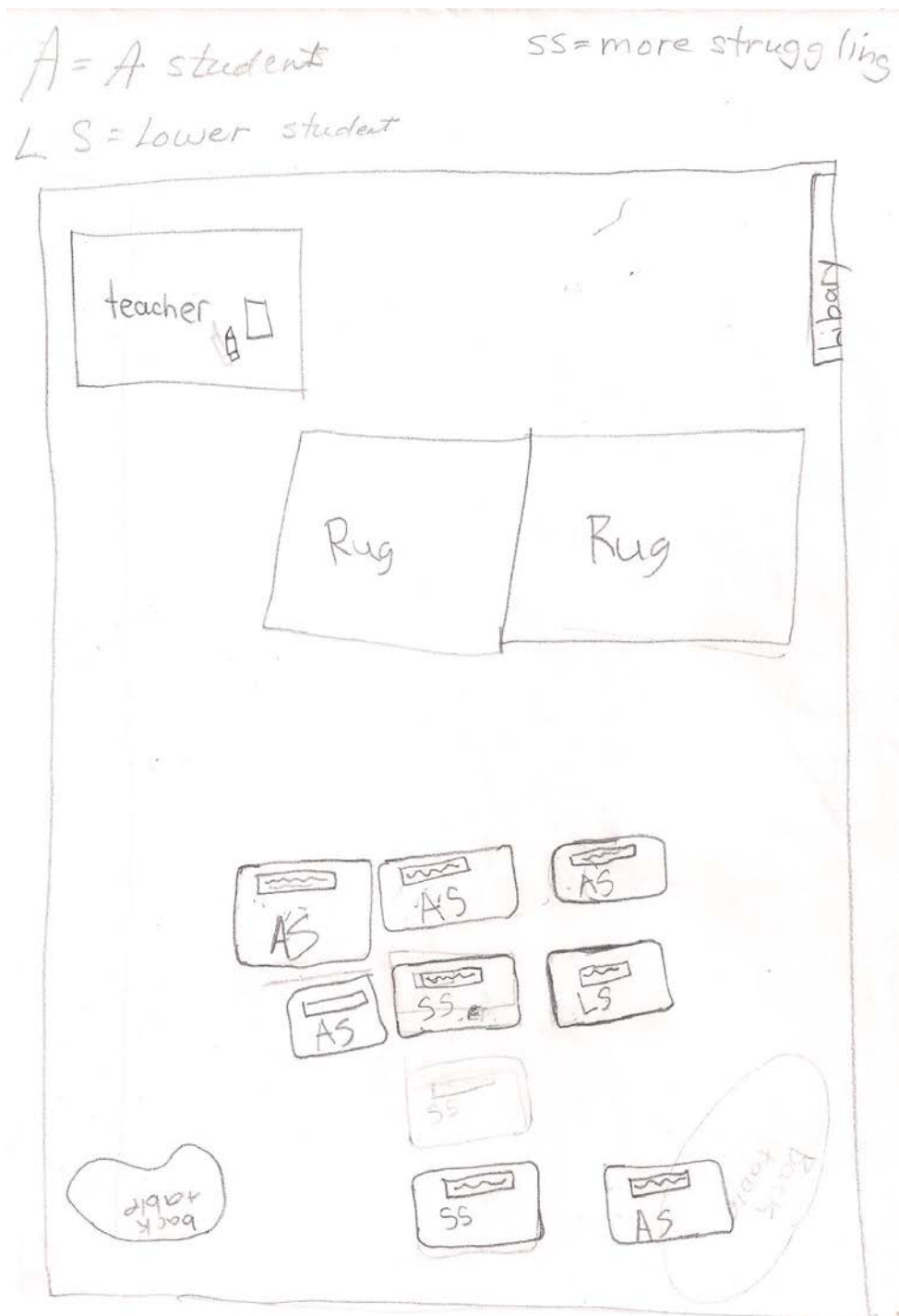
Figure 8: Sue's Drawing
(see * below drawing)
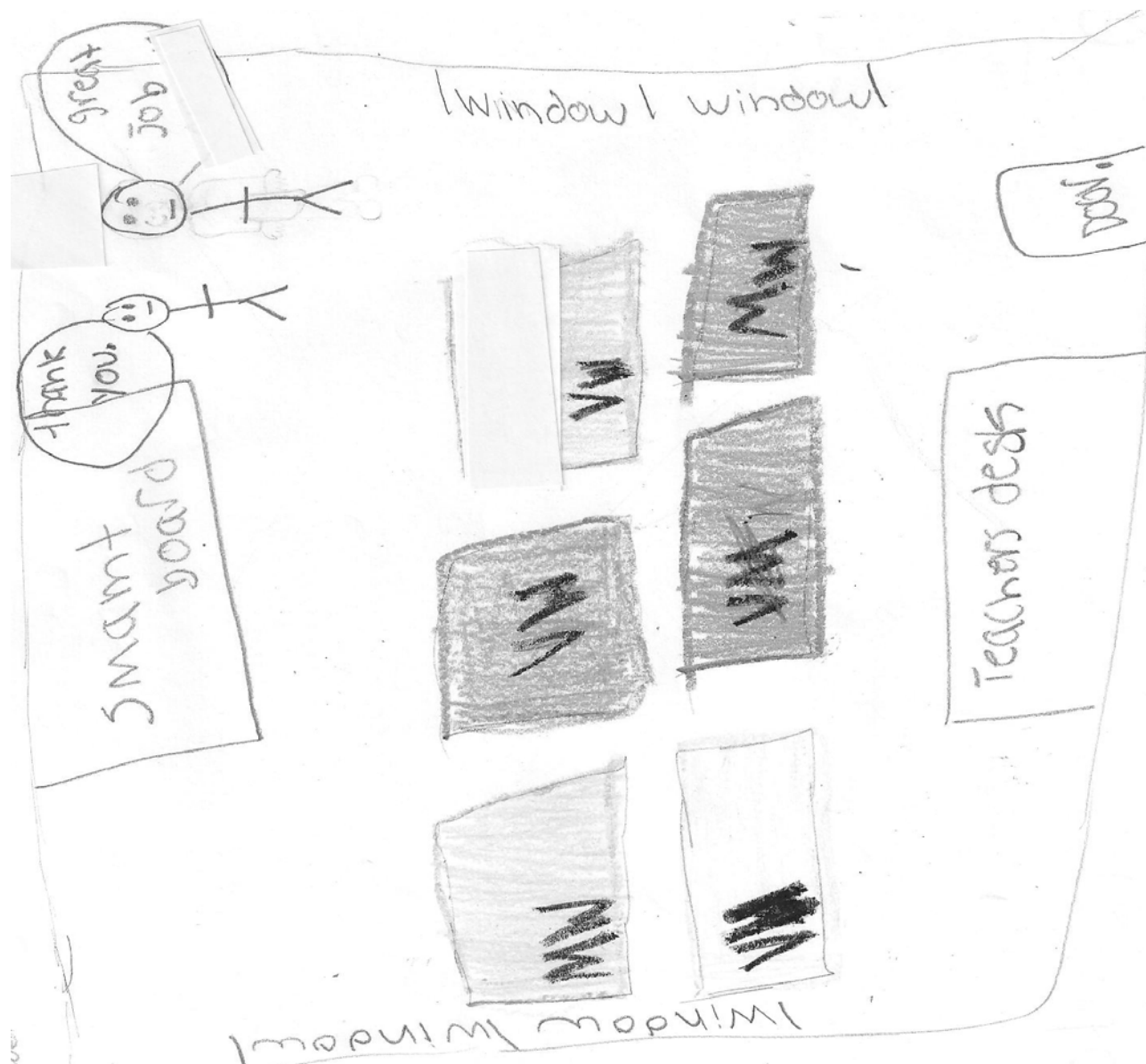
*Note: Participant stated that the MW represents "medium well" and VW represents "very well".
Participant also stated that these students were the level they achieved at the end of the year
having BSI services.

Figure 9: Mary's Drawing
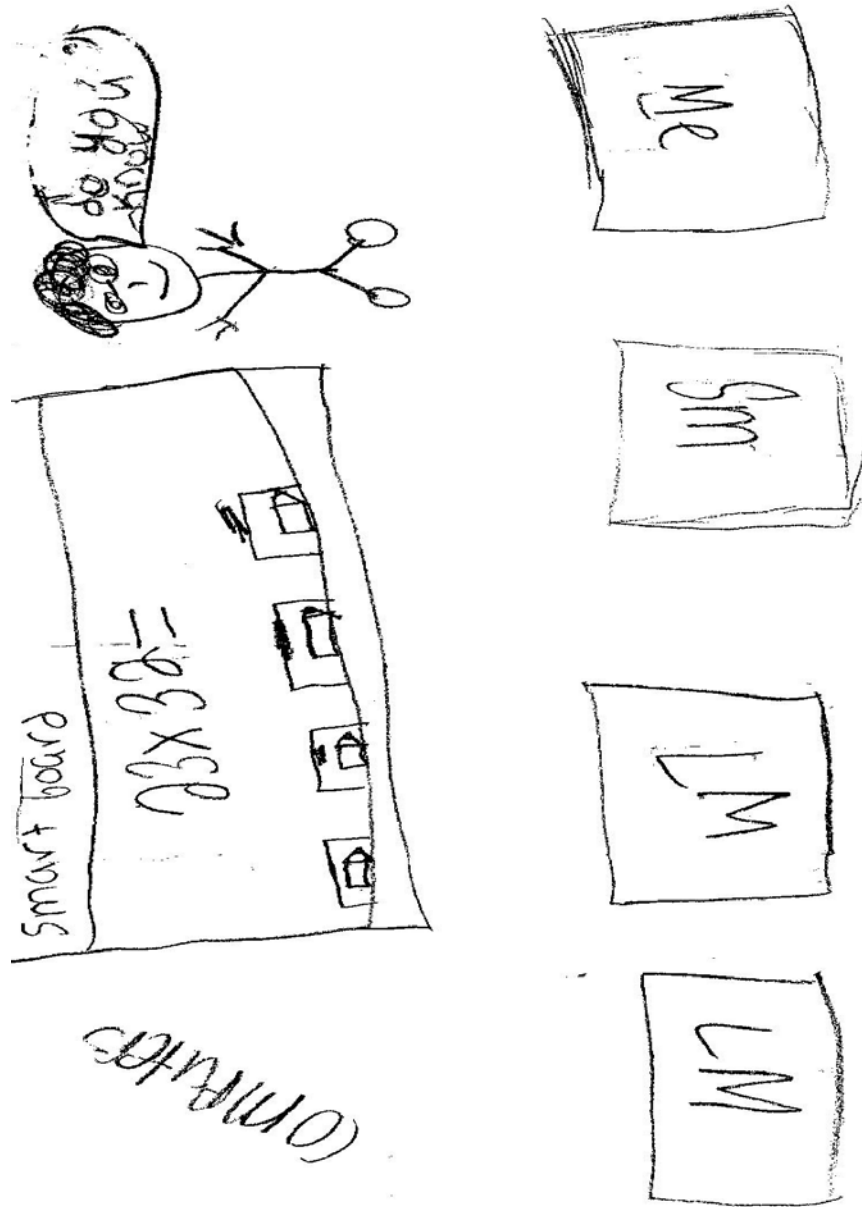(see * below drawing)
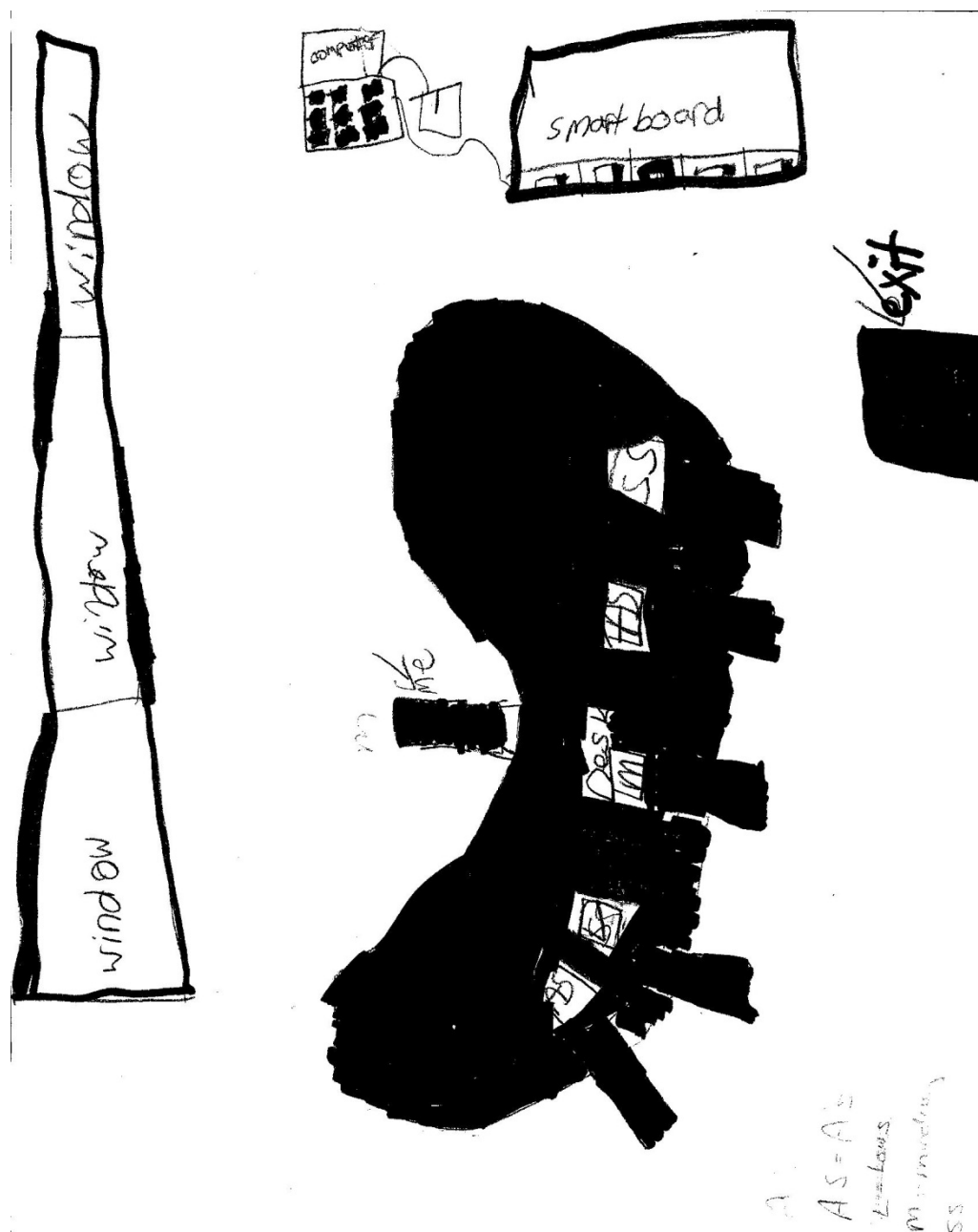
*Note: Representative symbols were drawn by interviewer (lower corner of picture).

Figure 10: Edward's Drawing
(see * below drawing)

*Note: Representative symbols drawn above picture were written by interviewer.

Figure 11: Candace's Drawing
(see * below drawing)

*Note: Candace's symbols of LM represent "lower than me" and SM represent "similar to me"

Three participants, Candace, Sue, and Wanda, favor a majority of their peers to be lower-performing or struggling students. Candace's drawing shows that her ideal classroom consists of only students who are similar or lower than her in math ability. She repeated her choice of surrounding herself with similar others with such comments as, "All the same," (June 4, 2013), In that same interview, she continued describing her drawing, "This would be somebody next to me, similar to me. And two other people, like, just like so that they are together…lower than me. And, like, it's what I would want." Sue commented that she favors having students around her who, like her, need help. In her May 29th interview, Sue detailed this further with, "Because maybe somebody will ask the same questions as me. Like, if I say it, then that person might feel, like they understand it now" (May 29, 2013). Wanda also stated that she prefers a classroom where most of her classmates perform similarly to her. She explained that, "I feel comfortable like this because I don't want people to have A pluses all the time…because then I feel, like, 'Oh my God, they are smarter than me.'"(5/28/13). Interestingly, although Wanda stated that she likes having similar-performing peers in her class, she admitted that she is shy and feels more comfortable around them only after she gets to know them longer. This point appeared important to Wanda because she also mentioned this on April 24, 2013. During that interview, she stated that she is more nervous when she is not used to people as opposed to being with classmates who she already knows better and trusts.

Mary drew nearly an equal number of higher- and lower-performing students in her picture. Interestingly, she alternated the ability students, with lower-struggling students seated between the higher-level students. During the June 6, 2013 interview Mary explained the reason for including both "A"s students and well as struggling students. She remarked, "So I can work

with not only people that are struggling, but people that are really good too. And maybe (the

higher-performing, or A's students) can teach the other kids."

Edward's drawing, which included a majority of students labeled as higher-performing, is

a bit of a contradiction. In his May 31, 2013 interview, Edward stated that he also wants several

higher-level students as well because they could "help me with stuff". On the other hand, he is

concerned about the pace in his general education classroom because he is not able to complete

his work as quickly as the higher level students. Edward stated that if he is with similar-

performing students this would not occur because he would feel, "at least, not left out" (5/31/13).

Edward also mentioned that he prefers having friends and/or students who are kind to him in his

classroom. His reasoning for this became clearer when he revealed that there are classmates who

do not treat him well. He gave an example with the statement that he feels embarrassed when

some others see his marks; some students are mean to him when he gets a bad grade. This, in

addition to the fact that a student told Edward that he didn't want to sit by him, may have

contributed to why he feels having kind friends in his ideal classroom is paramount.

As far as what the participants would like to see incorporated in their ideal support

environment, they mentioned that they would want to have computers and Smartboards in their

classrooms. The students stated that they enjoy working on those teaching tools and like playing

educational games on them. Also, three participants' comments suggest that they are partial to

having a variety of activities included in their support instruction. Edward and Candace prefer

including more fun things and activities as opposed to doing paperwork all the time. Mary,

Candace, and Edward favor moving around rather than sitting in their seats continually. Candace

referred to the BSI teacher using a small pad, or a slate board, to help her when she needs

assistance. She added that she likes working on her problems with the BSI teacher that way

because it boosts her confidence. As far as the physical arrangement of the classroom, Candace

indicated in her drawing and her June 4, 2013 interview that her ideal setting would have desks

facing in one direction so the students could look one way because otherwise, according to

Candace, "It's hard (to look)." Candace also talked about how she prefers the pull-out setting

because there is more space and fewer students. Candace feels she gets more attention from the

BSI teacher, and in what she refers to, a quieter setting. Mary also referred to preferring the pull-

out setting where the other classmates do not call out or shout. Their comments suggest that their

general education classroom is noisier than what they like.

Mary, Edward, and Candace all favor a pull-out setting where they find the work and

teacher's approach either different or easier. Candace and Edward feel the classwork in the

general education classroom is difficult, and Candace prefers going out because she gets the

chance to do more of what she likes (doing the work on the Smartboard) and the work is more

her level. Mary feels that the questions are easier to answer in the pull-out setting. Edward

believes that the BSI instructor teaches differently (in the pull-out setting) and prefers going out

because they "do other stuff" (5/31/13). Participants' responses show that they favor the BSI

teacher's instructional approaches, although those teaching practices that the BSI teacher con-

ducted in the pull-out setting were not the purpose of this study and were thus not observed. In

addition, the students described the work in the pull out setting as "easy". The participants' uses

of that term are dependent on their own interpretations of that word. Observations in the pull-out

setting would provide greater clarification about that which the students define as "easy".

The participants also gave their input as to how long each BSI lesson should be and how

many days per week that support instruction should occur. Although the students believe that it

isn't necessary to have BSI more frequently, Wanda and Mary have definite opinions about how

long each session should be. At the time when this research was conducted, basic skills instruction was provided twice a week for students, with each session one-half hour in length (half of the daily math period). During her June 6, 2014 interview, Mary remarked that the number of times per week should remain the same. However, she would like each of those sessions to be longer. On June 7, 2014, Wanda elaborated on Mary's comment with the statement, "I would change the BSI teacher, she might be, like (in the class) for the whole period."

In conclusion, the participants see specific benefits of their in-class support instruction. These students are happy to receive such services and some attribute their improvement to that assistance specifically. The participants conveyed that getting help from high-level students is a major strength of receiving their help in the heterogeneous setting.

However, all participants also spoke about aspects of the in-class support that they either dislike or would change if they could. Several of these points were mentioned by all participants, and the consistency of those concerns is evident in their drawings. For these students, being around similarly performing classmates offer them comfort and confidence. Although the BSI students' responses showed that receiving help from higher-performing peers was one of the best things about their in-class support, the majority of participants' drawings showed they prefer being with smaller class sizes composed primarily of similarly-performing students. Data demonstrate that the participants feel there are specific merits associated with classrooms containing characteristics of pull-out delivery; where BSI students receive support among fewer students in more homogeneously-grouped settings.

Chapter Review

Chapter Four focused on an analysis of the data collected from the five participants' interview responses, artifacts, and observations. First, descriptions of the five participants were

presented. The data analysis and its findings followed next and included the themes and sub-themes that evolved as the data was thoroughly explored.

Results show that the five students in this study are generally positive about their basic skills instruction program. The number of their positive comments outweighs the negative. However, the participants also detailed what aspects of their support that they would prefer, eliminate, or would like to see change. They described when and what instances they feel help or hinder their progress either emotionally or academically. The following three paragraphs summarize their positive responses, negative responses, and comments about the setting for delivery of BSI services. The results accomplish the purpose of this study: creating a clear picture of the lived experiences in relation to the participants' math in-class support.

Students mentioned several aspects about their current in-class support that they feel are positive. One of those points made by the all participants was that they like being with mixed-ability students because the higher-level students are able to help them. Another positive point is that when they are in cooperative learning groups with the higher-level students, participants are actively engaged in the activities required therein. Also, the five students in this study do not have concerns regarding how the basic skills teacher singles them out to help by leaning near them, or when she segregates them within the class to assist. Finally, some of the practices that Wanda and Sue's teacher implement help to build the two pupil's confidence: display of math facts time tests, offering opportunities for students to take retests, and providing comments on assessments that serve as positive mastery experiences for both students.

Results also show that the participants have some negative experiences in the in-class setting as well. Those comments frequently involved teachers' actions or teaching practices. For example, several of the students do not like it when the BSI erases their work. Another point

mentioned by several students was that they are embarrassed and/or nervous when they are called on in front of others and do not know the answer(s). Also, some of the students remarked that they find the work is difficult, and Edward revealed how he feels that the pace is too fast for him.

The participants' drawings are illuminating. The students' responses to this activity reveal that they feel comfortable being with and working alongside others who are performing at their level. In fact, except for Edward and, their pictures depict settings characteristic of a pull-out setting where the composition of students is homogeneously grouped. Their reasons for liking the pull-out setting included that the teacher presents the material in easier ways, they receive more attention, that they would be more apt to ask questions, and they would not mind (similar) students seeing their grades as much,. For these lower-achieving students, being with others who performed like them, give them a sense that they are not alone.

In summary, the in-class support program is generally viewed favorably by the participants. Nevertheless, the fact that there are specific parts of the in-class support that students' view as negative or that they prefer changing or modifying, demonstrate that push-in delivery of basic skills instruction does not fully address several concerns and needs of this student population who receive such services. Whereas the participants pointed out several aspects of the current program that they like, they also commented about specific things that makes them uncomfortable and /or nervous. With the students' voices exposing what aspects of the BSI program they believe to be beneficial or that could be improved, the information gained within this study serves as a springboard for helping make basic skills more effective for all struggling students.

CHAPTER V

Discussion

Basic skills instruction serves the struggling student, the function of which is to help them reach proficiency levels of performance. The setting in which these students receive that support has changed within over the last few decades. Prior to the 1960s, low-achieving students were frequently pulled out of the classroom and given support instruction in a segregated environment. However, during the last few decades of the 20th century, the delivery of these services began to shift towards being implemented in-class, in the general education classroom (Rathvon, 1999; Churton, Cranston-Gingras, & Blair, 1998; Falvey 1995; McGregor & Volgelsberg, 1998; Heron, 1978; Stanovich, Jordan, & Perot, 1998; Villa & Thousand, 2003; Fuchs, Fuchs, & Bishop, 1992; Woodward & Baxter, 1997).

In-class support has been the subject of numerous studies and the results have been inconclusive. Many studies suggest that there are benefits of having this instruction delivered in that setting (Saleh, Lazonder, & Dejong, 2005; Meijnen & Guldemon, 2002; and Huber, Rosenfeld, & Fiorello, 2001). By contrast, results of other research have demonstrated that there are some concerns involved with this practice as well (Klinger, Vaughn, Hughes, Schumn, & Elbaum, 1998). Conflicting results, coupled with the fact that there was a lack of qualitative research that has studied the issue from the perspective of how students interpret their experiences with in-class support (Christian & James, 2008), served as catalysts for conducting this investigation.

With the purpose of this study being to expand existing research about low achievers and their support instruction, this research examines their lived experiences and perceptions of that topic in a way that previous studies have not examined: namely how struggling, non-classified students *themselves* feel about their support being delivered as a push-in service. Rather than

merely confirming or denying existing research relating to in-class support, this study enhances

that research so the educator can better understand this complex topic. Thus, this study fills in

the void regarding the exploration of this phenomenon.

The major findings of this study to be discussed in this chapter, involve two themes. One

theme includes participants' beliefs that there were specific positive aspects about their in-class

support delivery. These students detailed how and why that type of support was helpful, and they

provided details about what they liked about that delivery of instruction. However, whereas they

described specific positive points relating to in-class BSI, they also had concerns and negative

perspectives about the program as well. The second theme, with data that includes student

drawings, further represents how they perceive best support in the classroom setting. Their

pictures depict what they believe an ideal BSI environment would resemble.

The focus of this chapter is to show how this research supports, challenges, and extends

the knowledge we have already acquired from current literature relating to this subject. Some of

the quantitative studies have produced conflicting results, and this study helps with

understanding why those contradictions might exist. This chapter also discusses the findings of

this study in terms of their implications to education. The limitations and significance of this

study are included next with concluding statements presented last.

In-Class Settings for Instructional Support: Participants' Perspectives

The participants' comments demonstrated that there were aspects of in-class support that

they viewed positively. They felt definite parts of that program, when delivered in an in-class

setting, were valuable and they would not want them eliminated. However, some responses

zeroed in on things about their push-in support that either concerned them, or that they would

like to see change in order to improve their support. The voices of these students provide further

insight and give clarity to current research and studies that present contrasting results.

Participants' perspectives regarding positive aspects of in-class support settings.

Participants' remarks showed that they enjoyed a positive relationship with their support

teachers, and they were not embarrassed by how they received the teachers' help in the in-class

setting. Not only did they feel comfortable going to their teachers for help, they did not hesitate

to ask them questions. In addition, the participants stated that when the BSI delivered assistance,

they did not have any issues regarding how the BSI teacher singled them out during class by

bending, sitting, or leaning over to help them. The participants made no indications that they

were uncomfortable if their peers knew that the BSI teacher was there to help them (despite that

their peers were aware that they are low-performing). These points contradict work by Ryan and

Shin (2011) in which they found that low achievers were more reluctant to seek help. This also

contrasts the results of Hoek, Terwel, van den Eeden (1997), who found that low achievers

weren't always capable of asking for the appropriate type of assistance since it was difficult for

them to explain what it was they did not understand. Candace's statement perhaps best explains

why those conflicting studies are not consistent with the participants in this study. She captures

the participants' responses with her comment, "Um…I am feeling good because I am getting the

help I need" (April 16th, 2013). The participants attributed their improvement, at least in part, to

the instructional support they received. They mentioned several times how they wanted to get

assistance so that they could continue to improve.

Participants also commented favorably about their experiences in cooperative learning

groups. The social interactions associated with the implementation of this practice were

primarily positive for them. These low achievers' reactions reflect the findings of studies by

Gillies (2000) and Peterson and Miller (2004). Gillies found that the success of cooperative

learning is due in part to the fact that "it is interactions that occur in groups that facilitate

learning" (p. 98). Although this present study did not measure achievement progress in

quantitative terms that would necessarily support measureable gains, there were several

comments made during the interviews demonstrating that, according to the participants, they felt

it was beneficial for them to work in that mixed-ability grouping. This may have been, in part,

because they received additional help from their higher level peers. In fact, the most frequently

mentioned aspect of in-class support that the participants' felt were favorable, involved being

helped by higher-performing classmates. As with the case in Sue and Wanda's classroom, the

teacher encouraged students helping students. Wanda capitalized on that when she was given the

chance to work with another classmate, and she sought to team up with a higher-performing

peer. This also reflects findings in studies that suggest there are benefits of support that are

delivered in an in-class, heterogeneous settings. There is an added value if higher-level peers

help fill in that "help-needed" gap when their teachers may not have the time or opportunity to

give the struggling students assistance.

　　　　While the participants feel positively about receiving help from their higher-level peers,

they also feel they can make viable contributions while working in those small group settings.

They have found opportunities to participate and assist others, and during those times they are no

longer struggling students: They feel positive about their interactions with and what they can

provide to their classmates. The fact that the students stated that they were able to engage and

partake freely during the cooperative group activities contradicts King's study (1993). Whereas

King found low-achieving students were passive and that they had difficulty seeking

explanations and understanding during those times of group compositions, the actions and responses of the participants in this study suggest otherwise.

Findings of this research also conflict with study findings in the work of Tan, Sharan, and Lee (2007). The students in their study found it difficult to work in groups, and they were "more concerned about their social relations than were the high-achieving students" (p. 151). None of the participants of this study either mentioned or displayed feelings of social insecurities when interacting with their classmates. In fact, I observed how a higher-level student was able to deflect a situation that might have otherwise been a socially deflating experience for Candace. Her general education teacher asked Candace a question and she did not know it. Due to a quick comment and suggestion from that teacher (asking Candace to call on someone), the higher-level student seated next to Candace was able to respond to the question and answer correctly. Thus, the interjection by the teacher averted the potential embarrassment to Candace, and later Candace revealed that this action actually made her happy. On the other hand, Edward and Candace shared the same general education teacher, yet he was the only participant to make negative comments about working with others. In Edward's case, he was new to the school, and he experienced unkind treatment from another student. As a result, his perspectives may have influenced by those social issues. This shows the complexities of this type of support and how quantitative studies fall short of the whys, intricacies and understandings that are involved with low achievers' support programs.

Interestingly, two students in one fifth grade classroom made more positive comments about their in-class support than did the remaining participants. These remarks were not so much related to the BSI teacher: Sue and Wanda liked how their general education teacher provided them support in-class. This teacher gave these students opportunities that included chances to

take retests, more mastery experiences, and differentiated instruction. Wanda and Sue's positive reaction to these practices were evident in their interview responses. The fact that their teacher was the one teacher who provided them with the most mastery experiences and gave them chances to bring their grades up (which the students may have interpreted as a mastery experience) coincided with Bandura's premise that these points would contribute to a student's high self-efficacy ratings. Indeed, Sue and Wanda's self-efficacy rated were among the highest.

Another aspect of this in-class setting which may contribute to Sue and Wanda's higher self-efficacy beliefs is that their teacher ensures that all students' classwork are differentiated. Sue and Wanda did not comment about the work being difficult, as the participant's in the other classrooms did. This supports research by Lam and Phillipson (2009) who examined affective and social outcomes of low-achieving students in an inclusive school. Responses revealed that students in the low-achieving group reported increased levels of alienation and lowest social integration levels when they were studying the regular curriculum. Lam and Phillipson found that when these low-achieving students studied a differentiated curriculum, they reported responses of affective and social outcomes similar to high-achieving students. Wanda and Sue did not have an issue with the work that was created specifically to meet their performance level. Furthermore, their general education provided them with encouragement about their ability by offering them the opportunity to try more challenging material (if the students wanted to) and that the teacher felt they had the skills for. Thus, this teachers' feedback served to increase their mastery experiences, and a point that has been documented by Bandura as building self-efficacy beliefs. This is reflected in Wanda's and Sue's self-reported ratings of such, and is supported by the progress that they and their general education teacher have believed they have made during the school year.

One other practice that Wanda and Sue's teacher implemented in her classroom, was posting a timed-test chart with students' results displayed on it. The visibility of others' scores enabled Wanda to compare totals to her peers. As the findings of Wood's study (1989) suggest, students compare themselves to others who are performing similar tasks. Wanda did exactly that. Wood found that when low-achieving students see those who are similar to themselves achieve success, they believe they have the capability of mastering similar activities. Wanda's results, although in the lowest category of scores, were in the same range as most all of the other students. As a result, she used this as a comparison and validated that she was not falling behind others. She felt comfortable with this practice and was happy that the teacher instigated such.

Finally, in addition being provided with appropriate leveled classwork, Wanda and Sue had opportunities to use the Smartboard to work on math problems. None of the other participants mentioned that they use the Smartboard in that manner, and I did not witness this occurring during any of my observations. Sue and Wanda commented about how they enjoy using that instructional tool interactively. The fact that they are afforded the chance to use different modalities of learning, and considering that these two students have two of the highest self-efficacy ratings, aligns with the work by Ahmed, van der Werf and Minnaert (2010). Results of their study suggested that students' perceptions of confidence increased when a variety of activities within the range of the students' abilities were made available. Wanda and Sue's favorable responses and reactions resulting from the inclusion of various activities also reflects that of Dunn, Braio, Beasley, Quinn, and Buchanan (2004) and Della Valle, Dunn, Dunn, Geisert, Sinatra, and Zenhausen (1986) who found that addressing learning preferences has been found to improve academic achievement.

In summary, the most favorable responses related to in-class support came from Wanda and Sue. Many, although not all, of their reactions were consistent with existing literature on the positive effects that in-class support can provide. Within their classroom setting they are given more opportunities for differentiated classwork and chances to retake tests, receive more mastery experiences, and are provided with a wider range of activities and interactive ways to solve their math problem: all points that have been touted as being favorable for either building self-efficacy or leading toward successful performance outcomes. Their progress was corroborated by their general education teacher and Wanda and Sue felt they made good progress as well. Wanda and Sue's satisfaction with their successes coincide with their high self-efficacy ratings. The fact that their general education teacher took the time to create a learning environment that provided the students with that type of support, the struggling students can do well in those kinds of settings.

Participants' concerns about their in-class support settings. In addition to the participants' positive feelings regarding their in-class instruction, some of these students also had specific things which they felt were concerning about their support delivered in that setting. Three major areas most frequently mentioned as unfavorable included that they find that the work is too difficult, the pace is too quick, and they feel negatively when comparing themselves to some others in class. These points are supported and contradicted by existing research.

Most all of the remarks were made by Mary, Candace, and Edward. Edward detailed about his inability to sustain the pace of others in the general education classroom. His comments were similar to findings in a study that involved third grade students conducted by King (1997). Some students in King's research also reacted negatively to the fact that they were not able to keep abreast of the classwork. One student in his study stated that, "It worries me a bit when I can't do what the others do (p. 413)." King referred to another student who believed that, "Other

group members were going faster than her and that made her sad" (p. 413). These students'

feelings were comparable to Edward's where, in a stimulus recall interview, Edward described

feeling upset when seeing the other students in the class finish their class assignments before he

did.

Considering that Edward felt he could not keep up with the rest of the class highlights the

fact that he was comparing himself to others, and that his work was at the level in which he was

unable to complete in the time his classmates finished. His concerns were visibly noticeable in

the observation. When working at the same classwork assigned to the entire class, and he saw

that others, particularly those in the higher-level group, had finished long before he did. His

reference to this in the post-observation interview confirmed that he was negatively impacted by

his failure to keep up with the pace of others in his class. This reflects the work of Rosenholtz

and Rosenholtz (1981) who found evidence that the less able students suffer the greatest when

the entire class studies the same material. In addition, Edward's responses demonstrate that low-

performing students do compare themselves to others and those comparisons, if negative, affect

self-efficacy beliefs (Bandura, 1997). Edward's adverse experiences involving this may be, at

least partly, contributable to his low self-efficacy rating. The undesirable repercussions that

surfaced as in this example with Edward is consistent with the work by Wood (1989) and

Bandura (1997) in which they found that when students see others surpass them, their self-

efficacy is lowered.

Candace also remarked how she wished the classwork in the in-class setting was easier. ,

If Candace and Edward's frustrations evolve into more negative emotional responses, this could

be problematic as suggested in research by Ahmed, van der Werf, and Minnaert (2010). They

found that some low-achieving students demonstrate anger when facing tasks that become

moderately difficult. These points emphasize that it is in the interest of the students that teachers

provide a learning environment in which students of all abilities feel comfortable both

emotionally and academically, regardless of the classroom setting.

Participants' Drawings of Their Ideal BSI Setting

As previously mentioned, findings in many studies have suggested that the heterogeneous

composition found in-class support settings are more beneficial for struggling students.

However, results of other studies have shown that low achievers prefer homogeneous settings.

Those contrasts, coupled with the fact that although the participants in this study found positive

aspects of the in-class support, their drawings showed they favor receiving support in

homogeneous settings, demonstrate the complexities involved with this subject.

The participants' drawing activity established an informal and open-ended atmosphere

where the students were able to respond in a way that was not as obligating as with interviews

where they were asked to directly answer questions. The participants were given full reign to

draw and then asked to talk about the pictures following the completion of their picture. This

approach was intended to generate meaningful dialogue that could help in understanding why

research results are inconsistent. The drawings generated richer data that otherwise may not have

been gathered from interviews or observations.

Participants' perspectives relating to pull-out support settings.

Participants' drawings (depicting what their ideal setting for BSI would look like) also

supported the premise that BSI students feel positively towards a homogeneous, or pull-out,

delivery of service. Although Wanda did not experience pull-out instruction, her illustration

resembled that setting as well. The participants' illustrations depicted small homogeneously

grouped compositions of students. This reflects research conducted by LeMare and de la Ronde

(2000) in which they found their participants in grades 2-4 and 6-7 like being with students in a pull-out setting.

Edward's explanation of his picture captured the responses of the other participants and gave additional insight into research results that suggest low-achieving students prefer pull-out support. He stated that he felt better when he was in the pull-out settings and his peers finished about the same as him. Edward's responses provide real-life examples of Wood's (1989) and Schunk's (1984) research results. They found that when low-achieving students saw those who were similar to themselves achieving successes, in Edward's case completing the work in a timely manner, the low achievers believed they had the capability of mastering similar activities.

Participants in this study provided additional comments on why they included mostly lower-performing classmates in their drawings. As part of her reasoning for including a majority of lower-level students in her picture, Sue explained that in homogeneous settings, students who performed like her might ask questions that were similar to what she might ask. Although participants mentioned during earlier interviews that they felt the BSI and general education teacher answered their questions adequately in the in-class setting, Sue's response (made in a subsequent interview) about wanting to have others in their class who might ask similar questions, was interesting. Her comment could be interpreted in more than one way. It might be that when Sue sees similar others asking the same questions she has, she feels at ease hearing that she is not the only one not understanding a concept. This reflects Bandura's premise (1997) that students compare themselves to similar others. From another aspect, Sue might feel that similar-performing classmates might ask the type of questions that she didn't think of asking.

One recurring aspect that three participants commented about was that the work was easier in the pull-out setting. Candace, for example, preferred having work that was more at her

level and the pull-out setting helped her more academically because "only kids in BSI go out and someone is by your side to help." Edward mentioned that the BSI teacher presented the material differently, and he also felt that the work was easier in the pull-out setting. He expressed that he liked to do more than just paperwork as well as have work that wasn't so "new" and "hard" (May 31, 2013 interview). Thus, considering that their perceptions of the work in the out-of-class BSI instruction was easier and different activities were a part of that equation, it is not surprising that they would like that instructional setting. Also, their reactions suggest that those two conditions, whatever setting they occurred in although in this case the pull-out setting, contributed towards helping them feel less anxious. This was an important point because Bandura postulates that anxiety negatively impacts self-efficacy beliefs. This provides implications for teachers to "provide a variety of activities that are within the range of the students' ability. Such activities may enhance students' perceptions of competence as well as their perception of the value of math, which subsequently influence their emotions and their performance (Ahmed et al., 2010, p. 149)." However, the fact that some of the participants thought the work was easier in the pull-out setting, warrants consideration. Is the BSI presenting material that is too simplistic or easy and does not prepare them thoroughly enough to tackle what they find more difficult work back in the general education classroom? Could it be that the BSI teacher merely gives the BSI students less difficult problems because she has lower expectations of them? Does she utilize scaffolding techniques or present them with appropriately challenging material? These questions associated with the BSI teacher's pull-out instructional practices were not observed due to the fact that it was outside the scope of this study.

As mentioned, neither Wanda nor Sue described their in-class work as difficult. It was interesting that Candace, Edward, and Mary's general education teachers did not employ several

of the same teaching practices that that Sue and Wanda's general education did. Wanda and Sue's general education teacher provided them with differentiating class work, allowed them to take retests, provided students with more mastery experiences, displayed their math fact test results on a chart visible for all to see, and provided opportunities for students to actively participate on the Smart board. I witnessed this teacher helping build Wanda's confidence when I saw her ask Wanda if she wanted to do the "challenge" problems. It appears that the absence of incorporating some of the teaching strategies that Wanda and Sue's teacher used means that the other participants' teachers missed opportunities that otherwise could help students feel less stressful about their work. Once again, this point illuminates the issue that the effectiveness of the learning environment is not so much based on physical location as much as it is the quality of teaching within that environment.

Participants' concerns relating to pull-out support settings. Despite favoring a homogeneous/pull-out environment for BSI instruction, some participants had issues with that method of delivery. Although participants made few negative comments related to pull-out support settings, there was a concern about missing what may be happening in the general education classroom. If teachers, both general education and BSI, co-plan and cover the material similarly (i.e., using the Smartboard, game activities, or computers), the low achievers may feel that they are not being "left out" and/or compromised. This could help eliminate the point Edward made about how he felt conflicted when his general education and BSI teachers told him differing ways to do things. Co-planning could eliminate or improve both these scenarios and supports findings of research by Henley, Ramsey, and Algozzine, (2002). They found successes for students when professionals collaborate together to coordinate instruction.

Edward was the only participant to draw a classroom containing a majority of higher level students. For Edward, this was important evidenced by his explanation that the "higher-level students could help me". Once again, his reaction reflects research by Gillies (2000) and Peterson and Miller (2004). Gillies found the cooperative learning successes are due in part to the fact that "it is interactions that occur in groups that facilitate learning" (p. 98). Edward was an insecure and shy student and he may feel that receiving help from his classmates may be the way he could develop more peer relationships.

<div align="center">**Implications for Education**</div>

The responses of the participants in this study provide the educator with a greater understanding about how support instruction is experienced by low-achieving students. The first-hand data gathered from these five students enhances existing literature related to this topic and provides a better understanding of why there are research inconsistencies about this subject. Thus, this information is useful for helping to implement this support program more effectively.

Overall, the participants thought that the BSI program helped them to become more successful math students. In fact, most of these students remarked that they would like more BSI services if possible. The value that the participants placed on this type of instruction and the positive benefits that occurred from it supports having basic skills instruction scheduled for either longer sessions (perhaps one hour in length each time) and/or more frequent times per week.

However, additional time in itself is not necessarily the key to program improvement. The quality of that instruction, as seen in this study, is paramount. In addition to allotting more instructional time for BSI, extra time needs to be given for the general education and BSI teachers to meet and collaborate. The co-planning time has known to be a successful component

of special education in-class instruction, so it follows that this can be beneficial for two teachers

working together for struggling students as well. No scheduling time for the BSI and general

education teachers were specifically designated for collaborating or co-planning. Furthermore, I

did not see that the BSI brought any of her plans to class when she came in to deliver the in-class

support. If the two teachers were allotted periods of time to communicate with each other, the

BSI teacher would be better prepared to address the differentiated needs of the students she

served.

Wanda and Sue's general education teacher provided these students with experiences

which they responded well to. Their in-class experience appeared to be a very positive one for

these students, as evidenced by both the progress they made during the school year (that was also

confirmed by their general education teachers), and their high self-efficacy ratings. Practices

implemented by their general education teacher appeared to have been effective. These,

interestingly made by possible by their general education teacher rather than the BSI teacher,

included acknowledging their progress though display charts, allowing the students to improve

by taking retests, differentiating the classwork, and providing frequent mastery experiences.

Although their progress most likely was due to a combination of these factors and the assistance

they received from the BSI teacher as well, the two students' successes in this class suggest that

the an effective support instruction occurs in an environment where the students' needs are

considered and met. Taking into consideration these participants' high self-efficacy ratings and

teachers' positive evaluations of their progress, the support program appears to work when it is

appropriate-to-the-needs-of-the-student specific. In addition, this suggests that they key is not

solely the location in which the instruction is delivered, rather it is the quality of the teaching that

appears to make a difference.

Due to the fact that in-class support instruction was favorably received by the participants, and they identified specific points about push-in that they liked, suggests that such a delivery serves as a viable component of this program. However, relying on one mode of instructional delivery limits the effectiveness of the service. As supported by the interviews and particularly the participants' drawings, certain aspects of support instruction delivered in a smaller and homogeneous setting were preferred. Therefore, this suggests that a combination of both groupings may improve the effectiveness of this program. The participants made some similar comments that support including BSI services delivered in a homogeneous, or what was characteristic of a pull-out setting: Several participants agreed that the work was easier in the pull-out setting, and they felt more comfortable working with a smaller group of students who were like themselves. Candace's June 4th comment is particularly insightful about what might help to improve this program. She remarked about going out with the BSI teacher, "So for math, it gets easier because she teaches me there. Then when I come back, I know it." Using Candace's comments as the template, the key would involve extensive preplanning and include both pull-out as well as push-in delivery. First, the general education and BSI teacher would have sufficient time to collaborate and coordinate. The BSI teacher would then plan her lessons accordingly and introduce the material to her pull-out students (prior to when the general education teacher would be presenting it with the whole class). With the instruction occurring in the comfort of a homogeneous setting and the students then familiar with the content, they would return to the general education classroom. The general education teacher would then present that same material to the whole class: It would be a second time for the low-achieving students yet the first time for the rest of the class. This would eliminate the concern Edward had when he mentioned (May 31st interview), 'I would rather just do better stuff that I know instead of new

and hard stuff." For the BSI students, having the lesson presented again in the general education class would act as a reinforcement of what they previously learned. Also, it could give them a sense of confidence due to the fact that they have already been exposed to the material. Finally, since the BSI students would have already been exposed to the lesson, they may find the content less difficult and be able to keep up with the pace of the rest of the class. Being unable to complete tasks a similar rate with their classmates, was a point of concern for several of the participants. Based on current literature and findings confirmed in this study, concerns of this nature may be reduced if there are consistent collaboration and differentiation plans made between the general education and BSI teacher. In addition, after presenting her lesson in the pull-out setting, it would be vital for the BSI teacher to follow-up the subsequent lesson in-class. Furthermore, although my observations showed that there was no evidence that the BSI planned in-class support, the BSI teacher's in-class instruction would become more effective if her lessons address their particular learning styles/needs.

In summary, the results of this study suggest that neither push-in nor pull-out methods of delivering the support instruction should be eliminated. Based on the data collected from the participants in this study, a clearer picture of what aspects of the program make it work more effectively. The findings herein suggest that a combination of deliveries with carefully orchestrated execution by both the general education and basic skills teachers would amplify the benefits of this support instruction for the struggling students.

Limitations and Need for Further Research

Limitations in all research are inevitable. As is the case in all studies, this research was also limited in specific ways. The conclusions drawn in this research must be considered within the context of those limitations.

One of the limitations was the participant sample size and setting. In light of this, conclusions that were drawn are representative of the small number of participants in this study. This study was limited to the population of five BSI students receiving push-in services. Whereas the intent was to include more students and equal gender population, I was restricted to the number of BSI students that met the criteria necessary for this study. There were a limited number of fourth and fifth grade students who received math support and almost all BSI math recipients were girls, leaving me with a very unbalanced girl/boy ratio. In addition, when conducting a study with children, more stringent consents were required, and I was not able to obtain consents from all the students in the classrooms and that of their parents as well. Some parents did not return the permission slips, and others refused to give their consents. Without obtaining all necessary permissions needed for all students to be included in the observations, some important filming and audio segments had to be intentionally omitted. The inability to secure every child and their parents' approvals also limited the number of places where the camera had to positioned. In addition, consideration had to be given for stationing the camera in an area that was both unobtrusive to students yet close enough to hear the voices of the participants. At times, due to the distance between camera and students, the participants' verbal responses were barely distinguishable. The videorecordings, edited to exclude any student who did not have permission to be included in this study, impacted the participants' responses during the stimulus recall interviews because they were not always able to see or hear the entire scope of the classroom interactions.

One other limitation of this study was the fact that only the in-class delivery of support instruction was observed. Considering that some students frequently referenced pull-out settings for receiving their basic skills instruction, it would have been insightful to have seen how the

students and the BSI teacher interacted in that environment. For example, observing pull-out BSI instruction would also provide more clarity to participants' statements, such as "the work was easier", when they referred to out-of-class settings. Additionally, since most of the participants' drawings and related comments showed they like homogeneous/small group classes, this suggests that there are definite merits of that support instructional setting. Consequently, by studying pull-out BSI delivery, an even greater understanding of how low-achievers experience their support instruction is accomplished. With results of that research, coupled with the results of this study, could provide educators with the evidence necessary to strengthen their support programs.

Finally, one limitation I encountered and one which poses potential challenges when conducting research with children, were the adult-child roles associated with having this age group as participants (Graue & Walsh, 1998). Marshall and Rossman (1999) caution that "age and power differences between adults and children are always salient" (p. 116). Despite my attempt to establish a relationship of trust and comfort with the students in order to obtain their unbridled responses, some of their contradictory responses could have emanated from that social context whereby children often give responses that they feel the adult wants them to hear (Graue & Walsh, 1998). This may also have accounted for some of the participants' high self-efficacy ratings. Future research on this topic should be conducted over longer periods of time so that a well-developed adult-child rapport is created. Thus, as closer interviewer/participant relationships develop, so do the possibilities for gathering more detailed and rich data that will extend our understanding of low achievers experiences in the classroom.

In addition, important changes in children's social and academic growth and development occur during the elementary school years. Considering this, perceptions of instructional support from BSI students receiving this service in other grade levels and subject areas offers

opportunities for further research on this topic. It would also be valuable to conduct a follow-up

study with the participants in this study to see if their self-efficacy and performance outcomes

change with time.

In conclusion, as with qualitative traditions, this research is not generalizable to the other

educational communities. However, with analysis of this study guided by the theoretical

framework and parameters of this study, readers of this study can determine whether the findings

described herein can be transferred to settings in which the same parameters exist. Despite there

were only five participants in this study, teachers may be able to identify with similarly

struggling students in their classes. In addition, the teachers may identify with some of the

practices used by the teachers involved in this study and use that to reflect on their own

approaches when addressing the needs of their low-achieving students.

Significance of This Study

Regardless of these limitations, the significance of this study lies in the deep and rich

descriptions that give voice to those frequently unheard from (Lewis & Lindsay, 2000; Graue &

Walsh, 1998 Lewis & Lindsay, 2000). Research related to children has historically been

quantitative, or that these young participants were viewed predominately as objects.

Disconcerting was the fact that the results of many of those previous studies, often conducted in

institutionalized settings with data involving pre- and post-tests, were used to create and

rationalize subsequent programs. In many instances, the creation of pedagogy was derived from

the marginalization of the very ones who were the recipients of that instruction (Graue & Walsh,

1998).

Often in the past, research about low-achieving students followed the same adult-driven

pattern. Consequently, perspectives of support for low-achieving students were examined and

analyzed from the lenses of adults as opposed to the lenses of the struggling children. Thus, the need for a study which the students' lived experiences on a topic, and in the case of this research the examination of in-class support instruction, was warranted. Judith Masson (2000) underscores the importance of including children as participants in research with her words, "The exclusion of children's voices, particularly from research intended to influence policy development, is a flaw which severely (even fatally) undermines the validity of the perspectives and insights gained (p. 35).

This strength of this research, the results of which originated from the participants' own voices, lies in the fact that it provides new insight about struggling students' lived experience of support instruction delivered within the general education classroom. The purpose of conducting this study was not to determine that either push-in or pull-out services for providing support instruction was best. The fact that there are conflicting findings in studies related to this topic, prove that this is a complex subject. Previously, contrasting evidence was acquired from research that lacked the kind of depth that only input from the young participants could provide. In order to understand why there are inconsistent research findings, it was necessary to examine the real-life experiences of the students who were the recipients of that support instruction. Existing research, particularly quantitative studies, fall short in demonstrating how support services are being received from the perspectives of the students. Hence, this study is a valuable tool that fills the void in the literature and, by doing so, makes an important contribution in the development of a more effective program for students who too often fall through the cracks.

Conclusion

The catalyst for my decision to conduct this research was borne from my personal experience as a basic skills as well as general education teacher. As a BSI teacher, I delivered my

support instruction for struggling students in grades K-5, and the lessons were administered in both in- and out-of-classroom settings. On the flip-side as a general education teacher, I experienced the challenges of addressing the particular needs of the low achievers as well as how to work alongside or in conjunction with the basic skills teacher.

While assisting them in different settings and serving in the roles of BSI and general education educator, I was able to encounter the low achievers' struggles as well as accomplishments. I saw, first-hand, how they responded to the implementation of the support program, and I felt that the program could be implemented more effectively. As an educator in those capacities, I believed that the low achievers' needs would be better met if the educational community listened to the low achievers' own experiences relating to their BSI instruction. Research which examines the BSI program and its effects on this student population from an adult or quantitative prospective, miss a key component on this topic. That omission involves the voices and perspectives of these children's experiences. It is my hope that the information acquired through the students' contributions serve to enlighten educators, administrators, and policy makers. With studies such as this one, a deeper understanding of the in-class support emerges and can lead towards strengthening this support program and helping to ensure that the low achievers are better afforded the chance of growing to their fullest potential.

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Appendix A

Teacher's Consent Letter

Dear Teachers,

I am a doctoral student at Rutgers University conducting a qualitative research study for my dissertation. This research involves low-achieving students (basic skills students) who currently are receiving their math support instruction in the general education classroom. I am interested in these children's experiences and self-efficacy beliefs related to their in-class math instructional support. The value to the educational community lies in the fact that my study will include students as participants whereas previously there has been a predominant emphasis on children being objects of research. This phenomenological study will uncover how these students are experiencing that in-class support emotionally, socially, physically, and academically. Results of this research will contribute to educators' understandings about how these students are feeling in relation to instructional support that is delivered in the general education classroom.

Your participation will include completing a questionnaire that will help me in the selection of student participants. If any of the selected participants is a student in your classroom, I will also ask your permission to visit your room to collect data.

During a twelve-week period in the winter/spring of 2013, I will be conducting interviews (and audio taping these sessions), observing and videotaping participants' classroom interactions during math class. I will also be photographing any relevant artifacts displayed throughout the classroom that pertain to the research topic. Individual interviews will be conducted outside of the general education classroom and will include semi-structured and open-ended questions requiring students' descriptive responses.

In addition to obtaining permission from the participants themselves, I will be requesting permission from parents of the participants. Since other non-participants may also be visible in the videotaping, I will request the appropriate permission from their parents and these students in your classroom as well.

There are not foreseeable risks associated with your participation in this study. Participation in this study is voluntary. You may choose not to participate, and you may withdraw at any time during the study procedures without any penalty to you.

This research is confidential. Although the grade level and the size of your class will be included, no other information about you that could identify you will be recorded. In addition, data will be password protected and will be physically secured. Data will be reviewed only by me and possibly by my committee advisor. Once the study has been completed, the data will be destroyed. You will have the opportunity to review the final report and its findings if you so choose.

Teacher's Initials_____Date_____

If you require any additional information or have further questions please do not hesitate to contact me at:

> The Graduate School of Education, Rutgers, the State University
> 10 Seminary Place
> New Brunswick, NJ 08901.
> E-mail: lcarman@optonline.net
> Telephone: (862) 397-4425

If you need to contact my research advisor, Dr. Carrie Lobman, she can be reached at:
> Telephone: 732-932-9496, ext. 8116
> E-mail: carrie.lobman@gse.rutgers.edu

If you have any questions about your rights as a research participant, you may contact the Sponsored Programs Administrator at Rutgers University at:
> Rutgers University Institutional Review Board for the Protection of Human
>   Subjects
> Office of Research and Sponsored Programs
> 3 Rutgers Plaza
> New Brunswick,NJ 08901-8559
> Telephone: (848) 932-0150

You will be given a copy of this consent form for your records.

Sign below if you agree to participate in the research study:

Name_____Date_____

Signature_____

Principal Investigator_____Date_____

Appendix B

Student Information

Dear Teachers,

In order to generate a list of potential participants for my study, I will need you to please complete this questionnaire. I am interested in researching low-achieving students' experiences relating to their math instructional support delivered in the general education setting. I will be conducting individual interviews that require responses to open-ended questions. In addition, I will be observing and videotaping their classroom interactions. This study will require them to communicate orally and all replies, both verbal and written, will remain anonymous It is imperative that the chosen participants demonstrate the ability to effectively respond either verbally or in written format.

1. Are there any students in your classroom who are currently receiving basic skills instruction services in a push-in method of delivery?_____ If so, what are their names?_____

2. Do you feel that any of these students are able to communicate effectively by verbally responding to open-ended questions in an individual setting?
Student A_____ Student B_____Student C_____

3. In your opinion, would these students feel comfortable enough during an interview in order to answer questions descriptively and honestly?
Student A_____Student B_____Student C_____

Thank you for your participation in responding to this questionnaire. If there is any additional information you need or that you can provide that will assist me in the participant selection process, please contact me at lcarman@rtnj.org. I will be collecting this questionnaire next week. Once again, thank you.

Respectfully,

Lynn Keller Carman

Appendix C

Parent Consent Form

Dear _____,

I am a doctoral student in the Graduate School of Education at Rutgers University, and I was a ten-year teacher in the Randolph Township School district. In order to complete my degree requirements, I am required to complete a research study involving elementary school children. Your principal, Mrs. Gross, has given me permission to conduct my study in this school. Therefore, I am requesting your permission for your child to participate in this research. I will briefly explain the study to the children who have returned this permission slip, and also ask for their agreement to participate.

I will be exploring students' self-efficacy beliefs and their own perspectives regarding their experiences of receiving math basic skills support instruction in the general education classroom. There are few studies that give students a chance to express how they feel about receiving basic skills instruction in this manner, and therefore your children's responses and input will be important to the educational field..

My dissertation study will include five participants. It will be conducted for twelve weeks during the winter/spring of 2013 and include topic-related interviews and classroom observations. Prior to the first interview or videotaping, I will have one individual meeting with your child to introduce myself to him or her and explain the purpose of the research, what procedures are entailed in this study and your child's involvement, and ask for her or his consent to be a participant in this research. Four one-half hour individual interviews will be conducted outside classroom instructional time but during normal school hours. The times allocated for interviews may include time during lunch period (having lunch with me), during the half-hour prior when students arrive at school, or during homeroom period. I plan to audio tape these sessions in order to review later in the data analysis process. I will also be collecting data from observing and videotaping your child during an entire math classes/session. All video and audio tapes will be viewed solely by me and possibly my faculty advisor. Anything that your child says will not be held against your son or daughter in any way. For example, his or her responses are independent of school evaluations and will not be associated with or affect your child's grades at all.

There are no costs involved to you or your child in relation to this research. There are no foreseeable risks or benefits associated with your child's participation in this research study, and your child will not benefit directly from participation. However, the findings resulting from this research will help to enrich the educational community about this topic. This research is confidential. Confidential means that the research records will include some information about your child such as age and gender; however no real names will be used. I will keep this information confidential by limiting individual's access to the research data and keeping it in a physically secure location that will be password protected. My faculty advisor and I, along with the Institutional Review Board at Rutgers University, are the only parties that will be allowed to see the data. All data will be destroyed follow the completion of this study. If a report of this study is published, or the results are presented at a professional conference, only group results will be stated, unless you have agreed otherwise. Findings from this study will be available to you after this study has been completed.

Your child will be asked for her or his permission to be a participant in this study. Your child's participation is completely voluntary and she or he may withdraw your permission at any time. Also, your child has the right to refuse to answer any particular question if he or she chooses to do so.

Parent's Initials_____Date_____

 If you have any questions about this study, you can contact me, Lynn Carman, at:
      Graduate School of Education, Rutgers, The State University
      10 Seminary Place
      New Brunswick, NJ 08901
      Telephone: 862 397-4425
      E-mail: lynncarman@optonline.net

If you need to contact my advisor, Dr. Carrie Lobman, she can be reached at:
      Telephone: 732 932-7496, ext., 8116
      E-mail: carrie.lobman@gse.rutgers.edu

If you have any questions about your or your child's rights as a participant in this study, please contact the Sponsored Programs Administrator at:
      Rutgers University Institutional Review Board for the Protection of Human
        Subjects
      Office of Research and Sponsored Programs
      3 Rutgers Plaza
      New Brunswick, NJ 08901-8559
      Telephone: (848) 932-0150

Your child's participation in this study is completely voluntary. If you are willing to have your child participate, please initial the first page, sign the second page, and return the entire two-page form to me. By signing, you will also be consenting for your child to be interviewed, audiotaped, and videotaped at school. You will be given a copy of this consent form for your records. Please Thank you for permitting your child to participate. If you would like to have a copy of the study when completed, please indicate that below.

Your support is greatly appreciated,

Lynn Carman

_ _

_____ has my permission to participate in this research study
  (Child's Name)
conducted by Lynn Carman.

Parent or Guardian's signature_____Date_____

Principal Investigator's signature_____Date_____

Appendix D

Parent Consent Form

Dear _____,

I am a doctoral student in the Graduate School of Education at Rutgers University, and I was a ten-year teacher in the Randolph Township School district. In order to complete my degree requirements, I am required to complete a research study involving elementary school children. Your principal, Mrs. Gross, has given me permission to conduct my study in this school. Therefore, I am requesting your permission for your child to participate in this research about classroom instruction.

My dissertation study will examine math instruction, and it is hoped that results of this research will help the educational community in relation to this topic. This study will be conducted within a twelve-week period during the winter/spring of 2013. This research will include gathering data from a total of five one-hour classroom observations and videotapings. Although your child may appear in videotapes, the focus of the study is not on your child and at no time will he or she be identified by name or class. The videotapes will only be viewed by me or my professor advisor. This data and references to it will be destroyed immediately following the completion of the study.

There are no costs involved to you or your child in this study. There are no foreseeable risks or benefits associated with your child's participation in this research study, and your child will not benefit directly from participation. However, the findings resulting from this research will help to enrich the educational community about this topic. This research is confidential. Confidential means that the research records will include some information about your child such as age and gender, however no real names will be used. I will keep this information confidential by limiting individual's access to the research data and keeping it in a physically secure location that will be password protected. My faculty advisor and I, along with the Institutional Review Board at Rutgers University, are the only parties that will be allowed to see the data. All data will be destroyed follow the completion of this study. If a report of this study is published, or the results are presented at a professional conference, only group results will be stated, unless you have agreed otherwise. Findings from this study will be available to you after this study has been completed.

Your child will be asked for her or his permission to be a participant in this study. Your child's participation is completely voluntary and he or she may withdraw your permission at
any time. Also, your child has the right to refuse to answer any particular question if he or she chooses to do so.

 If you have any questions about this study, you can contact me, Lynn Carman, at:
        Graduate School of Education, Rutgers, The State University
        10 Seminary Place
        New Brunswick, NJ 08901
        Telephone: 862 397-4425
        E-mail: lynncarman@optonline.net

                                    Parent's Initials_____Date_____

If you need to contact my advisor, Dr. Carrie Lobman, she can be reached at:
  Telephone: 732 932-7496, ext., 8116
  E-mail: carrie.lobman@gse.rutgers.edu

If you have any questions about your or your child's rights as a participant in this study, please contact the Sponsored Programs Administrator at:
  Rutgers University Institutional Review Board for the Protection of Human
    Subjects
  Office of Research and Sponsored Programs
  3 Rutgers Plaza
  New Brunswick, NJ 08901-8559
  Telephone: (848) 932-0150

Your child's participation in this way for this study is completely voluntary. If you are willing to have your child be included in the classroom videotaping, please initial the first page, sign the second page, and return the entire two-page form to me. By signing, you will also be consenting for your child to be videotaped at school. You will be given a copy of this consent form for your records. Please Thank you for permitting your child to participate.

_ _

_____ has my permission to be videotaped as part of a classroom
  (Child's Name)
observation intended for a dissertation study conducted by researcher, Lynn Carman.

Parent or Guardian's signature_____Date_____

Principal Investigator's signature_____Date_____

Your support is greatly appreciated,

Lynn Carman

Appendix E

Child's Consent

Dear _____,

I am asking you to be a part of my research study. I will read this paper along with you, and after this, ask you if you have any questions or concerns about participating in this research study.

This study will be about your math instructional support experience that you get in you classroom. There are not many studies that give students a chance to say how they feel about receiving basic skills instruction in their classroom. That is why your responses will be important to others who work in education.

I will begin my study in January 2013, and I will finish by May 2013. I will ask you questions (this is called an interview, and no other students will be present) about your in-class instructional support experience. You will meet with me four times for interviews, and each will be one-half hour long. I will be audiotaping these sessions and taking notes as well. These will help me remember what your responses were. Also, I will be coming in the class where you receive BSI instruction and observing and videotaping the math lesson. I will be observing/videotaping you for the entire math period. Once again, the audiotapings and videotapings will help me when I need to refer back to them at a later time.

You do not have to answer any question if you do not feel comfortable answering it, and you may decide not to participate at any time during this research. Your parents also know about this study and if they have any questions, they have been told that they can contact (848) 932-0150.

Anything that you say will not be held against you in any way. For example, what you do or say will not affect your grades in any way. Also, I will be the only one who observes you in the classroom. I, and perhaps my professor, will be the only one(s) to look at the video tapes taken in your class. Your real name will **never** be used, and *all* information that I collect be kept in a locked place and will be destroyed when I finish this study.

Do you have any questions? _____ They are:_____
_____

My response is:_____
_____

Do you understand my answers to your questions? Yes_____No_____

                                        _____ _____
                                         Your initial   Date

Please sign below if:
- you agree that the above has been read by and explained to you and is accurate.
- you agree to be a participant in this study.

Your name_____Date_____

Do you agree to allow me to audio tape your interviews and video tape you in your classroom during math class?

Your name_____Date_____
Researcher's signature_____Date_____

Appendix F

Child's Consent

Dear _____,

I am asking you to be a part of my research study. I will read this paper along with you, and after this, ask you if you have any questions or concerns about participating in this research study.

This research will be about math instruction. I will begin my study in January 2013, and I will finish by May 2013. I will be making five observations/videotapings, and each videotaping/observation will last for the entire math period. There may be times when you are visible in the video. The videotapings will help me when I need to refer back to them at a later time.

You may decide not to participate at any time during this research. Your parents also know about this study, and if they have any questions they (or you) can contact (848) 932-0150.

Anything that is observed on the video will not be held against you in any way. Also, what you say will not affect your grades whatsoever. Also, I will be the only one who observes you in the classroom. I, and perhaps my professor, will be the only one(s) to look at the video tapes taken in your class. Your real name will never be used, and all information that I collect be kept in a locked place and will be destroyed when I finish this study.

Do you have any questions? _____ They are:_____
_____

My response is:_____
_____

Do you understand my answers to your questions? Yes_____No_____

Please sign below if you agree that the above has been read by me and explained to you and is accurate.
.

Your name_____Date_____

Do you agree to allow me to videotape and observe you in your classroom during math class?

Your name_____Date_____
Researcher's signature_____Date_____

Appendix G

Interview #1 Protocol

I. What are your feelings about your recent math grades, classroom tests, or results of any

standardized tests?

    A. How did you find out about of your latest test or quiz?

    B. Were there any comments either written on the test or told to you when you got the

    results? Was there any comments on the results? If so, what was it and how did you feel

    about that?

    C. Describe what else you are thinking when you received your latest test grades back?

    Can you tell me how you felt about the grade you received (for example: happy,

    frustrated, or angry)? Could you tell me if there may have been a reason why you felt this

    way?

II. Do you compare yourself to others in math? Who do you compare yourself to and why? How

would you compare *yourself* to the rest of the class in relation to your math capabilities (your

math ability or potential)?

III. What do people in your math class tell you about your math capabilities (your math ability or

potential)?

    A. What kinds of things do your math or BSI teacher tell to you during class?

        1. Do teachers make any comments to you on your written work, in-

        cluding homework?

        2. What, if any, comments do your peers make about your math capabilities? Of

        the people who do comment, do you consider these your friends? Do you feel

        they have similar math capabilities as you do?

B. How does your general education (homeroom teacher) or BSI teacher assist you

during the math class?

    1. What does your basic skills or homeroom teacher usually do when you do not

    understand something that is being taught?

    2. Do your teachers usually answer your questions or concerns well enough so

    that you completely understand or feel comfortable with the answers?

    3. What happens in class when you still do not understand what the teacher assists

    you with?

    4. How do you feel when the basic skills teacher is giving you individual

    assistance in your class?

C. What usually happens when you are working in small groups together?

    A. How do other students interact with you during cooperative learning

      groups?

    B. Do you voice your opinion or have an active part in the activity?

IV. Describe your emotions, or what is your mood like, when you are in math class?

    A. Do you ever have feelings of anxiety in class?

      1. If so, when?

      2. Do you even come to class with stress or anxious moments?

      If so,   how do you deal with this during math class?

  4. How do your parents feel about your math performances? What kinds of response do

your parents give you about this? If they say anything to you, can you describe to me

what they may tell or discuss with you?

Appendix H

Interview Protocol # 2

1. When the basic skills teacher comes in the room, can you describe how you feel? Do you feel the same during the days that the BSI does not come in for your class (for example: disappointed, relieved, or anxious)?

2. Can you talk about the physical arrangement in your classroom for BSI instruction?

   A. Does the BSI teacher usually walk around the room, or does she stay mostly by or with you during math?
   B. Do you prefer any certain seating arrangement, and why?
   C. Is there anything within the physical arrangement of the room that you think helps or doesn't your classroom performance or instruction?

3. How do your peers (your classmates) treat you during class time?

   a.. Would you consider yourself respected by others?

   b. Can you talk to them or ask them questions about math easily?

   c. If you are doing a math activity together, how do they usually involve you in the group? Do they ask you your opinions about things, and how do you feel about that?

4. Describe how you feel when you feel unsure about the lesson. When you don't understand any material in the lesson, how do you let your teacher know this? Who, if anyone, do you ask (your classroom teacher, the BSI teacher, or your classmates) and why?

5. When do you feel most confident (sure about) during the time when you are receiving the basic skills support?

6. What parts of your math support instruction do you feel are helpful ?

7. Are there times when you don't think BSI is helpful? Can you describe when and why?

8. If you could change anything about your in-class support instruction, would that be?

       A. What can you think of what would improve it?
       B. What things would you eliminate or do away with?
       C. What changes, if any, would you like to see about where the instruction takes place, and why?

If necessary to clarify any of the observations, use the stimulated recall interviews and encourage students to comment on specific events. Stimulated recall questions include:

1. Can you tell me more about what you were doing?

2. What were you thinking about when you did this?