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EXAMINING THE IMPACT OF SCHOOL WIDE POSITIVE BEHAVIOR SUPPORT
ON TEACHER SELF-EFFICACY IN RURAL MIDDLE SCHOOLS

by

Elizabeth Ann Stratton

A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Education

Major: Instruction and Curriculum Leadership

The University of Memphis

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Dedication

I would like to dedicate this work and dissertation first to my Heavenly Father who through his grace and mercy guided me through this journey and never failed in his faithfulness to me. Next, to my husband Tim and my son Peyton; I cannot thank you enough for your love, sacrifices, and support through this process. In the many days that I did not think this would be possible you held me up, prayed, and encouraged me. I love you. Peyton, you have been very patient with your mom in this process. I want to say thank you for your love and support and always encouraging me and helping around the house when I was too busy doing research. You have been such a blessing to me. Now I'm back and look forward to our time together as a family.

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Abstract

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The present study examines the effect of the implementation of School Wide Positive Behavior Support (SWPBS) on teacher self-efficacy in rural middle school. This quantitative study used the Teachers' Sense of Efficacy Scale (TSES) and the Effective Behavior Support (EBS) survey to acquire results on individual teacher self-efficacy and the implementation of SWPBS in two Title I rural middle schools in the rural South. Middle School A, alias, Andreas Middle school had implemented SWPBS for three years, while Middle School B, alias, Beechnut Middle School had no formal implementation of SWPBS. The TSES and the EBS surveys were administered to a total sample of 56 middle school teachers. Participants completed paper and pencil tests consisting of descriptive data questions, as well as the TSES and EBS surveys. It was hypothesized that higher levels of Positive Behavior Support elements would create higher levels of teacher self-efficacy. The results indicated that there were higher levels of teacher self-efficacy in Andreas Middle School compared to Beechnut Middle school.

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Chapter 1

Introduction

Bandura (1993) asserts that teachers who have an inadequate sense of self-efficacy in their teaching abilities demonstrate a lack of commitment to their teaching, and also spend smaller amounts of time on academic concerns. Coladarci (1992) also notes that a teacher's personal and general efficacies are significant predictors of his or her commitment to teaching. The present quantitative study identified to what degree each middle school had implemented SWPBS as measured by the Effective Behavior Support (EBS) survey. Then through examination of those scores a comparison to the overall teacher sense of self-efficacy, as measure by the TSES, was examined by surveying factors such as: student engagement, instructional strategies, and classroom management within rural middle schools.

Self-efficacy

To understand self-efficacy, it is necessary to provide a distinction between self-efficacy and self-esteem. Self-efficacy is different from other concepts of *self*, such as self-worth, self-concept, and self-esteem, because it is relevant only to a specific task (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). Self-esteem conventionally is considered to be a trait reflecting an individual's characteristic affective evaluation of self (e.g., feeling of self-worth or self-relishing). By contrast, self-efficacy is a judgment about task capability and is not inherently evaluative (Gist & Mitchell, 1992). Bandura (1994) further states that self-efficacy is a person's belief about the ability to influence and affect experiences in one's life. Additionally, he maintains, "there are four sources

that influence self-efficacy; these include mastery, social experiences, social persuasion, and mood” (Bandura, 1994, pp. 71-72).

When considering the four sources that Bandura (1994) discusses, it is crucial to look at each one individually to assess the positive or negative impact it can have on an individual’s self-efficacy:

- Mastery experiences require that an individual experience success in difficult situations. By doing so, one establishes one’s perseverance and individuals understand that they become stronger (Brouwers & Tomic, 2000).
- Social experiences can provide positive or negative efficacy for individuals (Bandura, 1994).
- Social persuasion has a strong impact on persuading individuals as to whether they can succeed or not (Bandura, 1994).
- Individuals who have a positive outlook about a situation and keep it in perspective tend to have lower levels of stress and depression, and are able to handle future situations better (Schwarzer & Hallum, 2008).

These influences can have an impact on an individual, but the greatest impacting factor is an individual’s internal belief system. Individuals who have positive experiences and support may experience develop higher self-efficacy; by contrast, those with little support and opportunity to succeed will experience high failure rates (Takahashi, 2011). By comprehending the context of self-efficacy and how it can have a powerful effect on an individual’s belief system, it is possible to understand its influence on one’s teaching abilities.

Teacher Self-efficacy

Traditionally, efficacy for teachers has been sorted into two different categories of beliefs based on beginning studies conducted by the Research and Development (RAND) Corporation. Derived from Rotter's social theory, these categories include general teaching efficacy and personal teaching efficacy (Ashton & Webb, 1986; Coladarci, 1992; Gibson & Dembo, 1984). General teaching efficacy (GTE) is a teacher's belief in his or her ability to overcome issues that could make the learning process difficult for a student, based on external factors (Tschannen-Moran et al., 1998). Through the combination of PTE and GTE, teacher efficacy is defined as a belief that specific action will result in a particular outcome (Coladarci, 1992).

Research reveals that teachers' self-efficacy influences their teaching behaviors and their students' motivation and achievement (Skaalvik & Skaalvik, 2010; Tschannen-Moran, & Hoy, 2007). Key attributes of teacher self-efficacy cannot be limited to definitions, since there are several factors that affect it. According to Hoy and Woolfolk (1993), there are three areas that can have an effect on a teacher's sense of efficacy: behavior of students in school, ability to expand on curriculum through administrative encouragement, and support from administration. Other factors can lower teacher efficacy, including emotional exhaustion, decreased feelings of personal accomplishment, depersonalization, lack of internal and external control, and lack of classroom management (Brouwers & Tomic, 2000; Ross, Romer, & Horner, 2012). In addition to lower efficacy factors, job-related stress has an impact on teachers. Teachers with higher workloads experience lower levels of self-efficacy and weakened skills pertaining to classroom management (Betoret, 2006; Klassen & Chiu, 2010; Schwarzer & Hallum,

2008). Teachers with higher stress levels reported more classroom management concerns and lower levels of self-efficacy (Klassen & Chiu, 2010). The components of teacher self-efficacy can thus be viewed as positive or negative. For each component, it is dependent on the individual teacher whether actual self-efficacy will be viewed as such and carried over to students in the classroom.

To further understand the correlation between teacher self-efficacy and student classroom experience, Bordelon, Phillips, Parkison, Thomas, and Howell (2012) examined how middle-school teachers rated themselves on efficacy and how middle-school students rated their teachers on efficacy. By incorporating student responses about teacher efficacy, teachers were able to establish a collaborative relationship with students, and information was acquired that was beneficial for both student and teacher individual self-efficacy. Additionally, acquiring feedback from students on efficacy allows teachers to develop a more effective classroom approach.

The results of the study indicated that teachers have the ability to relate to difficult students and have a positive influence on their behavior. Based on these results, it was suggested that there is likely a correlation between teacher efficacy and student behavior. It is imperative that teachers understand their influence on students and look at their efficacy closely to see where individual teacher self-efficacy affects students in a positive manner (Barbaranelli, Steca, & Malone, 2006; Gibbs, & Powell, 2012). Researchers have demonstrated this in the middle school environment (Bradshaw, Mitchell, & Leaf, 2010; Horner et al., 2009; Sherrod, Getch, & Ziomek-Daigle, 2009; Simonsen et al., 2012).

Middle-School Research

Several studies have been conducted at the elementary school level (K-6) on the implementation of School Wide Positive Behavior Support (Bradshaw et al., 2010; Horner, et al., 2009; Sherrod et al., 2009; Simonsen et al., 2012) but recently there has been more interest in how SWPBS affects middle and high school settings (Caldarella, Shatzer, Gray, Young, & Young, 2011; Lassen, Steele, & Sailor, 2006; Ruiz, Ruiz, & Sherman, 2012). The need to conduct research on SWPBS at the middle-school level (6-8) is necessary because student off-task and disruptive behaviors tend to increase during the preteen years and continue into the teenage years (Karcher, 2002; Rockoff & Lockwood, 2010; Simons-Morton, Crump, Haynie, & Saylor, 1999; Veronneau & Dishion, 2010).

Middle school is generally known for being a problematic time for students (Niesen & Wise, 2004; Robers, Zhang, Truman, & Snyder, 2012). It is typically a time when adolescents place high value on relationships with their peers and begin to disconnect from those in authority (Daniels & Arapostathis, 2005; Earl, Hargreaves, & Ryan, 2013; Juvonen, 2006; Karcher, 2002; Murray, 2009). Additionally, many developmental changes occur both physically and mentally (Hansen, Nangle, & Meyer, 1998). As a result of these changes, teachers may experience physical, emotional, and behavioral challenges from students on a daily basis at the middle-school level (Grayson & Alvarez, 2008; Jennings & Greenberg, 2009; Lewis, Romi, Qui, & Katz, 2005). Challenges such as physical violence, lack of discipline, stealing, low academic gains, truancy, drugs, and cyber bullying produce a negative climate that proves difficult for both students and teachers (Kowalski & Limber, 2007; Li, 2006). To control challenging

behaviors in middle schools, teachers and administrators have implemented traditional punishments in an attempt to diminish or stop unwanted behaviors (Reyes, 2006; Sugai & Horner, 2002). These traditional punishments include in-school suspension (ISS), out-of-school suspension (OSS), after-school detention, adding school resource officers (SROs), placing students in alternative-learning environments, adopting zero-tolerance policies, and expelling students (Lassen et al., 2006). Research indicates that using a reactive rather than proactive approach can contribute to increased problem behaviors and violence (Anderson & Kincaid, 2005). There are a variety of confounding factors that result in problem behaviors in rural middle schools, including poverty, lack of parental support, poor academic performance, and lack of stability (Joda, 1990; Johnson & Strange, 2005; Roscigno, Tomaskovic-Devey, & Crowley, 2006). The specific array of problem behaviors that occur is unique to the locality of a specific school, and determines the specific challenges teachers at that school will face (Johnson & Strange, 2005; Strange, Johnson, Showalter, & Klein, 2012).

Challenges in Rural Middle Schools

According to the U.S. Census Bureau, a rural area is an area that is not classified as urban, and is located outside of an urbanized area (Coladarci, 2007; Hart, Larson, & Lishner, 2005). Rural settings generally have low population density and possess characteristics that promote tightly knit, isolated communities (Coladarci, 2007; Redding & Walberg, 2006). As a result of these qualities, small districts and schools are prevalent in rural areas (Redding & Walberg, 2006). Because of lower property values and decreased tax bases, poverty is a powerful factor that faces students in rural communities (Johnson & Strange, 2005; Strange, Johnson, Showalter, & Klein, 2012). This factor

threatens rural schools' ability to provide pedagogically essential resources (e.g., updated technology). These resources are vital for college and career readiness. It is crucial for students to be familiar with technology that allows them to communicate and access information. Lacking such resources contributes to lower student achievement

As a result of issues caused by high poverty levels, parents rely on schools to do more than educate their students (MocTovish & Salomon, 2010; Monk, 2007). Schools often consider it necessary to provide breakfast and lunch to students because of a lack of financial support from parents (Roscigno et al., 2006). In many of these rural districts, parents are forced to work multiple jobs to support their family, which leaves educators needing to not only educate the student, but also serve as social workers and counselors (Johnson & Strange, 2005; Strange et al., 2012). Teachers who fill these additional supportive roles already have established relationships with students in their classrooms, resulting in students confiding in them when parents or other important family members are not available (Ahmed, Minnaert, van der Werf, & Kuyper, 2010; Bartlett, 2005; Davis, 2003; Wentzel, 2002).

Lack of employment can also cause financial strain on families of students in rural areas and can reduce the availability of resources such as food, shelter, transportation, and health care (Jodha, 1990). With agriculture being the primary source of income for many rural families, it is common to have students whose parents migrate to find work in multiple rural locations (Monk, 2007). These transient students contribute to lower academic achievement, fluctuations in funding, and increased rates of behavior problems because of lack of stability (Paik & Phillips, 2002).

When life's necessities are lacking, students can remain in a constant state of uncertainty as they wonder how their needs will be met outside of the school building (Beloin & Peterson, 2000; Truscott & Truscott, 2005). This psychological state is a concern when dealing with students whose hierarchy of needs is not being met (McLeod, 2007). When basic needs are not met, students do not feel safe, have a strong sense of self-esteem, or realize their potential. Additionally, stressors including increased school responsibilities, the need for greater academic abilities and adolescent turmoil often cause middle-school students in rural communities to exhibit behavioral problems (Fitzgerald, Geraci, & Swanson, 2014).

Additionally, it is also difficult to recruit highly qualified teachers in rural schools (Arnold, Newman, Gaddy, & Dean, 2005; Monk, 2007). With lower salaries and limited resources in rural school districts, it is challenging to attract teachers to work with children who are not likely to meet the academic standards that have been set (Monk, 2007; Sundeen & Sundeen, 2013). In an effort to counterbalance these challenges, leaders in rural schools need research-based strategies to help students and teachers be successful in their schools and communities (Arnold et al., 2005). Research-based instruction provides rigorous research and a record of reliable and valid success, and gives teachers tools to help improve their instructional delivery (Mesibov & Shea, 2011). A more productive means of reaching students academically and behaviorally is attainable through research-based instruction. Reaching students at the middle school level is crucial if teachers are to overcome challenges including mounting frustration, limited funding, and teacher burnout (Arnold et al., 2005; Dean, 2012; Grayson & Alvarez, 2008; Schwarzer & Hallum, 2008).

Challenges for Middle-School Teachers

Teacher burnout is the state of being exposed to long-term stress, continual exhaustion, and recurring periods of emotional stress when dealing with multiple challenges in the field of education (Brouwers, Evers, & Tomic, 2001; Jennings & Greenberg, 2009; Nagel & Brown, 2003; Schwarzer & Hallum, 2008; Skaalvik & Skaalvik, 2010). However, these components of burnout are not the only factors that lead teachers to leave the profession. Not only do teachers deal with student academic and behavioral issues, they also experience mounting job demands that include pressure to obtain higher test scores and produce academic gains (Grayson & Alvarez, 2008; Landers, Alter, & Servilio, 2008). Teachers in rural school districts often lack resources, such as updated textbooks, technology, and applicable programs to properly educate their students (Ingersoll, 2004). Additionally, time constraints and poor working conditions pose considerable problems for teachers in rural middle schools (Abel & Sewell, 1999). Both of these constraints are among the most frequently cited by rural teachers as contributing to burnout (Abel & Sewell, 1999).

Another problem that rural middle-school teachers face is that of heavy workloads (Grayson & Alvarez, 2008). Many teachers perform multiple jobs at the school because funding and personnel are unavailable for these positions (Monk, 2007). The workloads can be demanding and overwhelming. Stress levels also increase as a result of these demands, coupled with the need to perform well in all job assignments (Arnold et al., 2005).

Finally, contributing to teacher burnout is the low availability of effective teacher training and support. With limited funding for quality trainings, rural districts have

difficulty keeping their teachers up to date on current research and strategies for the classroom (Lowe, 2006). Teachers who experience a lack of support can feel helpless and isolated, which in turn can lead to inferiority and inadequacy (Ingersoll, 2003). When teachers have a positive outlook on their jobs, personal coping skills are better; but when a negative outlook is present, there are poor coping skills and higher rates of job burnout (Brouwers & Tomic, 2000; Klassen & Chiu, 2010).

Schwarzer and Hallum (2008) suggest that teacher burnout is a result of a continual exhausted mindset that affects an individual's stress level and ability to deal with others. Emotional exhaustion specifically leads to feelings of emotional and physical depletion, hopelessness, and lack of accomplishment (Keller, Chang, Becker, Goetz, & Frenzel, 2014). In addition, feelings of depersonalization are present, leading individuals to feel irritable and exhibit inappropriate feelings towards others around them (Schwarzer & Hallum, 2008). These feelings potentially contribute to individual teachers feeling burnt out, which is exacerbated by lack of personal accomplishment (Avtgis & Rancer, 2010). As a result, the average time for a teacher to stay in education in a rural setting is five years (Fry & Anderson, 2011; Luekens, Lytler, & Fox, 2004; Smith & Ingersoll, 2004). Fifty percent of rural teachers leave after the first year of teaching in rural schools (Berry & Hirsch, 2005; Fry & Anderson, 2011; Luekens et al., 2004). To prevent burnout in rural settings, professionally adequate and ongoing support from administration and mentors, including accessible new-teacher training, needs to be in place to help inexperienced teachers deal with problems at the classroom and school level (Lowe, 2006). Behavior issues such as disrespect for teacher authority, classroom disruptions, and lack of student involvement are just a few of the daily problems that can

cause difficulty for middle school teachers in managing their classrooms (Kowalski & Limber, 2007; Lowe, 2006).

School Wide Positive Behavior Support: A Research-Based Approach to Behavior Challenges in Middle School

One suggestion for addressing these issues has been the development of School Wide Positive Behavior Support (SWPBS). The goal of SWPBS is to prevent behavior problems by working proactively with students on appropriate behavior expectations in various school settings, by incorporating rules that promote socially acceptable behavior, and by rewarding students for exhibiting these behaviors (Brunette & Anderson, 2010; Flannery, Guest, & Horner, 2010; Sugai & Horner, 2009; Thompson & Webber, 2010; Warren et al., 2006). It is also through SWPBS that teacher self-efficacy may be influenced as a result of a positive environment and teachers' ability to deal with student behavior problems more effectively (Ashton & Webb, 1986; Nelson, 1996).

Statement of the Problem

Self-efficacy of teachers has diminished significantly over the past 30 years as a result of numerous changes that have taken place in the field of education (Lee, Cawthon, & Dawson, 2013; Saylor & Kerkhoff, 2014; Tschannen-Moran & Hoy, 2007). Higher demands are placed on teachers academically, physically, and mentally (Grayson & Alvarez, 2008; Jennings & Greenberg, 2009). Since teachers are not feeling effective in their teaching capabilities, burnout rates are more prevalent. When there is a lack of personal accomplishment there is a lack of self-efficacy, which is essential to an individual (Bandura, 1994). Through two measurement tools, the Effective Behavior

Support survey (EBS) and the Teachers' Self-Efficacy Survey, data were collected to investigate whether these assumptions are accurate or need further investigation.

Need for the Study

Since the development of SWPBS over 20 years ago, schools that make use of this approach have shown remarkable progress in diminishing undesirable behavior, increasing positive behavior, and increasing academic achievement. This is particularly true of elementary schools (Bradshaw et al., 2010; Horner et al., 2009; Sherrod et al., 2009; Simonsen et al., 2012). Even though there has been positive growth in both behavior and academics at this level, there is still limited research when it comes to the implementation of SWPBS at the middle-school level. This level is challenging to parents and educators because many children display more challenging behavior and discipline problems as they reach adolescence (Briggs, 2009; Langdon & Preble, 2008; Sugai et al., 2000).

The proposed study extends SWPBS literature in two ways. Research is provided on two topics: first, how the implementation of SWPBS affects teachers' individual sense of self-efficacy in rural middle school settings. And second, if through the implementation of SWPBS, teachers develop a higher sense of self-efficacy as a result of perceived student engagement, instructional strategies, and classroom management.

Research Questions

1. Is there a statistically significant difference between overall teacher self-efficacy at Andreas Middle School and Beechnut Middle School?
2. Is there a statistically significant difference between teacher self-efficacy at Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School,

which has not formally implemented SWPBS, in regard to perceived student engagement?

3. Is there a statistically significant difference between teacher self-efficacy in Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, with regard to instructional strategies?

4. Is there a statistically significant difference between teacher self-efficacy in Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, with regard to classroom management?

Chapter 2

Review of Literature

The purpose of this chapter is to discuss relevant studies that provide a deeper discussion on teacher self-efficacy and School-Wide Positive Behavior Support (SWPBS) at the rural middle-school level. The literature review will provide information on traditional disciplinary approaches, as well as background information on SWPBS, at the classroom and school-wide levels. Studies that have been conducted on teacher self-efficacy and successful SWPBS implementation at rural middle school levels will also be discussed. Finally, a summary of the limited research on SWPBS and teacher self-efficacy at the middle-school level in a rural area will be provided, along with reasons further research is needed.

Traditional Approaches and Discipline Problems at the Middle-School Level

A growing concern in many schools is the problem of school discipline (Anderson & Kincaid, 2005; Kupchik, 2010; Luiselli, Putnam, Handler, & Feinberg, 2005; Osher, Bear, Sprague, & Doyle, 2010; Skaalvik & Skaalvik, 2010). Discipline issues are a consistent problem that teachers deal with on a daily basis; in fact, many teachers state that it is one of the most difficult facets of the job (Bryne, 1994; Grayson & Alvarez, 2008; Ingersoll, 2001; Landers et al., 2008; Skaalvik & Skaalvik, 2011). Discipline problems can range from very mild issues, such as tardiness, lack of respect for authority, and disruptiveness in the classroom, to major issues such as bullying, harassment, and weapons on school grounds (Anderson & Kincaid, 2005).

Traditionally, punishments and consequences are enforced due to student insubordination based on the rules that have been broken. Many punishments are based

on a reactive approach, encompassing after-school detention, in-school suspension (ISS), out-of-school suspension (OSS), alternative learning settings, zero tolerance policies, and expulsion (Anderson & Kincaid, 2005; Lassen et al., 2006). Reactive punishments such as excluding students from school are the most common form of discipline used to address conduct issues in the school setting (Bauer et al., 2014; Horner, Sugai, Todd, & Lewis-Palmer, 2005; Sprick, Borgmeier, & Nolet, 2002). Reactive methods such as punishment and exclusion are largely ineffective at providing long-term solutions for problem behavior. Exclusionary types of discipline do not improve school outcomes, but have been linked to higher rates of student dropout (Costenbader & Markson, 1998; Horner et al., 2005; Sprick et al., 2002). Results of research have indicated that reactive punishments exacerbate various behavior problems in the school setting and have minimal positive results in the discipline process. SWPBS, however, offers a proactive approach to teaching positive, acceptable behavior in the school setting, with many additional beneficial results (Curtis, Van Horne, Robertson, and Karvonen, 2010).

Positive Behavior Support Background

For several decades, scholars and educators have discussed the importance of school climate (Cohen, McCabe, Mitchelli, & Pickeral, 2009). The climate of a school can have a positive or negative effect on the students and staff who inhabit the school on a daily basis (Hoy & Hannum, 1997; Kuperminc, Leadbeater, & Blatt, 2001; Peterson & Skiba, 2001; Way, Reddy, & Rhodes, 2007; Wilson, 2004). A variety of characteristics have been deemed important in creating a positive climate.

First, when a positive climate of respect, trust, and high morale is present in the school setting, there are positive psychological and educational outcomes for students

(Bradshaw, Koth, Thornton, & Leaf, 2009; Hoy & Hannum, 1997; Koth, Bradshaw, & Leaf, 2008; Kuperminc et al., 2001). Secondly, a positive learning environment promotes positive relationships among students and good student/teacher relationships help improve levels of academic achievement (Marshall, 2004). Third, when a positive school climate is evident in the school setting, a teacher's job satisfaction rate improves, not only improving the teacher's ability to instruct, but also improving a student's ability to learn (Kuperminc et al., 1997).

SWPBS uses interventions based on the foundation of applied behavior analysis (ABA) and asserts a positive cooperative approach (Safran & Oswald, 2003). SWPBS is a systematic approach that creates a social culture with individualized behavior supports so that schools can provide an environment that is positive and effective for learning (Bradshaw et al., 2009; Fairbanks, Simonsen, & Sugai, 2008; Horner et al., 2005; McIntosh, Bennett, & Price, 2011; Safran & Oswald, 2003). SWPBS is an evidence-based approach that provides key benefits including: a preventative approach, time for teaching and training of positive social expectations, recognition of positive behavior, consistent consequences for behavior problems, data collection, data-driven decision-making, individual interventions, and team-based implementation through leadership and administrative support (Cohen, 2001; Horner, Sugai, & Anderson, 2010; Horner et al., 2005; Safran & Oswald, 2003). With these evidence-based features integrated into a framework, School Wide Positive Behavior Support (SWPBS) can be successful when implemented correctly.

When introducing SWPBS to a school, it is pivotal to establish it with a solid foundation. The foundation must be constructed with consideration of the school's

behavioral needs, by establishing rules and goals based on those needs (Algozzine et al., 2010; Handler et al., 2007; Lane, Kalberg, & Menzies, 2009; Sugai & Horner, 2009). Staff training is also necessary in order to ensure proper instruction on research-based techniques, which are consistent with applied-behavior analysis principles (Anderson & Kincaid, 2005; Osher, Bear, Sprague, & Doyle, 2010; Sugai & Horner, 2006; Sugai & Horner, 2008). Understanding the basics of SWPBS is necessary in order to implement the next part of the approach.

SWPBS is a three-tiered proactive approach that teaches behavior techniques to administrators, teachers, and students in an effort to prevent problem behavior in the classroom and other areas of the school (see Figure 1). SWPBS requires training before the implementation of behavior techniques to make sure that every teacher, administrator, and school staff member possesses the necessary skills and mindset to implement positive behavior support (Hagan-Burke, Martin, Boon, & Kirkendoll, 2005; Horner et al., 2014; Lane et al., 2009; Lynass et al., 2011; Sprague & Horner, 2006). An 80% buy-in is needed from school staff and faculty to implement SWPBS (Simonsen, Sugai, & Negrón, 2008). Once the 80% buy-in is achieved, the training of a leadership team takes place. Applicable school behavior concerns are recognized, and primary tier interventions are put in place with an action plan. This action plan is individualized in order to provide beneficial and long-lasting results for faculty, staff, and students (Hagan-Burke et al., 2005; Ross, Romer, & Horner, 2012; Scheuermann, 2011).

Tier 1/Universal Tier

The primary tier is a preventative tier that provides behavior support to all students in the school. This is also known as the universal tier. It is within the

primary/universal tier that classroom-level positive behavior support (PBS) is taught.

The behavior strategies used in the classroom are fundamental in implementing School Wide Positive Behavior Support (SWPBS) (Reinke, Herman, & Stormont, 2013). It is critical when teaching PBS at the classroom level that the following elements are included in the instructional process.

Classroom level PBS rules should be clear, positively stated, developmentally appropriate, and visible for everyone to see. Rules need to align with SWPBS expectations and be systematically reinforced (Reinke et al., 2013). Rules and expectations should be taught and practiced by students on a daily basis for mastery of behavior expectations (Scheuermann, 2011). When behavior expectations are practiced and reinforced with students, an increase in appropriate behavior results in increased time on task and higher academic achievement (Reinke et al., 2013; Reinke, Lewis-Palmer, & Martin, 2007). Consequently, additional steps need to be in place for students who do not respond to classroom-level PBS. Strategies that redirect students to appropriate behaviors need to be planned, strategic, and specific so that optimal behavior change can occur for the student (Stormont et al., 2008). When classroom-level PBS is implemented correctly and aligned with SWPBS at the universal level, approximately 80% of students respond to this tier (George, White, & Schlaffer, 2007; Horner et al., 2010). However, if students do not experience the expected behavior success in the primary tier, they are recommended for the secondary tier.

Tier 2/Secondary Tier

Tier 2, the secondary tier, provides a smaller group approach for 10-15% of the school population and allows educators to work closely with students whose behavior is

non-threatening, but has the potential to become chronic (Hagan-Burke, Martin, Boon, & Kirkendoll, 2005; Sugai & Horner, 2010). Through secondary interventions, students who may be at risk for academic failure, poor social skills, or minimal support from home can be reached before serious behaviors occur (Hagan-Burke et al., 2005). By targeting antecedent behaviors, educators can put interventions in place to specifically prevent these behaviors from occurring (March & Horner, 2002; Simeonson et al., 2008). Through the use of data collection, educators determine whether student progress is being made, and appropriate supports are put in place to increase student success (Horner et al., 2010).

Support systems are key elements for student success in the secondary tier. For instance, check-in/check-out incorporates behavior tracking sheets from a specific teacher for students to use throughout the day. Tracking behavior and then following up with the same teacher helps the student become accountable to an adult for their behavior at school (Horner et al., 2010). Think Time is another support system that enables students to work with various teachers in determining a plan of action for socially acceptable behaviors in the classroom. This is accomplished through a teacher and student working together when a negative social interaction occurs. A student is given a time-out, and during this time the teacher instructs the student on interactions that would be more positive with other students. Once the behavior has improved, the student is then able to rejoin the rest of the class (Horner et al., 2010; Nelson & Carr, 2000). First Step to Success is another support system that provides interventions to help students who are having behavior problems. By working with a “coach” to identify problem behaviors, students have the ability to work with someone one-on-one and learn acceptable

behaviors for more successful behavior change (Horner et al., 2010). Though higher rates of success do occur with targeted groups of children at the secondary level, not all students respond to these interventions, and referral to the third tier of School Wide Positive Behavior Support (SWPBS) is sometimes recommended (Hagan-Burke et al., 2005).

Tier 3/Tertiary Tier

Tier 3 is known as the tertiary tier. This tier is for students who exhibit high-risk behavior, which is approximately 5-7% of the student population and includes those who did not respond to the first two tiers. The tertiary tier provides more intensive, one-on-one behavior support for individual students and consistent interventions for behavior change (Horner et al., 2010; Simonsen et al., 2008; Sugai & Horner, 2009). Through the use of a functional behavior assessment (FBA), evidence-based interventions are put into effect in multiple settings of the school based on the student's needs, to support appropriate student behavior (Horner et al., 2010; Simeonsen, 2008). Through the use of interviews and academic data, decisions regarding immediate and long-term success can be made to determine where appropriate changes need to take place in the FBA for student success, as well as how best to provide continued support in the tertiary tier (Hagan Burke et al., 2005; Horner et al., 2010; Simeonsen, 2008).

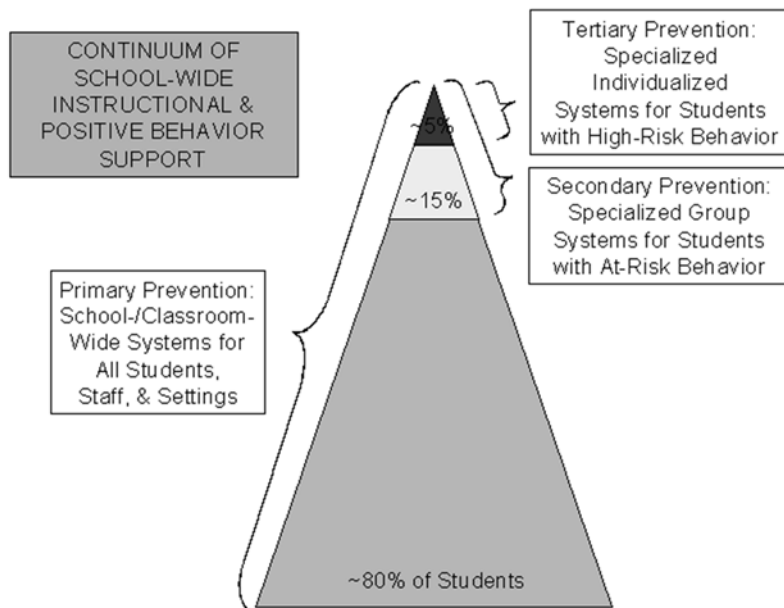


Figure 1. An example of the school wide positive behavior support triangle. Reprinted from Eastlawn Primary Grade Level Center. Retrieved September 2, 2014, from <http://www.rcs.k12.il.us/~el/pbis.html>.

It is through the availability of a tertiary approach that students can be reached at different behavioral levels, and evidence-based practices applied (Horner et al., 2010). This approach also allows a school community to provide consistent behavior support (Simonsen et al., 2008). The introduction of SWPBS has led to positive outcomes in over 20,000 schools in 41 states that have implemented or developed statewide initiatives to support SWPBS (Horner, 2014; Washburn, Stowe, Cole, & Robinson, 2007). Results of school office discipline referrals from several studies indicate that SWPBS is highly effective in decreasing behavior problems and creating a positive school climate (Curtis et al., 2010; Lassen et al., 2006; McCurdy, Mannella, and Eldridge, 2003; Taylor-Greene

& Kartub, 2000). In addition to the decrease in ODRs and suspensions, other serious behavior offenses such as fighting and defiance towards authority have also decreased with the implementation of SWPBS (Washburn et al., 2007), indicating the beneficial and positive outcomes of SWPBS. In order to support continuing beneficial outcomes of SWPBS, current studies suggest the need for implementation of positive behavior programs at the middle school level.

Beneficial Outcomes and SWPBS at the Middle-School Level

In reviews of literature at the middle-school level (Grades 6-8); two recent studies indicated the need for implementation of positive behavior support (PBS). These two studies considered two programs for behavior support, the Texas Behavior Support Initiative (TBSI) and SWPBS. Both studies show similar implementation of positive behavior and beneficial results for students and teachers.

Caldarella et al. (2011), investigated to see if student outcomes improved as a result of implementing SWPBS. Research was conducted at two suburban middle schools in the western United States. The participants in the study were comprised of 300 teachers and 10,000 students in grades 7 and 8, with student ages ranging from 11-13. Both schools in the same district and were considered a convenience sample, meaning the subjects were easy to reach for the study, and non-probability sampling was used (Field, 2009). The first school was the treatment school, with four years of SWPBS training provided by a full-time coach hired for the purpose. The second school was used as the control school, and there was no implementation of SWPBS. A quasi-experimental pre-test/post-test was used to determine if student outcomes improved as a result of a positive school climate used in the treatment school as opposed to the control school.

This was done by using non-equivalent groups and an untreated control group over the four years. To determine the effects of SWPBS on student outcomes and school climate an analysis of variance (ANOVA) was used to analyze differences that occurred over the four years of implemented interventions (Caldarella et al., 2011). Linear trend contrasts were used to analyze the changes as researchers assumed there would be consistent improvement in the dependent variables (Caldarella et al., 2011). To determine if there were significant changes in the control school, evaluation of interactions effects were also considered. To conclude effect sizes a Cohen's *d*, which provided a comparison of the means between the first year and last year of implementation were analyzed (Caldarella et al., 2011).

Caldarella et al. (2011) investigated to see if student outcomes improved as a result of implementing SWPBS. Research was conducted at two middle schools in the western United States. The participants in the study were comprised of 300 teachers and 10,000 students in grades 7 and 8, with student ages ranging from 11-13. Both schools in the same district and were considered a convenience sample, meaning the subjects were easy to reach for the study, and non-probability sampling was used (Field, 2009). The first school was the treatment school, with four years of SWPBS training provided by a full-time coach hired for the purpose. The second school was used as the control school, and there was no implementation of SWPBS. A quasi-experimental pre-test/post-test was used to determine if student outcomes improved as a result of a positive school climate used in the treatment school as opposed to the control school. This was done by using non-equivalent groups and an untreated control group over the four years. An Analysis of Variance (ANOVA) was used to determine if a linear trend existed during the four years

that interventions took place (Caldarella et al., 2011). To determine if there were significant changes in the treatment school as compared to the control school, researchers analyzed interaction effects. Using Cohen's *d*, a comparison of the means between the first year and last year of implementation were analyzed (Caldarella et al., 2011).

To collect data, researchers used the PBS-Supplemental Questionnaire (PBS-SQ) they designed, along with the Indicators of School Quality (ISQ) (Caldarella et al., 2011). The PBS-SQ is an 18-item questionnaire with a 5-point Likert scale, with answers ranging from 1 ("strongly agree") to 5 ("strongly disagree"). The PBS-SQ was used to report the result of school climate to determine alignment with SWPBS. The ISQ contains 30 items, also with a 5-point Likert scale ranging from 1 ("strongly agree") to 5 ("strongly disagree"). The ISQ uses the seven categories to determine school climate, teacher excellence, school leadership, instructional quality, resource management, parent support, and student outcomes (Caldarella et al., 2011). During the four-year period of implementation, data were collected in the treatment and control schools on student grade point average (GPA), office discipline referrals (ODRs), unexcused absences, and tardiness to determine if SWPBS had any effect on student outcomes. The following data were also collected anonymously. Three hundred forty-five teachers responded to the PBS-SQ resulting in response rates of (81.4%), and 315 teachers responded to the ISQ resulting in response rates of (74.3%). In addition to the teacher responses, data from 10,766 students were also collected (Caldarella et al., 2011).

The following instruments were used to obtain data. Instead of analyzing the individual items of the PBS-SQ a principal components factor analysis with subsequent varimax rotation to decrease items into factors that were of importance were used

(Caladarella et al., 2011). The researchers used a three factor solution in order to find these factors. Using a *scree plot*, telescoping determinant plots, and relatively clean factor loadings, researchers obtained resulting factors for three factors that accounted for 59.4% of variance in teacher responses (Caladarella et al., 2011). After the researchers loaded the factors for 15 items, a result greater than 0.50 was determined; however, three factors were below 0.50 and resulted in eliminating the questions (Caladarella et al., 2011). The remaining questions were broken into three factors and were found to indicate a statistically significant trend for the treatment school in the following factors: Factor 1 (student pro-social behavior, alpha = .90), Factor 2 (school communication/collaboration, alpha = .82) and Factor 3 (educational assistance, alpha = .76). “Linear trends contrasts revealed statistically significant trends for all three factors of the PBS-SQ for the treatment school. The control school did not show statistically significant changes in these factors over the four years, with the exception of student pro-social behavior, which significantly decreased. Statistically significant interaction effects were evident for all three factors, indicating that the treatment school showed increases while the control school tended to stay the same or worsen on each of these factors. Cohen’s *d* effect sizes in the treatment school were medium to large and in a positive (preventative) direction, with the largest effect size being student pro-social behavior. Effect sizes in the control school were small to medium and in a negative direction” (Caladrella et al., 2011, p. 7).

The second instrument used to obtain data in the study was the Indicators of School Quality (ISQ). The measurement provided data regarding the treatment and control schools’ respective climates (Bradshaw et al., 2010; Horner et al., 2009; Sherrod

et al., 2009; Simonsen et al., 2012). Statistically significant trends were present during the four years of the study in all of the ISQ categories, with alpha reliability coefficients of 0.67 (parent support) to 0.87 (school leadership) in the treatment school (Caladarella et al., 2011). Additionally, there were statistically significant interaction effects for the ISQ categories of school leadership (6.19), teacher excellence (2.75), resource management (3.09), and instructional quality (3.13), demonstrating that the treatment school showed increases and the control school stayed the same or declined in each of the preceding categories on the ISQ (Caladarella et al., 2011). To authenticate the ISQ measurements, medium to large effect sizes were present in the treatment school, with the control school staying the same in the school climate measurements (Caladarella et al., 2011).

A final area taken into consideration was student outcomes in the areas of office discipline referrals (ODR), unexcused absences, and tardiness. Contrasts in linear trends were looked at, and a statistically significant downward trend was evident in the treatment school in the area of ODR ($d = -0.14$), unexcused absences ($d = -0.11$), and tardiness ($d = -0.32$), even though the effect size was small (Caladarella et al., 2011). The control school also had a statistically significant downward trend in the areas of ODR and tardiness, but the slope was not as steep as that of the treatment school, though effect sizes were small. However, a statistically significant interaction effect was present for unexcused absences resulting in improvements in the treatment school as opposed to the control school (Caladarella et al., 2011). Finally, grade point averages (GPAs) showed a statistically significant upward trend in both the treatment and control schools. Since the trends were similar, this was considered a non-significant interaction.

The analysis of the overall study provided a connection between SWPBS and improved school climate, resulting in a reduction in behavior problems and downward trends in ODR, tardiness, and unexcused absences for the treatment school. This suggests that the implementation of SWPBS had a positive effect on middle-school climates. The limitations of the study also suggest future areas of study in middle-school settings. First, this was a sample of convenience, suggesting that the results could be different in a random sample. Second, there was not a record of treatment fidelity in the implementation of SWPBS to determine if it was implemented correctly; thus, other methods could have also been used along with SWPBS to result in positive student outcomes. Third, there were only two schools in the study. Both schools were from the same district, with one being the treatment school and the other the control school. This suggests that results could be different if more middle schools were involved and included schools from multiple districts. These limitations suggest that further study is needed at the middle-school level in regard to fidelity of implementation, random sampling with larger, expansive middle-school populations, populations with lower economies, and implementation of SWPBS through other means for schools with limited finances.

In the second study by Ruiz et al. (2012), research was conducted at an economically disadvantaged middle school (grades 7-8) in Texas during a three-year period, with 516 students participating in the study. This study was based on quantitative measures using data from the school's Student Plus Information System (SPIS) as a means to determine if a School Wide Positive Behavior initiative supported by the Texas

legislature would be effective in reducing behavior referrals in the middle-school setting. This initiative was known as the Texas Behavior Support Initiative (TBSI).

Evidence-based practices were used during the initiative, such as providing clear expectations, giving students choices, rewarding appropriate behavior, and providing immediate consequences for unacceptable behavior (Ruiz et al., 2012). The interventions were based on what is considered the universal level in SWPBS. Based on previous data collected, three areas of concern were analyzed, consisting of classroom offenses, communication offenses, and hallway offenses. Researchers hoped to see if a positive behavior initiative would result in a decrease in these three specific areas (Ruiz et al., 2012). A Chi square test with descriptive statistic was used (percentages, totals, and means) to see if there were any statistically significant differences in years one, two, and three; this resulted in three analyses (Ruiz et al., 2012). The number of offenses from the previous year was used as the expected frequency in each Chi square test (Ruiz et al., 2012). A Bonferroni adjustment with an analysis of .05 was used to keep from making a Type I error since an assumption had been violated (Ruiz et al., 2012). As a result, the alpha was set at .017 to run all statistical comparisons (Ruiz et al., 2012).

In the course of three years the following results were compiled. Classroom offenses decreased from year 1 to year 3 in the following incidence areas. Disobedience went from 301 ODRs to 124, leaving without permission went from 203 ODRs to 64, and disruptive behaviors went from 471 ODRs to 40 (Ruiz et al., 2012). Though these numbers reveal significant decreases in the area of classroom offenses, there was an overall increase in the amount of ODRs from year 1 to year 3. This can be attributed to teachers being given the authority to distinguish between student discipline and

classroom management, whereas principals made the determination in the past (Ruiz et al., 2012).

Next, communication offenses were analyzed. These included insubordination, profanity, and disrespect of authority. The data suggested that a decrease was present in the number of ODRs in communication offenses from year one to year three. Disrespect for authority decreased from 120 ODRs in year one to 62 ODRs in year three (Ruiz et al., 2012). The use of profanity decreased from 174 ODRs to 106 from year one to year three. However, there was an increase from year one to year three of 73 ODRs to 87 ODRs due to insubordination (Ruiz et al., 2012). This increase was attributed to teachers addressing insubordination more thoroughly in year three versus year one, with more ODRs being reported consistently (Ruiz et al., 2012).

Finally, hallway offenses were reported. These included truancy, inappropriate behavior, tardiness, and fighting. Truancy and inappropriate behavior had decreases in ODRs during the three year period. Inappropriate behavior decreased from 49 ODRs in year 1 to 10 ODRs in year 3, and truancy decreased from 130 ODRs in year 1 to 55 ODRs in year 3 (Ruiz et al., 2012). However, the areas of tardiness and fighting did not decrease as significantly as inappropriate behavior and skipping did. Tardiness had a slight drop in ODRs, with 36 in year 1 and 34 in year 3. Fighting also decreased slightly, with 41 ODRs in year 1 and 38 ODRs in year 3 (Ruiz et al., 2012). Though the authors did not note why there were only slight decreases in tardiness and fighting, they were included in the overall results of year 1 to year 3.

The second study showed improvement at the middle-school level, resulting in reductions in behavior referrals with a form of School Wide Positive Behavior Support

known as TBSI. Through continuous progress monitoring of ODRs, a system was put in place to help reduce overall discipline referrals in the seventh- and eighth-grade classes. As a result of implementing TBSI there was a decrease of 23% (2,239 to 1,723) in total number of ODRs from year 1 to year 2, and a decrease of 22% (1,723 to 1,340) in year 2 to year 3 (Ruiz et al., 2012). Results from the Chi square revealed statistically significant decreases in offenses. A significance of $X^2(1) = 117.29$, $p < .017$ decrease in offenses from year 1 to year 2 (2239 vs. 1723). A significance of $X^2(1) = 85.14$, $p < .017$ decrease in offenses from year 2 to year 3 (1723 vs. 1340) in ODRs during the time of TBSI implementation (Ruiz et al., 2012).

Since statistically significant results were evident during the implementation of TBSI, researchers were curious if student academic achievement had improved. Using data from the Texas Assessment of Knowledge and Skills (TAKS), researchers found that a decrease in ODRs was concurrent with an overall improvement in reading, math, writing, social studies, and science scores in both seventh and eighth grade during different years of the implementation process (Ruiz et al., 2012). As a result of implementing TBSI at the middle school level, there were statistically significant reductions in ODRs, and student academics showed overall improvement. Using school-wide strategies such as clear expectations, student choices, reinforcement of desired behavior, and immediate consequences for undesired behavior resulted in implementation of interventions at classroom and non-classroom levels, bringing about behavior reductions in both settings (Ruiz et al., 2012). Even though academics were not the focus of study, a correlation was found between decreased behavior incidences and improved academic scores (Ruiz et al, 2012). This suggests that positive behavior supports are

effective at the middle school level and have positive effects on students when continuous progress monitoring is in place.

An analysis of this study shows some limitations, indicating that further research is needed to verify results at the middle-school level when implementing any type of positive behavior supports. First, a reliable and valid instrument needs to be in place to support the implementation of positive behavior support (PBS). Secondly, there was not a discussion focusing on how the TBSI affected teachers in a positive manner. Finally, this study was only conducted in one middle school with seventh and eighth grade students. Further studies are needed in middle schools set up with sixth, seventh, and eighth grade students, as well as in numerous middle schools with different socioeconomic and ethnic populations, to determine if results would be consistent or would differ. It then becomes necessary to investigate outcomes relating to teacher self-efficacy.

Successful Teacher Self-efficacy Outcomes

For the purpose of this study, there were five research studies that were applicable and supported the implementation of SWPBS on teacher outcomes in middle schools (see Table 1). These teacher outcomes will be categorized as follows: improved teaching abilities, teacher well-being, teacher self-efficacy/job satisfaction, teacher self-efficacy and stress, and the effects of SWPBS on teacher self-efficacy. All of these areas revealed research that reflected improvement in a teacher's sense of efficacy, beginning with the capability to work with disruptive students through positive behavior supports (Nelson, 1996).

Table 1

SWPBS and Teacher Self-efficacy

Study	Participants	Method	Results	Tool
Nelson, 1996	Elementary 28,200 students 5,200 teachers	Quantitative	Ability for teachers to work with difficult students. WAPBI= alpha of .88 showing teachers abilities to work with psychotic students. The ESI produced an alpha of .87 for stress indices among teachers. Overall disciplinary actions were reduced by 44%.	ANCOVA
Ross, Romer, & Horner, 2012	Elementary 40 schools 184 teachers	Quantitative	Significant differences were found between schools that implement SWPBS and schools that did not implement SWPBS. Higher teacher efficacy in schools that implemented SWPBS. Lower emotional exhaustion among teachers. Teacher self-efficacy is strong towards job satisfaction. Teachers with high self-efficacy plan well, are organized and willing to use new methods for instruction. Teachers are committed to their profession when higher self-efficacy is present	Multi-level regression/ Correlations, means, and standard deviations
Caprara, Barbaranelli, Steca, & Malone, 2006	75 junior high schools 2,000 teachers	Quantitative	Teachers are committed to their profession when higher self-efficacy is present	Hierarchical Cluster Method
Ross & Horner, 2007	4 middle schools	Quantitative	Statistically significant results of strong teacher self-efficacy when SWPBS is implemented $F=7.34$. No significant result in relation to teacher stress and implementation of SWPBS $F=0.86$, but headed in a positive direction.	ANOVA

Table 1. (continued)

SWPBS and Teacher Self-efficacy

Study	Participants	Method	Results	Tool
Kelm & McIntosh, 2012	20 rural elementary schools	Quantitative	Statistically significant effect on teacher self-efficacy due to implementing SWPBS. Teacher outcomes also improved with students. A positive atmosphere produced higher instructional self-efficacy.	t-test

Improved Teaching Abilities

A study by Nelson (1996) was conducted in two elementary schools with a total sample size of 28,200 students and 5,200 teachers from a pool of six elementary schools. These two schools were chosen prior to program implementation based on the similarities of both schools (e.g., free and reduced lunch, total enrollment, and Title I status). The study used a pre/post-test comparison design to assess the teachers' ability to work with disruptive students when implementing a positive behavior support system in an elementary school setting. Three measurement tools were used. The first was the Working Alliance for Problem Behavior Inventory (AWPBI), which uses a Likert scale of 1-5 and consisted of a 20-item self-report measure of teacher beliefs on shared or agreed-upon goals when dealing with problem behavior (Nelson, 1996). The second tool used the Effects of Stress Inventory (ESI), based on the Pullis Inventory of Teacher Stress to assess stress related to teaching occupations (Nelson, 1996). This scale was made up of 18 items, with subjects using a Likert scale of 1-4 to rate psychological and emotional

stress. The third tool used was the Consumer Satisfaction survey, which is a 4-item survey used to determine satisfaction of teachers in the project (Nelson, 1996). A 5-point Likert scale of 1 (“strongly disagree”) to 5 (“strongly agree”) is used to assess these four areas. Finally, overall school discipline was examined to determine if there was a reduction in discipline problems.

Based on a one-way analysis of covariance (ANCOVA), the following results were reported for teachers’ ability to work with difficult students after implementing the positive behavior support system at a universal level in the experimental school. For the WAPBI, a pretest/posttest design, ($M = 40.91$, $SD = 5.88$) pretest and ($M = 80.17$, $SD = 4.65$) posttest, showed a statistically significant difference in the posttest of the WAPBI, $p > .001$ (Nelson, 1996). Teachers in the experimental schools were more likely to agree on goals for working with problem students than were teachers in the comparison schools (Nelson, 1996). The Effects of Stress Inventory showed higher incidences of stress among teachers in the experimental school, with an alpha of .87. This indicated that as the scaled score increased, there were higher incidences of occupational stress (Nelson, 1996). Finally, when disciplinary actions were analyzed, there was a 40% reduction, indicating that universal positive behavior supports had an effect on students with behavior problems (Nelson, 1996).

An analysis of this study revealed the following outcomes. First, teachers have better success with students who have emotionally disturbed behaviors when positive behavior supports are implemented. Teachers also experienced a positive outcome in their ability to work with students engaging in emotionally disturbed behaviors. The overall climate improved as a result of positive behavior implementation, and a

subsequent decrease in disciplinary actions occurred. However, analysis of the study shows some limitations. Only one geographic location was used, so further research needs to be conducted in other locations and across middle and high school settings. There were no data on the issue of fidelity when implementing School Wide Positive Behavior Supports in this setting. Research is needed on determining reliability and validity of School Wide Positive Behavior Supports in this specific setting to determine fidelity. Finally, multiple elements were introduced in the schools studied, and it is difficult to determine which one had a stronger effect. Future variables need to be limited to determine which actions had a truly significant effect and which did not.

Teacher Well-being

Ross et al. (2012) provided a quantitative, random sample study on teacher well-being and the implementation of SWPBS. Teacher well-being was defined as the emotional competence an individual teacher possessed when dealing with different stressors during the school day (Ross et al., 2012). Schools were evaluated using the Schoolwide Evaluation Tool (SET), which measures the implementation of SWPBS. The participants in the study consisted of 184 teachers in 40 elementary schools. Of the 40 evaluated schools, 20 scored higher on the SET evaluation for self-efficacy ($M = 91.72\%$) and 20 schools scored lower ($M = 61.53\%$). Internal consistency reliability of the SET was determined at .96 (Ross et al., 2012). Four different tools were used to determine teacher well-being in the study. First, a demographic survey was conducted asking teachers their gender, age, number of years teaching, number of disciplinary referrals given, and educational degree (microsystem). The second tool consisted of the Maslach Burnout Inventory Educators Survey (MBI-ES). This tool ascertains emotional

exhaustion, depersonalization, and personal accomplishments. This survey is based on 22 items using a seven-point scale, from “never” as the lowest indicator to “every day” as the highest indicator. The third tool consisted of the Teachers’ Sense of Efficacy Scale, which has 24 items and uses a nine-point Likert scale to measure self-efficacy answers.

Once information from the microsystem was obtained, a multilevel regression approach was conducted to determine school-level practices and environmental factors (Ross et al., 2012). Analysis was also run on previous socioeconomic status (SES) for students that received free and reduced lunch. Based on this analysis, it was determined that high scoring SET schools had an average mean of $M = 49.73\%$, and low scoring SET schools had an average mean of $M = 51.31\%$ (Ross et al., 2012). Additionally, correlations, standard deviations, and means were chosen for teacher (microsystems) and school (mesosystems). The mesosystem was comprised of the teacher survey and included factor scores that were computed for teacher efficacy and three scales of teacher burnout (Ross et al., 2012). Based on the efficacy and burnout data, three models were considered. First, an unconditional model that investigated within school variances was analyzed (Ross et al., 2012). The unconditional model provided significant differences between schools for the various outcome measures (Ross et al, 2012). “Results included the following: $t(39) = 127.96$, $SE = 1.31$, $p < .001$; Emotional Exhaustion, $t(39) = 43.76$, $SE = 0.46$, $p < .001$; Personal Accomplishment, $t(39) = 86.80$, $SE = 0.40$, $p < .001$; and Depersonalization, $t(39) = 33.73$, $SE = 0.29$, $p < .001$ ” (Ross et al., 2012, p. 122).

Next, determination of an appropriate predictor for microsystem variables was considered. Factors such as years of experience, rewards, office discipline referrals, and reviews of School Wide Positive Behavior Support were considered (Ross et al., 2012).

For the area of teacher efficacy, the only significant factor was the number of reviews of school wide expectations, so this information was retained for further analysis since there was a model fit of “ $X^2(3) = 8.16, p < .042$ ” (Ross et al., pp. 122 2012).

The third scale used a mesosystem variable to determine the parameters of the microsystem (Ross et al., 2012). “Based on eight different variables, two variables were considered significant: the socioeconomic status of the school, and the school-wide evaluation tool $X^2(6) = 34.14, p < .001$ ” (Ross et al., 2012, p. 124). Looking at these two variables, it was determined that schools that had implemented SWPBS and were in a higher socioeconomic bracket had higher composite scores on teacher efficacy and lower levels of emotional exhaustion (Ross et al., 2012). Additionally, schools with higher SWPBS implementation and socioeconomic status had insignificant results related to depersonalization (Ross et al., 2012). However, schools that were considered high risk because of lower socioeconomic status (higher number of students receiving free/reduced lunch) had stronger scores on depersonalization as a result of implementing SWPBS, at 40.84% of the variance (Ross et al., 2012). Personal accomplishment was also considered in this scale, along with its relationship to socioeconomic status. Like depersonalization, personal accomplishment was higher in schools that had high socioeconomic status and high implementation of SWPBS (Ross et al., 2012). Yet schools with low socioeconomic status and low SWPBS implementation varied based on interaction effects and socioeconomic status (Ross et al., 2012).

The overall results of the study indicate that schools with high socioeconomic status and high implementation of SWPBS have higher rates of personal accomplishment/teacher efficacy and lower burnout rates. In comparison, in schools that

have lower socioeconomic status and implement SWPBS, improvement is dependent upon the level of implementation of SWPBS (Ross et al., 2012). It is concluded that that socioeconomic status can have an impact on personal accomplishment and teacher efficacy.

Future research is needed in various population samples, such as urban and suburban settings, to see if outcomes will vary. Using only rural schools would be a suggestion as they have limited resources, and implementation can be beneficial for the study in terms of personal accomplishment and depersonalization in addition to efficacy ratings. Next, data taken before the implementation of SWPBS make it difficult to determine the direction of teacher well-being after implementing SWPBS. Finally, conducting a study that is not as invasive and provides anonymity in the beginning of implementation might help in eliminating social bias in the self-assessment of teacher well-being as a result of implementing SWPBS.

Teacher Self-efficacy/Job Satisfaction

The third study discussed the effects of job satisfaction (i.e., how teachers feel about their choice of profession and ratings from administrators) and student achievement on teacher self-efficacy (Capara, Barbaranelli, Steca, & Malone, 2006). In this international study, Caprara and colleagues (2006) assessed a random sample of 75 junior high schools and 2,000 teachers in Italy, using a 90-item survey from previous research conducted by Caprara, Barbaranelli, Borgogni, Petitta and Rubinacci (2003). Teachers answered items using a Likert scale of 1-7, from 1 (“strongly disagree”) to 7 (“strongly agree”), with items addressing categorical questions of self- and collective efficacy, perception of colleagues, competence of school administrators, and job satisfaction

(Caprara et al., 2003). Of the 90 items, 12 items were used to measure teachers' beliefs in their ability to effectively deal with obligations, challenges and various tasks related to their profession (Caprara et al., 2003). Four items in the survey were related to teacher job satisfaction; seven items were related to teachers' self-efficacy beliefs and job satisfaction after factor analysis. Final exam grades were used at the end of the year to determine student performance across the various subjects (Caprara et al., 2003).

Results of the study were determined using a clustered, multi-level, hierarchical structural equation modeling (Caprara et al., 2003). The Intraclass Correlation Coefficient (ICC) was used to determine the percent of variance for individual variables in the model because of the difference between the study schools (Caprara et al., 2003). "Based on Hox (2002), general case coefficients from .05 to .09 indicate a low effect, coefficients from .10 to .14 a moderate effect, coefficients from .15 indicate a large effect" (Caprara et al., 2013, p. 481). "Since the individual variable in this study have both a between school and within school part, all variables showed Intraclass Correlation Coefficients (ICC) of .05 with the exception of item 1 of satisfaction measure which had a ICC of .09" (Caprara et al., 2013, p. 481). One area of exception did have a small effect. Therefore, a multi-level analysis was used to distinguish between school variables (Caprara et al., 2003).

In addition to the hierarchical structure, a Chi-square test was conducted to determine a good fit model. There was a difference between the first and second model; therefore, the second model was used, as it suggested a better fit than the first model, $X^2(23, N=2184) = 163.50, p = <.001$ (Caprara et al., 2003). In terms of the measurement part of the model, all constraints were reasonable and non-significant (Caprara et al.,

2003). Reliability factors were also calculated and were .81 for teachers' perceived self-efficacy, and .86 for job satisfaction (Caprara et al., 2003).

Results of the study indicated that teacher self-efficacy beliefs were strong towards job satisfaction and showed positive effects on student academics. Teachers with high self-efficacy plan well, are organized and are willing to use new methods to reach students (Caprara et al., 2006). Teachers are excited about teaching students, committed to their jobs, and therefore have a positive effect on students (Ashton & Webb, 1986; Caprara et al., 2006). “ The present findings further confirm previous findings (Caprara, Barbaranelli, Borgogni, Petitta et al., 2003; Caprara, Barbaranelli, Borgogni, & Steca, 2003) documenting that teachers' beliefs in their capacity to efficaciously manage class situations, didactical tasks, and interpersonal relationships with the other school members strongly influences their level of satisfaction with job conditions and likely, the morale of the whole school as resulting from aggregated teachers' job satisfaction” (Caprara et al., 2006, p. 485).

It can be concluded from the aforementioned studies that teachers who were satisfied with their jobs reported higher self-efficacy in teaching abilities at the middle-school level. Limitations were evident in the studies that show a need for further research. The studies did not test for reciprocity of effects between student academic achievement and teacher self-efficacy beliefs, which would expand future research to a more globalized conclusion. In the literature, self-efficacy falls under the social cognitive theory of experiences based on success; this does not extend to individual context. Finally, though broad efficacy was examined in classroom context only, diverse settings could shed new light on investigative issues.

Teacher Self-efficacy and Stress

Ross and Horner (2007) conducted a study on the implementation of School Wide Positive Behavior Support (SWPBS) on teacher stress and teacher self-efficacy. Teacher stress was defined as an individual's perceived lack of balance between demands at school and resources available in order to manage these demands (Esteve, 2000). For instance, if resources are available for teachers to deal with demands, stress levels are lower; if resources are not available to the teachers, then stress levels have been found to be higher (Ross & Horner, 2007). This was a quantitative study comprised of four middle schools with similar class sizes and socioeconomic status based on the amount of students receiving free and reduced lunch (Ross & Horner, 2007). Participants consisted of 31 teachers for the teacher efficacy portion of the study, and 20 teachers (five per school) for the teacher stress portion of the study.

The first variable considered perceived levels of stress, which was measured by the Index of Teacher Stress (ITS). This measurement tool is a 43-item Likert scale from 1 ("strongly agree") to 6 ("strongly disagree") in order to determine an individual teacher's perceived sense of stress when working with specific students (Ross & Horner, 2007). In order to determine significance in scoring, measures were related to a general sense of ineffectiveness and hopelessness where teachers were considered (Ross & Horner, 2007). Possible scores for this measurement range from 54 - 215, with internal coefficients for a scale ranging from .87 to .93 (Greene, Abidin, & Kmetz, 1997; Ross & Horner, 2007).

The second variable in the study investigated teacher efficacy using the Teacher Efficacy Scale (TES: Gibson & Dembo, 1984). This measurement uses a 30-item

questionnaire with a Likert scale ranging from 1 (“strongly agree”) to 6 (“strongly disagree”) on personal teaching efficacy and general teaching efficacy. This scale provides a global assessment for teacher efficacy (Ross & Horner, 2007). Using Cronbach’s alpha, internal consistency reliability was calculated at .79, with scores ranging from -54 to 86 (Ross & Horner, 2007).

While the ITS and the TES were used as the dependent variables in the study, the independent variable was the School-Wide Evaluation Tool (SET). The SET was used to determine the level of School Wide Positive Behavior Support (SWPBS) implementation in each school’s setting. The SET uses a 28-item questionnaire to determine implementation, with scores of 0 (not implemented) to 2 (fully implemented). Based on multiple sources gathered to determine SWPBS implementation, the authors noted an internal consistency reliability of .96, which surpasses the criteria for test-retest reliability and internal consistency (Ross & Horner, 2007). For this particular study, SET scores were collected by one of the lead authors; they suggested an inter-rated reliability of .90 (Ross & Horner, 2007).

When all of the data from the ITS, TES, and SET were gathered, the following results were achieved using a One-Way Analysis of Variance (ANOVA), with an alpha of .05 (Ross & Horner, 2007). The teachers that completed the ITS received an average score of ($M = 148.05$, $SD = 28.07$) on the measurement (Ross & Horner, 2007). Teachers who completed the TES had an average efficacy score of ($M = 35.60$, $SD = 14.49$) on the measurement (Ross & Horner, 2007). As a result, both measures provided a relatively normal distribution (Ross & Horner, 2007). Additionally, the SET provided implementation scores ranging from low implementation, 38, to high implementation, 96,

within the schools studied (Ross & Horner, 2007). Average scores for all the schools in the study consisted of $M = 66.5\%$ for the ITS and TES, which was based on the SET score (Ross & Horner, 2007). Based on these findings results indicated a strong significant effect of level of SWPBS implementation on teacher efficacy, $F(1, 18) = 7.34, p < .05$ (Ross & Horner, 2007, p. 7). There was not a significant effect of teaching stress when SWPBS was implemented $F(1, 18) = .86, p = .36$, but a non-statistically significant effect was noted in the anticipated direction (Ross & Horner, 2007, p. 7).

In addition to the ANOVA, an effect size was calculated for both measures, resulting in a small effect size for teacher efficacy ($\eta^2 = .29$) and a small effect size for teacher stress ($\eta^2 = .05$) (Ross & Horner, 2007). Furthermore, a power analysis was run to see if the lack of significance was due to low statistical power. The results indicated that the study had little power ($1 - \beta = .14$), indicating that the low statistical significance was probably due to the small power and low amount of teachers participating in the study (Ross & Romer, 2007).

Even with outcomes that are indicative of the positive effects of implementing SWPBS and teacher efficacy, there are still limitations. Future research is needed with random samples and larger sample sizes to produce more decisive outcomes. Next, there is a need for improved indicators in addition to the Likert Scale and the TES to assess teacher efficacy and stress levels when SWPBS has been implemented. Finally, making a distinct separation from previous strategies used would allow for full implementation of SWPBS, and provide valuable information on the effects of implementation.

SWPBS and Teacher Self-efficacy

In a study conducted by Kelm and McIntosh (2012), effects of implementing SWPBS on teacher self-efficacy were examined. The setting consisted of a rural school district that encompassed 28 elementary schools with roughly 14,000 students enrolled. Of the 28 schools, a total of five schools participated in the study, including two schools that had implemented School Wide Positive Behavior Support (SWPBS) for at least two years and three schools that had not implemented SWPBS. The schools that had implemented SWPBS had it in place for five years and had been evaluated with the School-Wide Evaluation Tool (SET) to determine the fidelity of implementation of SWPBS (Kelm & McIntosh, 2012).

Based on the 2008-2009 school year, results from the SET ($M = 88$) supported validity and reliability of implementation at 80% or higher (Kelm & McIntosh, 2012). Next, the Benchmarks of Quality (BoQ) provided a score of ($M = 74$) supporting fidelity in SWPBS implementation, which is above the 70% needed to support fidelity with this measure. Therefore, both measurement tools supported the implementation of SWPBS in both schools. The three schools that had not implemented SWPBS were comparable in demographic information to the two implementing schools. There was evidence that SWPBS was not in place due to the lack of a SWPBS team, a lack of SWPBS expectations, and a lack of SWPBS acceptance throughout the schools (Kelm & McIntosh, 2012). Additionally, a low score on the BoQ and the SET confirmed that SWPBS was not in place, as a score of 50% was difficult to obtain from the non-implementing schools (Kelm & McIntosh, 2012).

A total of 62 classroom teachers participated in the study, with 22 participating from SWPBS schools, and 40 from non-SWPBS (Kelm & McIntosh, 2012). This accounted for a 67% participation rate in SWPBS schools and 75% participation rate in non-SWPBS schools (Kelm & McIntosh, 2012). An average of 13.90 years in the teaching field was also accounted for in the demographic information.

Once lack of SWPBS implementation had been determined and sample participants designated, an instrumentation tool was selected to determine teacher self-efficacy. The Teachers' Sense of Efficacy Scale (TSES) was chosen by the authors of this study for the strong internal consistency scores (Kelm & McIntosh, 2012). The scale was created by Tschannen-Moran and Hoy (2001) to consider personal teaching efficacy and general teaching efficacy. The TSES is a 24-item questionnaire with a Likert scale ranging from 1 ("nothing") to 9 ("a great deal") to determine self-efficacy of a teacher's individual skills in classroom management, student engagement, and strategies in response to student understanding (Kelm & McIntosh, 2012). With the TSES used as the dependent variable and SWPBS status as the independent variable, analysis was conducted.

Prior to analysis, assumptions of normality and homogeneity of variance were evaluated on each sample, meaning the populations were equal (Field, 2005; Kelm & McIntosh, 2012). "To meet the criteria of normality and homogeneity of variance (SWPBS: Shapiro-Wilk = .96, $p = .527$; Non-SWPBS: Shapiro-Wilk = .97, $p = .399$, Levene's Test = .38, $p = .542$)" (Kelm & McIntosh, 2012, p. 142). A t-test was also conducted, with the TSES as the dependent variable and the SWPBS status as the independent variable. The data sets were embedded in schools and grouped according to

schools' status as SWPBS schools or non-SWPBS schools (Kelm & McIntosh, 2012).

The results indicated an intra-class correlation of .142, and a design effect of 2.60 for the TSES, which demonstrates a significant variance for Level 2, showing that a nested design was needed (Kelm & McIntosh, 2012). A multilevel (hierarchical) model was also conducted, showing the TSES with a score falling in the first level, SWPBS status falling in the second level, and school as a second-level cluster variable (Kelm & McIntosh, 2012). A Cohen d was also calculated for TSES scores between SWPBS schools and non-SWPBS schools (Kelm & McIntosh, 2012).

The overall results of the study provided for 87% of data collected from participants; however, 11 of the cells were not accounted for and required several imputation procedures to input missing data (Kelm & McIntosh, 2012). Once imputation procedures were completed, a multilevel analysis was conducted, resulting in a statistically significant effect on teacher self-efficacy where SWPBS was in place, $p = 0.19$ (Kelm & McIntosh, 2012). This means that in schools where SWPBS was implemented, teachers had higher ratings on self-efficacy when regulated for school effects (Kelm & McIntosh, 2012). Additionally, the effect size for teacher self-efficacy in SWPBS schools versus non-SWPBS schools was large, with a result of $d = .80$ (Kelm & McIntosh, 2012).

Though several favorable results were produced by this study, there are limiting factors that need further research in the area of SWPBS and teacher self-efficacy. A larger, randomized sample that provides assessment before and after implementation would support a stronger argument for the implementation of SWPBS on teacher self-efficacy (Kelm & McIntosh, 2012). Research on student outcomes, such as student

discipline data and academic achievement, would be helpful in determining if there is a relationship to teacher outcomes (Kelm & McIntosh, 2012). Teacher outcomes that address health and personal perceptions of SWPBS in regard to behavior management and teacher outcomes would also be valuable areas of research for the future (Kelm & McIntosh, 2012).

Summary of Literature

The current reviews of literature within SWPBS and teacher efficacy provide a growing interest in types of positive behavior supports and positive outcomes on teacher efficacy. The research supports stronger emphasis on teacher efficacy in elementary school settings and a few middle schools/junior high schools. Research on rural, Title 1 middle schools, (schools that have been allotted money by the government for compensatory education due to child poverty) remains focused on overall teacher efficacy in urban and suburban settings (Gordon, 2004). Only one research study, Ross and Horner (2007), addressed Title 1 rural middle schools. This review illustrates a gap within the current literature and research for Title 1 rural middle-school teachers' sense of self-efficacy in perceived student engagement, instructional strategies, and classroom management where SWPBS has been implemented with fidelity.

The review of literature establishes teacher efficacy as a growing concern relevant to the overall performance of teachers in elementary school and, to a smaller extent, in middle schools (Ross & Horner, 2007). School climate also affects general teaching efficacy and student outcomes where SWPBS has been implemented (Ross et al., 2012; Ross & Horner, 2007).

The implementation of SWPBS has been looked at in this literature review as heavily emphasizing results on student outcomes as opposed to teacher outcomes. The present study is an effort to examine the implementation of SWPBS on teacher self-efficacy and the outcomes of perceived student engagement, instructional strategies, and classroom management within two similar Title 1 rural middle schools in Tennessee. The present study was also designed to analyze whether the implementation of SWPBS within one of these schools positively affected teacher self-efficacy levels as compared to a school that had not implemented SWPBS at the middle-school level. The purpose of this study is to extend the literature in the areas of SWPBS, teacher self-efficacy, and rural middle schools by showing that effective implementation of SWPBS does support positive effects on teacher self-efficacy. By using the Effective Behavior Support (EBS) survey in conjunction with the Teachers' Sense of Efficacy Scale (TSES), the investigation extended the Kelm and McIntosh (2012) study by: (a) focusing on rural middle schools, (b) using the EBS survey to determine universal implementation of SWPBS, and (c) determining teacher outcomes in the areas of perceived student engagement, instructional strategies, and classroom management. Chapter 3 is a review of the methodological approach that will test the effect of SWPBS on teacher self-efficacy in rural middle schools.

Chapter 3

Methods

This study investigated the effects of SWPBS on teacher self-efficacy in rural middle schools. In this study, participants answered questions from the Teachers' Sense of Efficacy Scale (TSES; Tschannen-Moran & Hoy, 2001) and the Effective Behavior Support (EBS) survey (Sugai, Horner & Todd, 2000). The rest of the chapter discusses the null hypotheses, sample, instrumentation, data collection, and statistical analysis.

Experimental Design

The study used a cross-sectional quasi-experimental design. Each of the two surveys, the TSES and the EBS, were administered once at each of the two participating schools. These surveys were completed by a non-randomized convenience sample of rural middle school teachers. Participants volunteered to complete the two surveys during a 30 min time period. The total available sample of teachers at Andreas Middle School was 29. Of these, 28 teachers participated (96.6%). The total available sample of teachers at Beechnut Middle School was 32. Of these, 32 participated (100%). Andreas Middle School had implemented SWPBS three years prior to completion of this study and therefore served as the control group. Beechnut Middle School was preparing to implement SWPBS but had not done so at the time of the study and therefore served as the experimental group.

Null Hypotheses

The following null hypotheses were tested at an alpha of .05 level of significance. This was based on the probability of making a Type I error. To set the level of significance higher would have increased the chances of incorrectly rejecting the null

hypotheses, and to have put the alpha level at a lower increment would have increase the chance of accepting the null, when in reality it should be rejected.

1. There was not a statistically significant difference between overall teacher self-efficacy at Andreas Middle School and Beechnut Middle School on the TSES on the mean score of perceived student engagement, instructional strategies, and classroom management.

2. There was not a statistically significant difference between teacher self-efficacy in Andreas Middle School, which had implemented SWPBS, and Beechnut Middle School, which had not formally implemented SWPBS, with regard to perceived student engagement.

3. There was not a statistically significant difference between teacher self-efficacy in Andreas Middle School, which had implemented SWPBS, and Beechnut Middle School, which had not formally implemented SWPBS, with regard to instructional strategies.

4. There was not a statistically significant difference between teacher self-efficacy in Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which had not formally implemented SWPBS, with regard to classroom management.

Sample

Fifty-seven teachers from two rural middle schools in the rural south made up the study sample. Both middle schools had similar teacher and student population sizes. One middle school (Andreas) had implemented SWPBS for three years. The other middle school (Beechnut) had not formally implemented SWPBS. Beechnut Middle

School had not formally been through training on SWPBS, which requires a 3-year training period for teachers and selected administration in order to implement SWPBS effectively in the school.

The two schools in the study had similar characteristics, with both located in sparsely populated communities which center around agriculture and country lifestyle. Beechnut Middle School is located in an area that the economy is 95% agricultural, *outside* a city of approximately 5,000 people (the specific population outside of this small city is not known), and approximately 35% are living below the poverty level (U.S. Census Bureau, 2015). Andreas Middle School is located in an area that is 95% agricultural outside a city of approximately 10,000 people (the specific population outside of this city is not known), and approximately 30% are living below the poverty level (U.S. Census Bureau, 2015). Similar degrees of student access to qualified teachers (teachers holding degrees and licensure in their subject area), were also present in both middle schools. The ethnic make-up of the schools varied slightly, as did the proportion of students who qualified for free and reduced lunch. Both schools had low academic progress and did not meet Adequate Yearly Progress (AYP). AYP is a measurement determined by the United States federal No Child Left Behind Act that allows the U.S. Department of Education to determine how public schools and school districts are performing academically according to results of standardized tests (Linn, 2008).

The sample consisted of teachers from two rural middle schools in grades 6 through 8 in two school-districts in the rural south. Andreas Middle School had a staff that consisted of 29 teachers (22 female and 7 male). Seventeen teachers had a bachelor's degree, 10 had a master's degree, and 2 had an educational specialist degree

(advanced master's degree). The population of the Andreas Middle School was 441 students. Within the student population, it was reported that 47.4% received free or reduced lunch, and 11.8% qualified for special education services (inclusion classrooms, self-contained classroom). The breakdown in student population consisted of 80.3% Caucasian, 15% African American, 2.7% Hispanic or Latino, and 1.2% Asian.

Beechnut Middle School had a staff of 32 teachers (22 female and 10 male). Twenty-one of the teachers had a bachelor's degree, 6 had a master's degree, and 5 had an educational specialist degree. The population consisted of 425 students. Of these students 61.2% received free/reduced lunch, and 11.3% qualified for special education services. The breakdown in student population was 68.2% Caucasian, 28.2% African American, 1.9% Hispanic or Latino, and 1.2% Asian.

Measures

Two measures were used in this study based on their relevance: The Teachers' Sense of Efficacy Scale and the Effective Behavior Support survey. The Teachers' Sense of Efficacy Scale served as the determining measure for teacher self-efficacy. The EBS survey was used to determine how well School Wide Positive Behavior Support was implemented at the universal level. The data collected in this study consisted of quantitative measures. Analysis focused on the influence of School Wide Positive Behavior Support on each individual teacher's sense of efficacy. The Effective Behavior Support (EBS) survey was used to determine SWPBS implementation.

Teachers' Sense of Efficacy Scale

The Teachers' Sense of Efficacy Scale (TSES) was developed by Tschannen-Moran and Hoy (2001) at the Ohio State University, using participants who attended a

seminar on teacher self-efficacy during teacher training. The participants consisted of two researchers and eight graduate students (2 full-time doctoral students, 2 teacher educators, and 4 practicing teachers). After considering various possible measurements for teacher self-efficacy, the participants decided on a scale by Bandura that was unpublished and used in his studies on teacher efficacy. When the new instrumentation came out, it was known as the Ohio State Teacher Efficacy Scale (OSTES), and was tested in three different studies. Through these three studies, various changes were made based on scaled responses from teaching students at Ohio State University, and questions that did not represent what was being analyzed were removed. In the first study, there were 52 questions, subsequently reduced to 32. In the second study, further reductions were made to create a more accurate assessment with 18 questions. In the third study, 18 additional questions were tested and added, making the final scale 24 items on a long form and 12 items on a short form. A 9-item Likert scale is used, with responses ranging from 1 (“nothing”) to 9 (“a great deal”) to assess individual responses.

Of these three studies, the third study ensured for the reliability and validity of the instrument by using a sample of 410 participants, consisting of 103 pre-service teachers from Ohio State University, the College of William and Mary, and The University of Cincinnati. Two hundred fifty-five in-service teachers volunteered for the study. The schools at which they taught included one high school, one middle school, and two elementary schools. Of these participants, 38 did not indicate their number of years’ experience in the field; however, those who indicated their experience had 1-29 years of experience in the field, with a mean of 8.2 (Tschannen-Moran & Hoy, 2001).

A statistical analysis of principal-axis factoring with a varimax rotation was used to analyze the first two studies. This consisted of taking a small number of factors from a larger set of variables to determine the relationship, which determined the rotation (Field, 2005). Based on this statistical analysis, three factors emerged: instructional strategies, student engagement, and classroom management (Tschannen-Moran & Hoy, 2001). To determine the validity of the Ohio State Teacher Sense of Efficacy Scale, researchers compared it to an existing two-item scale by the Rand Corporation (1976) and to the Teacher Efficacy Scale by Gibson and Dembo (1984). Using principal-axis factoring with varimax rotation 34 of the items yielded four factors with eigenvalues greater than one, accounting for 58% of the variance in the respondent's scores. Additionally, a scree test identified three subscales: reliabilities were .91 for instructional strategies, .87 for student engagement, and .90 for management (Tschannen-Moran & Hoy, 2001).

To further ensure the validity and reliability of the instrument, researchers performed another principal-axis factoring with a varimax rotation on the participants of the last study, comprised of pre-service and in-service teachers. The same three factors from the first two studies were found to be prevalent: instruction strategies, student engagement, and classroom management. The difference between the two groups accounted for the following variances. The pre-service teachers accounted for 57-61% of the variance based on a single factor, and the in-service teachers accounted for 54% of the variance based on the three factors found prevalent in the first two studies (e.g., instructional strategies, student engagement, and classroom management). When the data for the pre-service and in-service teachers were combined, the principal-axis factoring of the three identified factors revealed a strong influence accounting for 75% of the variance

(Tschannen-Moran & Hoy, 2001). To further ensure consistency between the long and short forms of the TSES, the relevant results were placed on the 24-item long form; there was a positive relation to the Rand items ($r = .18$ and $.53$, $p = .01$), as well as to the personal teaching efficacy ($r = .64$, $p = .01$) and the general teaching efficacy factor ($r = .16$, $p = .01$) of the TES (Tschannen-Moran & Hoy, 2001). Based on these various measurements and the positive correlations found among the three prevalent factors, it was determined that the TSES measured the fundamental design of teacher efficacy, and that a total score and three prevalent factors could provide accurate calculations.

The Effective Behavior Support Survey

The Effective Behavior Support (EBS) survey was developed by Sugai et al. (2000). The EBS tool is used as an assessment piece to determine the effectiveness of implementation of SWPBS and assess how to improve school-wide discipline (Hagan-Burke et al., 2005). The EBS survey is divided into four categories with two subscales for each category (see Table 2). The categories included the following: individual students, classrooms, non-classrooms, and school-wide settings (Hagan-Burke et al., 2005; Safran, 2006). Each category has a different number of questions (i.e., individual students = 8, classrooms = 11, non-classrooms = 9, and school-wide settings = 15) (Safran, 2006). Different school personnel fill out the survey, as it is used to assess the level of effective positive behavior support in each school at the beginning of implementation and thereafter annually. Personnel are also asked to assess the current status of specific support, which measures the degree to which staff believes behavior support is in place in their school. This is determined by answering “in place,” “partially in place,” or “not in place” (Safran, 2006). The EBS survey is primarily used for action

planning, but because the categories of the survey are broken down to address specific areas, it has been found “technically adequate” as a relevant tool for applied research and program evaluation (Hagan-Burke et al., 2005, p.400; Safran, 2006).

In order to support the consistency and reliability of the EBS survey, two studies have been conducted. The first study was conducted by Hagan-Burke et al. (2005) to determine the internal consistency of the tool. In the study, 37 schools from the state of Alabama were used. The participants were comprised of 1,219 teachers, school administrators, and support personnel. Seventy-five percent of the participants were general education teachers, and only 8% were special education teachers. The participants had 0 to 30 years teaching experience, with a mean of 13 years. These participants were placed into teams, and training was provided in SWPBS so that assessment could take place at a later date. At the time of analysis, descriptive statistics were produced for each item under current status and response for priority. The mean item variance was .42, and the school-wide survey had an inter-item mean of .34, a positive correlation among items (Hagan-Burke et al., 2005). There was a high consistency in the reliability estimate, with a coefficient alpha of .88 on the school-wide survey items/current status (Hagan-Burke et al., 2005). Every item on the survey indicated an increase in the consistency of the overall score. This finding was based on inter-item correlations that needed to be deleted or revised based on items that had an alpha of less than .88 (Hagan-Burke et al., 2005). On the descriptive analysis of school-wide survey priority of improvement, all items had a positive correlation with one another. The reliability for overall internal consistency had an estimate of coefficient

alpha of .94. Items with values of less than .94 were deleted; indicating that every item increased the consistency of the overall scores (Hagan-Burke et al, 2005).

The results of the study indicated adequate internal consistency across both subscales of the EBS survey. There were, however, limitations present in the study. One was a lack of demographic information for the schools, and another was a need for future research in non-classroom, classroom, and individual student components of the EBS survey, since these elements were not examined in this study (Hagan-Burke et al., 2005)

The second study conducted by Safran (2006) tested the validity of the EBS survey by checking reliability to determine whether rating differences existed in SWPBS schools among the following settings: non-classroom, classroom, school-wide, and individual students. The participants in the study were comprised of students from two elementary schools and one middle school in rural settings. The two elementary schools served students in preschool through fifth grade, with a student population of 280 students. The middle school population had around 1,000 students, but the study did not specify grade levels taught. Each of these schools were Title I schools with 50% or more of their students receiving free and reduced lunch. The schools also received less funding per student from the state and the districts relied on property taxes to provide funding.

The teacher participants who took part in the study received training for implementing Positive Behavior Support (PBS) programs in workshops. Of the teacher participants, 100% of the elementary school teachers responded to the EBS survey, and 65% of the teachers at the middle-school level responded to the EBS survey. Additionally, it should be noted that this was the first exposure to the EBS survey for the participants. Overall, the study data comprised 80 responses, with an average of 15 to 20

minutes allotted for each participant to complete the survey (Safran, 2006). As with the previous study rankings, the phrases “in place,” “partially in place,” and “not in place” were used to respond to the survey questions.

This study yielded the following results. Using Cronbach’s alpha, internal consistency reliability was measured in eight subscales for the total scores in improvement priority and current status (Safran, 2006). Improvement priority had an alpha of .85, demonstrating medium to high reliability. Current status had an alpha of .94, demonstrating high reliability (Safran, 2006). Generally, improvement priority had a higher alpha than current status because subscales of current status had lower results in non-classroom contexts ($\alpha = .60$) and individual students ($\alpha = .66$) (Safran, 2006).

A second question in the study looked at four different categories of the EBS survey to determine the difference among the four levels in current status and improvement priority. Among the four levels there was a large effect size based on Cohen’s *d*. Using a One-way Analysis of Variance (ANOVA), researchers found statistically significant differences in both areas of current status and improvement priority. Based on a Cohen *d*, a medium effect size was found with a larger degree of variability for current status rating as opposed to improvement priority (Safran, 2006). In the second part of research question 2, another one-way ANOVA was conducted. Differences between the two elementary schools and the middle school were looked at to compare the overall mean scores. Statistically significant results were found between the schools based on a medium size effect based on a Cohen *d*. A Tukey post hoc test was also run, producing a difference between Elementary School 1 and Elementary School II, as well as Elementary School II and the Middle School (Safran, 2006). Yet there was no

difference between Elementary School I and the Middle School (Safran, 2006). A final one-way ANOVA was conducted to see if there were differences across the schools for improvement priority. Based again on a Cohen d , there was a medium effect size, indicating a degree of variability for current status; however, this was only significant for improvement priority (Safran, 2006).

As a result of this study, it was determined that the EBS survey in the action-planning process had a total-scale internal-consistency reliability of alpha .85 for current status and an alpha of .95 for improvement priority. These results thereby suggest a high likelihood that the EBS survey unites the current status and improvement priority components to measure PBS (Safran, 2006).

Other Measurement Tools Considered

The School-Wide Evaluation Tool (SET). The SET is a research instrument developed by Horner et al. (2004) to assess the implementation of School Wide Positive Behavior Support (SWPBS). There are two key assumptions that underlie SWPBS. First, clearly stated behavioral expectations are in place to promote appropriate student behavior. Secondly, the behavior climate of the school is influenced more by peer-to-peer interaction than by adult-student interactions (Horner et al., 2004). There are seven key practices assessed by the SET to determine whether schools are successfully implementing SWPBS (Sugai & Horner, 1999). Because behavior supports are not in place in one of the middle schools in the study, this tool is not applicable in the current study.

Table 2

Fidelity Assessment: Support Tier and Unit of Measurement

Category	Whole School	Non-Classroom	Classroom
Tertiary	ISSET CISS		
Secondary	ISSET CISS		
Universal	EBS TIC SET BoQ	EBS	EBS

BoQ- Benchmark of Quality
 CISS- Checklist for Individual Student System
 EBS- Effective Behavior Support
 ISSET- Individual Student Systems Evaluation Tool
 SET- School-wide Evaluation Tool
 TIC- Team Information Checklist

Note. Adapted from *State and District Evaluation Tools* (Vincent, Spaulding, & Tobin, 2008).

The Benchmark of Quality Tool (BoQ). The BoQ is an instrument that is used to determine the fidelity of implementation of the universal level of SWPBS (Cohen, Kincaid, & Childs, 2007). It is designed to examine strengths and weaknesses of SWPBS implementation. The BoQ is also designed to address factors that impact sustainability. The BoQ is comprised of 53 items aligned with Positive Behavior Implementation Support training to assess faculty commitment, effective procedures for disciplinary issues, lesson plans, data entry, reward systems, implementation, crisis plans, and

evaluation (Cohen et al., 2007). The BoQ does not address all areas of School-Wide Positive Behavior Support (SWPBS) (i.e. non-classroom, classroom) and only addresses the universal level. It is not, therefore, appropriate for this study, nor is finding measures on sustainability and fidelity feasible in the middle school where implementation has not taken place.

The Team Implementation Checklist (TIC). The TIC is an instrumentation tool that was developed by Sugai, Horner, and Lewis-Palmer (2001). The TIC is used to assess the implementation of the universal level of SWPBS. Through the process of a team rating on each step of the action-implementation plan, assessment is made in terms of implementation being achieved, in progress, or not started (McKevitt & Braaksma, 2004). The overall goal is to have achievement at the universal level of Positive Behavior Support (McKevitt & Braaksma, 2004). Due to lack of implementation at one middle school in the research study, this tool would not be applicable to determine levels of implementation, as it does not address non-classroom and classroom settings (Vincent, Spaulding, Tobin, & 2010). The Individual Student Systems Evaluation Tool (ISSET)

The ISSET is a tool used to determine the implementation of the secondary/targeted level and the third/tertiary level of SWPBS. It takes the form of a 35-item questionnaire with three sections covering foundational, targeted interventions, and individualized interventions (Todd, Horner, Sugai, Sampson, & Phillips, 2012). It is an internal instrument that consists of interviews with different teams of individuals from the school, as well as documented procedures (Todd et al., 2012). Because this study is addressing the universal level of SWPBS, it is not applicable to this study.

The Checklist for Individual Student Systems (CISS). The CISS tool is used in the tertiary level of SWPBS. It is a checklist that examines classroom management and self-assessment for the individual in the classroom setting. Because it is focused on an individual at the tertiary level of SWPBS, it is not applicable to this current study, which is focused on the universal level.

Justification for Using the Effective Behavior Support Survey (EBS)

Based on the two previous studies, the EBS survey has high internal consistency when measuring items to substantiate implementation of SWPBS. The EBS survey also has high reliability ratings, indicating that it will measure what it is supposed to measure when looking at SWPBS items for implementation. The second survey also used a rural middle-school setting for determining reliability; the setting is thus similar to that of the current research study and supports the use of the instrument. The EBS survey is the most applicable tool to use in this study in addition to the TSES tool because reliability factors support the instrumentation in this research. Finally, the EBS survey is the only tool that measures universal levels across whole-school, classroom, and non-classroom settings, whereas the other instrumentation tools do not support measurement in all of these areas (Vincent et al., 2008).

Procedures

Data from the Teachers' Sense of Efficacy Scale (TSES) and the Effective Behavior Support (EBS) survey were collected by the researcher. Prior to administration of the surveys, permission from the University of Memphis Institutional Review Board (IRB) was obtained. Permission to conduct the study was also acquired through the superintendent of schools in both rural school districts, along with permission from the

building principal via email. A short presentation was also made by the researcher at faculty meetings to discuss the need for the study and to obtain informed consent from the teachers to participate in the research study (Appendix C). The teachers were ensured that all results would be kept confidential; that the researcher was available for questions regarding the study, and that they could withdraw from the study at any time without prejudice or penalty. The EBS was used to determine whether SWPBS had or had not been implemented in the schools studied. A high score indicated a high level of implementation, while a low score indicated no or low implementation. Both the TSES and the EBS surveys were administered via paper and pencil to the voluntary participants in one 30 to 45 min session with the researcher in the room. Participants that completed both surveys were entered in a drawing for a \$100.00 gift card. The drawing and provision of the card was completed one week after participation.

Data Collection

The surveys consisted of the long form Teachers' Sense of Efficacy Scale (TSES), consisting of 24 questions (Tschannen-Moran & Woolfolk, 2001) and the Effective Behavior Support Survey, consisting of 46 questions, which had been adapted to only answering questions pertinent to the current status portion of the survey (Sugai et al., 2000). Teachers from both rural middle schools took paper-pencil surveys at the end of the school year in May of 2015.

Since the reason for the study was to investigate the relationship between individual teachers' sense of self-efficacy and elements of SWPBS, strict anonymity was necessary. Confidentiality was also needed to acquire personal information and email addresses. Results from each teacher were coded with a number to maintain

confidentiality. Teachers were assured that no one would be able to acquire their identities or personal information. Administrators were also assured that their schools' names and identities would not be used in journal articles or the published dissertation.

Statistical Analysis

For each research question, data analysis was conducted to identify if there was a statistically significant difference between the two schools. Based on this criterion, an independent *t*-test was run for each research question. The test for each research question has been broken down as follows:

1. Is there a statistically significant difference between overall teacher self-efficacy at Andreas Middle School and Beechnut Middle School on the TSES on the mean score of perceived student engagement, instructional strategies, and classroom management? For this question, an independent *t*-test was used to compare the total mean scores of teacher self-efficacy between schools based on data collected from the survey instruments. The *t*-test was conducted with two independent samples since the participants took the TSES only one time. When the data was analyzed, the significance level was of importance. The researcher looked at the significance (*p*) value between the two independent *t*-tests. If the Sig. value was less than .05, there was a significant difference between the mean scores of each school for the results of the TSES. If the Sig. value was above .05, there was not a significant difference.

2. Is there a statistically significant difference between teacher self-efficacy at Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, in regard to perceived student engagement? For this second question, an independent *t*-test was used to compare the

mean scores of student engagement between both schools based on data collected from the survey instruments. For this test, the raw TSES scores from Andreas Middle School and Beechnut Middle School were entered in two separate columns in SPSS. The t-test was run using the two independent samples (two different sets of people) because all of the participants took the TSES only one time. When the data were analyzed, the significance level was of importance. The researcher compared at the Sig. value between the two independent t-tests. If the Sig. value was less than .05, there was a significant difference between the mean scores of each school for the TSES based on the two separate runs. If the Sig. value was above .05, there was not a significant difference.

3. Is there a statistically significant difference between teacher self-efficacy in Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, with regard to instructional strategies? For this question, an independent t-test was used to compare the mean scores of instructional strategies between schools based on data collected from the survey instruments. For this test, the raw TSES scores from Andreas Middle School and Beechnut Middle School were entered in two separate columns in SPSS. The t-test was conducted with two independent samples since the participants took the TSES only one time. When the data were analyzed, the significance level was of importance. The researcher looked at the significance value between the two independent t-tests. If the Sig. value was less than .05, then there was a significant difference between the mean scores of each school for the TSES based on the two separate runs. If the significance value was above .05, then there was not a significant difference.

4. Is there a statistically significant difference between teacher self-efficacy in Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, with regard to classroom management? For this question, an independent t-test was used to compare mean scores of classroom management between schools based on data collected from the survey instruments. For this test, the raw TSES scores from Andreas Middle School and Beechnut Middle School were entered in two separate columns in SPSS. The t-test was conducted with two independent samples since the participants took the TSES only one time. When the data were analyzed, the significance level was of importance. The researcher looked at the Sig. value between the two independent t-tests. If the Sig. value was less than .05, then there was a significant difference between the mean scores of each school for the TSES based on the two separate runs. If the Sig. value was above .05, then there was not a significant difference.

Since a Likert scale was used to collect data for the TSES (ranging from 0-1, “nothing,” and 8-9, “a great deal”), an interval measurement scale was used to analyze data (Boon & Boone, 2012). This type of measurement is based on calculating the mean of four or more Likert-type items (Boone & Boone, 2012). As a result, descriptive statistics, such as a *t*-test, is recommended for interval scale items that include standard deviations for variability and mean for central tendency (Boone & Boone, 2012).

Chapter 4

Results

The purpose of this study was to investigate the effects of School Wide Positive Behavior Support (SWPBS) on teacher self-efficacy in rural middle schools. This study used a quasi-experimental design examining the results from Tschannen-Moran and Hoy (2001) Teachers' Sense of Efficacy Scale (TSES) and Sugai, Horner and Todd's (2000) Effective Behavior Support (EBS) survey. Results were obtained from responding teachers in grades 6 through 8 at two rural school districts in the rural south.

EBS Survey

Outcomes of the Teachers' Sense of Efficacy Scale (TSES) and Current Status from the Effective Behavior Support (EBS) survey were provided in order to understand how SWPBS affected TSES mean scores, student engagement, instructional strategies, and classroom management outcomes. The EBS evaluates current status, whether EBS is: in place, partially in place, or not in place, in the classroom or school setting. EBS also evaluates priority of behavior support systems in four areas: school-wide disciplinary systems, non-classroom management systems, classroom management systems, and systems for individual students who engage in chronic behavioral problems (Sugai et al., 2000). Only evaluation of the EBS current status was provided by both Andreas Middle School and Beechnut Middle School teachers, since Beechnut Middle School had not implemented SWPBS formally in their school. Normally there are three phases involved in analyzing results from the EBS survey: summarize results (phase 1), analyze and prioritize the results (phase 2), and develop an action plan (phase 3; see Figure 2).

Sample Population Statistics

The population consisted of teachers from two rural middle schools in grades six through eight in two school districts in the rural south (see Table 3). Andreas Middle School had a staff that consisted of 29 teachers (22 female and 7 male). Seventeen teachers had a bachelor's degree, 10 had a master's degree, and 2 had an educational specialist degree (advanced master's degree). The population of the Andreas Middle School was 441 students. Within the student population, it was reported that 47.4% received free or reduced lunch, and 11.8% qualified for special education services (inclusion classrooms, self-contained classroom). The breakdown in student population consisted of 80.3% Caucasian, 15% African American, 2.7% Hispanic or Latino, and 1.2% Asian.

Beechnut Middle School had a staff of 32 teachers (22 female and 10 male). Twenty-one of the teachers had a bachelor's degree, 6 had a master's degree, and 5 had an educational specialist degree. The population consisted of 425 students. Of these students 61.2% received free/reduced lunch, and 11.3% qualified for special education services. The breakdown in student population was 68.2% Caucasian, 28.2% African American, 1.9% Hispanic or Latino, and 1.2% Asian.

Of the two schools, Beechnut Middle School had a higher occurrence of student disruptive behavior and behavioral issues, with multiple office disciplinary referrals, in-school suspensions and out-of-school suspensions. Descriptive data were collected along with the surveys in order to acquire teacher information, consisting of gender, grade level, and highly qualified status.

All 57 teachers from the two different schools were given voluntary surveys (see Appendix A and Appendix B). General education (89%) and special education (11%, consisting of inclusion and self-contained), were represented in the combined research study. Fifty-six participants (98%) responded to the TSES survey and 56 participants responded to the EBS survey. However, the EBS survey number was reduced to 54 because of two incomplete surveys, making the participant response rate 96%.

Demographic characteristics were as follows: Gender: male (30%), female (70%). Grade level: Sixth grade (25%), seventh grade (25%), eighth grade (21%), special education (11%), and specialty teachers (18%). One hundred percent of the teachers in this research study were highly qualified (see Tables 3 and 4).

Table 3

Sample Rural Middle School Demographics

School Type	Student Total	Teacher Total	Ethnicity Percentage	Free and Reduced Lunch	Qualify for Special Education
Andreas	441	25	C 80.3% AA 15% H 2.7% As 1.2%	54.8%	11.8%
Beechnut	425	32	C 68.2% AA 28.2% H 1.9% As 1.2%	87.8%	11.3%

Key:

- C= Caucasian
- H = Hispanic
- AA = African American
- As =Asian

Table 4

Combined Participant Demographic Characteristics

Rural Teacher Population			
Demographics	Category	<i>N</i>	%
Gender	Male	17	30
	Female	39	70
Grade level	Sixth	12	21
	Seventh	14	25
	Eighth	12	21
Other	Special Ed.	6	11
	Specialty	12	21
Highly Qualified	All Teachers	56	100

Summarizing results of phase 1 was the only analysis conducted with the EBS survey since the other phases were not necessary for research questions to be analyzed in this particular study since SWPBS had not been implemented in Beechnut Middle School at this time. The following raw scores were collected from each responding teacher in Andreas Middle School and Beechnut Middle School for school-wide systems, non-classroom setting, classroom setting, and individual student systems (see Table 5).

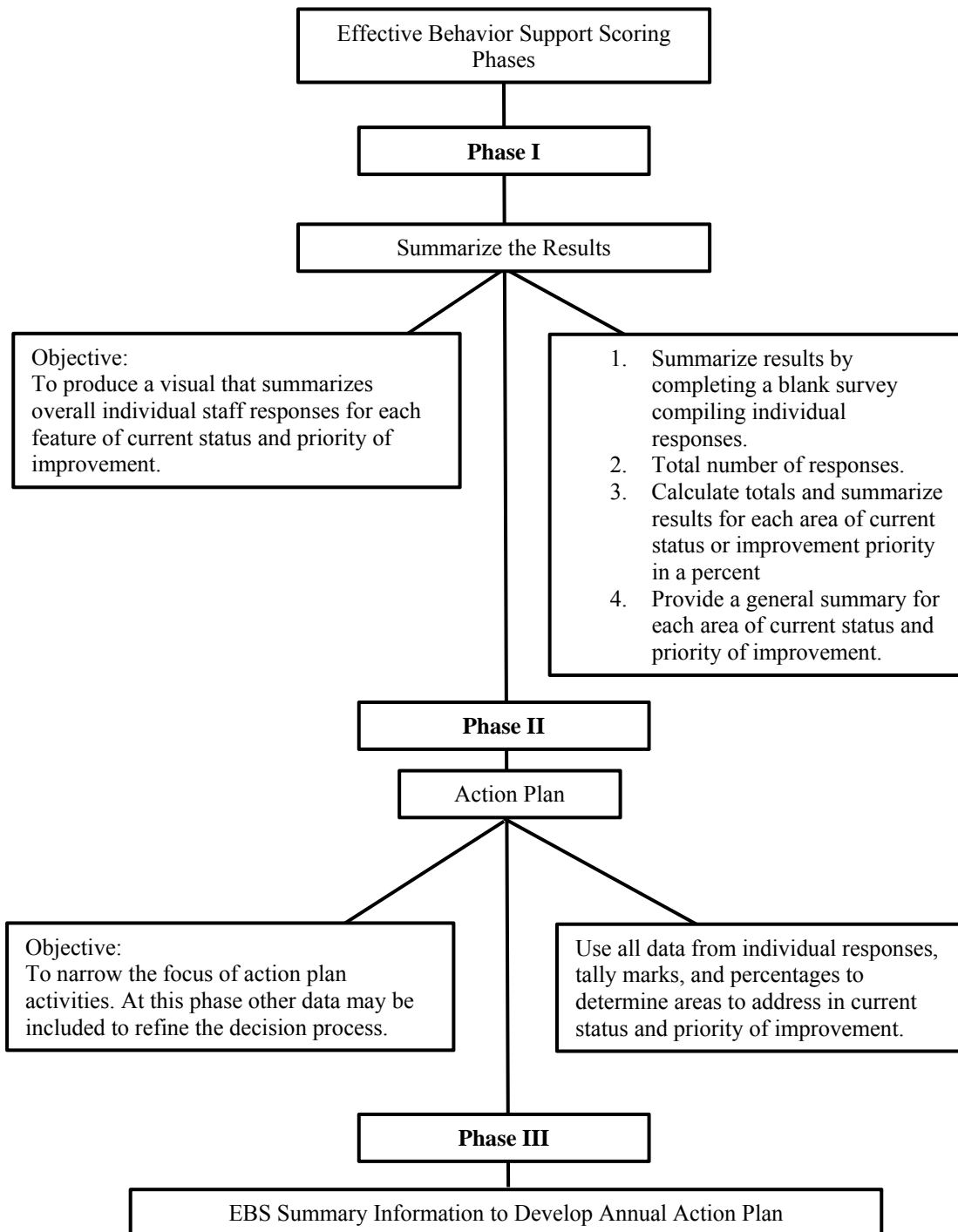


Figure 2. Effective Behavior Support Scoring Phases

Table 5

Summary of EBS Findings Raw Scores

Current Status	<i>In Place</i>	<i>Partially in Place</i>	<i>Not in Place</i>
Andreas Middle			
School-Wide System	248	111	46
Non-Classroom. Setting	139	51	12
Classroom System	145	74	30
Individual Student System	36	62	73
Beechnut Middle			
School-Wide System	135	232	198
Non-Classroom. Setting	87	125	95
Classroom System	99	130	78
Individual Student System	24	70	150

Note. N = 56.

Raw scores were calculated by adding single tally marks for each respondent's answer for all four behavior areas. Raw scores were then converted into a percentage by taking the total number for each area of current status and dividing it by the total. For example, Andreas Middle School had a total of 248 for school-wide systems. By calculating the single tally marks for “in place,” “partially in place,” and “not in place,” we obtained a total calculation of 405. Next, by dividing 248 by 405 ($248/405 = 0.612 \times 100 = 61.2$), we calculated a percentage (see Table 6).

Based on the percentages that were calculated for each area of current status, a graph was created to show total item summary percentages for each of the three choices for Andreas Middle School and Beechnut Middle School (see Figures 3 through 6).

Table 6

Summary of EBS Findings, Percentages

Current Status	<i>In Place</i>	<i>Partially in Place</i>	<i>Not in Place</i>
Andreas Middle			
School-Wide System	61%	28%	11%
Non-Classroom Setting	69%	25%	6%
Classroom System			
Individual Student System	58%	30%	12%
	21%	36%	43%
Beechnut Middle			
School-Wide System	24%	41%	35%
Non-Classroom Setting	28%	41%	31%
Classroom System	32%	42%	26%
Individual Student System	10%	28%	62%

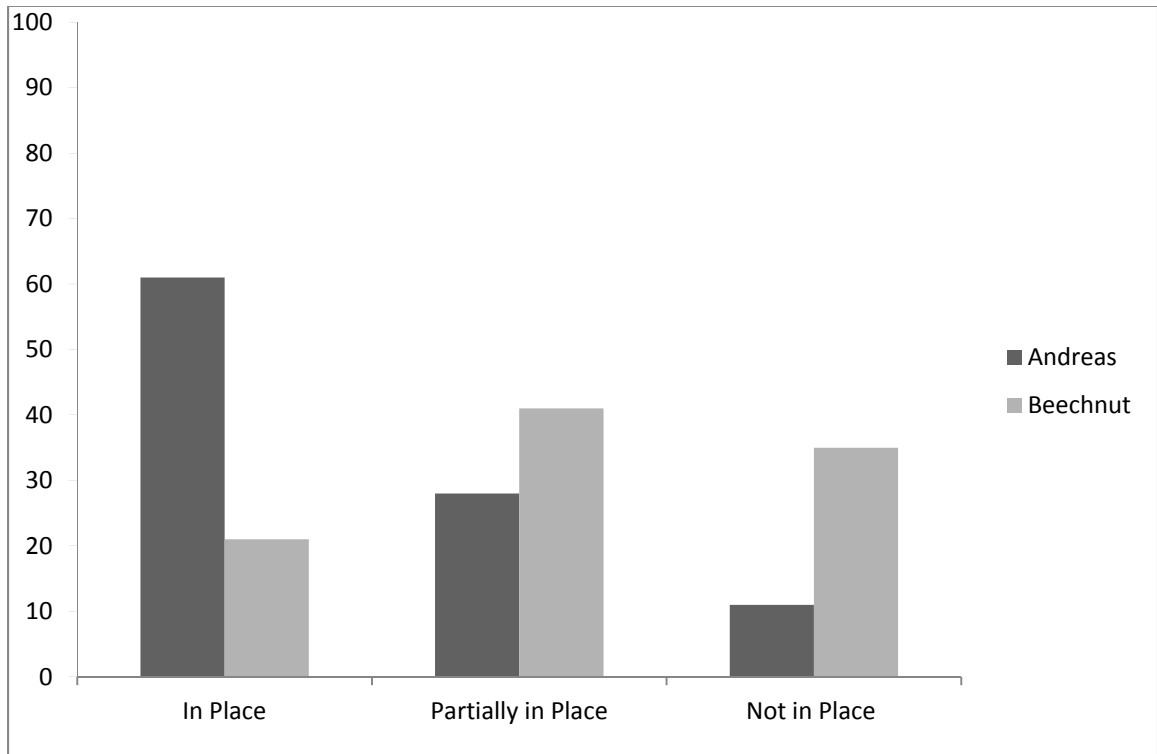


Figure 3. Current Status: School-Wide Systems

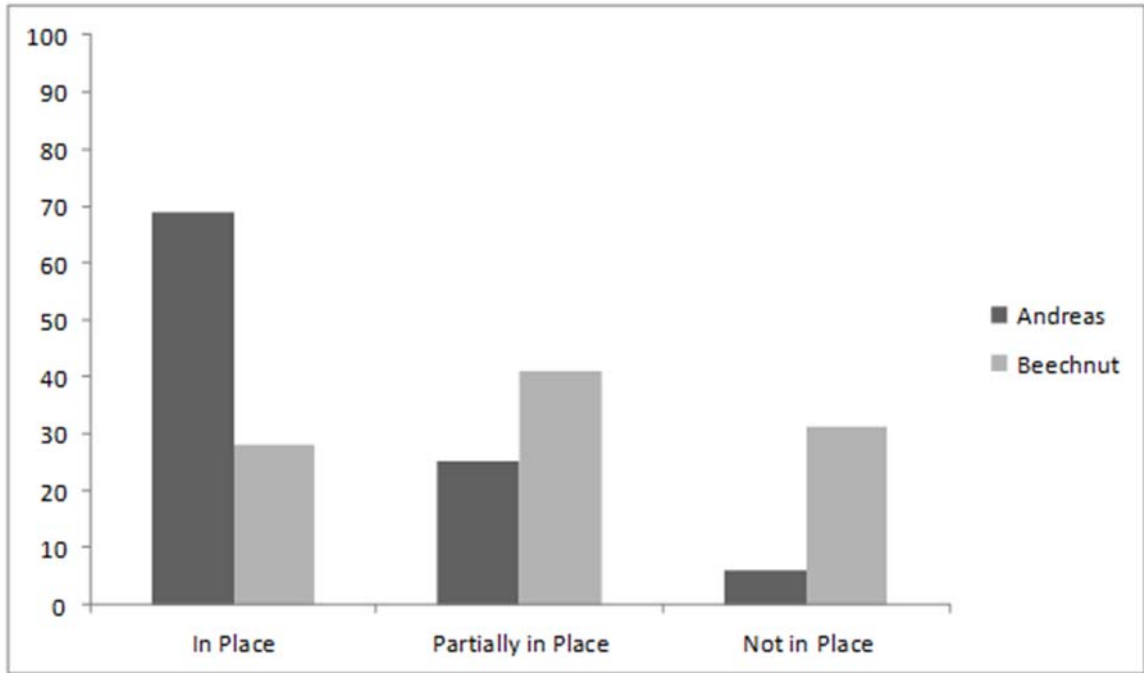


Figure 4. Current Status: Non-Classroom Setting

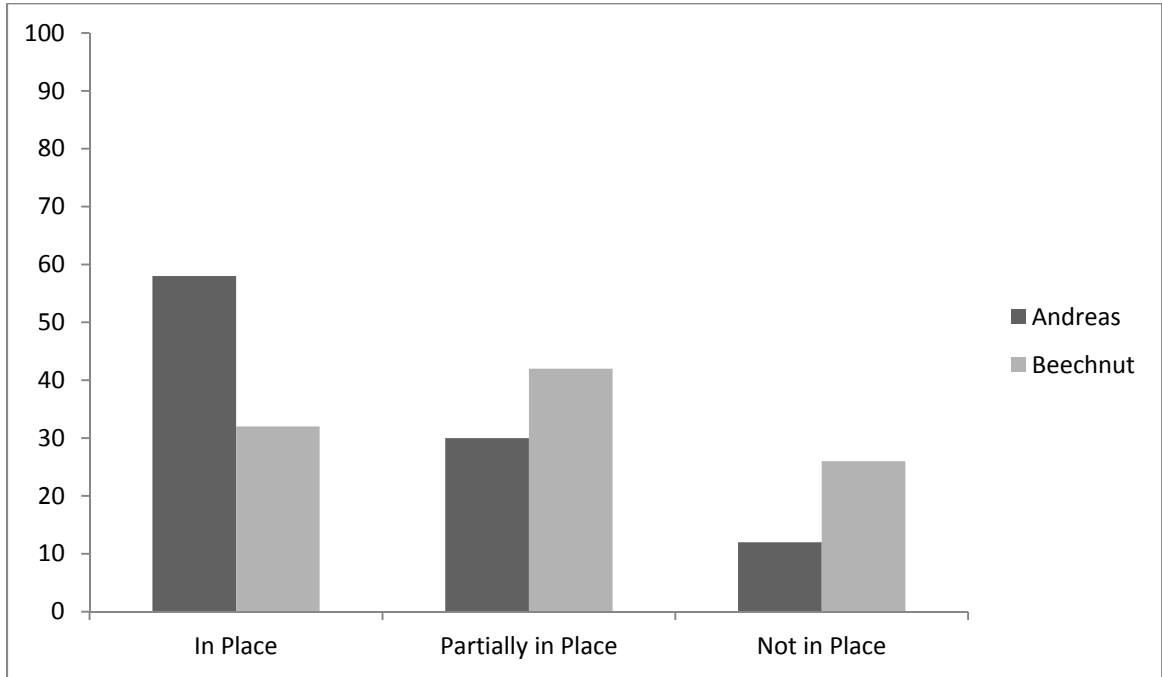


Figure 5. Current Status: Classroom Systems

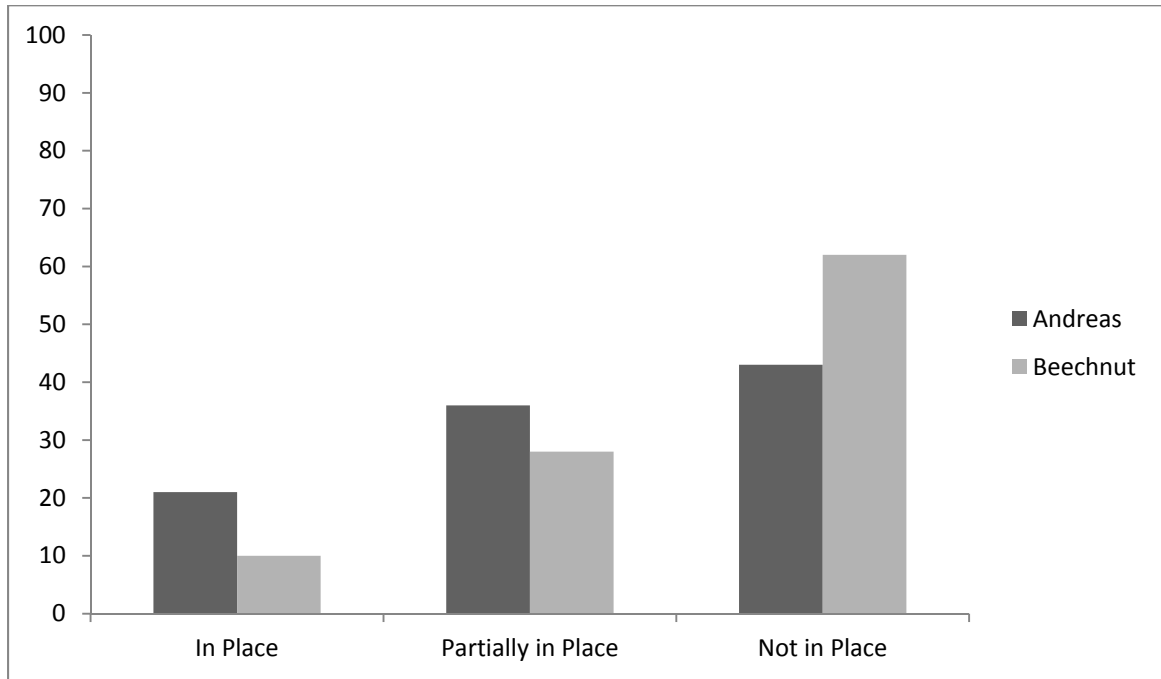


Figure 6. Current Status: Individual Student Systems

Completing Phase 1 resulted in a summary of the current status of each of the four system areas. School-Wide Systems, Non-Classroom Settings, and Classroom Settings all had higher ratings for In Place at Andreas Middle School than at Beechnut Middle School. Individual Student Systems also had a higher rating for Andreas Middle School than Beechnut Middle School, but it was not a strong percentage rating (20%). Basically stating that Andreas Middle School has implemented SWPBS and Beechnut Middle School has not which confirms the foundational basis for the two groups to serve as implementation and control for the dependent variable (TSES) analysis.

Results

1. Is there a statistically significant difference between overall teacher self-efficacy at Andreas Middle School and Beechnut Middle School on the TSES on the

mean score of perceived student engagement, instructional strategies, and classroom management?

An independent samples *t* test was conducted to compare the total mean scores for teachers from Andreas Middle School and Beechnut Middle School. The independent variable was SWPBS, with two nominal categories, Andreas Middle School and Beechnut Middle School. The dependent variable was the TSES scores (scaled scores). Since there was a statistically significant deviation on Levene's test for equality, equal variances are not assumed; $p = .016$.

An independent samples *t* test was conducted to compare mean scores of Andreas Middle School ($n = 25$) and Beechnut Middle School ($n = 32$) in regards to TSES mean scores for student engagement, instructional strategies and classroom management. There was not a statistically significant difference between the total mean scores of Andreas Middle School ($M = 159.60$, $SD = 21.75$) and Beechnut Middle School ($M = 166.09$, $SD = 13.85$), $t(38.61) = -1.30$, $p = .201$ (two-tailed), $CI_{95} = -16.59, 3.60$. These results suggest that there is no statistically significant difference between Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, on the TSES mean score of perceived student engagement, instructional strategies, and classroom management.

2. Is there a statistically significant difference between teacher self-efficacy at Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, in regard to perceived student engagement?

An independent sample t test was conducted to compare teacher self-efficacy in Andreas Middle School, which had implemented SWPBS, and Beechnut Middle School, which had not formally implement SWPBS, in perceived student engagement. The independent variable was SWPBS, with two nominal categories, Andreas Middle School and Beechnut Middle School. The dependent variable was the TSES (scaled scores). Since there was a statistically significant deviation on Levene's test for equality, variances are not assumed; $p = .009$.

An independent samples t test was conducted to compare teacher self-efficacy in Andreas Middle School ($n = 25$) and teacher self-efficacy in Beechnut Middle School ($n = 32$) in perceived student engagement. There was a statistically significant difference between teacher self-efficacy in Andreas Middle School ($M = 52.52$, $SD = 4.28$) and Beechnut Middle School ($M = 48.44$, $SD = 7.94$), $t(49.52) = 2.48$, $p = .016$ (two-tailed), $CI.95 .799, 7.39$. These results suggest that teacher self-efficacy at Andreas Middle School had a statistical significance on perceived study engagement with the implementation of SWPBS than teachers at Beechnut Middle School, which had not implemented SWPBS. Therefore we reject the null hypothesis that there is not a statistically significant difference between teacher self-efficacy in schools that have implemented SWPBS and schools that have not formally implemented SWPBS in perceived student engagement. Further, Cohen's effect size value ($d = 0.64$) suggested a medium to high effect (Soper, 2015).

3. Is there a statistically significant difference between teacher self-efficacy in Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, with regard to instructional strategies?

An independent samples t test was conducted to compare teacher self-efficacy in Andreas Middle School, which had implemented SWPBS, and Beechnut Middle School, which had not formally implemented SWPBS, in instructional strategies. The independent variable was SWPBS, with two nominal categories, Andreas Middle School and Beechnut Middle School.

An independent two-tailed t test was conducted to compare teacher self-efficacy and instructional strategies between teachers in Andreas Middle School ($n = 25$) and teachers in Beechnut Middle School ($n = 32$). There was not a statistically significant difference in self-efficacy and instructional strategies between Andreas Middle School ($M = 7.50, SD = 7.61$) and Beechnut Middle School ($M = 57.34, SD = 5.49$), $t(55) = .083, p = .934$ (two-tailed), CI.95-3.62, 3.33. Therefore, we fail to reject the null hypothesis that there is no statistically significant difference between teacher self-efficacy in Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, in instructional strategies.

4. Is there a statistically significant difference between teacher self-efficacy in Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, with regard to classroom management?

An independent samples t test was conducted to compare teacher self-efficacy in Andreas Middle School, which had implemented SWPBS, and Beechnut Middle School, which had not formally implemented SWPBS, in classroom management. The independent variable was SWPBS, with two nominal categories, Andreas Middle School and Beechnut Middle School.

An independent samples two-tailed t test was conducted to compare teacher self-efficacy and classroom management between teachers in Andreas Middle School ($n = 25$) and teachers in Beechnut Middle School ($n = 32$). There was not a statistically significant difference between Andreas Middle School ($M = 53.96$, $SD = 9.38$) and Beechnut Middle School ($M = 57.38$, $SD = 6.56$), $t(55) = -1.61$, $p = .112$ (two-tailed), $CI_{.95} = -7.65, .820$. Therefore, we fail to reject the null hypothesis that there is no statistically significant difference between teacher self-efficacy in Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, in classroom management.

Summary

In summary, only one of the four research questions showed significant differences in mean scores. School Wide Positive Behavior Support appears to have impact on certain aspects of teacher self-efficacy. Specific elements in classroom management and School Wide Positive Behavior Support (SWPBS) are correlated with teacher self-efficacy through a two-tailed t test analysis.

Data revealed that, based on the four areas of current status, Andreas Middle School had higher percentages for current status in place than Beechnut Middle School, which had not formally implemented SWPBS. Additionally, Beechnut Middle School had higher percentages for classroom systems in place than Andreas Middle School, which suggests that some type of classroom management systems already existed at the school. Based on current status of the Effective Behavior Support (EBS) survey, analysis of teacher self-efficacy revealed statistically significant findings in only one of the four research questions analyzed. Perceived student engagement was statistically higher in

Andreas Middle School than Beechnut Middle School. This suggests that SWPBS does have an impact on perceived student engagement in the classroom. Chapter 5 presents interpretation of all findings and suggests areas for future study, along with possible suggestions for rural middle schools in regard to SWPBS and teacher self-efficacy.

Chapter 5

Discussion

The purpose of this study was to examine teacher self-efficacy in two rural middle schools, one which had implemented School Wide Positive Behavior Support (SWPBS), and one which had not implemented SWPBS. The research hypothesized that teachers at Andreas Middle School would have a significantly higher sense of self-efficacy due to the implementation of SWPBS than teachers at Beechnut Middle School. This final chapter will present a discussion of findings from the statistical analysis, along with the study's implications, the limitations of the study, and recommendations for further research.

Discussion of Findings

In the present study there was one area of statistical significance for teacher self-efficacy: perceived student engagement. On the other hand, there were three areas of non-significance in regard to teacher self-efficacy: overall mean scores, instructional strategies, and classroom management. The findings will be presented in the context of each research question.

1. Is there a statistically significant difference between overall teacher self-efficacy at Andreas Middle School and Beechnut Middle School on the TSES on the mean score of perceived student engagement, instructional strategies, and classroom management?

Results of a two-tailed t test indicated there was not a statistically significant difference between the total mean scores of Andreas Middle School and Beechnut Middle School in regard to the TSES mean scores for perceived student engagement,

instructional strategies and classroom management. As to why overall mean scores of teacher self-efficacy in these three areas did not show a statistically significant difference between Andreas Middle School and Beechnut Middle School, this requires further research, since the outcomes were not consistent with previous studies which support SWPBS having an overall positive effect on teacher self-efficacy (Kelm & McIntosh, 2012; Ross & Horner 2007; Tschannen-Moran & Hoy, 2001). The following consideration of teacher experience is suggested as a possible explanation for the lack of statistical significance.

It is worth noting that the teacher populations of Andreas Middle School and Beechnut Middle School differ in terms of years of experience. There were a higher number of teachers at Beechnut Middle School that already had 7-18 years of experience in the teaching profession (12 more than Andreas Middle School). Since the number of years of experience varied between the two schools, it is possible that the degree self-efficacy is influenced by the comparatively greater experience of teachers at Beechnut Middle School. This finding is supported by earlier findings by Klassen and Chiu (2010) and Pigge and Marso (1993). These studies found that teachers who were in the early stages of their career scored higher on self-efficacy via the TSES as they gained experience in the field. Additionally, teachers who were in the mid-career stage (7-18 years) scored higher on teacher self-efficacy via the TSE, confirming that teachers in the early and mid-stages of their career scored higher on teacher self-efficacy scales than teachers who were in the late stages of their careers (31-40 years in the field). These results validate the conclusion that teacher self-efficacy is different at different points in

an individual's career and effects how an individual views their efficacy in conjunction with their teaching experience (Klassen and Chiu, 2010).

A final area of consideration for this research question focused on teacher over-rating (Elga, 2005). Over-rating has been a concern for researchers when administering teacher self-efficacy scales (Ashton & Webb, 1986; Gibson & Dembo, 1984; Woolfolk & Hoy, 1990). Knight and Frazen (1922) noted concerns in rating schemes where individuals exaggerate or overrate themselves on desirable traits based on their desire to possess a particular trait. This leads to a suggested conclusion that teachers in the study overrated themselves, possibly in an effort to show they were more effective than they really were. Also, overrating could have occurred due to lack of understanding of the operational definition of teacher self-efficacy (Walker, 1992). Additionally, as suggested by previous researchers, individuals might not want to admit that they lack skills in a certain area, so a person may score him- or herself higher in an effort to demonstrate possession of that quality (Elga, 2005).

2. Is there a statistically significant difference between teacher self-efficacy at Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, in regard to perceived student engagement?

Results indicated that teachers at Andreas Middle School had statistically significant higher levels of teacher self-efficacy in regard to perceived student engagement than Beechnut Middle School. There was a medium to high effect size ($d = 0.64$), indicating that the difference between ratings on the TSES from teachers at a SWPBS and non-SWPBS school were relevant. Research has indicated that SWPBS is

effective in establishing a positive learning environment (Kelm & McIntosh, 2012). SWPBS increases student on-task behaviors, encourages active participation in the classroom, and allows teachers to engage in more active instruction in the classroom, leading to higher student engagement (Algozzine & Algozzine, 2007). Moore and Esselman (1992) also found that when a perceived positive school atmosphere was in place, stronger self-efficacy beliefs were evident among teachers which resulted in stronger student achievement (Hoy & Woolfolk, 1993; King, Vidourek, Davis, & McClellan, 2002; Schapps, 2003). In conjunction with teacher self-efficacy, positive effects on student academics have been noted in terms of a teacher's ability to plan well, organize and use new methods to reach students (Caprara et al., 2006).

Another suggested factor as to why perceived student engagement was higher at Andreas Middle School concerned a teacher's years of experience in education. As noted in the study by Klassen and Chiu (2010), teachers who were in the mid-stage of their career had not only higher self-efficacy scores, but higher percentages of student engagement in the classroom. Student engagement percentages were 68% higher than those of beginning teachers (Klassen & Chiu, 2010), which supports the theory of a link between teacher self-efficacy and perceived student engagement (Klassen & Chiu, 2010).

3. Is there a statistically significant difference between teacher self-efficacy in Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, with regard to instructional strategies?

Results from a two-tailed *t* test indicated there was not a significant difference between Andreas Middle School and Beechnut Middle School in regard to instructional strategies. It is suggested there was a lack of significance based on the following

research studies. As indicated by Goddard et al. (2000), teacher self-efficacy is content-specific, meaning the teacher is knowledgeable about their particular subject area.

Teachers who teach one specific subject feel more efficacious, or have a greater sense of accomplishment as a desired result is produced with students in a specific content area. A sense of being more effective has indicated a strong sense of competence for individuals in their subject area, and the ability to develop lessons that are relevant and effective for student learning (Goddard, Hoy, & Hoy, 2000). Furthermore, teacher experience has an effect on instructional strategies. Tschannen-Moran and Hoy (2007) in their study on efficacy and support established that teachers with five or more years of experience had an overall higher level of self-efficacy than beginning teachers. Additionally, Klassen and Chiu (2010) established in their study that teachers' years of experience, along with classroom stress, were related to self-efficacy and instructional strategies. Teachers who had up to 23 years of experience were 88% more likely than beginning teachers to have increased instructional strategies based on self-efficacy beliefs (Bandura, 1993; Caprara, Barbaranelli, Stecca, & Malone, 2006; Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2010). Though instructional strategy results were not significant in this study in relation to self-efficacy, significant results should not be overlooked for future research studies.

4. Is there a statistically significant difference between teacher self-efficacy in Andreas Middle School, which has implemented SWPBS, and Beechnut Middle School, which has not formally implemented SWPBS, with regard to classroom management?

Results of a two-tailed independent *t* test indicated that there was not a significant difference between Andreas Middle School and Beechnut Middle School in regard to teacher self-efficacy and classroom management. It is suggested that non-significant

results could be related to the following possibilities. In studies conducted by Guskey (1988) and Milner (2002) on teacher's self-efficacy and classroom management, results indicated that most teachers feel that their classrooms are made up of students who are well-behaved. When teachers feel more efficacious they believe they have better classroom management, indicating that their personal skills are a results of how behavior runs in the classroom and in the overall schema of the school (Guskey, 1988; Milner, 2002; Unal & Unal, 2012). Furthermore, it is again suggested that the amount of experience a teacher has in the field is indicative of better classroom management. In the study by Unal and Unal (2012), teachers with more than seven years of experience developing classroom repertoire skills and strategies had higher ability to manage and prioritize tasks that relate to classroom issues. Additionally, these teachers have little difficulty in managing the dynamic nature of the classroom setting and the unpredictability that is associated with it (Carter, Cushing, Sabers, Stein, & Beliner, 1988; Doyle & Whittrock, 1986). These results again suggest that experience has various effects on teacher self-efficacy and diverse abilities in the classroom. As noted in question three, the results did not indicate significant results, but this question cannot be resolved by one study. Instead future studies may indicate a different result with regard to teacher self-efficacy and classroom management.

Implications

Though the overall findings of this study do not agree with what literature says about implementing SWPBS and teacher self-efficacy, it does contribute to the review of literature. Since limited studies have been conducted reviewing SWPBS and teacher self-efficacy, this study extended the literature by analyzing results from rural middle schools

in terms of SWPBS and teacher self-efficacy. Most of the literature up to this point has studied teacher self-efficacy in elementary schools, urban schools, or limited rural areas, but little research has been conducted in the area of middle school (Caldarella, Shatzer, Gray, Young, & Young, 2011; Lassen, Steele, & Sailor, 2006; Ruiz, Ruiz, & Sherman, 2012).

Current theories in the field suggest that teacher self-efficacy does improve with the implementation of SWPBS (Kelm & McIntosh, 2012); however, in this study it did not lead to a statistically significant difference. This opens the possibilities for further studies to be conducted at the rural middle school level. Additionally, changing the instrumentation of the Teachers' Sense of Self-efficacy Scale so that teachers have a better understanding of the operational definition of teacher self-efficacy could cause results to vary dramatically.

Though this was not an expansive study due to its relatively small sample size, this study may be of interest to rural administrators. This study on School Wide Positive Behavior Support (SWPBS) and teacher self-efficacy provided statistically significant results for the implementation of SWPBS and teacher self-efficacy having a positive effect on perceived student engagement. The result could prove beneficial to schools that struggle with perceived student engagement. Also, the study would help administrators understand what teacher self-efficacy is and how they can support their staff by looking at the TSES survey. Since there has been a decline in teacher self-efficacy over the past 30 years, it may be helpful for administrators to look at this area more closely (Tschannen-Moran & Woolfolk-Hoy, 1998). Finally, if administrators take an interest in teacher self-efficacy and the implementation of SWPBS, not only will their teachers

benefit, but students will benefit as well. By having a positive environment and higher job satisfaction that accompanies higher self-efficacy, teachers experience higher job productivity and morale (Caladarella et al., 2011).

Limitations/Observations

As with many studies, this study did have limitations that may have influenced the results of this analysis. Initially, the Teachers' Sense of Efficacy Scale (TSES) was not district-wide; it was only administered in two rural middle schools. Though a control group was available and data were collected for the TSES, and although the Effective Behavior Support (EBS) Survey was used to determine the current status of School Wide Positive Behavior Support (SWPBS), the small size of the study may have been a variable in the outcome since there were only two rural middle schools in the rural south where one had implemented SWPBS, and another was getting ready to implement SWPBS the following year.

Next, this study was a sample of convenience. Since a random sample was not possible due to the limited implementation of SWPBS in rural south middle schools, a convenience sample was more appropriate for this particular study in order to obtain a control and treatment group. Third, the operational definition of teacher self-efficacy was not understood by the participants as many teachers asked the researcher what teacher self-efficacy was. The lack of an operational definition was discussed in the Tschannen-Moran et al. (1998) study that discussed using different self-efficacy measurement tools to help clarify and construct better sources of measurement for teacher self-efficacy. Going back to the historical perspectives of teacher self-efficacy developed in studies conducted by Bandura (1977), we find that self-efficacy is defined as a psychological

process in which an individual develops beliefs about his or her capability to perform at a competent level. Additionally, Bandura (1997) went on to extend the framework of self-efficacy by specifying that belief in one's ability to organize and execute a course of action required production of a given accomplishment. Therefore, a teacher who has demonstrated these capabilities of organization, execution, and accomplishment experiences a higher sense of belief in his or her ability to teach effectively. Goddard, Hoy, and Hoy (2000) maintained that teacher self-efficacy is a teacher's confidence in his or her ability to promote student learning. Tschannen-Moran et al. (1998) also asserted that self-efficacy beliefs are associated with a teacher's effort in teaching, setting goals, and being resilient when facing setbacks. Examining these definitions suggested the importance of teachers' beliefs and capabilities to promote competent outcomes. When asked by participants what teacher self-efficacy meant, the researcher did not respond with the operational definition, but encouraged teachers to answer to the best of their ability the questions asked on The Teachers' Sense of Efficacy Scale (TSES). Since self-efficacy was part of the essential framework of the study, it was the researcher's intent to collect authentic teacher responses about their understanding of the subject.

Fourth, an additional Likert scale that is research-based and can obtain information on other behavior support systems already in use in the classroom or school would be helpful. Again, based upon observation, several teachers became confused about behavior management techniques that were already in use and determined that they were part of SWPBS. It is suggested that the lack of understanding of teacher self-efficacy and SWPBS swayed the answers on the Likert scale and the EBS "current status" portion.

Finally, in both schools the researcher noticed a significant difference in terms of the teacher responses to the TSES and the EBS surveys. Andreas Middle School's principal required the teachers to participate in the survey, and was insistent with staff about completing the surveys. A small number of teachers became irate and wanted to leave the meeting, but were strongly encouraged to stay. Beechnut Middle School's principal was more flexible. Teachers were encouraged to participate, but not forced. A more welcoming atmosphere was present during data collection time, and several teachers were curious about results of the study. Since there were differences between the attitudes of the teachers participating in the study from the two schools it is worth noting in this study.

Future Research

Through the course of this research, the limited amount of existing research on teacher self-efficacy and the implementation of School Wide Positive Behavior Support (SWPBS) in rural middle schools became evident. Though there were not statistically significant results between Andreas Middle School and Beechnut Middle School based on an independent *t* test for overall mean scores, instructional strategies and classroom management, perceived student engagement was determined to be statistically significant. Future research with a random sample and larger population might provide different results as to SWPBS implementation and teacher self-efficacy in rural middle schools. Additionally, future research in teacher self-efficacy could provide results that bolster teacher self-efficacy through alterations to the TSES. By altering the TSES, researchers could provide respondents with a clearer understanding of the operational definition of teacher self-efficacy, which could help them, provide more accurate results.

Finally, future research in regard to faculty-principal relationships could prove enlightening in terms of teacher self-efficacy. Tschannen-Moran and Woolfolk-Hoy (2007) have noted that teachers' levels of efficacy are higher when principals are supportive. However, this has not been determined in rural middle schools. Future research in this area could be a profitable contribution to our understanding rural middle schools and the teachers who teach in them.

Summary

Previous research has compared School Wide Positive Behavior Support (SWPBS) and teacher self-efficacy (Kelm & McIntosh, 2012). The present study extends the outcomes of this research by comparing the effect of SWPBS with those of non-SWPBS classroom management and other techniques on teacher self-efficacy in two rural middle schools. Through the use of the Effective Behavior Support (EBS) survey "current status" section and the long form of the Teachers' Sense of Efficacy Scale (TSES), data was obtained and analyzed using a two-tailed *t* test to determine statistical results of four research questions related to the TSES. The study's findings indicated that SWPBS was statistically significant in the area of perceived student engagement. However, the study did not find statistically significant differences between the two schools in regard to total mean scores, instructional strategies, and classroom management.

In a previous study, Kelm and McIntosh (2012) determined that overall teacher self-efficacy improved as a result of implementing SWPBS in elementary schools. However, research was not conducted on SWPBS and the individual components of the TSES scale: overall TSES mean scores, perceived student engagement, instructional strategies, and classroom management. As a result of studying these specific areas of the

TSES, it was determined that further research is needed in rural middle schools that implemented SWPBS to determine if teacher self-efficacy does improve.

Since three out of four questions were considered not statistically significant in the study, it is important to consider possible alterations in the design of future studies. First, the operational definition of teacher self-efficacy was not understood by study participants. Next, there were considerable differences in the answers of experienced versus inexperienced teachers in the study. Additionally, it is common for individuals to overrate themselves when answering questions on a rating scale (Elga, 2005). Finally, the amount of experience of teachers who participated in the study may have played a role in the fact that no statistical difference was found between the two schools in instructional strategies and classroom management. The current study adds to SWPBS and teacher self-efficacy literature by providing specific research in rural middle schools. Results are provided that support the use of SWPBS in rural middle schools by showing statistically significant results in the area of perceived student engagement. Additionally, these findings provide future consideration for administering the TSES among other rural middle school teachers, and the need for an operational definition that helps teachers answer accurately.

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Appendix A

Teachers' Sense of Efficacy Scale¹ (long form) Teacher Beliefs How much can you do?

Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below by using the following ratings (Your answers are confidential).

Nothing (0-1), Very Little (2-3), Some (4-5), Quite A Bit (6-7), A Great Deal (8-9).

1. How much can you do to get through to the most difficult students?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

2. How much can you do to help your students think critically?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

3. How much can you do to control disruptive behavior in the classroom?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

4. How much can you do to motivate students who show low interest in school work?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

5. To what extent can you make your expectations clear about student behavior?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

6. How much can you do to get students to believe they can do well in school work?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

7. How well can you respond to difficult questions from your students?
(1) (2) (3) (4) (5) (6) (7) (8) (9)
8. How well can you establish routines to keep activities running smoothly?
(1) (2) (3) (4) (5) (6) (7) (8) (9)
9. How much can you do to help your students value learning?
(1) (2) (3) (4) (5) (6) (7) (8) (9)
10. How much can you gauge student comprehension of what you have taught?
(1) (2) (3) (4) (5) (6) (7) (8) (9)
11. To what extent can you craft good questions for your students?
(1) (2) (3) (4) (5) (6) (7) (8) (9)
12. How much can you do to foster student creativity?
(1) (2) (3) (4) (5) (6) (7) (8) (9)
13. How much can you do to get children to follow classroom rules?
(1) (2) (3) (4) (5) (6) (7) (8) (9)
14. How much can you do to improve the understanding of a student who is
failing?
(1) (2) (3) (4) (5) (6) (7) (8) (9)
15. How much can you do to calm a student who is disruptive or noisy?
(1) (2) (3) (4) (5) (6) (7) (8) (9)
16. How well can you establish a classroom management system with each group
of students?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

17. How much can you do to adjust your lessons to the proper level for individual students?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

18. How much can you use a variety of assessment strategies?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

19. How well can you keep a few problem students from ruining an entire lesson?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

20. To what extent can you provide an alternative explanation or example when students are confused?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

21. How well can you respond to defiant students?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

22. How much can you assist families in helping their children do well in school?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

23. How well can you implement alternative strategies in your classroom?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

24. How well can you provide appropriate challenges for very capable students?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Appendix B

Effective Behavior Support (EBS). Self-Assessment Survey, Version 2.0

Data Collection Protocol

- ✓ Conducted annually, preferably in spring.
- ✓ Completed by all staff.
- ✓ Use results to design annual action plan.

Effective Behavior Support (EBS) Survey
Assessing and Planning Behavior Support in Schools

Purpose of the Survey

The EBS Survey is used by school staff for initial and annual assessment of effective behavior support systems in their school. The survey examines the status and need for improvement of four behavior support systems: (a) school-wide discipline systems, (b) non-classroom management systems (e.g., cafeteria, hallway, and playground), (c) classroom management systems, and (d) systems for individual students engaging in chronic problem behaviors. Each question in the survey relates to one of the four systems.

Survey results are summarized and used for a variety of purposes including:

1. annual action planning,
2. internal decision making,
3. assessment of change over time,
4. awareness building of staff, and
5. team validation.

The survey summary is used to develop an action plan for implementing and sustaining effective behavioral support systems throughout the school (see “Developing an EBS Annual Action Plan”).

Conducting the EBS Survey

Who completes the survey?

Initially, the entire staff in a school completes the EBS Survey. In subsequent

years and as an on-going assessment and planning tool, the EBS Survey can be completed in several ways:

- All staff at a staff meeting.
- Individuals from a representative group.
- Team member-led focus group.

When and how often should the survey be completed?

Since survey results are used for decision making and designing an annual action plan in the area for effective behavior support, most schools have staff complete the survey at the end or the beginning of the school year.

How is the survey completed?

1. Complete the survey independently.
2. Schedule 20-30 minutes to complete the survey.
3. Base your rating on your individual experiences in the school. If you do not work in classrooms, answer questions that are applicable to you.
4. Mark (i.e., “√” or “X”) on the left side of the page for current status and the right side of the page for the priority level for improvement for each feature that is rated as *partially in place* or *not in place* and rate the degree to which improvements are needed (i.e., *high, medium, low*) (right hand side of survey).

To assess behavior support, first evaluate the status of each system feature (i.e. *in place, partially in place, not in place*) (left hand side of survey). Next, examine each feature:

- a. “What is the current status of this feature (i.e. *in place, partially in place, not in place*)?”

- b. For each feature rated partially in place or not in place, “What is the priority for improvement for this feature (i.e., *high, medium, low*)?”

Summarizing the Results from the EBS Survey

The results from the EBS Survey are used to (a) determine the status of EBS in a school and (b) guide the development of an action plan for improving EBS. The resulting action plan can be developed to focus on any one or combination of the four EBS system areas.

Three basic phases are involved: (a) summarize the results, (b) analyze and prioritize the results, and (c) develop the action plan.

Phase 1: Summarize the results

The objective of this phase is to produce a display that summarizes the overall response of school staff for each system on (a) status of EBS features and (b) improvement priorities.

Step 1a. Summarize survey results on a blank survey by tallying all individual responses for each of the possible six choices as illustrated in example 1a.

Example 1a.

Current Status			Feature	Priority for Improvement		
In Place	Partial in Place	Not in Place		High	Med	Low
<p>√√√√√√√√ √</p>	<p>√√√√√√ √</p>	<p>√√√√</p>	<p>School-wide is defined as involving all students, all staff, & all settings.</p>	<p>√√√√</p>	<p>√√√ √</p>	<p>√√√</p>
<p>√√</p>	<p>√√√√√√</p>	<p>√√√√√√√√√√ √√</p>	<p>2. Expected student behaviors are taught directly.</p>	<p>√√√√√√√√√√ √</p>	<p>√√√ √</p>	<p>√√√√√ √</p>

Step 1b. Total the number of responses by all staff for each of the six possible choices. As illustrated in example 1b.

Example 1b.

Current Status			Feature	Priority for Improvement		
In Place	Partial in Place	Not in Place		High	Med	Low
√√√√√√√√ √√ 9	√√√√√√√ 7	√√√√ 4	School-wide is defined as involving all students, all staff, & all settings.	√√√√ 4	√√√√ 4	√√√ 3
√√ 2	√√√√√√ 6	√√√√√√√√√√ √√ 12	2. Expected student behaviors are taught directly.	√√√√√√√√√√ √ 10	√√√√ 4	√√√√√ √ 6
√√√√√√√√ 7	√√√√√√√√√√ 9	√√√ 3	3. Expected student behaviors are rewarded regularly.	√√√√√√ 6	√√√√√ √ 6	
√√√√√√√√ 7	√√√√√√√√√√√ √ 11	√√√ 3	4. Problem behaviors (failure to meet expected student behaviors) are defined clearly.	√√√√√√ 6	√√√√ 4	√√√√ 4
	√√√√√√√√ 8	√√√√√√√√√√ 9	5. Consequences for problem behaviors are defined clearly.	√√√√√√√√√√ √√ 11	√√√ 3	√√√ 3

Step 1c. For each system area, calculate a total summary by counting the total number of responses for a column (e.g., In place: 9 + 2 +) and dividing that number by the total number of responses for the row (e.g., In place + Partial + Not in place) as illustrated in example 1c

Example 1c.

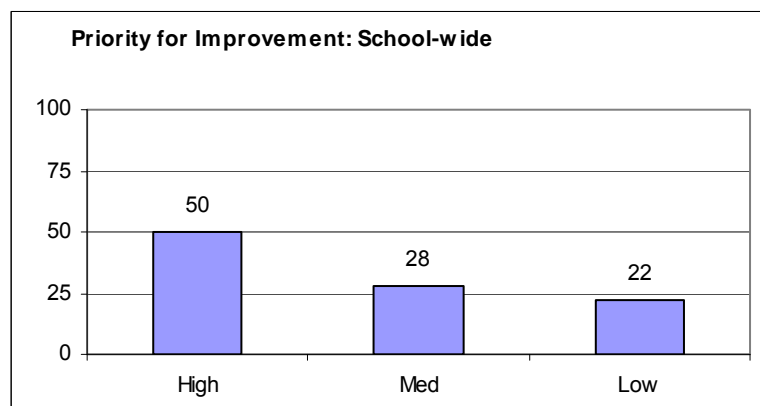
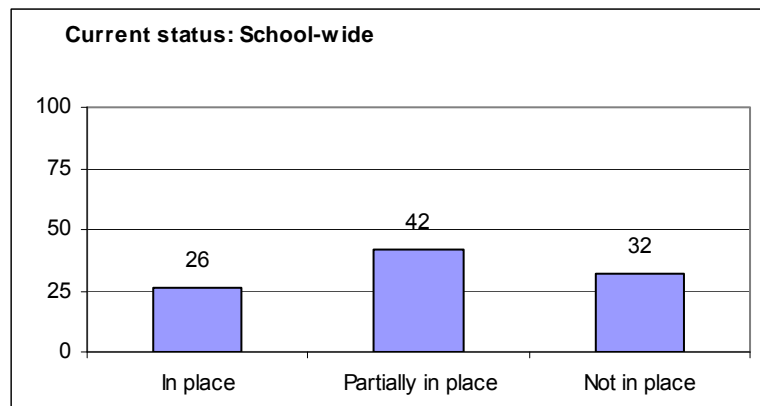
Current Status			Feature	Priority for Improvement		
In Place	Partial in Place	Not in Place	School-wide is defined as involving all students, all staff, & all settings.	High	Med	Low
√√√√√√√√ √ 9	√√√√√√√ 7	√√√√ 4	1. A small number (e.g. 3-5) of positively & clearly stated student expectations or rules are defined.	√√√√ 4	√√√√ 4	√√√ 3
√√ 2	√√√√√√ 6	√√√√√√√√ √√√√ 12	2. Expected student behaviors are taught directly.	√√√√√√√√√√ √ 10	√√√√ 4	√√√√ √ 6
√√√√√√√√ 7	√√√√√√√√√√ 9	√√√ 3	3. Expected student behaviors are rewarded regularly.	√√√√√√√ 6	√√√√√√ √ 6	
√√√√√√√√ 7	√√√√√√√√√√ √√ 11	√√√ 3	4. Problem behaviors (failure to meet expected student behaviors) are defined clearly.	√√√√√√√ 6	√√√√√ 4	√√√√√ 4
	√√√√√√√√√ 8	√√√√√√√√√ √ 9	5. Consequences for problem behaviors are defined clearly.	√√√√√√√√√√ √√ 11	√√√ 3	√√√ 3

Totals: 25 + 41 + 31 = 97

37 + 21 + 16 = 74

Step 1d. Create a bar graph showing total item summary percentages for each of the six choices (take total responses for each of six choices and divide by the total number of responses) as illustrated in example 1d. using results from example 1c.. Complete the EBS Survey Summary by graphing the current status and priority for improvement for each of the four system areas. Example 1d. has created the graph for the example data presented and summarized in example 1d.

Example 1d.



Completing Phase 1 provides a general summary for the current status and priority for improvement ratings for each of the four system areas. For further summary and analysis, follow Phase 2 and Phase 3 activities.

Phase 2: Analyze and Prioritize the Results

The objective of this phase is for teams to narrow the focus of Action Plan activities. Teams also may want to include other data or information (e.g., office discipline referrals, behavior incident reports, attendance) to refine their decisions. Use the EBS Survey Summary to guide and document your analysis. In general, the following guidelines should be considered:

- Step 1. Using the EBS Survey Summary Graph results, rate the overall perspective of EBS implementation by circling High, Med., or Low for each of the four system areas.
- Step 2. Using the EBS Survey Tally pages, list the three major strengths in each of the four system areas.
- Step 3. Using the EBS Survey Tally pages, list the three major areas in need of development.
- Step 4. For each system, circle one priority area for focusing development activities.
- Step 5. Circle or define the activities for this/next year's focus to support the area selected for development.
- Step 6. Specify system(s) to sustain (S) & develop (D).

Phase 3: Use the EBS Survey Summary Information to Develop the EBS Annual Action Plan

The objective of this phase to develop an action plan for meeting the school improvement goal in the area of school safety. Multiple data sources will be integrated when developing the action plan. The EBS Survey Summary page summarizes the EBS Survey information and will be a useful tool when developing the EBS Annual Action Plan. The EBS Annual Action Plan process can be obtained by contacting the first author of this document.

Effective Behavior Support (EBS) Survey
Assessing and Planning Behavior Support in Schools

Name of School _____ Date _____

District _____ State _____

Person Completing the Survey:

- | | | |
|--|---|---|
| <input type="checkbox"/> Administrator | <input type="checkbox"/> Special Educator | <input type="checkbox"/> Parent/Family member |
| <input type="checkbox"/> General Educator | <input type="checkbox"/> Counselor | <input type="checkbox"/> School Psychologist |
| <input type="checkbox"/> Educational/Teacher Assistant | <input type="checkbox"/> Community member | <input type="checkbox"/> Other _____ |

1. Complete the survey independently.
2. Schedule 20-30 minutes to complete the survey.
3. Base your rating on your individual experiences in the school. If you do not work in classrooms, answer questions that are applicable to you.

To assess behavior support, first evaluate the status of each system feature (i.e. *in place*, *partially in place*, *not in place*) (left hand side of survey). Next, examine each feature:

- a. “What is the current status of this feature (i.e. *in place*, *partially in place*, *not in place*)?”
 - b. For those features rated as partially in place or not in place, “What is the priority for improvement for this feature (i.e., *high*, *medium*, *low*)?”
4. Return your completed survey to _____ by _____

SCHOOL-WIDE SYSTEMS

Current Status			Feature	Priority for Improvement		
In Place	Partial in Place	Not in Place		High	Med	Low
			School-wide is defined as involving all students, all staff, & all settings.			
			1. A small number (e.g. 3-5) of positively & clearly stated student expectations or rules are defined.			
			2. Expected student behaviors are taught directly.			
			3. Expected student behaviors are rewarded regularly.			
			4. Problem behaviors (failure to meet expected student behaviors) are defined clearly.			
			5. Consequences for problem behaviors are defined clearly.			
			6. Distinctions between office v. classroom managed problem behaviors are clear.			
			7. Options exist to allow classroom instruction to continue when problem behavior occurs.			
			8. Procedures are in place to address emergency/dangerous situations.			
			9. A team exists for behavior support planning & problem solving.			
			10. School administrator is an active participant on the behavior support team.			
			11. Data on problem behavior patterns are collected and summarized within an on-going system.			

Current Status			Feature	Priority for Improvement		
In Place	Partial in Place	Not in Place		High	Med	Low
			School-wide is defined as involving all students, all staff, & all settings.			
			12. Patterns of student problem behavior are reported to teams and faculty for active decision-making on a regular basis (e.g. monthly).			
			13. School has formal strategies for informing families about expected student behaviors at school.			
			14. Booster training activities for students are developed, modified, & conducted based on school data.			
			15. School-wide behavior support team has a budget for (a) teaching students, (b) on-going rewards, and (c) annual staff planning.			
			16. All staff are involved directly and/or indirectly in school-wide interventions.			
			17. The school team has access to on-going training and support from district personnel.			
			18. The school is required by the district to report on the social climate, discipline level or student behavior at least annually.			

Name of School _____ Date _____

NONCLASSROOM SETTING SYSTEMS

Current Status			Feature	Priority for		
In Place	Partial in Place	Not in Place		High	Med	Low
			Non-classroom settings are defined as particular times or places where supervision is emphasized (e.g., hallways, cafeteria, playground, bus).			
			1. School-wide expected student behaviors apply to non-classroom settings.			
			2. School-wide expected student behaviors are taught in non-classroom settings.			
			3. Supervisors actively supervise (move, scan, & interact) students in non-classroom settings.			
			4. Rewards exist for meeting expected student behaviors in non-classroom settings.			
			5. Physical/architectural features are modified to limit (a) unsupervised settings, (b) unclear traffic patterns, and (c) inappropriate access to & exit from school grounds.			
			6. Scheduling of student movement ensures appropriate numbers of students in non-classroom spaces.			
			7. Staff receives regular opportunities for developing and improving active supervision skills.			
			8. Status of student behavior and management practices are evaluated quarterly from data.			
			9. All staff are involved directly or indirectly in management of non-classroom settings.			

Name of School _____ Date _____

CLASSROOM SYSTEMS

Current Status			Feature	Priority for Improvement		
In Place	Partial in Place	Not in Place		High	Med	Low
			Classroom settings are defined as instructional settings in which teacher(s) supervise & teach groups of students.			
			1. Expected student behavior & routines in classrooms are stated positively & defined clearly.			
			2. Problem behaviors are defined clearly			
			3. Expected student behavior & routines in classrooms are taught directly.			
			4. Expected student behaviors are acknowledged regularly (positively reinforced) (>4 positives to 1 negative).			
			5. Problem behaviors receive consistent consequences.			
			6. Procedures for expected & problem behaviors are consistent with school-wide procedures.			
			7. Classroom-based options exist to allow classroom instruction to continue when problem behavior occurs.			
			8. Instruction & curriculum materials are matched to student ability (math, reading, language).			
			9. Students experience high rates of academic success ($\geq 75\%$ correct).			
			10. Teachers have regular opportunities for access to assistance & recommendations (observation, instruction, & coaching).			
			11. Transitions between instructional & non-instructional activities are efficient & orderly.			

Name of School _____ Date _____

INDIVIDUAL STUDENT SYSTEMS

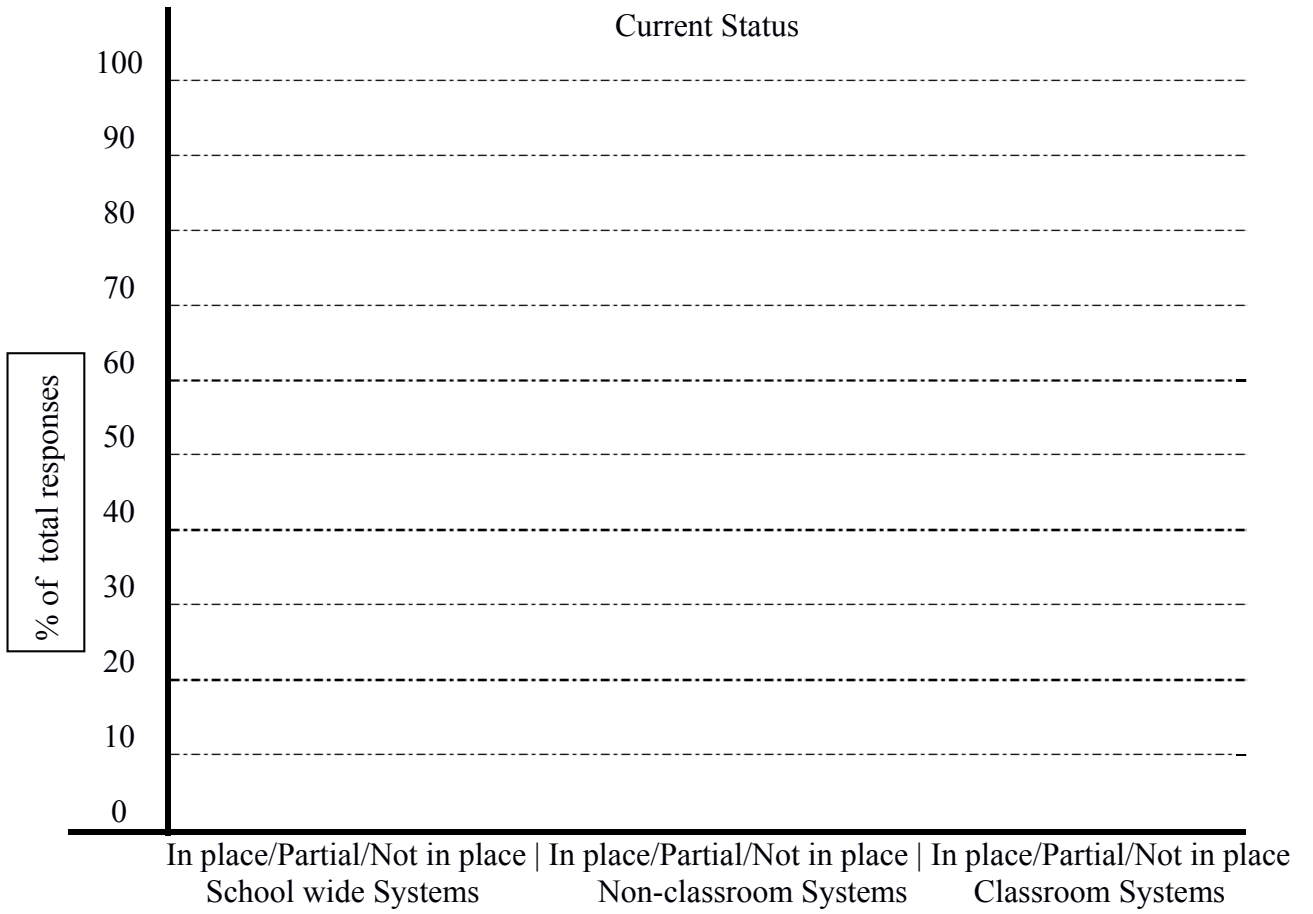
Current Status			Feature	Priority for Improvement		
In Place	Partial in Place	Not in Place		High	Med	Low
			Individual student systems are defined as specific supports for students who engage in chronic problem behaviors (1%-7% of enrollment)			
			1. Assessments are conducted regularly to identify students with chronic problem behaviors.			
			2. A simple process exists for teachers to request assistance.			
			3. A behavior support team responds promptly (within 2 working days) to students who present chronic problem behaviors.			
			4. Behavioral support team includes an individual skilled at conducting functional behavioral assessment.			
			5. Local resources are used to conduct functional assessment-based behavior support planning (~10 hrs/week/student).			
			6. Significant family &/or community members are involved when appropriate & possible.			
			7. School includes formal opportunities for families to receive training on behavioral support/positive parenting strategies.			
			8. Behavior is monitored & feedback provided regularly to the behavior support team & relevant staff.			

Name of School _____ Date _____

EBS Survey Summary Graph

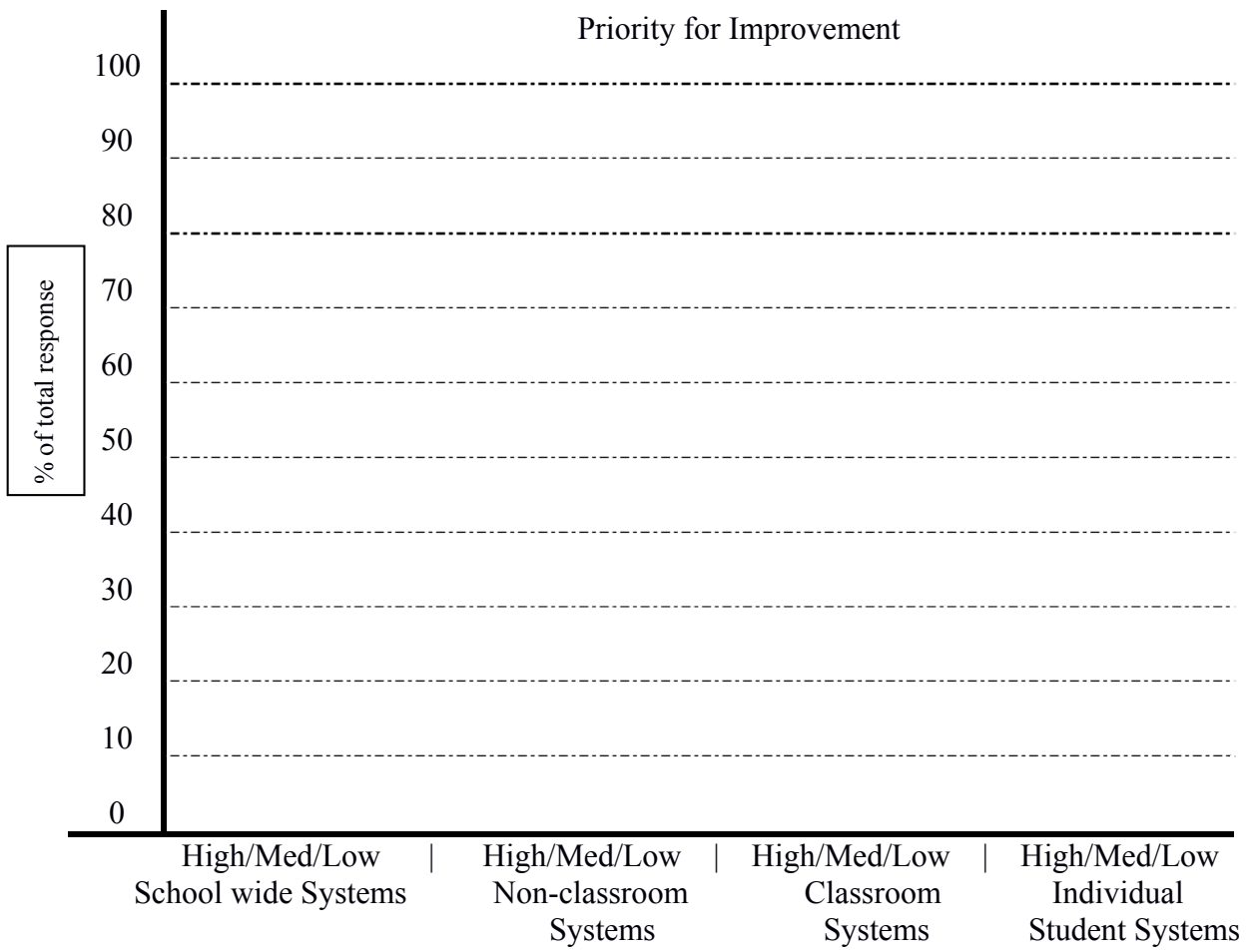
School: _____

Date: _____



Individual Student Systems

Priority for Improvement



EBS Survey Summary

School: _____ Date: _____

Use the EBS Survey Tally page and the EBS Survey Summary Graph to develop an accurate summary & determine initial focus area priorities.

For each system area, follow the steps as outlined below	Overall Perception			
	School-wide	Non-classroom	Classroom	Individual Student
1. Use <i>EBS Survey Summary Graph</i> to rate overall perspective of EBS implementation & circle High, Med. or Low	High Med Low	High Med Low	High Med Low	High Med Low
2. Using <i>EBS Survey Tally Pages</i> , list three major strengths	a. b. c.	a. b. c.	a. b. c.	a. b. c.
3. Using the EBS Survey Tally pages, list three major areas in need of development.	a. b. c.	a. b. c.	a. b. c.	Targeted group or Individual interventions a. b. c.
4. For each system, circle one priority area for focusing development activities				

For each system area, follow the steps as outlined below	Overall Perception			
	School-wide	Non-classroom	Classroom	Individual Student
5. Circle or define activities for this/next year's focus to support area selected for development	<ul style="list-style-type: none"> a. Organize a team b. Define/teach school rules c. Define consequence systems for appropriate & inappropriate behavior d. Define a measurement system linked to school improvement goal e. Establish communication cycles with other school teams f. Develop implementation plan 	<ul style="list-style-type: none"> a. Define/teach routines b. Supervisor booster training & feedback sessions c. Data management d. Maintain team & communication cycle with other school teams e. Develop implementation plan 	<ul style="list-style-type: none"> a. Define/teach routines/ link with school wide rules b. Classroom staff boosters & feedback sessions for creating effective strategies/materials c. Data management d. Maintain team & communication cycle with other school teams e. Develop implementation plan 	<ul style="list-style-type: none"> a. Process for referral & support plan design, implementation & monitoring b. Plan to develop & use FBA to support skills c. Data management d. Maintain team & communication cycle with other school teams e. Develop implementation plan
6. Specify system(s) to: sustain (S) & develop (D).				
7. Use the EBS Annual Action Planning form for determining management, design & implementation activities in the selected focus areas.				

Appendix C

Brief to Participants

Good afternoon, my name is Beth Stratton and I am a graduate student in the Instructional and Curriculum Leadership Department at the University of Memphis. This afternoon I am asking for your help in completing research on Examining the Relationship of School Wide Positive Behavior Supports: Implementation and Teacher Self-efficacy in Rural Middle-School Settings. The focus of this study is to look at the relationship of teacher efficacy as it relates to the implementation of School-Wide Positive Behavior Support.

Today you will be asked to complete two surveys that will take 30-45 minutes to complete. You will only be asked to complete the surveys one time. All responses will be confidential. Participation in this study is voluntary and you may choose to withdraw at any time without prejudice or penalty. The surveys will be completed via a paper-pencil survey. Only the researcher, Beth Stratton has access to the individual results.

Participants that complete both surveys during this second week in May of 2015 will be entered in a drawing for a \$100.00 gift card to Target. The drawing will take place during the third week of May after data has been collected.

If you are interested in participating in the study, I will meet with you briefly to go over the Informed Consent and provide the surveys.

If you have any other questions please feel free to contact me or my faculty advisor Dr. Hunter at the University of Memphis.

Thank you,

Beth Stratton
Graduate Student
ICL Department
The University of Memphis
Lambuth Campus
Phone: (731) 425-1993

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