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Teacher Self-Efficacy Beliefs Related to Chronic Disruptive Behavior

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TEACHER SELF-EFFICACY BELIEFS RELATED
TO CHRONIC DISRUPTIVE BEHAVIOR

A dissertation

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Teachers' Sense of Efficacy Scale

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ABSTRACT

In the current study, elementary teachers' self-efficacy beliefs regarding working with students displaying chronic disruptive behavior (CDB) were explored. CDB was defined as persistent observable actions that have a negative impact on academic or social functioning. To address the infrequently researched construct of self-efficacy beliefs specific to teaching students exhibiting CDB, a modified version of the Teachers' Sense of Efficacy Scale (short form) was used. Factor analysis results indicated the three self-efficacy factors of instructional strategies self-efficacy, classroom management self-efficacy, and student engagement self-efficacy. No significant relationships were found between each of the three types of teacher self-efficacy beliefs and the combination of the demographic variables of education level, years of teaching experience, and gender. No significant difference was found in self-efficacy beliefs among the teaching focus areas of general education, special education, and specialty education. Potential relationships were explored with each type of teacher self-efficacy beliefs and teachers' current and past experience working with students displaying CDB, past training and desire for future professional development related to working with students with CDB, and perceived support when working with students displaying CDB. Past training and perceived support were significantly related to both instructional self-efficacy beliefs and student engagement self-efficacy beliefs. Previous experience, past training, and perceived support were significantly related to classroom management self-efficacy beliefs. Implications for

research and practice regarding teachers' self-efficacy beliefs when working with students displaying chronic disruptive behavior are discussed.

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CHAPTER 1

INTRODUCTION

Researchers exploring teachers' self-efficacy beliefs, defined as teachers' beliefs in their ability to positively impact student performance even for students who are unmotivated or difficult to teach (Bandura, 1997), have consistently found a positive correlation between teacher self-efficacy beliefs and performance of both teachers and students (e.g., Armor et al., 1976; Bandura, 1997; Gibson & Dembo, 1984; Woolfson & Brady, 2009). Despite continued requests by teachers to receive assistance in working with disruptive students (e.g., Bromfield, 2006) and the lifelong risks for students who continue to display chronic disruptive behavior (CDB); (e.g., Barkley, 2003; Hinshaw & Lee, 2003; United States Department of Education, 2001), researchers have only remotely examined teacher self-efficacy beliefs in relation to CDB.

CDB is a term specific to this study that encompasses externalizing behavior, such as acting-out behavior characterized by aggression, impulsivity, or noncompliance. CDB is defined as persistent observable actions which frequently have a negative impact on academic or social functioning and involve one or more of the following: annoying peers or adults, impulsive actions, disobeying rules, physical aggression toward peers or authority figures, verbal aggression toward peers or authority figures, and breaking laws. The term CDB is being

used because it serves to address a commonly noted gap between terms used in education and those used in psychology (Kavale, Forness, & Mostert, 2005). Researchers in the school setting investigating students displaying CDB described this population as having problem behaviors (Algozzine, Christian, Marr, McClanahan, & White, 2008), behavior problems (Farmer et al., 2008), disruptive behavior (Johnson, McGue, & Iacono, 2005), externalizing behaviors (Fowler, Banks, Anhalt, Hinrichs Der, & Kalis, 2008), or externalizing psychopathology (Morgan, Farkas, & Wu, 2009). More specifically within special education, a child or adolescent is classified according to state laws that align with federal special education legislation. Students who display consistent disruptive behaviors often have academic difficulties and may be classified as learning disabled (United States Department of Education, 2001). Others, with more severe and global disruptive behaviors, may be classified as having an emotional behavior disability (EBD). Students classified as EBD typically experience difficulties in school that cannot be attributed solely to social maladjustment and are characterized by one or more of the following: difficulty in learning, lack of healthy interpersonal relationships, decreased or unhappy mood, physical problems, or fears related to school (United States Department of Education, 2007). Within psychology, those with CDB may be referred to as having antisocial behaviors (Hinshaw & Lee, 2003; Moffitt, 1993) or various diagnoses. DSM-IV-TR (American Psychiatric Association, 2000) diagnoses given to disruptive students include Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), Conduct Disorder (CD), and Disruptive Behavior Disorder Not Otherwise Specified (DBD NOS). Those diagnosed with ADHD display inattention or hyperactive-impulsive behaviors. ODD is characterized by “a pattern of negativistic, hostile,

and defiant behavior lasting at least 6 months” (American Psychiatric Association, 2000, p. 102). CD involves behavior that falls into one or more of the following categories: aggression towards people and animals, destruction of property, deceitfulness or theft, and serious violations of rules. DBD NOS involves oppositional or conduct problems that do not meet the full criteria for ODD or CD.

An important aspect of the definition of CDB is that actions must be persistent and observable. This meets one or more of the criteria associated with special education and the above mentioned mental disorders. Specifically, annoying peers or adults, as well as impulsivity, encompass common aspects of ADHD. Disobeying of rules and aggression may be present in children with ADHD but are more common in cases of ODD, CD, and DBD NOS. Breaking of laws relates to CD. The term “chronic disruptive behaviors” was chosen for use in this study because it has an all-encompassing definition, allows for inclusion of often isolated terms, and can be easily understood by teachers as well as psychologists.

Although the term CDB incorporates numerous labels given to disruptive children, an estimate of anywhere between 1% and 25% of the childhood population is included in this category (Hinshaw & Lee, 2003; National Institute of Mental Health, 2007; United States Department of Education, 2007; World Health Organization, 2004). Thus, the average elementary school teacher in a 30 year career will teach upwards of 10 students exhibiting CDB. Regardless of grade level taught or years of experience, teachers report disruptive behaviors as high on their list of professional concerns (Bromfield, 2006). In a recent nationwide survey conducted by the American Psychological Association, 60% of teachers indicated interest in receiving training related to decreasing disruptive behaviors (Coalition for

Psychology in Schools and Education, 2006). This concern is highest among preservice teachers, who consistently report feeling unprepared to handle classroom management (Evertson & Weinstein, 2006). Additionally, new teachers report a need for further assistance in handling classroom behaviors and express desires for more preservice training related to classroom management (Meister & Melnick, 2003).

Current trends within education increase the number of students with CDB encountered by general education teachers. For example, inclusion, the placing of special education students in general education classes, increases the number of emotionally and behaviorally impaired students taught by general education teachers (Algozzine & Algozzine, 2007). Also, as part of Response to Intervention (RTI), school districts are required to document the use of interventions before students are certified with special education needs. Many of these interventions are conducted by classroom teachers (Burns, Jacob, & Wagner, 2008). Historically, students with CDB were removed from general education classrooms, suspended often, and eventually expelled (Algozzine & Algozzine, 2007; United States Department of Education, 2001). However, the federal government has begun taking note of the tendency toward expulsion and is attempting to curtail it (United States Department of Education, 2007). With an increased emphasis on decreasing suspensions and expulsions, classroom teachers are again left with the responsibility of assisting students presenting CDB.

Just as teachers need assistance with students displaying CDB, students need the assistance of their teachers. Children with CDB are at risk for academic failure, expulsion, substance abuse, development of additional mental health disorders, and involvement in the juvenile justice system (American Psychiatric Association, 2000; Essau, 2003; Lambert,

Wahler, & Andrade, 2001; Moffitt, 1993; National Institute of Mental Health, 2007; Sutherland, Lewis-Palmer, Stichter, & Morgan, 2008; Waschbusch, 2002; World Health Organization, 2004). If successful childhood intervention does not occur, CDB escalates, which frequently results in involvement with the juvenile justice system. Since 1960, the number of children and adolescents ages 10 to 18 involved in the juvenile justice system has quadrupled (National Center for Juvenile Justice, 2007). For each individual incarcerated within the juvenile justice system, the annual cost is between \$23,876 and \$216,801 (*Reducing Crime*, 2009; National Legal News, 2008; Urban Strategies Council, 2007). Blomberg (*Reducing Crime*, 2009) estimated an economic gain of \$2,777,148,000,000 within a 10 year period if 60% of adolescents currently involved in the juvenile justice system received services resulting in educational success.

Unfortunately, the difficulties experienced by children and adolescents displaying CDB are not often curtailed by the onset of adulthood. Instead, they are at high risk of living adult lives characterized by unemployment, mental disorders, and frequent incarceration (American Psychiatric Association, 2000; Burke, Lober, & Lahey, 2003; World Health Organization, 2004). The United States spends approximately \$147 billion annually on costs related to mental disorders (World Health Organization, 2004). In 2007, the yearly cost of adult incarceration was \$43,149 per inmate in California, resulting in an annual expenditure of \$7,398,943,000 for the state of California alone (Urban Strategies Council, 2007). Cohen (1998) quantified the lifetime societal cost of a high-school dropout to be between \$469,000 and \$750,000 and the societal cost of a lifetime career criminal to be between \$1.5 and \$1.8 million.

Without assistance, the societal and personal loss for children with CDB is great. Numerous writings declare the cost effective aspect of prevention through early intervention (e.g., Conduct Problems Prevention Research Group, 2007; World Health Organization, 2004). The World Health Organization (2004) suggests that schools assist children by strengthening protective factors such as active engagement in school, positive encouragement for solid academic performance, and identification with school life. Research-based preventative interventions include successful classroom management, increased academic success, and improvement in social skills (World Health Organization, 2004). One topic potentially linked to effective interventions is teacher self-efficacy beliefs, which have been positively correlated with teacher performance as well as student academic and social success (Bandura, 1997). Theoretically, teachers with high self-efficacy beliefs related to working with children displaying CDB should be effective with these students. By developing research-based knowledge of teachers who report high self-efficacy beliefs related to working with students exhibiting CDB, information about these teachers may be utilized to assist other teachers, thus impacting even more students who display CDB.

Statement of the Problem

Bandura's construct of self-efficacy beliefs has been positively correlated with general aspects of both teacher and student success (Bandura, 1977, 1997). Researchers have also found positive correlations between teacher self-efficacy beliefs and context-specific aspects of teaching such as the teaching of science (e.g., Smolleck & Yoder, 2008), math (e.g., Gresham, 2009), and special education (e.g., Woolfson & Brady, 2009). Researchers exploring teacher self-efficacy beliefs and special education students have given minimal attention to students

displaying CDB. Students exhibiting CDB are at risk of lifelong difficulties if they do not receive successful educational interventions. The teachers who teach students with CDB continue to express a need for efficacious educational practices with this population. Currently, there is a lack of research concerning the role of teacher self-efficacy beliefs related to the domain-specific aspect of working with students demonstrating CDB.

Purpose

The purpose of this study was to expand the research involving teacher self-efficacy beliefs into the arena of teaching students with CDB. By analyzing elementary school teachers' demographic information and responses to a modified version of the short form of the Teachers' Sense of Efficacy Scale (TSES); (Tschannen-Moran & Woolfolk Hoy, 2001), I explored the relationship between elementary school teacher self-efficacy beliefs in working with students displaying CDB and various teacher characteristics. The TSES measures teacher self-efficacy beliefs related to working with all students but was modified to make it specific to teaching students exhibiting CDB. Self-efficacy beliefs are situation specific and not necessarily transferable between performance arenas (Bandura, 1997), thus a teacher who has high self-efficacy beliefs in working with general education students may not have the same level of self-efficacy beliefs when teaching students with CDB. This modification from a general to more specific measure of teacher self-efficacy beliefs was consistent with recommendations made by researchers in the field of teacher self-efficacy beliefs (Bandura, 1997; Dellinger, Bobbett, Olivier, & Ellet, 2008; Klassan, Tze, Bets, & Gordon, 2011; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). To assess for the presence of previously found factors of student engagement self-efficacy, classroom management self-efficacy, and

instructional self-efficacy, the factor structure of the modified TSES was investigated. The factors found were then investigated in light of their relationship to the demographic variables of gender, years of teaching, and educational level. The factors found were also utilized to assess potential differences in self-efficacy beliefs among specific focus areas taught by the teachers. Finally, the factors supported by the data were used to assess their potential relationship with the teachers' experiences related to working with students displaying CDB.

Research Questions

The following research questions guided this study:

1. What is the factor structure of the short form of the Teachers' Sense of Efficacy Scale that was modified to reflect teacher self-efficacy beliefs in working with students displaying chronic disruptive behavior?
2. Is there a relationship between teacher reported areas of self-efficacy beliefs when working with students displaying chronic disruptive behavior and the demographic variables of educational level, years of teaching experience, and gender?
3. Is there a difference in teacher self-efficacy beliefs in working with students displaying chronic disruptive behavior as a function of focus area taught?
4. Is there a relationship between teacher reported areas of self-efficacy beliefs when working with students displaying chronic disruptive behavior and teacher experience variables of current number of students taught, past number of students taught, past training, desire for professional development, and perception of support related to working with students displaying chronic disruptive behavior?

Definitions

Chronic disruptive behaviors: persistent observable actions which frequently have a negative impact on academic or social functioning and involve one or more of the following: annoying peers or adults, impulsive actions, disobeying rules, physical aggression toward peers or authority figures, verbal aggression toward peers or authority figures, and breaking laws.

Classroom management: a teacher's ability to control disruptive behaviors, obtain student compliance with classroom rules, calm students who are disruptive, and individualize interventions to manage student behavior (Tschannen-Moran & Woolfolk Hoy, 2001).

Elementary school teachers: individuals teaching kindergarten through fifth grade in public elementary schools.

Instructional strategies: a teacher's ability to use various assessments, utilize a variety of explanations, create quality questions, and implement alternative strategies for teaching (Tschannen-Moran & Woolfolk Hoy, 2001).

Student engagement: a teacher's ability to impact students' beliefs in their ability to perform well on school work, help students value learning, motivate students who have little interest in schoolwork, and assist families to help their children perform well in school (Tschannen-Moran & Woolfolk Hoy, 2001).

Teacher self-efficacy beliefs: a teacher's beliefs in her or his ability to positively impact student performance, even for students who are unmotivated or difficult to teach (Bandura, 1997).

CHAPTER 2

LITERATURE REVIEW

Bandura's Theory of Self-Efficacy

Bandura's theory of self-efficacy offers a framework for understanding teacher behavior. Humans are capable of purposeful control of their behavior and over their environments (Bandura, 1977, 1997; Woods & Bandura, 1989). Because self-efficacy beliefs—"beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3) impact motivation, planning, and competency, they are the strongest human factor influencing behavior. To gain a clearer understanding of self-efficacy beliefs, the relationship of self-efficacy beliefs with other aspects of the self, the processes by which self-efficacy beliefs are formed, and the way they are different from outcome expectations and skills will be described.

Self-efficacy beliefs are part of a larger self-system that mediates human behavior (Bandura, 1997). This self-system is described as being in "triadic reciprocal causation" (Bandura, 1997, p. 6) because its three subsystems are interdependent. These subsystems are environmental, behavioral, and internal personal. Environmental factors, such as familial relationships or interactions with organizations, are external structures that influence people (Woods & Bandura, 1989). Behavior is defined as purposeful human action, which is strongly

influenced by cognitive beliefs about personal efficacy (Bandura, 1982, 1997; Woods & Bandura, 1989). Internal personal factors are affective, biological, and cognitive intrapersonal processes. Self-efficacy beliefs are examples of cognitive internal personal factors and, although they have the largest impact on behavior, are viewed as part of the reciprocal relationship among all aspects of the self-system.

Self-efficacy beliefs are formed through enactive mastery experiences, vicarious experiences, verbal persuasion, and information gathered through physiological states. Bandura (1997) emphasized that individuals vary in the interrelatedness and informativeness they attribute to these four influences; however, for all people the cognitive processing of the information received from these sources impacts self-efficacy beliefs (Bandura, 1982).

Enactive mastery experiences, which are behaviors carried out by a person, provide insight into one's capability and have the strongest impact on self-efficacy beliefs (Bandura, 1997). With successful enactive mastery experiences comes increased self-efficacy. When a person is unable to successfully complete behaviors, self-efficacy beliefs decrease.

Self-efficacy beliefs are also influenced by vicarious experiences, which occur when a person observes others performing tasks. If a person views another individual successfully execute a task, the viewer's self-efficacy beliefs increase. Self-efficacy beliefs of the viewer decrease when the person being viewed does not perform the task successfully (Bandura, 1982).

Increases in self-efficacy beliefs may also come through verbal persuasion, which occurs when information is provided from other people. Verbal persuasion alone does not produce long-term changes in self-efficacy beliefs. Instead, by providing a boost in self-

efficacy beliefs, verbal persuasion provides an impetus for action (Bandura, 1982). If the action is performed well, the information gathered from this successful enactive mastery experience can produce sustained changes in self-efficacy.

Information gathered from physiological states refers to emotional and bodily responses to situations, such as visceral arousal, mood, or attention (Bandura, 1997). If a person experiences moderate physiological changes, self-efficacy beliefs are positively impacted (Bandura, 1982). In contrast, high levels of emotional arousal increase stress, which in turn negatively affects performance and self-efficacy beliefs.

Once formed, self-efficacy beliefs regulate aspirations, behavioral choices, self-assurance, persistence, effort, competence, and affective reactions (Bandura, 1977, 1997; Tschannen-Moran et al., 1998). Self-efficacy beliefs are not stagnant. Instead, when a person behaviorally interacts with his environment, self-efficacy beliefs are influenced by enactive mastery experiences, vicarious experiences, verbal persuasion, and information gathered through physiological states. Self-efficacy beliefs are then cognitively processed and continue to influence behavior, which in turn impacts the development of self-efficacy beliefs. Therefore, self-efficacy beliefs are situation specific, interactive, and continually evolving.

Self-efficacy beliefs not only mediate intentional acts, they also predict activity choice (Bandura, 1977, 1982, 1997; Bandura & Locke, 2003). When compared to people with lower self-efficacy beliefs, those with higher self-efficacy beliefs show an increased tendency to begin and competently complete activities (Bandura, 1997). Those with high self-efficacy beliefs demonstrate higher levels of motivation and self-assurance than their less efficacious

peers. Additionally, when confronted with barriers to successful task completion, those with higher levels of self-efficacy beliefs demonstrate increased effort and persistence.

Skill level alone does not determine behavioral choice because utilization of skills is mediated by self-efficacy beliefs (Bandura, 1997). For example, a person may be a highly skilled carpenter, but if she does not believe she can use the skills, she may fail to act. Additionally, if her self-efficacy beliefs are low, she may act, but the result of her work may be lower than her raw ability. Behavior then is influenced not by the number or quality of a person's skills, but by a person's self-efficacy beliefs concerning the skills. Because life is marked by constantly changing complex situations, successful functioning requires the use of multiple skills that are mediated by strong efficacy beliefs.

Unlike self-efficacy beliefs, which involve people's ideas about their ability to perform specific tasks, outcome expectations are beliefs about the result of a given task (Bandura, 1977, 1997; Bandura & Locke, 2003). It is possible for a person with high self-efficacy beliefs to be motivated and possess positive affect concerning the ability to successfully complete a task; however, because of variables outside of a person's control, high self-efficacy beliefs do not guarantee successful outcomes. Self-efficacy beliefs and outcome expectations are separate but important contributors to behavior.

Teacher Self-Efficacy

In order to gain an understanding of teacher behavior and student performance, the concept of efficacy was introduced into educational research in 1976 (Armor et al.). Since that time, the struggle to define and measure teacher efficacy has produced an evolving field of research characterized by various definitions and instruments. To provide a conceptual

framework by which to interpret and apply teacher self-efficacy research, frequently used research measures and definitions will be reviewed.

In 1976, the Rand Corporation published results of a longitudinal research study regarding school and classroom factors that contributed to increased reading performance of inner-city elementary school students who were primarily minorities from low socioeconomic status (Armor et al., 1976). As part of this study, teacher efficacy was measured by two questions which were combined to yield one score. Rand question 1, “When it comes right down to it, a teacher really can’t do much because most of a student’s motivation and performance depends on his or her home environment” was reverse scored. The next Rand question was: “If I really try hard, I can get through to even the most difficult or unmotivated students” (Berman, McLaughlin, Bass, Pauly, & Sellman, 1977, pp. 159-160). The findings showed that teacher self-efficacy was correlated with the reading performance of inner city students. Teachers who were most effective in teaching reading possessed a strong sense of efficacy regarding their ability to teach inner city students, regardless of students’ motivation or home environment (Armor et al., 1976).

Another study by the Rand Corporation investigated the relationship between teacher characteristics and the implementation, as well as the continuation, of federally funded educational improvement programs in 100 American schools (Berman et al., 1977). Teacher efficacy was defined as “the extent to which the teacher believed he or she had the capacity to affect student performance” (Berman et al., 1977, p. 137). Teacher efficacy, as represented in an overall score formed by combining the answers to questions utilized in the 1976 study, was positively related to the number of project goals obtained, amount of teacher change, student

performance, as well as continued use of project methods and materials. The Rand studies, which were based on Rotter's (1954) locus of control theory, conceptualized teacher efficacy as a measure of teacher belief concerning ability to control learning.

In order to create a conceptual framework to better understand teacher efficacy, Ashton, Webb, and Doda (1983) combined the Rand studies' definition, Bandura's 1977 article involving the role of self-efficacy in behavioral change, Seligman's theory of learned helplessness (Abramson, Seligman, & Teasdale, 1978), and their own qualitative research. They separated teacher efficacy into teaching efficacy, personal efficacy, and personal teaching efficacy. Teaching efficacy was related to Rand question 1 and was defined as "teachers' beliefs about the general relationships between teaching and learning" (Ashton et al., 1983, p. 2). Personal efficacy, which was related to Rand question 2, was defined as "the teacher's general sense of effectiveness as a teacher" (Ashton et al., 1983, p. 2). Personal teaching efficacy was defined as "an integration of personal efficacy and teaching efficacy" (Ashton et al., 1983, p. 2). Additionally, they conceptualized teacher efficacy as a constantly evolving situation-specific construct influenced daily by teachers' interactions with students, administrators, other teachers, and parents. Their grounded theory supported a bi-directional relationship between teachers' sense of efficacy and teachers' behavior. Further, they postulated reciprocal relationships between teachers' and students' sense of efficacy, teachers' sense of efficacy and students' behavior, and teachers' sense of efficacy and student achievement. In addition to interactions between teachers and students, they identified contextual factors such as school conditions, teacher to teacher interactions, organizational structure, and parent to teacher interactions as contributing factors to teacher efficacy.

In 1984, building upon the Rand studies (Armor et al., 1976; Berman et al., 1977), Bandura's theory (1977), and Ashton et al.'s (1983) conceptual framework, Gibson and Dembo published results based on the development and validation of the 30-item Teacher Efficacy Scale (TES). The scale yielded two factors: personal teacher efficacy (PTE) and general teacher efficacy (GTE). PTE was defined as the "belief that one has the skills and abilities to bring about student learning" (Gibson & Dembo, 1984, p. 573) and was related to the second Rand question, Ashton et al.'s definition of personal teacher efficacy, and Bandura's concept of self-efficacy. GTE was defined as "the degree to which students can be taught given their family background, socioeconomic status (SES), and school conditions" (Gibson & Dembo, 1984, p. 574). GTE corresponded to the first Rand question, Ashton et al.'s concept of teaching efficacy, and Bandura's (1997) idea of outcome expectation. Overall, Gibson and Dembo's research supported a multidimensional conceptualization of teacher efficacy, and their measure became the most frequently used instrument in the study of teacher self-efficacy.

Gibson and Dembo's (1984) measure assessed general teacher self-efficacy beliefs, but failed to address the specificity of self-efficacy beliefs. Grounded in Bandura's (1977) theory, Ashton et al. (1983) conceptualized self-efficacy beliefs as specific to individual teaching situations and not necessarily transferable (Bandura, 1977, 1997; Tschannen-Moran et al., 1998). This suggests that a teacher may feel confident teaching certain types of students or academic subjects; however, this does not guarantee the same teacher will possess confidence in different teaching situations. The specific nature of self-efficacy beliefs led to the development of studies related to teacher efficacy and science education (Bleicher, 2004; Enochs & Riggs, 1990; Smolleck & Yoder, 2008), math education (Enochs, Smith, & Huinker,

2000; Gresham, 2009; Swars, Daane, & Giesen, 2006), special education (Brownell & Pajares, 1996; Coladarci & Breton, 1997; Meijer & Foster, 1988; Woolfson & Brady, 2009), classroom management (Egyed & Short, 2006; Emmer & Hickman, 1991; Leroy, Bressoux, Sarrazin, & Trouilloud, 2007; Soodak, Podell, & Lehman, 1998; Woolfolk & Hoy, 1990; Woolfolk, Rosoff, & Hoy, 1990), and grade level taught (Raudenbush, Rowan, & Cheong, 1992; Rimm-Kaufman & Sawyer, 2004). By focusing on specific aspects of teaching, researchers have remained theoretically consistent with the task and domain specificity of self-efficacy beliefs (Bandura, 1997), while also avoiding research results that are so general they lack applicability to the daily jobs of teachers.

Near the end of the 20th century the TSE fell under criticism for numerous reasons. Some studies found inconsistent loading of items on the GTE and PTE factors (e.g., Coladarci & Breton, 1997). PTE and GTE demonstrated minimal correlation and, thus, failed to yield an overall self-efficacy score (Tschannen-Moran et al., 1998; Woolfolk & Hoy, 1990). Despite Gibson and Dembo's (1984) assertion that GTE measures outcome expectation, the questions on the GTE factor reflect general opinions about teaching. This is theoretically inconsistent with the personal nature of outcome expectations. Because the 1984 scale was never updated, critics asserted that the questions do not reflect the job description of modern day teachers (Dellinger et al., 2008; Tschannen-Moran & Woolfolk Hoy, 2001). These concerns led to the development of new measures.

One example is the Ohio State Teacher Efficacy Scale (OSTES), currently called the Teachers' Sense of Efficacy Scale (TSES); (Tschannen-Moran & Woolfolk Hoy, 2001). The desire to closely align to Bandura's theory propelled the development of the TSES. The results

of the TSES produced an overall teacher self-efficacy belief score, as well as three subscale scores that represent distinct realms of teacher self-efficacy beliefs. The first subscale relates to instructional strategies and reflects teachers' beliefs in personal ability to effectively instruct students. The second subscale involves classroom management and represents teachers' beliefs in personal ability to effectively manage student behavior and classroom activities. The third subscale reflects student engagement, which denotes teachers' beliefs in ability to effectively motivate student involvement in academic tasks. The three factors were found to be stable in the initial development of the instrument. In further studies, these factors continued to be supported (e.g., Tschannen-Moran & Woolfolk Hoy, 2007; Wolters & Daugherty, 2007). The data from Tschannen-Moran and Woolfolk Hoy's 2007 study involving 255 teachers supported the three self-efficacy factors involving instructional strategies, classroom management, and student engagement. Also, Wolters and Daugherty (2007) found support for the three factors shown in previous research. Overall, the TSES serves as a modern measure of teacher self-efficacy beliefs by closely aligning to Bandura's theory, reflecting the role of 21st century teachers, providing one overall score, and assessing specific domains of self-efficacy beliefs.

Teacher Self-Efficacy Studies

General Findings

In general, research results related to teacher self-efficacy indicate that teacher self-efficacy is an important concept in understanding both teacher and student performance. For teachers, self-efficacy beliefs are a contributing factor in professional satisfaction and competent job performance (Armor et al., 1976; Berman et al., 1977; Gibson & Dembo, 1984; Henson, Kogan, & Vacha-Haase, 2001). Researchers have shown that in comparison to

teachers who reported low self-efficacy beliefs, teachers with high self-efficacy beliefs demonstrated increased motivation, effort, self-assurance, energy, and persistence (Ashton et al., 1983; Gibson & Dembo, 1984; Tschannen-Moran et al., 1998). Teachers with high self-efficacy focused more on their professional roles, the effectiveness of their instruction, and their impact on student achievement (Ashton et al., 1983; Gibson & Dembo, 1984; Hall, 1992; Tschannen-Moran et al., 1998). Highly efficacious teachers also reported increased belief in their responsibility and ability to positively impact student outcomes (Hall, 1992; Tschannen-Moran et al., 1998); were more committed to and reported positive attitudes toward the teaching profession (Tschannen-Moran et al., 1998); and more frequently implemented best instructional practices such as a consistent focus on academics, large group instruction, varied types of assessment feedback, personal improvement of instructional practice, and varied as well as progressive instructional methods (Ashton et al., 1983; Berman et al., 1977; Gibson & Dembo, 1984; Henson et al., 2001; Tschannen-Moran & Woolfolk Hoy, 2001; Tschannen-Moran et al., 1998). When working with challenging students, teachers with high self-efficacy beliefs persisted longer, experimented with different teaching modalities, invested more time in planning, and were less critical toward students who made mistakes (Ashton et al., 1983; Henson et al., 2001). Overall, self-efficacy beliefs were correlated with teacher performance, empowerment, potency, independence, and career satisfaction (Tschannen-Moran & Woolfolk Hoy, 2001; Edwards, Green, & Lyons, 2002).

In addition to contributing to teacher effectiveness, researchers have shown that high self-efficacy beliefs in teachers contribute to higher self-efficacy beliefs in students, which in turn relates to positive academic and social outcomes for students (Armor et al., 1976; Ashton

et al., 1983; Berman et al., 1977; Henson et al., 2001). In his 1997 book entitled *Self-Efficacy: The Exercise of Control*, Bandura explained the development of self-efficacy beliefs in the lives of children and adolescents. When students master cognitive skills, they develop a strong sense of self-efficacy, which in turn increases their motivation and academic performance.

Specifically, high self-efficacy beliefs increase student functioning in the areas of problem solving, persistence, critical thinking, use of already acquired cognitive skills, and management of academic work. Additionally, students with high self-efficacy beliefs are more prosocial, more popular, and experience less rejection than their less efficacious peers. Conversely, students who struggle with academic achievement develop low self-efficacy beliefs. This commonly leads to a cycle characterized by low academic performance, negative peer interactions, and low self-efficacy beliefs.

Demographic Variables

Researchers have examined the relationship between teacher self-efficacy and other teacher characteristics such as age, gender, and educational level. Edwards (1996) found that a teacher low in self-efficacy may be characterized as being a male high school teacher with little teaching experience who utilizes a concrete understanding of the teaching profession. Male teachers in Edward's study comprised 10% of the 430 participants, while the majority of teacher self-efficacy studies, especially those conducted with elementary school teachers, have a lower percentage of male participants than Edward's study. Similarly, Coladarci and Breton (1997) noted that among their 378 special education teachers those who were older, female, and satisfied with their positions as resource room teachers reported high self-efficacy. Among a sample of 52 elementary school teachers, Ross, Cousins, and Gadalla (1996) correlated student

success, student engagement, and teacher preparedness with self-efficacy beliefs. They found that teachers with higher levels of self-efficacy beliefs correlated to student success were more likely to be women with Master's degrees. Teachers with higher levels of self-efficacy beliefs correlated to student engagement did not have Master's degrees, and teachers who reported higher amounts of self-efficacy beliefs correlated to their own feelings of preparedness tended to be males. In their summary of self-efficacy research, Tschannen-Moran and Woolfolk Hoy (2007) reported a lack of correlational significance or predictability between teacher self-efficacy and demographic variables.

Teaching Experience

Teaching experience has been found to be significantly related to teacher self-efficacy. However, the teacher self-efficacy literature has not utilized standardized categories of teacher experience, although some classifications occur regularly. Preservice teachers are those who are still enrolled in college classes and are preparing for teacher certification. Often preservice teachers are completing their internships, which are commonly referred to as student teaching experiences. Inservice teachers are currently classroom teachers and have been divided into novice and career categories. Most frequently, novice teachers are beginning teachers in their first year of teaching; however, a few studies utilize the classification of novice teacher for those within their first five years of teaching. Career teachers are those with over five years of experience. Some studies sub-divide the career teacher category into classifications such as early career and late career (e.g., Pigge & Marso, 1993).

Preservice teachers frequently, although not universally, report increases in self-efficacy over the course of their student teaching experience (Tschannen-Moran et al., 1998). For

example, Housego (1992) had 177 secondary student teachers complete the TSE four times over the course of their student teaching year. Participants experienced increased personal teacher efficacy (PTE) but decreased efficacy in relation to their beliefs about teaching (GTE). Housego found significant increases in PTE among student teachers who taught academic subjects but not for those teaching art, music, theatre, or physical education.

In order to gain an understanding concerning the specific influences on self-efficacy during student teaching, Aydin and Woolfolk Hoy (2005) had 70 preservice graduate students, who were preparing for teacher certification, complete the TSES short form. They also collected data related to the participant's perception of support from students, mentor teacher, and university supervisor; quality of relationship with mentor teacher; and previous teaching experience. Relationship with mentor and support from each of the above mentioned sources were positively correlated to self-efficacy, while previous teaching experience was negatively correlated. Aydin and Woolfolk Hoy suggested that self-efficacy beliefs may be impacted during student teaching by factors other than merely the experience of student teaching.

The tendency for self-efficacy beliefs to increase during teacher preparation was found by Woolfolk Hoy and Burke Spero (2005) in a longitudinal study that assessed self-efficacy beliefs of 53 participants. Using the short form of the TSES, the participants were assessed when entering undergraduate education classes, after student teaching, and at the end of their first teaching year. PTE and GTE increased during undergraduate teacher preparation and throughout student teaching; however, they declined during the novice teaching year. For novice teachers, efficacy beliefs were related to satisfaction with teacher preparation as well as

perceived support from colleagues, administrators, parents, and the community. In this study, both experience and perceived support were related to self-efficacy beliefs.

In response to concerns regarding attrition of newly hired teachers and lack of effective teachers in urban settings, Chester and Beaudin (1996) administered surveys to 173 newly hired teachers in September and February of their novice teaching year. Self-efficacy was measured with an instrument created by incorporating questions from two previously used self-efficacy measures, one of which was Gibson and Dembo's (1984) TES. A confirmatory factor analysis of this modified instrument validated the presence of a factor related to personal efficacy similar to personal teacher efficacy (PTE) and another factor related to external factors similar to general teacher efficacy (GTE). Both factors were incorporated into one self-efficacy score. Results showed that changes in self-efficacy, during the first year of teaching, were mediated by teachers' prior experiences and age. Specifically, for teachers with no prior teaching experience and above the age of 30, self-efficacy increased while, for those under the age of 30, self-efficacy decreased. Regardless of age, for newly hired teachers with previous teaching experience there was a decrease in self-efficacy throughout the novice year. Also, novice teachers with no prior teaching experience, who perceived high levels of collaboration with other school personnel and who experienced more supervision in the form of assessment of their classroom performance, reported increased self-efficacy. These increases were more substantial for teachers who were older. Novice teachers with prior teaching experience, regardless of age, reported higher levels of self-efficacy when they perceived high levels of collaboration and more supervisor observations. Chester and Beaudin's research illustrates the

complex relationships between self-efficacy changes, other teacher characteristics, and school environment.

Other studies have compared novice and career teachers in relation to teacher self-efficacy. Among their sample of 255 participants who completed the TSES, Tschannen-Moran and Woolfolk Hoy (2007) defined novice teachers as those with three or fewer years of experience. All other teachers were classified as career teachers. Novice teachers reported slightly lower overall self-efficacy scores than career teachers. Significant differences between novice and career teachers were also found in the subscales of classroom management and instructional strategies. Again, novice teachers were less efficacious than career teachers. Also for novice teachers, teaching resources, as well as support from colleagues and the community, explained a large percentage of variance in self-efficacy beliefs. Professional performance was moderately related to the self-efficacy beliefs of novice teachers. For career teachers, self-efficacy judgments were highly related to self-efficacy beliefs. Professional performance was moderately related to self-efficacy beliefs and support from the community and parents were weakly correlated with self-efficacy beliefs. The results of this study provide support for the hypothesis that novice teachers have lower overall self-efficacy than their experienced colleagues. Additionally, sources of variance in self-efficacy beliefs may be different for experienced and novice teachers.

By utilizing the TSES with 1024 inservice teachers, Wolters and Daugherty (2007) provided insight into the nature of higher self-efficacy beliefs for experienced teachers. Participants were grouped as first year teachers, teachers with one to five years of experience, and teachers with more than five years of experience. Instead of using the overall self-efficacy

score, the three subscale scores, which included instructional self-efficacy, classroom management self-efficacy, and student engagement self-efficacy, were used. When compared with teachers having more than five years of experience, those with less than five years of experience reported significantly lower levels of instructional and classroom management self-efficacy. When first year teachers alone were considered, their efficacy scores for instruction and classroom management were significantly lower than teachers with greater than one year of experience.

Although self-efficacy is generally higher in experienced teachers, understanding potential changes in individual self-efficacy among career teachers has been infrequently studied. This is due in part to a lack of longitudinal research related to teacher self-efficacy (Tschannen-Moran & Woolfolk Hoy, 2001). One exception is a study by Ross (1994) in which the TSE was administered to 92 high school inservice teachers before, midway through, and at the end of an eight month training regarding cooperative learning. There were no changes found in the PTE of participants. Although the lack of significance may be a product of the quality of training, it is also likely that this study supports Bandura's (1997) conceptualization of self-efficacy beliefs as difficult to change once they have been formed unless a significant event occurs to impact them. Overall, teachers' self-efficacy beliefs are viewed to be most malleable early in teaching practice and more difficult to change as teachers gain experience (Tschannen-Moran & Woolfolk Hoy, 2007). Thus, experienced teachers with already established professional identities are less likely than their more novice peers to experience changes in self-efficacy.

Special Education

Students with chronic disruptive behaviors (CDB) often qualify for or receive special education services. If they qualify for special education services, they may be classified as emotionally behaviorally disabled (EBD) or, because that classification is often associated with stigma and requires the school district to provide extensive services, they may be classified as learning disabled. At times, they do not obtain special education classifications but, if testing occurred, would be eligible for services. Whether students with CDB are receiving special education services or not, the researchers who explore the relationship between teacher self-efficacy and various aspects of special education provide insight into working with students displaying CDB.

To explore the relationship between teacher efficacy and the evaluation of problem behaviors as well as the likelihood of referring for special education services, Meijer and Foster (1988) had 241 second grade teachers in the Netherlands respond to case studies and complete an adaptation of the Dutch Teacher Efficacy Scale which measures PTE. In response to the case studies, teachers were asked to predict if the child would present a problem in class and if they would refer the child for special education services. Overall, the results indicated that teachers were more likely to refer students with both behavior and learning problems than children who displayed either behavior or learning problems. Teacher self-efficacy was inversely related to chances of referral and teacher prediction that a child would present a problem. This study's results showed the role that self-efficacy plays in teacher referral for special education services.

Mainstreaming involves placing special education students into general education classrooms instead of special education classes. As this became the norm, teachers experienced challenges associated with integration of special needs students into general education classes. In 1988, Stein and Wang studied the implementation of the Adaptive Learning Environments Model (ALEM) program, which focuses on assisting general education teachers who obtain the skills needed to effectively teach academic and social skills to both special and regular education students. Throughout the school year, questionnaires, behavioral observations, and self-reports were collected from 14 kindergarten through fourth grade teachers. Stein and Wang developed an instrument of self-efficacy specific to the ALEM program and conceptually similar to PTE. As the year progressed, teachers with higher levels of program implementation reported increased teacher self-efficacy and increased belief in the value of the program. Teachers who reported high implementation of their individualized program goals also reported higher levels of self-efficacy. Because of the small sample size and the use of a non-standard measure of self-efficacy beliefs, the results of this study should be considered with caution. However, this study highlights the possible role of self-efficacy in implementation of new classroom practices that are helpful for special education students.

Teachers attempting to assist students with special education needs and behavioral difficulties often benefit from consultation with other professionals such as school psychologists. DeForest and Hughes (1992) divided 102 elementary school teachers into groups based on their scores on the PTE scale of the TSE. The 30 who scored highest on PTE and the 30 who scored lowest were shown a videotape depicting a consultation between a teacher and school consultant concerning a second grade boy who was having difficulty with

disruptive behavior and assignment completion. When compared with teachers who reported low personal efficacy, those with high personal efficacy were more likely to view the consultant as competent and the intervention suggested as suitable. The results of this study indicate that teachers with higher self-efficacy are more likely to consider consultants and their interventions as valuable in assisting students.

In order to explore teachers' beliefs concerning difficult to teach students, Soodak and Podell (1994) had 110 elementary school teachers complete the TSE and respond to a case study. The case study involved a third grade student who had difficulty reading, was occasionally impulsive, at times disrupted the class, and lived in an apartment with his mother and brother due to the recent divorce of his parents. Overall, 88.2% of the sample recommended teacher-based strategies, such as utilizing emotional support strategies or making instructional changes, and 94.5% of the participants suggested solutions outside of the classroom, such as assessment of the student or consultation with other school personnel. Based on their responses to the case study, respondents were separated into three groups: more teacher-based responses, more non-teacher-based responses, and equal amounts of teacher-based and non-teacher-based suggestions. Participants who made more teacher-based responses had significantly higher levels of PTE than participants who made more non-teacher-based responses. When both of these two groups were compared with the participants who made equal amounts of teacher and non-teacher based responses, there was no significant difference in PTE. Additionally, there were no significant differences among the groups in relation to GTE. The results of this study indicate that, when working with students displaying

emotional and learning problems, teachers with higher PTE more frequently utilized classroom-based interventions than their less efficacious peers.

To gain a greater understanding of the impact that teachers' self-efficacy beliefs have upon teacher perception of potential success for mainstreamed students with behavior and learning problems, Brownell and Pajares (1996) created a self-report survey involving the constructs of special education inservice, preservice preparation, student SES, administrative support, collegiality, teacher efficacy, and teacher success. Their research was based on the hypothesis that because teachers with higher efficacy will persevere when individualizing instruction for students with disabilities, they will be more successful in working with students with behavioral and learning difficulties. The survey was completed by 128 second grade teachers. Path analysis indicated that self-efficacy had the greatest positive effect on teacher reported success. Also, preservice preparation had a strong positive effect on teacher reported self-efficacy.

Despite the preference for inclusion of students with learning and behavioral difficulties, some of these students will spend a portion of their day being taught in resource rooms, which contain fewer students and are taught by special education teachers. To specifically concentrate on self-efficacy and special education resource room teachers, Coladarci and Breton (1997) adapted the TES by changing the wording of statements from "teacher" to "resource room teacher" and from "classroom" to "resource room." Additionally, they substituted two items on the TSE with the two Rand questions. This adapted TSE and a supervision rating form were completed by 378 participants, which represented 44% of special education resource teachers in Maine. Higher levels of PTE were found among older teachers,

teachers who were female, those who reported their experiences when supervised as useful, and those who were satisfied with their positions as resource room teachers.

Because teachers' attitudes influence the success of mainstreamed students, Soodak et al. (1998) utilized a sample of 188 teachers, of who 71% taught elementary school, to assess teachers' responses to inclusion. Self-efficacy was measured with a shortened version of the TSE. The previously supported factors of PTE and GTE were found. Attitude toward inclusion was measured along two domains, anxious-calm and hostile-receptive. Regardless of years of experience, teachers had the greatest hostility toward the inclusion of students with behavioral and learning difficulties as opposed to students with hearing impairments or other physical handicaps. Teachers with higher levels of PTE reported being less anxious regarding inclusion. Teachers who utilized differentiated instruction and had the highest GTE were the most receptive to inclusion. In comparison, teachers with low GTE were hostile toward inclusion regardless of the type of instruction they utilized. Teachers with low PTE and the perception that collaboration was not available were more hostile toward inclusion than teachers who perceived consultation to be available. Overall, teachers who were more efficacious reported less anxiety and hostility toward inclusion.

Egyed and Short (2006) utilized a shortened TSE and response to a vignette about a child with disruptive behavior. Within their sample of 106 elementary school teachers, there was no relationship between self-efficacy and decision to refer for special education services. A significant correlation between PTE and years of experience was found. Additionally, a significant correlation was found between PTE and behavior management training; however, the way in which this training was assessed was not clearly stated in the article.

In their 2009 publication, Woolfson and Brady explored the relationship between self-efficacy beliefs, professional development, experience, locus of causality, stability, and controllability when working with students who have learning difficulties in the cognitive realm. The participants were 199 elementary school teachers in Scotland. They completed the TSES short form, which was adapted to reflect students with learning difficulties. Teachers who reported higher self-efficacy beliefs related to working with students who had learning difficulties attributed student academic failures to external factors, such as the instructional material or the teacher. Further, the more efficacious teachers viewed the student difficulties as more changeable than did the less efficacious teachers. Finally, teachers with higher efficacy believed that students had more control over their learning difficulties.

Child Behavior and Psychopathology in the Classroom

Regardless of whether students displaying CDB behavior are described by researchers as exhibiting emotional disturbance (Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005), disruptive behavior (Johnson et al., 2005), externalizing behaviors (Fowler et al., 2008), or antisocial behaviors (Moffitt, 1993), researchers have found that students with CDB experience impairment in academic, behavioral, and social functioning (Barkley, 2003; Farmer et al., 2008; Hinshaw & Lee, 2003). When compared with peers, students with CDB academically perform statistically significantly lower (Wagner et al., 2005; Wagner et al., 2006). Additionally, they show decreased cognitive ability and deficits in expressive as well as receptive language (Wagner et al., 2005). Behaviorally, they have been described as exhibiting externalizing behaviors which include fighting, yelling at teachers, refusing to complete school work, disrupting class, and disrespecting school personnel (Algozzine et al., 2008; Nicholson,

2005). Socially, they have fewer social skills and less self control than their peers (Wagner et al., 2005). They also experience more conflict in their relationships with parents, peers, and teachers (Nicholson, 2005; Wagner et al., 2006). Their impairments in academic, behavioral, and social functioning frequently result in referrals to the school principal, which often lead to suspensions or expulsions (Algozzine et al., 2008; Nicholson, 2005). To assist students with CDB, numerous school employees, such as special education teachers, school psychologists, social workers, and school counselors, are involved in their academic careers (Wagner et al., 2005). Despite school personnel's attempts to assist students with CDB, they are at long-term risk of school expulsion, school failure, high school dropout, substance abuse, and involvement in the criminal justice system (Barkley, 2003; Farmer et al., 2008; Hinshaw & Lee, 2003; Nicholson, 2005; Wagner et al., 2005).

To gain an in-depth understanding of the characteristics of students receiving special education services due to a classification of emotional disturbance (ED), Wagner and fellow researchers completed two studies using national data (Wagner et al., 2005; Wagner et al., 2006). Their 2005 publication included a total sample of 3,307,067 students of which 204,725 were classified as ED. When compared with the general population as well as students with other disabilities, they found that students with ED were statistically more likely to be male and African American, living in poverty, having a single parent, coming from an unemployed household, having parents who were not high school graduates, living with another person who had a disability, and attending multiple schools throughout their educational careers. Wagner and associates' 2006 study involved a sample of 1212 students classified as ED. By comparing students with ED to students in the general student population, they found that students with

ED attended schools that had a statistically significant larger population of special education students. Also, they found that, compared with other students who had special education classifications, those with ED spent less time in general education classes. Although their teachers provided them with academic accommodations, students classified as ED were infrequently provided with additional academic support such as tutoring. Overall, Wagner et al.'s (2006) research provided support for the hypothesis that students with CDB experience more environmental risk factors for long-term difficulties and are in school environments in which they may not be given optimal academic assistance.

Research related to CDB throughout the life cycle provides evidence that elementary school students displaying CDB are at risk of lifetime difficulties. For example, Moffitt's (1993) life-course-persistent theory of antisocial behavior posited that, when compared to adolescents who do not have a history of CDB in childhood, those with CDB are at higher risk of becoming involved with the criminal justice system and developing antisocial personality disorder. Essau's (2003) review of the literature indicated that 25% of children with ADHD were at risk of later developing conduct disorders (CD). Algozzine et al.'s 2008 demographic research found that as students progressed through elementary school their disruptive behavior increased. Farmer et al. (2008) found that elementary students who demonstrated behavioral problems which negatively impacted their academic, behavioral, and social functioning later experienced adolescent difficulties such as school failure, high school dropout, substance abuse, and involvement in the criminal justice system. Additionally, in their longitudinal research involving a national sample of 4674 students, Morgan et al. (2009) found that

kindergarten students who exhibited externalizing behaviors were four times more likely than other students to display externalizing behaviors in third and fifth grade.

Researchers have examined potential academic and psychological causes of CDB. Students with CDB consistently perform academically lower than their peers (Wagner et al., 2006). Explanations for these deficits include low reading comprehension scores (Nicholson, 2005), low scores on intelligence tests (Farmer et al., 2008), and poor pre-reading skills in kindergarten (Morgan et al., 2009). Students classified with ED who receive special education assistance have been found to make less progress in reading than students with learning disabilities (Anderson, 2001). As it relates to mental health, students with CDB are often diagnosed with ADHD, ODD, CD, depression, or anxiety (Barkley, 2003; Hinshaw & Lee, 2003; Lahey, Loeber, & Burke, 2002; Waschbusch, 2002). These disorders frequently occur together. Lambert et al. (2001) concluded that “for children with CD, having two or more primary diagnoses was the rule, not the exception” (p. 120). Waschbusch (2002) found a statistically significant rate of comorbidity between ADHD combined type and CDB. Lahey et al. (2002), in their seven year longitudinal research involving 168 participants, found that as CD symptoms increased so did symptoms of other disorders such as ODD, ADHD, depression, and anxiety. They termed this phenomenon “dynamic comorbidity” and suggested that underlying genetic influences may explain the interrelationships between the symptoms of CD and other disorders. For students displaying CDB, comorbidity and impairment were positively correlated, thus, students with greater psychopathology also had more difficulties in the school setting (Essau, 2003; Waschbusch, 2002).

Understanding comorbidity assists in gaining insight into the complex causes of CDB. Other contributors to childhood CDB involve developmental processes, personal characteristics, environmental factors, and genetics. Moffit (1993) stated that “children’s neuropsychological problems interact cumulatively with their criminogenic environments across development, culminating in a pathological personality” (p. 674). In their investigation utilizing 800 sets of 11 year old twins, Johnson et al. (2005) found strong genetic contributors to inattention, disruptive behaviors, and academic ability. Additionally, they noted that the underlying genetic similarities made it difficult to determine distinct etiologies for these conditions. The environmental influence on genetic vulnerabilities was complicated by the participants’ school environments, which magnified rather than minimized these vulnerabilities. Farmer et al. (2008) found evidence that CDB can be explained by a complex relationship between inattention, intelligence quotient, behavior, pre-reading skills, and self-esteem.

A large portion of the school environment for students exhibiting CBD involves the relationships they experience with their teachers. For students displaying CDB, relationships with teachers that are low in conflict and include trust as well as warmth have been found to decrease negative behaviors (Hughes, Cavell, & Wilson, 2001) and increase academic performance (Baker, Grant, & Morlock, 2008). Unfortunately, researchers have found that teacher relationships with students exhibiting CDB tend to be of low quality and marked by negative interactions (Nelson & Roberts, 2000; Sbarra & Pianta, 2001). Teachers reported feeling unprepared, thus less motivated to work with students classified as ED (Cook, 2002; Wagner et al., 2006). They also reported high levels of stress related to working with students

diagnosed with ADHD and even higher levels of stress when working with students displaying comorbid symptoms of ADHD and oppositional or aggressive behaviors (Greene, Beszterczey, Katzenstein, Park, & Goring, 2002). This stress, coupled with lack of support from other school employees, places teachers at higher risk for leaving the teaching profession (Thornton, Peltier, & Medina, 2007). Tsouloupas, Carson, Matthews, Grawitch, and Barber's (2010) research with 610 teachers explored teacher self-efficacy beliefs related to classroom management, perception of student misbehavior, teacher turnover intentions, and emotional exhaustion. Their research suggested that teacher differences in teacher self-efficacy beliefs related to managing student misbehavior had an influence on perception of student misbehavior, emotional exhaustion, and turnover intentions.

Conclusion

Since 1976 when Bandura's construct of self-efficacy was first researched within the teaching profession, teacher self-efficacy has been found to impact motivation, planning, and competency of both teachers and students. By reviewing general aspects of Bandura's theory, the evolution of the measurement of teacher self-efficacy beliefs, and studies related to the relationship between teacher characteristics and self-efficacy beliefs, some trends have emerged. Researchers have found significant relationships between teacher self-efficacy beliefs and the demographic variables of gender, education, career satisfaction, age, and experience. Generally, teachers with more experience have higher self-efficacy beliefs than inexperienced teachers, and teacher self-efficacy beliefs are most malleable earlier in teachers' careers. Teacher's perception of support in the work environment has been correlated with self-efficacy beliefs. Also, teachers with higher self-efficacy beliefs support the development

of classrooms characterized by authentic interpersonal interactions in which students are engaged in the learning process. Researchers exploring teacher self-efficacy beliefs and work with special education students have supported relationships between teacher self-efficacy beliefs and decreased anxiety toward inclusion, willingness to implement strategies helpful to special education students, and perception of student difficulties as changeable. Overall, researchers investigating teacher self-efficacy beliefs have found that teachers with higher self-efficacy beliefs are professionally successful when they are experienced, feel supported, can create positive classroom environments, and can implement classroom best practices for special education students. Researchers have shown that students displaying CDB have both short-term and lifelong impairments in academic, behavioral, and social functioning. Understanding the causes of CDB requires a comprehension of the complex interplay between developmental processes, individual differences, genetics, and environmental risk. The environment of school, especially as it relates to relational interactions between students exhibiting CDB and their teachers, has produced challenges for both this group of students and their teachers. Fortunately, researchers have begun to explore teacher self-efficacy beliefs related to student misbehaviors.

CHAPTER 3

METHODOLOGY

Participants

Participants were 206 certified elementary school teachers from four school districts in the Midwestern portion of the United States. They were primarily female (90%) and White (84%); (Table 1). The majority of participants indicated they had attained a Master's degree or higher (73%). Participants reported years of teaching experience ranging from 1 year to 38 years with a mean of 14.03 years ($SD = 9.31$). The majority of participants (71%) were general education teachers (Table 2) with experience teaching at various grade levels (Table 3).

Participants provided information concerning their work with students displaying CDB. Participants reported currently working with between 0 and 67 students displaying CDB with an average of 5.23 ($SD = 7.96$). For the number of students displaying CDB previously taught, one participant indicated 1000, and the remainder of the responses were between 0 to 250 with a mean of 30.58 ($SD = 38.45$). In relation to previous training concerning working with students experiencing CDB, 50.5% of participants reported receiving no training, while 48.5% reported receiving prior training (Table 4). For those who received specialized training, the majority (70.2%) obtained the training through professional development. In regard to a willingness to attend training focused on students with CDB, the majority of the sample

(89.3%) indicated they would attend. Lastly, using 1 for *nonexistent* to 9 for *excellent*, the participants were asked to rate their perception of support in working with students displaying CDB in four areas (Table 5). Perceived support from other teachers was rated highest followed by support from administrators, professional staff, and parents.

Table 1

Participants' Reported Gender, Ethnicity, and Educational Level

Characteristic	<i>n</i>	Percent
Gender		
Female	185	90.0
Male	20	9.5
Unreported	1	0.5
Ethnicity		
American Indian	2	1.0
Arabic/Middle Eastern	2	1.0
Asian/Pacific Islander	3	1.5
Black or African American	17	8.3
Latino or Hispanic	3	1.5
White	171	83.8
Multi-racial	5	2.5
Unreported	2	1.0
Educational Level		
Bachelor's degree	11	5.3
Bachelor's plus additional credit hours	42	20.4
Master's degree	49	23.8
Master's plus additional credit hours	101	49.5
Doctorate	1	0.5
Unreported	2	1.0

Instrumentation

The instruments used in this study were a demographic questionnaire and a modified version of the TSES short form. Both were reviewed by seven teachers currently teaching in public schools. Their feedback was incorporated into the final draft of the survey, which is

Table 2

Participants' Teaching Focus Areas

Focus Area	<i>n</i>	Percent
General education	146	71.2
Special education		
Reading	7	3.4
Self-contained	5	2.4
Teacher consultant	1	0.6
Title 1	1	0.6
Specialty Education		
Art education	3	1.5
Library/Media	3	1.5
Music education	11	5.4
Physical education	6	2.9
Bilingual education/ English as a second language	4	2.0
Other		
Academic coach	1	0.6
General education in 2 languages	1	0.6
Immersion/Dual language	1	0.6

Table 3

Participants' Grade Level Teaching Experience

Grade Level	<i>n</i>
Kindergarten	83
First	82
Second	86
Third	90
Fourth	89
Fifth	86
Sixth	54
Seventh	27
Eighth	23

Note. The number of participants is greater than 206 because 159 participants reported teaching experience at more than one grade level.

Table 4

Participants' Modality of Training Regarding CDB

Modality of Training	<i>n</i>	Percent
Undergraduate	13	12.5
Graduate education	11	10.6
Professional development	73	70.2
District personnel	1	1.0
Multiple modalities	6	5.7

Table 5

Participants' Perception of Support

Area of Support	<i>M</i>	<i>SD</i>	Range
Other teachers	6.33	2.00	1 to 9
Administrators	5.53	2.22	1 to 9
Professional staff	5.39	2.14	1 to 9
Parents	4.15	1.77	1 to 9

located in Appendix A. Qualtrics, a secure web-based survey program provided through Indiana State University, was used to create and host the survey.

Demographic Questionnaire

The demographic questionnaire provided information regarding each participant's gender and ethnicity. The categories for ethnicity were based on information from one of the four school districts ("Interactive Illinois Report Card," 2010). Participants were asked about their education level and teaching certification. Information concerning teacher certification reflected the types of teacher certification available to teachers in their respective states.

Participants were presented with the categories of Substitute certification, Initial certification,

Standard certification, Master certification, or Other (“Educator Certification,” 2010) or the options of Provisional Certificate, Professional Education Certificate, or Other (Michigan Department of Education, 2011).

So as to ascertain that participants were eligible for the study (i.e., teach grades kindergarten through fifth), they were asked about grade levels currently taught. All 206 participants who were included in the data analysis indicated that they taught at the elementary level. To align with previous teacher self-efficacy studies (e. g., Edwards, 1996), participants were also asked to identify overall years of teaching experience, years of experience at each grade level, and the focus areas they taught at the time they completed the survey.

Current experience with students displaying CDB was obtained by providing participants with the definition of CDB and then asking them to approximate the number of students with CDB they were teaching during the present school year. To obtain information concerning past experience with students displaying CDB, participants were asked the total number of students with CDB they worked with in previous years. Also, participants were asked about their previous experience with training or professional development and desire for continued professional development related to working with students displaying CDB. Last, they were asked to rate their experiences of interpersonal support related to working with students displaying CDB from members of their school community including other teachers, administrators, professional staff, and parents. The scale used to assess interpersonal support was based on Tschannen-Moran and Woolfolk Hoy’s 2007 study involving teacher self-efficacy beliefs. A 9-point scale was used for each item and was anchored with the notations:

nonexistent, poor, adequate, good, excellent. Overall perceived support was calculated by summing participants' responses to the four support questions.

Teachers' Sense of Efficacy Scale

This study utilized the short form of the TSES (Tschannen-Moran & Woolfolk Hoy, n.d.), which consists of 12 questions that were derived from the 24-item form. Each item utilizes a 9-point scale with 1 representing *nothing* and 9 representing *a great deal*. Factor analysis on the long form supported three separate subscales related to teacher self-efficacy including student engagement, instructional strategies, and classroom management. To create the short form, Tschannen-Moran and Woolfolk Hoy (2001) retained the four items with the highest loadings from each of the subscales. Reliabilities of the short form subscales were $r = .87$ for student engagement, $r = .91$ for instructional strategies, and $r = .90$ for classroom management. An additional factor analysis was conducted using the short form of the TSES. For preservice teachers, the factor structure of the short form was not distinct, resulting in a recommendation to use the long form with this population. However, the short form is an appropriate instrument for inservice teachers because it maintained the same three factors as the long form, and in the short form the factors accounted for 65% of the variance as compared with 54% of the variance in the long form.

In order to assess construct validity, Tschannen-Moran and Woolfolk Hoy (2001) had 410 participants complete the TSES, the original two Rand questions, and a shortened form of Gibson and Dembo's (1984) TSE scale. A statistically significant positive relationship was found between the overall short form of the TSES and the following: the first Rand question ($r = .18, p < .01$), the second Rand question ($r = .53, p < .01$), the GTE factor of Gibson and

Dembo's scale ($r = .16, p < .01$), and the PTE factor of Gibson and Dembo's scale ($r = .64, p < .01$).

In previous studies the TSES was used to assess teacher self-efficacy beliefs regarding working with all students; however, this study focused specifically on students displaying CDB. Hence, the TSES was modified for this study. To minimize changes made in the instrument, the questions were not altered. Instead, the scale was introduced by providing the definition of chronic disruptive behavior and the following phrase: "Please think specifically of students who display chronic disruptive behavior when answering the following questions."

The modification made to the instructions of the TSES aligned with the theoretical underpinnings of teacher self-efficacy beliefs. Bandura (1997) recommended that teacher self-efficacy beliefs be assessed at a level of specificity corresponding to the assessed task and in light of the area of functioning that was being assessed. Tschannen-Moran et al. (1998) stated, "one of the most perplexing issues in the measurement of efficacy beliefs is determining the level of specificity that is most helpful" (p. 240). Assessing teacher self-efficacy beliefs specific to working with students displaying CDB allowed teachers' self-efficacy beliefs to be measured in a focused manner, which accounted for the specificity that is conceptually present in self-efficacy beliefs.

Procedure

Participants from four large school districts in the Midwest were sampled. Student demographic information from the 2009-2010 school year for each school district is shown in Table 6 (National Center for Education Statistics, 2011). After receiving approval from Indiana State University's Institutional Review Board, in the fall of 2010, e-mail invitations

were sent to elementary school teachers employed in one large school district (District A). E-mail addresses were obtained through publicly available school websites. The e-mail invitation, located in Appendix B, served as the informed consent and an invitation to participate in the study. Teachers who chose to participate were directed to click on a link connecting them to the survey located in Qualtrics. Once participants connected to the survey, they were asked to complete the demographic questionnaire and the modified short form of the TSES. Approximately four weeks later, a second identical invitation e-mail was sent to the same group of potential participants.

One month after the second invitation was sent, a low response rate ($n = 29$) led to revisions of the original methodology. First, the incentive of a raffle for a \$50 gift certificate to Amazon.com was added. Second, the potential participant pool was enlarged to include teachers in three additional large school districts (Districts B, C, and D). As before, all e-mail addresses were obtained through publicly available school websites. Third, a shorter e-mail, which included a link to the survey, was composed. Participants from District A received an e-mail invitation that included an option to be entered in the added drawing if they had previously completed the survey (Appendix C). Newly invited participants from Districts B, C, and D received an e-mail invitation with the link to the survey (Appendix D). When participants clicked on the link, it presented them with the informed consent information followed by the demographic questionnaire and the modified TSES (Appendix E). Finally, to address concerns that spam blockers may have blocked the original e-mail, invitations were e-mailed in groups of not more than five potential participants.

At the end of January 2011, the revisions were incorporated into a third invitation sent to the potential participants in the original sample. The revisions were incorporated into initial invitations sent to potential participants in Districts B and C. Approximately one month later, second e-mail invitations were sent to potential participants from Districts B and C. Initial e-mail invitations were sent to potential participants in District D. Near the end of March 2011, a final invitation was sent to participants in Districts B and C. Also, a second invitation was sent to teachers in District D. Due to a sufficiently sized total response rate, data collection was stopped approximately two weeks after the second set of invitations was sent to teachers in District D. In total, invitations were sent to 1,961 e-mail addresses (Table 7). A total of 274 individuals accessed the survey on line; however, 31 participants failed to answer any questions and 37 participants left the majority of the survey blank. Thus, 206 participant responses were used for the data analyses.

Table 6

School District Student Demographics

	District A	District B	District C	District D
Student enrollment	26,990	12,470	17,670	30,090
Students who qualified for free or reduced lunch	73.7%	62.7%	18%	-----
Ethnicity				
American Indian	0.1%	1.2%	0.4%	0.1%
Asian/Pacific Islander	3.2%	1.0%	15.0%	4.4%
Black or African American	29.9%	37.2%	9.1%	3.5%
Latino or Hispanic	22.8%	8.9%	5.0%	3.3%
White	38.0%	46.7%	60.0%	86.4%
Multi-racial	6.0%	4.8%	7.1%	2.2%
Other		0.2%	3.4%	0.1%

Table 7

Elementary Teacher E-Mail Addresses per School District

District	Publically Available E-mail Addresses	E-mail Addresses Returned as Undeliverable	E-mail Addresses Presumed Valid	Response Rate
A	477	115	362	9.7%
B	573	156	417	10.8%
C	542	0	542	13.8%
D	708	68	640	7.7%
Total	2,300	339	1,961	10.5%

Statistical Analyses

Research question one, “What is the factor structure of the short form of the Teachers’ Sense of Efficacy Scale that was modified to reflect teacher self-efficacy beliefs in working with students displaying chronic disruptive behavior?” was answered utilizing factor analysis. The sample size of 206 was an adequate sample size for a factor analysis of a 12-item measure because the factor loadings were .41 or higher (Worthington & Whittaker, 2006). In order to evaluate the factor structure of the altered short form of the TSES, a principal-axis factor analysis with varimax rotation was used. This analysis was utilized in the initial development of the instrument (Tschannen-Moran & Woolfolk Hoy, 2001) and in subsequent studies that used the TSES (e.g., Wolters & Daugherty, 2007). To remain consistent with previous research, the same type of factor analysis extraction and rotation was conducted. Assumptions involving normality and linearity were evaluated. Cronbach’s alpha was calculated for each subscale.

The second research question, “Is there a relationship between teacher reported areas of self-efficacy beliefs when working with students displaying chronic disruptive behavior and the demographic variables of educational level, years of teaching experience, and gender?” was used as an overarching question. It was divided into three specific research questions that each used one of the three factors of the TSES. A multiple regression was conducted for each of the three factors. For each multiple regression, one of the three types of self-efficacy was used as the dependent variable. The independent variables were the dichotomous variable of gender, the continuous variable of educational level, and the continuous variable of years teaching. Assumptions involving a linear relationship between the independent and dependent variables, no autocorrelation, homoscedasticity, normality, and lack of multicollinearity were evaluated. An alpha level of .05 was used for this analysis.

The third research question, “Is there a difference in teacher self-efficacy beliefs in working with students displaying chronic disruptive behavior as a function of focus area taught?” was answered using a one-way MANOVA. The three continuous dependent variables were teacher self-efficacy for student engagement, classroom management, and instructional strategies. The independent variable was focus area taught, which was categorical with three levels. The three focus areas were general education, special education, and specialty areas. The number of participants who reported teaching in the general education focus area ($n = 146$) was larger than the other focus area groups. In order to utilize three groups that were nearly equivalent, a random sample of 26 participants from the general education focus area was used. The special education group ($n = 28$) was created by combining participants who chose special education as their focus area and participants who identified the following as their focus area:

reading specialist, Title 1, and literacy. The specialty education group ($n = 24$) consisted of participants in art education, music education, physical education, library, and drama. The focus area involving bilingual education/English as a second language was dropped because of the small number of participants ($n = 4$). Assumptions regarding independence of observations, multivariate normality, homogeneity of variance/covariance matrices, multivariate linearity, and no multicollinearity among the dependent variables were evaluated.

The fourth research question, “Is there a relationship between teacher reported areas of self-efficacy beliefs when working with students displaying chronic disruptive behavior and teacher experience variables of current number of students taught, past number of students taught, past training, desire for professional development, and perception of support related to working with students displaying chronic disruptive behavior?” was used as an overarching question. It was divided into three specific research questions that each used one of the three factors of the TSES. A multiple regression was conducted for each of the three factors. For each multiple regression, one of the three types of self-efficacy was used as the dependent variable. The independent variables were the continuous variables of current number of students taught, past number of students taught, and perception of support as well as the dichotomous variables of past training and desire for professional development. Assumptions involving a linear relationship between the independent and dependent variables, no autocorrelation, homoscedasticity, normality, and lack of multicollinearity were evaluated. An alpha level of .05 was used for this analysis.

Before conducting the multiple regressions for research question four, data for two variables were further explored. For participants who provided a range regarding the past

number of students taught (e.g., 35-40) an average was used. Also, 20 participants who offered non-precise answers (e.g., “too many to count”) were eliminated. Additionally, two potential outliers were identified. The first outlier was a response of “60” to the question concerning the current number of students displaying CDB taught. Multiple regressions were conducted with and without the outlier, and the corresponding results were compared. The first outlier did not significantly impact the results; therefore, it was left in the data set. The second outlier was a response of “1000” to the question concerning past number of current displaying CDB taught. Multiple regressions were conducted with and without the second outlier. The outlier significantly impacted the results; therefore, it was removed from the data set. The analyses did not include the second outlier.

CHAPTER 4

RESULTS

Factor Structure of the Modified TSES

The first research question for this study was “What is the factor structure of the short form of the Teachers’ Sense of Efficacy Scale that was modified to reflect teacher self-efficacy beliefs in working with students displaying chronic disruptive behavior?” To analyze this question a principal-axis factor analysis with varimax rotation was completed. All assumptions were met. Table 8 shows the descriptive statistics, and Table 9 shows the correlations among the items. The results yielded two possible factor structures.

The first factor solution, using eigenvalues greater than 1.0, yielded a two-factor structure. The two factors accounted for 52.41% of the variance. Table 10 shows the loadings of the items on the two factors. A cut-off of .50 was used. Six items loaded on the first factor and five items loaded on the second factor. One item (Q11) did not load on either factor. In comparison to previous research (e.g., Tschannen-Moran & Hoy, 2001) that found the three factors of instructional strategies, classroom management, and student engagement, the six items that loaded on factor one were a mixture of items previously found on the student engagement and classroom management factors. Additionally, factor two was composed of

four items that previously loaded on instructional strategies and one item that previously loaded on classroom management.

Table 8

Descriptive Statistics of the Modified TSES Short Form

Variable	<i>M</i>	<i>SD</i>
Q1. How much can you do to control disruptive behavior in your classroom?	6.48	1.50
Q2. How much can you do to motivate students who show low interest in school work?	6.26	1.52
Q3. How much can you do to get students to believe they can do well in school work?	6.84	1.30
Q4. How much can you do to help your students value learning?	6.52	1.55
Q5. To what extent can you craft good questions for your students?	7.41	1.26
Q6. How much can you do to get children to follow classroom rules?	7.04	1.31
Q7. How much can you do to calm a student who is disruptive?	6.55	1.36
Q8. How well can you establish a classroom management system with each group of students?	7.47	1.35
Q9. How much can you use a variety of assessment strategies?	7.21	1.43
Q10. To what extent can you provide an alternative explanation or example when students are confused?	7.75	1.06
Q11. How much can you assist families in helping their children do well in school?	6.51	1.40
Q12. How well can you implement alternative strategies in your classroom?	7.20	1.35

Table 9

Modified TSES Short Form Correlation Matrix

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
Q1	-----											
Q2	.526**	-----										
Q3	.477**	.710**	-----									
Q4	.398**	.592**	.697**	-----								
Q5	.505**	.488**	.560**	.455**	-----							
Q6	.596**	.464**	.467**	.530**	.525**	-----						
Q7	.556**	.445**	.442**	.477**	.395**	.647**	-----					
Q8	.545**	.416**	.449**	.402**	.515**	.652**	.541**	-----				
Q9	.316**	.335**	.344**	.327**	.542**	.449**	.328**	.449**	-----			
Q10	.287**	.274**	.338**	.347**	.504**	.408**	.377**	.493**	.557**	-----		
Q11	.272**	.355**	.329**	.349**	.252**	.306**	.351**	.309**	.271**	.336**	-----	
Q12	.322**	.315**	.346**	.301**	.469**	.436**	.402**	.501**	.592**	.581**	.390**	-----

* $p < .05$, two-tailed.

** $p < .01$, two-tailed.

Table 10

Item Loadings for the Two Factor Solution

	Factor	
	1	2
Q3	.784	.204
Q2	.767	.170
Q4	.718	.209
Q6	.602	.473
Q1	.600	.308
Q7	.555	.381
Q12	.193	.751
Q10	.198	.720
Q9	.223	.699
Q8	.476	.555
Q5	.495	.526
Q11	.322	.326

Note. Factor loadings > .50 are in boldface.

The second factor analysis solution, using the scree plot to determine the number of factors (Figure 1), suggested a three-factor structure that accounted for 57.94% of the variance. Table 11 illustrates the loadings of items for the three-factor solution. A cut-off of .50 was used to determine which items loaded on each factor. Item 11 had low loadings on all three factors; therefore, it was removed due to low factor loadings and theoretical inconsistency. The factor structure of the remaining 11 items was the same as found in past research (e.g., Tschannen-Moran & Hoy, 2001).

To remain consistent with prior research (e.g., Tschannen-Moran & Woolfolk Hoy, 2001), the solution involving three factors was retained for this study and previously established factor names were utilized. Factor one, entitled *Instructional Strategies*, consisted of items 5, 9, 10, and 12 and had a Cronbach's alpha of .818. Factor two, entitled *Student*

Engagement, was composed of items 2, 3, and 4 and had a Cronbach's alpha of .852. The third factor, entitled *Classroom Management*, consisted of items 1, 6, 7, and 8 and had a Cronbach's alpha of .849.

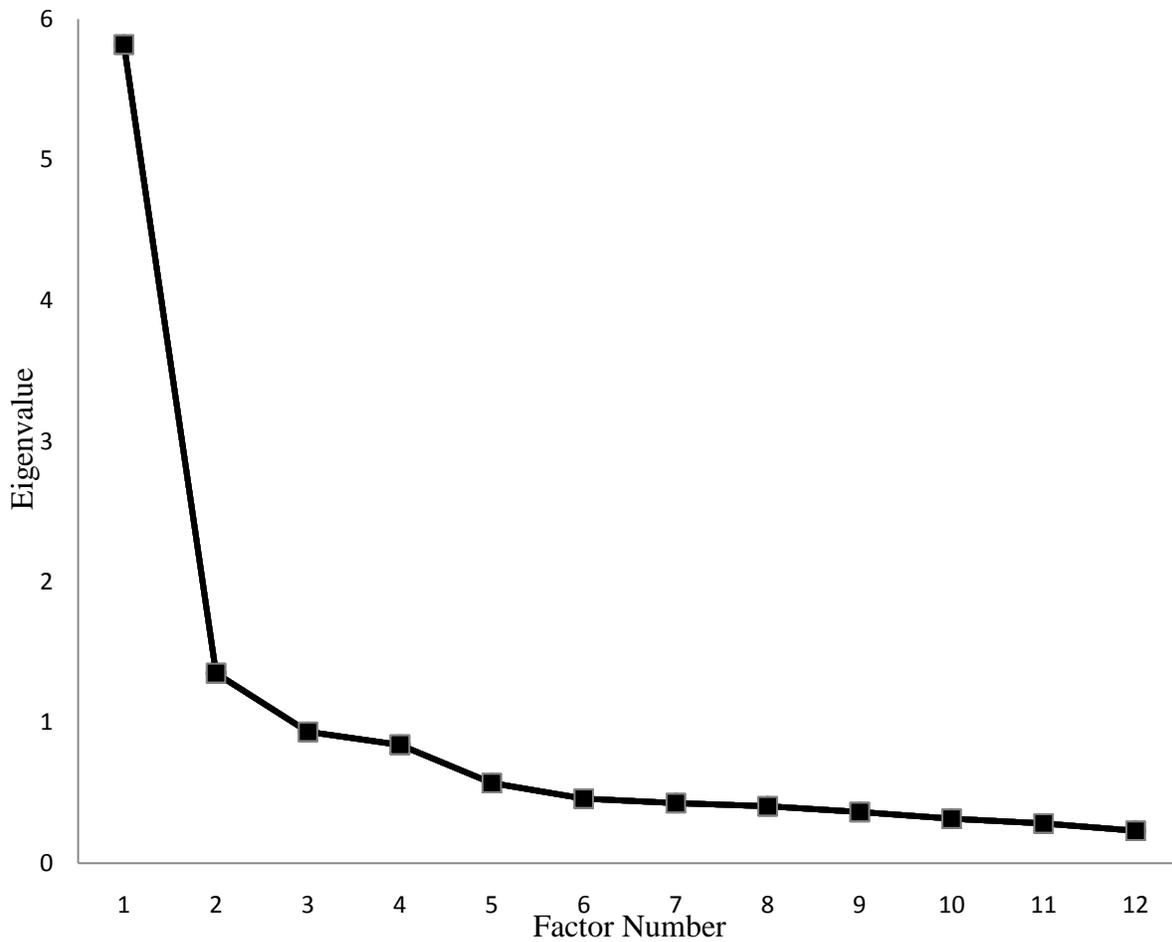


Figure 1. Scree Plot for Three Factor Solution

Table 11

Item Loadings for the Three Factor Solution

	Factor		
	1	2	3
Q12	.727	.130	.240
Q10	.717	.153	.203
Q9	.712	.190	.185
Q5	.505	.415	.320
Q11	.311	.267	.209
Q3	.217	.855	.224
Q2	.167	.705	.325
Q4	.208	.665	.305
Q6	.323	.294	.728
Q7	.242	.279	.649
Q1	.174	.342	.627
Q8	.440	.225	.592

Note. Factor loadings > .50 are in boldface.

Teacher Self-Efficacy Beliefs and Demographic Variables

The second research question for this study was “Is there a relationship between teacher reported areas of self-efficacy beliefs when working with students displaying chronic disruptive behavior and the demographic variables of educational level, years of teaching experience, and gender?” In order to separately investigate teacher self-efficacy beliefs related to instructional strategies, classroom management, and student engagement, this question was divided into three sub-questions. Each sub-question utilized a type of teacher self-efficacy belief as the dependent variable and educational level, years of teaching experience, and gender as the independent variables.

The first sub-question involved teacher self-efficacy beliefs related to instructional strategies. A multiple regression analysis was conducted to examine the relationship between

self-efficacy for instructional strategies and educational level, years of experience, and gender. Table 12 contains the descriptive statistics and correlations among the variables. All assumptions were met. The results of the multiple regression were not significant, $R^2 = .018$, adjusted $R^2 = .003$, $F(3, 198) = 1.23$, $p = .299$. Hence, the combination of educational level, years of experience, and gender was not associated with instructional strategies self-efficacy beliefs.

The second sub-question involved teacher self-efficacy beliefs related to classroom management. A multiple regression analysis was conducted to examine the relationship between self-efficacy for classroom management and educational level, years of experience, and gender. Table 13 contains the descriptive statistics and correlations among the variables. All assumptions were met. The results of the multiple regression were not significant, $R^2 = .013$, adjusted $R^2 = -.002$, $F(3, 198) = .839$, $p = .474$. Hence, educational level, years of experience, and gender together were not associated with classroom management self-efficacy beliefs.

The third sub-question involved teacher self-efficacy beliefs related to student engagement. A multiple regression analysis was conducted to examine the relationship between self-efficacy for student engagement and educational level, years of experience, and gender. Table 14 contains the descriptive statistics and correlations among the variables. All assumptions were met. The results of the multiple regression were not significant, $R^2 = .021$, adjusted $R^2 = .006$, $F(3, 198) = 1.40$, $p = .245$. Hence, educational level, years of experience, and gender together were not associated with student engagement self-efficacy beliefs.

Table 12

Instructional Strategies Self-Efficacy and Educational Level, Years of Experience, and Gender

	<i>M</i>	<i>SD</i>	Instructional Strategies	Educational Level	Years of Experience	Gender
Instructional Strategies	7.41	1.02	-----			
Educational Level	3.20	0.95	.081	-----		
Years of Experience	14.07	9.31	.101	.322**	-----	
Gender	1.91	0.29	.010	.016	-.034	-----

Note. For gender variable 1 = male and 2 = female.

* $p < .05$, two-tailed.

** $p < .01$, two-tailed.

Table 13

Classroom Management Self-Efficacy and Educational Level, Years of Experience, and Gender

	<i>M</i>	<i>SD</i>	Classroom Management	Educational Level	Years of Experience	Gender
Classroom Management	6.89	1.15	-----			
Educational Level	3.20	0.95	.025	-----		
Years of Experience	14.07	9.31	.021	.322**	-----	
Gender	1.91	0.29	.010	.016	-.034	-----

Note. For gender variable 1 = male and 2 = female.

* $p < .05$, two-tailed.

** $p < .01$, two-tailed.

Table 14

Student Engagement Self-Efficacy and Educational Level, Years of Experience, and Gender

	<i>M</i>	<i>SD</i>	Student Engagement	Educational Level	Years of Experience	Gender
Student Engagement	6.55	1.29	-----			
Educational Level	3.20	0.95	.101	-----		
Years of Experience	14.07	9.31	-.039	.322**	-----	
Gender	1.91	0.29	.010	.016	-.034	-----

Note. For gender variable 1 = male and 2 = female.

* $p < .05$, two-tailed.

** $p < .01$, two-tailed.

Teacher Self-Efficacy Beliefs and Focus Area Taught

The third research question, which was “Is there a difference in teacher self-efficacy beliefs in working with students displaying chronic disruptive behavior as a function of focus area taught?” was analyzed using a MANOVA. The types of self-efficacy beliefs, based on results of the factor analysis, included instructional strategies, classroom management, and student engagement. Table 15 shows descriptive statistics for each type of self-efficacy beliefs by focus area. All assumptions were met. The results of the MANOVA were not significant, Wilks’ Lambda = .98, $F(6, 146) = .25$, $p = .959$. Thus, there was no significant difference found in self-efficacy beliefs among focus areas taught.

Table 15

Descriptive Statistics of Self-Efficacy Type by Focus Area

Self-Efficacy Type	Focus Area	<i>M</i>	<i>SD</i>	<i>n</i>
Instructional Strategies	<i>General Education</i>	7.29	1.09	26
	<i>Special Education</i>	7.39	1.27	28
	<i>Specialty area</i>	7.51	1.11	24
Classroom Management	<i>General Education</i>	6.75	1.14	26
	<i>Special Education</i>	7.01	1.18	28
	<i>Specialty area</i>	7.04	1.19	24
Student Engagement	<i>General Education</i>	6.38	1.27	26
	<i>Special Education</i>	6.71	1.26	28
	<i>Specialty area</i>	6.71	1.33	24

Teacher Self-Efficacy Beliefs Related to Experience, Training, and Perceived Support

The fourth research question was “Is there a relationship between teacher reported areas of self-efficacy beliefs when working with students displaying chronic disruptive behavior and teacher experience variables of current number of students taught, past number of students taught, past training, desire for professional development, and perception of support related to working with students displaying chronic disruptive behavior?” To investigate the three types of teacher self-efficacy beliefs (i.e., instructional strategies, classroom management, student engagement) this question was divided into three sub-questions. Each sub-question utilized a type of teacher self-efficacy beliefs as the dependent variable and teacher current experience with students displaying CDB, past experience with students displaying CDB, past training related to students displaying CDB students, desire for professional development related to

students displaying CDB, and perceived support related to working with students displaying CDB as independent variables.

The first sub-question examined the potential relationship between instructional strategies self-efficacy beliefs and experience using a multiple regression analysis. Table 16 shows the descriptive statistics and correlations among the variables. All assumptions were met. The multiple regression was significant, $R^2 = .101$, adjusted $R^2 = .076$, $F(5, 175) = 3.85$, $p = .002$. Thus, the experience variables together were significantly related to student engagement self-efficacy beliefs and accounted for 7.6% of the variance in instructional strategies self-efficacy. Past training regarding working with students displaying CDB and perception of support with working students displaying CDB were significantly related to instructional strategies self-efficacy beliefs (Table 17). Current experience with students displaying CDB, past experience with students displaying CDB, and desire to receive training related to working with students displaying CDB were not significantly related to instructional strategies self-efficacy beliefs.

The second sub-question examined the potential relationship between classroom management self-efficacy beliefs and experience using a multiple regression analysis. Table 18 shows the descriptive statistics and correlations among the variables. All assumptions were met. The multiple regression was significant, $R^2 = .204$, adjusted $R^2 = .181$, $F(5, 175) = 8.98$, ($p < .001$). Thus, the combination of experience variables was significantly related to classroom management self-efficacy, accounting for 18.1% of the variance in classroom management self-efficacy. Past experience working with students displaying CDB, past training regarding working with students displaying CDB, and perception of support working

with students displaying CDB were significantly related to classroom management self-efficacy beliefs (Table 19). Current experience with students displaying CDB and desire to receive training related to working with students displaying CDB were not significantly related to classroom management self-efficacy beliefs.

The third sub-question examined the potential relationship between student engagement self-efficacy beliefs and experience using a multiple regression analysis. Table 20 shows the descriptive statistics and correlations among the variables. All assumptions were met. The multiple regression was significant, $R^2 = .099$, adjusted $R^2 = .073$, $F(5, 175) = 3.85$, $p = .002$. Thus, the experience variables together were significantly related to student engagement self-efficacy, accounting for 7.3% of the variance in student engagement self-efficacy beliefs. Past training regarding working with students displaying CDB and perception of support working with students displaying CDB were significantly related to student engagement self-efficacy beliefs (Table 21). Current experience with students displaying CDB, past experience with students displaying CDB, and desire to receive training related to working with students displaying CDB were not significantly related to student engagement self-efficacy beliefs related to student engagement.

Table 16

Instructional Strategies Self-Efficacy and Experience, Training, and Support

	<i>M</i>	<i>SD</i>	Instructional Strategies	Current Experience with CDB	Past Experience with CDB	Past Training	Desire Professional Development	Perception of Support
Instructional Strategies	7.35	1.06	-----					
Current Experience with CDB	4.80	6.72	.057	-----				
Past Experience with CDB	29.70	36.14	.128	.338**	-----			
Past Training	1.51	0.50	-.221**	-.072	-.190*	-----		
Desire Professional Development	1.09	0.29	.138	-.127	.009	-.164*	-----	
Perception of Support	21.42	6.09	.196**	-.061	-.040	-.102*	.014	-----

Note. For past training and desire for professional development variables 1 = yes and 2 = no.

**p* < .05, two-tailed.

***p* < .01, two-tailed.

Table 17

Multiple Regression Instructional Strategies Self-Efficacy Beliefs

	<i>b</i>	<i>SE</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
Current Experience with CDB	.006	.012	.040	.526	.600
Past Experience with CDB	.003	.002	.090	1.160	.248
Past Training	-.344	.157	-.163	-2.191	.030
Desire for Professional Development	.418	.272	.113	1.537	.126
Perception of Support	.032	.013	.184	2.542	.012
Constant	6.622	.530		12.502	.000

Table 18

Classroom Management Self-Efficacy and Experience, Training, and Support

	<i>M</i>	<i>SD</i>	Classroom Management	Current Experience with CDB	Past Experience with CDB	Past Training	Desire Professional Development	Perception of Support
Classroom Management	6.83	1.17	-----					
Current Experience with CDB	4.80	6.72	-.018	-----				
Past Experience with CDB	29.70	36.14	.185*	.338**	-----			
Past Training	1.51	0.50	-.378**	-.072	-.190*	-----		
Desire Professional Development	1.09	0.29	.157*	-.127	.009	-.164*	-----	
Perception of Support	21.42	6.09	.213**	-.061	-.040	-.102*	.014	-----

Note. For past training and desire for professional development variables 1 = yes and 2 = no.

* $p < .05$, two-tailed.

** $p < .01$, two-tailed.

Table 19

Multiple Regression Classroom Management Self-Efficacy Beliefs

	<i>b</i>	<i>SE</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
Current Experience with CDB	-.012	.013	-.070	-.969	.334
Past Experience with CDB	.005	.002	.154	2.115	.036
Past Training	-.750	.164	-.321	-4.573	.000
Desire for Professional Development	.376	.284	.091	1.322	.188
Perception of Support	.035	.013	.181	2.664	.008
Constant	6.723	.553		12.149	.000

Table 20

Student Engagement Self-Efficacy and Experience, Training, and Support

	<i>M</i>	<i>SD</i>	Student Engagement	Current Experience with CDB	Past Experience with CDB	Past Training	Desire Professional Development	Perception of Support
Student Engagement	6.51	1.27	-----					
Current Experience with CDB	4.80	6.72	.063	-----				
Past Experience with CDB	29.70	36.14	.093	.338**	-----			
Past Training	1.51	0.50	-.256**	-.072	-.190*	-----		
Desire Professional Development	1.09	0.29	.061	-.127	.009	-.164*	-----	
Perception of Support	21.42	6.09	.192**	-.061	-.040	-.102*	.014	-----

Note. For past training and desire for professional development variables 1 = yes and 2 = no.

* $p < .05$, two-tailed.

** $p < .01$, two-tailed.

Table 21

Multiple Regression Student Engagement Self-Efficacy Beliefs

	<i>b</i>	<i>SE</i>	<i>Beta</i>	<i>T</i>	<i>p</i>
Current Experience with CDB	.009	.015	.047	.610	.543
Past Experience with CDB	.001	.003	.041	.530	.597
Past Training	-.569	.191	-.223	-2.987	.003
Desire for Professional Development	.123	.330	.027	.372	.710
Perception of Support	.037	.015	.174	2.403	.017
Constant	6.360	.643		9.889	.000

CHAPTER 5

DISCUSSION

Elementary school teachers' self-efficacy beliefs related to working with students displaying chronic disruptive behavior (CDB) were investigated. The short form of the Teachers' Sense of Efficacy Scale (TSES) was modified so that teachers reflected on students displaying CDB when responding to the items in the scale. The first research question concerned the factor structure of the modified TSES. Results supported three subscales representing self-efficacy in the areas of instructional strategies, classroom management, and student engagement. The second research question involved the relationship between each type of teacher self-efficacy beliefs and the teacher demographic variables of education level, years of teaching experience, and gender. No significant association was found between each of the three types of teacher self-efficacy beliefs and the combination of demographic variables. The third research question concerned potential differences in teacher self-efficacy beliefs as a function of three focus areas taught: general education, special education, and specialty education. No significant difference was found in self-efficacy beliefs among the focus areas taught. Lastly, the fourth research question explored the relationship between each type of teacher self-efficacy beliefs and teachers' current and past experience working with students displaying CDB, past training and desire for future professional development related to

working with students with CDB, and perceived support when working with students displaying CDB. Significant relationships were found. Specifically, past training and perceived support were significantly related to both instructional self-efficacy beliefs and student engagement self-efficacy beliefs. Previous experience, past training, and perceived support were significantly related to classroom management self-efficacy beliefs.

Explanation of Findings

Factor Structure of the Modified TSES

Bandura's self-efficacy theory was used as the theoretical basis for the current study of teacher self-efficacy beliefs. Bandura (1997) posited that self-efficacy beliefs are cognitive internal constructs that mediate and predict purposeful behavior. Researchers exploring teacher self-efficacy beliefs have frequently called for the assessment of self-efficacy beliefs in light of domain specificity (e.g., Klassen et al., 2011). Specifically, in order to best predict future behavior, self-efficacy beliefs should be assessed in specific contexts (Bandura, 1997); however, to ensure applicability of research results, constructs being assessed should be general enough to reflect the daily activities of teachers (Tschannen-Moran & Woolfolk Hoy, 2001). In order to align with concerns regarding domain specificity (e.g., Bandura, 1997; Klassen et al., 2011; Tschannen-Moran & Woolfolk Hoy, 2001), the short form of the TSES was modified for the current study by asking participants to think specifically about students displaying CDB.

Given the modifications of the short form of the TSES, I sought to provide construct-related evidence of the validity for the modified TSES. Thus, the first research question investigated the factor structure of the modified short form of the TSES. Results indicated support for the three subscales of instructional strategies self-efficacy, classroom management

self-efficacy, and student engagement self-efficacy. The three factors found in the current study align with the factors found by other researchers (e.g., Fives & Buehl, 2010; Klassen & Chiu, 2010; Tschannen-Moran & Woolfolk Hoy, 2007; Wolters & Daugherty, 2007).

Tschannen-Moran and Woolfolk Hoy (2001) found three factors accounting for 65% of the variance. Comparably, the three factors found in the current study accounted for 57% of the variance. In the current study, one item—“How much can you assist families in helping their children do well in school?”—was removed because it did not clearly contribute to any of the subscales. Previous researchers found mixed results involving this item. For example, in their development of the TSES, Tschannen-Moran and Woolfolk Hoy (2001) retained this item because it had strong and distinct connections to the student engagement subscale. Similarly, in follow-up studies researchers found that this item was solidly a part of the self-efficacy subscale involving student engagement (e.g., Fives & Buehl, 2010; Tschannen-Moran & Woolfolk Hoy, 2007). In contrast, Wolters and Daugherty (2007) and Klassen and Chiu (2010) removed this item because it did not clearly contribute to any of the self-efficacy subscales. Unlike other questions on the TSES, this item asks about families, which places its context outside of the classroom environment. Thus, its theoretical difference from other items assessed on the TSES may account for its failure to contribute distinctly to any of the subscales in the current study.

The results of the current study indicated that the modified TSES short form may be useful for assessing the teacher self-efficacy beliefs of instructional strategies, classroom management, and student engagement related to working with students displaying CDB. The modified TSES allows for an increased specificity and, theoretically, a more accurate predictor

of the teacher's ability to employ effective instructional strategies, classroom management methods, and student engagement techniques with students exhibiting CDB.

Teacher Self-Efficacy Beliefs and Demographic Variables

In the current study, the teacher characteristics of educational level, years of teaching experience, and gender were not associated with the three types of self-efficacy beliefs investigated. Therefore, the teacher demographic variables of educational level, years of teaching experience, and gender do not provide insight into understanding teachers' self-efficacy beliefs regarding working with students displaying CDB.

Previous researchers have generally found that educational level is not significantly associated with teacher self-efficacy beliefs (Tschannen-Moran & Woolfolk Hoy, 2001). Similar to the current study, Egyed and Short's (2006) research involving elementary teachers did not find a significant relationship between self-efficacy beliefs and educational level. Also, Edwards' (1996) research, which had a participant group composed primarily of elementary teachers (83%), failed to support a relationship between self-efficacy beliefs and educational level. In contrast, a study by Ross et al. (1996) found that teachers who defined self-efficacy beliefs in terms of student success did not have graduate degrees, while those who defined self-efficacy in terms of student engagement were more likely to have graduate degrees. Ross et al.'s research, however, involved secondary school teachers and measured efficacy using one of the Rand questions. It is likely that the current researcher's failure to show significance better aligns with the majority of previous research specific to elementary teachers' self-efficacy beliefs (e.g., Edwards, 1996; Egyed & Short, 2006). This suggests that, as with general teacher

self-efficacy beliefs, level of education is not related to self-efficacy beliefs regarding teaching students displaying CDB.

In general, past researchers have found that experienced teachers report higher self-efficacy beliefs than novice teachers (e.g., Tschannen-Moran & Woolfolk Hoy, 2001). Typically, researchers have divided participants into groups of experienced and novice teachers (e.g., Fives & Buehl, 2010; Tschannen-Moran & Woolfolk Hoy, 2007; Wolters & Daugherty, 2007). For the current study years of experience was a continuous variable, and the majority of participants (85%) had five or more years of teaching experience. Thus, the lack of relationship between years of teaching and self-efficacy beliefs that was shown by the results of the current study may be due to the fact that participants were primarily experienced teachers. If future studies utilize samples that include more participants with less experience, it is possible that a relationship may be found between years of experience and self-efficacy for teaching students displaying CDB; however, the results of the current study do not provide evidence of such an association.

Past researchers have not found gender to be related to teacher self-efficacy beliefs (Tschannen-Moran & Woolfolk Hoy, 2001). For example, similar to the results of the present study, Egyed and Short (2006) did not find gender to be related to self-efficacy in a meaningful way. Samples from the current study and Egyed and Short's research included participants whose gender demographics were consistent with the national averages that indicate the vast majority (approximately 90%) of elementary teachers are women (National Education Association, 2010). In contrast, a few researchers have found differences in self-efficacy beliefs according to gender (e.g., Coladarci & Breton, 1997; Edwards, 1996; Ross et al., 1996).

These researchers sampled teachers who taught at all grade levels (Edwards, 1996; Coladarci & Breton, 1997) or only at the secondary level (Ross et al., 1996). Within these studies, the percentage of male participants varied from very few (10%); (Edwards, 1996) to nearly half (49%); (Ross et al., 1996). Overall, the results of the current study show preliminary evidence that among elementary school teachers gender is not related to teacher self-efficacy beliefs when working with students exhibiting CDB.

Teacher Self-Efficacy Beliefs and Focus Area Taught

The third research question investigated the three types of teacher self-efficacy beliefs among general education, special education, and specialty education teachers. Because teachers in different focus areas have varying class sizes, teach various subjects, and on a weekly basis interact with a diverse number of students, it is possible that they would report differences in efficacy when working with students displaying CDB. For example, a gym teacher may have higher instructional strategies efficacy for teaching a disruptive student than a general education teacher who is teaching mathematics, or a special education teacher who is teaching a small group of students may have higher efficacy for classroom management than a general education or specialty education teacher interacting with a class of 30 students. However, the results of the current study indicate that a teacher's specialization does not explain distinctions in self-efficacy beliefs when working with students exhibiting CDB.

The exploration of the potential differences in self-efficacy beliefs among teaching specialty has rarely been researched. In general, previous researchers failed to report focus areas taught (e.g., Pigge & Marso, 1993; Tschannen-Moran & Woolfolk Hoy, 2007); did not utilize focus areas as a variable in the statistical analyses (e.g., Williams, 2009); or used a

homogeneous sample consisting of only general education teachers (e.g., Brownell & Pajares, 1996), special education teachers (e.g., Coladarci & Breton, 1997), music education teachers (e.g., Hancock, 2008), or art education teachers (e.g., Evans-Palmer, 2010). One exception is Housego's 1992 study. Housego found increases in personal teaching efficacy for preservice general education teachers during student teaching, but she did not find changes in efficacy during student teaching for those teaching art, music, theatre, or physical education. Unlike the current study which included only inservice teachers, Housego utilized preservice teachers in a longitudinal study. Another exception is Coladarci and Breton's study (1997). They found resource-room special education teachers had a higher level of self-efficacy beliefs than their general education teacher counterparts; however, they used one of the Rand questions to assess self-efficacy beliefs, which does not allow for direct comparison to the results of the current study. Overall, the current researcher's exploration of focus area and self-efficacy beliefs when teaching students exhibiting CDB was unique; therefore, the results should be viewed as preliminary. Further research comparing the self-efficacy beliefs of teachers from different focus areas would be beneficial.

Teacher Self-Efficacy Beliefs Related to Experience, Training, and Perceived Support

The fourth question involved potential relationships between three types of self-efficacy beliefs (instructional strategies, classroom management, student engagement self-efficacy) and variables of experience, training, and perceived support. Instructional strategies self-efficacy was associated with past training and perceived support. Classroom management self-efficacy was related to past training, perceived support, and past experience with students displaying CDB. Finally, student engagement self-efficacy was associated with past training and support.

In the current study, past training regarding teaching students displaying CDB was related to all three types of self-efficacy beliefs. Prior research concerning the relationship between teachers' self-efficacy beliefs and past training has been retrospective or longitudinal. Similar to the results of the present study, Brownell and Pajares (1996) and Egyed and Short (2006) found that previous training was related to self-efficacy beliefs. Specifically, in the second grade teachers sampled by Brownell and Pajares (1996), the teachers' perceptions of the quality of their preservice special education training directly affected their self-efficacy beliefs. Also, Egyed and Short (2006) found that among the elementary teachers in their study just over half (54.7%) had completed at least one college class in behavior management. This training was positively related to personal efficacy. In contrast, few (11%) of the participants in the current study described receiving training in undergraduate or graduate degree programs, while just over half (51%) reported having no previous training and over one third (38%) indicated receiving training through professional development. Like past retrospective research regarding teacher training and self-efficacy beliefs, the results of the current study indicate an association between training and self-efficacy.

Another area of research regarding training and teachers' self-efficacy beliefs involves longitudinal studies. For example, Tschannen-Moran & McMaster (2009) found that, after participation in inservice training regarding reading instruction, elementary teachers' general self-efficacy beliefs and reading instruction self-efficacy beliefs increased. Rimm-Kaufman and Sawyer (2004) reported increases in teacher disciplinary self-efficacy after training related to classroom management, while Tucker et al. (2005) found increases in culturally sensitive self-efficacy beliefs after participants completed inservice training regarding effective teaching

strategies for diverse students. Thus, the results of the present study, showing a relationship between past training regarding CDB and self-efficacy beliefs regarding teaching students displaying CDB, align with previous research; however, because this study was not longitudinal, it is unknown if the past training contributed to the increase in participants' self-efficacy beliefs or if those with higher self-efficacy beliefs chose to participate in trainings related to CDB.

Previous researchers have found evidence for a relationship between teachers' self-efficacy beliefs and support from other teachers (e.g., Brownell & Pajares, 1996), administrators (e.g., Coladarci & Breton, 1997), professional staff (e.g., DeForest & Hughes, 1992), and parents (Tschannen-Moran & Woolfolk Hoy, 2007). All of these aspects of support were encompassed in the overall support score used in the current study. Support was significantly related to self-efficacy beliefs for teaching students displaying CDB. Similarly, other researchers have used an overall support variable. For example, Woolfolk Hoy and Burke Spero (2005) utilized an overall perception of support score, while Tatar (2009) measured teachers' overall use of support. These researchers found overall support to be associated with self-efficacy beliefs. Although previous research has varied in how support was defined and measured, the results of the present study, like past research involving general teacher self-efficacy beliefs, indicate that when working with students displaying CDB, teachers who perceive more support also have higher self-efficacy beliefs, while those who perceive less support have lower self-efficacy beliefs.

Past experience with students exhibiting CDB was associated with teacher self-efficacy beliefs in the area of classroom management. This association is domain-specific because it

assesses the specific self-efficacy beliefs of classroom management in the related domain of teaching students displaying CDB. Woolfson and Brady (2009) investigated the relationship between the specific efficacy for teaching special education students and the domain of experience with special education students. However, unlike the present study which found a relationship between classroom management self-efficacy and past experience teaching students experiencing CDB, Woolfson and Brady found no relationship between self-efficacy beliefs and past experience with special education students. The difference between Woolfson and Brady's results and those of the present study may be due to the fact that Woolfson and Brady investigated self-efficacy beliefs in the realm of teaching special education students. Also, they quantified experience as a dichotomous variable as compared to the use of experience as a continuous variable in the present study. The results of the current study indicate that when teachers have experience with greater numbers of students exhibiting CDB, they have higher self-efficacy beliefs. Also, when they have less experience with students displaying CDB, they have lower self-efficacy beliefs.

The results of the current study indicated that there was no significant relationship between any of the types of teacher self-efficacy beliefs and the current number of students displaying CDB that participants were teaching. Previous researchers have not examined current experience with students displaying CDB and teacher self-efficacy beliefs together. In the current study, the correlation between past and current experience with students exhibiting CDB was small. Additionally, although past experience was related to classroom management self-efficacy, current experience was not significant. The small correlation and difference in significance suggests that current experience may not be as powerful of a variable as past

experience. Further research exploring both past and current experience may serve to provide insight into the different roles that past and current experience play in the self-efficacy beliefs of teachers.

Also, no significant relationship was found between teacher self-efficacy beliefs and desire for professional development related to teaching students with CDB. Edwards and Green (1999) found that self-efficacy was not associated with participants' continued attendance at optional professional development. Fry (2009), in her qualitative research, found that teachers with both low and high self-efficacy beliefs did not desire to participate in professional development. Previous research regarding desire for professional development and teacher self-efficacy beliefs is limited and none specifically addressed working with students displaying CDB; thus, the lack of significance found in the current study should be viewed as preliminary. A lack of desire for professional development may be associated with multiple factors such as perceptions concerning the usefulness of professional development or economic, personal, or time constraints. It would be beneficial to explore the reasons teachers do and do not desire professional development concerning teaching students displaying CDB.

Limitations

The results of the current study should be viewed in light of the study's limitations. The sample was limited to elementary school teachers in large school districts located in the Midwestern portion of the United States. These results may not apply to middle and high school teachers in small or medium school districts located in other parts of the United States or in other nations. Because the participants taught in four school districts and each district's student population differed in terms of ethnicity and socio-economic status, the characteristics

of the students taught by the participants is unknown. Furthermore, several factors such as response rate and lack of survey completion may contribute to uncertainty regarding the representativeness of the sample. The low response rate (10.5%) limits the generalizability to teachers who were motivated and able to respond. The attitudes of those who did not respond are unknown. Additionally, it is unknown if technology restraints, such as spam blockers or Internet filters, prevented some participants from receiving the invitation or accessing the Qualtrics website. Of the 274 participants who accessed the survey online, one-fourth opened the survey but did not complete the survey or left the majority of it blank. This may be due to multiple factors such as a lack of experience in working with students displaying CDB, discomfort with answering the questions, or lack of time to complete the survey. Another aspect potentially impacting the generalizability of these results is the response rate for focus area taught. The focus area groups of special education and specialty education contained small numbers of participants. This may have restricted the power of the analysis, thus preventing a statistically significant difference from being found. The low response rate among bilingual educators caused this group to be dropped from the analysis that compared self-efficacy beliefs and focus area taught. Therefore, results can not be generalized to bilingual teachers. Lastly, this study relied solely on quantitative self-report, which may be influenced by social desirability. It is possible that participants responded to the TSES questions in a socially desirable manner, which may have elevated the scores of some participants.

Research Implications

Future studies would serve to expand the initial insights regarding teacher self-efficacy beliefs related to working with students displaying CDB provided by the current study. The

results of the present study indicate that the modified TSES is useful for assessing self-efficacy beliefs, specific to students exhibiting CDB, of elementary school teachers in large school districts within the Midwestern part of the United States; however, further studies are necessary to validate these initial results. Based on the current study, several potential areas of research emerge.

By communicating with district personnel, future researchers may be able to obtain a higher response rate and avoid potential technology restraints. For example, if e-mail invitations are sent directly from the superintendent's office, it is likely that all potential participants would receive the invitation. Also, by communicating with the director of technology, researchers could ensure that access to the Qualtrics website is not blocked by district Internet filters.

Future researchers should examine the construct-related validity of the modified TSES with various teacher and student populations. Testing the modified instrument with teachers in middle school and high school, medium and small districts, and different geographic regions would be beneficial. Because rates of CDB are higher in some student groups such as ethnic minority and impoverished populations (Wagner et al., 2005), the number of students displaying CDB may vary among school districts. By using student demographic information, future researchers could purposefully sample teachers who are likely to have a greater percentage of students exhibiting CDB. These teachers could be given the modified TSES and their scores compared to teachers from districts whose student demographics suggest they have fewer numbers of students displaying CDB.

Future studies utilizing confirmatory factor analysis with additional samples would serve to assess the consistency of factors. For example, the modified TSES could be given to groups of inservice teachers such as middle school teachers from rural schools and the factor structure examined. Additionally, to explore if the factor structure is similar for preservice teachers, researchers could use a sample of preservice teachers to conduct a confirmatory factor analysis.

Because of low and inconsistent factor loadings, one item was eliminated from the results of the factor analysis of the modified TSES. This item involved teachers' self-efficacy beliefs regarding assisting families to help children do well in school. The eliminated item could be explored by conducting interviews or focus groups with teachers regarding their successes and challenges with helping parents, grandparents, and other family members of students displaying CDB.

To examine potential differences in self-efficacy beliefs according to focus area taught, larger samples of teachers in special education, specialty education, and bilingual education could be utilized. For example, groups of teachers representing art education, library/media education, music education, and physical education, could complete the modified TSES. Their responses could be analyzed for potential differences. Additionally, a group of bilingual educators could complete the TSES, and their results could be compared with general education teachers. Qualitative methodology could be utilized to evaluate the role that teaching different class sizes and subjects plays in self-efficacy beliefs regarding working with students displaying CDB.

Future researchers could utilize the modified TSES to explore associations with past training and self-efficacy beliefs related to working with students exhibiting CDB. For example, the modified TSES could be used with a sample of participants who completed university training or professional development related to teaching students displaying CDB. Also, to expand the construct of training, quantitative questions could be developed regarding the date, length, and content of training. These variables could then be compared to teacher self-efficacy beliefs as measured by the modified TSES. To better understand teachers' perceptions of trainings that are specific to CDB, participants could be asked about the usefulness of past training. Finally, to examine barriers to training, teachers could answer questions contrasting the factors that facilitated and the factors that prevented their participation in past training regarding CDB.

Longitudinal research would be beneficial to investigate training and self-efficacy beliefs specific to teaching students exhibiting CDB. In undergraduate education classes that address CDB, the modified TSES could be used to assess preservice teachers' self-efficacy beliefs at the beginning and end of the semester. Inservice teachers could be given the modified TSES before and after professional development in order to assess the potential influence of inservice training on self-efficacy beliefs regarding teaching students exhibiting CDB. To determine the long-term impact of training on teachers self-efficacy beliefs, the modified TSES could be given 30, 60, and 90 days after participation in training regarding CDB.

To investigate the relationship between different sources of support and teacher self-efficacy beliefs, the questions from the current study regarding support from other teachers,

administrators, professional staff, and parents could be analyzed individually. For example, comparisons between each type of support and teacher self-efficacy beliefs could be made. In order to understand what interactions teachers perceive to be supportive, free response questions asking participants to list examples of supportive interactions could be utilized. These examples could be used to examine if teachers with higher self-efficacy beliefs have different perceptions of support than those with lower self-efficacy beliefs. Additionally, qualitative methodology would be useful to explore the development and maintenance of supportive environments for teachers working with students experiencing CDB. For instance, novice teachers could be interviewed throughout the school year about their perception of support from school personnel and parents. This would allow researchers to study the development of support and how it is maintained in the school setting. Additionally, career teachers could participate in focus groups to examine their experiences of the establishment and preservation of support.

To better understand the association between past experience and teacher classroom management self-efficacy beliefs, researchers could utilize case studies with teachers who report past experience with students displaying CDB. The relationship between self-efficacy beliefs and both current and past experience with students exhibiting CDB could be explored by dividing participants into groups of those who have both current and past experience, only current experience, and only past experience. These group scores on the modified TSES could be compared. Further, follow-up interviews with each group could serve to increase knowledge about the important aspects of experience with CDB that are associated with classroom management self-efficacy for working with students displaying CDB.

In order to better understand what variables may be related to teacher self-efficacy beliefs when working with students displaying CDB, researchers could use a mixed methodology approach. First, researchers could give teachers the modified TSES. Based on their scores, the teachers can be separated into a high scoring group and a low scoring group. Teachers from each group could then be interviewed or participate in focus groups. Additionally, classroom observations could be conducted with members of each group. This would allow researchers to uncover variables related to self-efficacy beliefs and understand the experience and needs of teachers working with students exhibiting CDB.

Practice Implications

Based on preliminary evidence of the construct-related validity evidence of the modified TSES, this instrument provides a promising assessment of teacher self-efficacy beliefs regarding working with students displaying CDB. Recently, teacher stress related to working with students exhibiting CDB has been correlated with teacher attrition (Tsouloupas et al., 2010) and teachers' reported concerns about their ability to effectively teach this population (Bromfield, 2006). At the same time, due to changes in special education law, the number of students displaying CDB in general education classrooms is increasing (Algozzine & Algozzine, 2007). Unfortunately, these students are at risk of lifelong difficulties, especially if they do not succeed academically (United States Department of Education, 2001). To address these concerns, the modified TSES may be used with teachers to help them assess their self-efficacy beliefs related to working with students experiencing CDB. For example, teachers with low self-efficacy beliefs could be placed in mentoring relationships with those who have high self-efficacy beliefs. This would provide support for those with low self-efficacy beliefs

and allow those with high self-efficacy beliefs to continue to reflect on their practice with students displaying CDB.

The results of this study showed a relationship between self-efficacy beliefs related to teaching students displaying CDB and both past training and support. These results can be utilized by those training and supporting teachers. For example, because the majority of teachers in this study reported a lack of training specific to this population, there is a need for the inclusion of education regarding effective teaching of students exhibiting CDB in undergraduate and graduate training programs. Additionally, current teachers would benefit from inservice training involving diagnosis, interventions, and best practices for teaching students displaying CDB. Also, because teachers have reported that they utilize support when student problems are demanding and when they perceive other staff members to be available, trustworthy, open, knowledgeable, and able to maintain confidentiality (Tatar, 2009), the formation of supportive collegial relationships will be beneficial to help teachers maintain high self-efficacy beliefs related to teaching students exhibiting CDB. Specifically, it is important that school administrators organize time for supportive collaboration that involves confidentiality, trust, and accurate information. Additionally, in their roles as decision makers, principals determine the content of professional development and the use of employee time. In these roles, principals can assist teachers to work more effectively with students displaying CDB by scheduling trainings and allowing school psychologists, social workers, and school counselors to utilize their time in consultation with teachers.

The results of this study have implications for counseling psychologists working with teachers or school counselors. Students displaying CDB frequently receive special education

services within the school. These services frequently involve the formation of treatment teams (Farmer, Compton, Burns, & Robertson, 2002), which include psychologists. When participating in these treatment teams, psychologists could provide consultation that would support teachers working with these students. For example, psychologists can provide empathetic responses to teachers' frustrations, information concerning the characteristics and needs of students exhibiting CDB, and informal training regarding effective interventions. Additionally, psychologists can assist teachers by encouraging collaboration between teachers, administrators, parents, and other professional staff. In their communication with administrators, psychologists can advocate for the development of supportive environments that allow teachers to have time for collaboration and access to training regarding teaching students displaying CDB. As experts in human behavior and change, psychologists may be asked to provide professional development regarding CDB to groups of teachers. When conducting these trainings, psychologists may utilize the TSES in order to help teachers explore their self-efficacy beliefs regarding teaching students exhibiting CDB. Also, psychologists can use the modified TSES to assess potential changes in teacher self-efficacy beliefs as a result of participation in trainings. To remain supportive after trainings or individual consultations, psychologists should be available for follow-up questions or concerns. Lastly, university professors who instruct future school counselors and school psychologists may provide training on CDB. This will help to prepare school counselors and school psychologists to support teachers working with students exhibiting CDB.

Conclusion

In conclusion, the results of the current study show initial evidence of construct-related validity for the modified TSES. Specifically, the results indicated the three-factor structure of the TSES which was found in previous research (e.g., Klassen & Chiu, 2010; Tschannen-Moran & Woolfolk Hoy, 2001). Relationships were found between all three types of teacher self-efficacy beliefs for working with students exhibiting CDB and both previous training and perceived support. Also, a significant relationship was found between classroom management self-efficacy beliefs and past experience teaching students with CDB. In general, these results converge with previous research related to general teacher self-efficacy beliefs.

Future research should utilize the modified TSES to provide further evidence for construct-related validity and to assist researchers in understanding the role of training in self-efficacy beliefs regarding teaching students exhibiting CDB. The use of qualitative methodologies may be beneficial in understanding the development, trajectory, and maintenance of supportive environments as they relate to self-efficacy beliefs regarding teaching students with CDB. The modified TSES may be used with practicing teachers to assess and allow for reflection of self-efficacy beliefs for teaching this population. Finally, counseling psychologists can use these results in their collaboration, consultation, and training of administrators, teachers, school counselors, and school psychologists.

REFERENCES

- Abramson, L. Y., Seligman, M. E., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology, 87*, 49-74. Retrieved from <http://www.apa.org/pubs/journals/abn/index.aspx>
- Algozzine, K., & Algozzine, B. (2007). Classroom instructional ecology and school-wide positive behavior support. *Journal of Applied School Psychology, 24*, 29-47. doi:10.1300/J370v24n01_02
- Algozzine, K., Christian, C., Marr, M. B., McClanahan, T., & White, R. (2008). Demography of problem behavior in elementary schools. *Exceptionality, 16*, 93-104. doi: 10.1080/09362830801981369
- Anderson, J. A. (2001). A comparison of the academic progress of students with EBD and students with LD. *Journal of Emotional and Behavioral Disorders, 9*, 106-116. Retrieved from <http://ebx.sagepub.com/>
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.
- Armor, D., Conry-Osequera, P., Cos, M., Kin, N., McDonnell, L., Pascal, A., . . . Zellman, G. (1976). *Analysis of the school preferred reading program in selected Los Angeles minority schools*. Retrieved from ERIC database. (ED130243)
- Ashton, P. T., Webb, R. B., & Doda, N. (1983). *A study of teachers' sense of efficacy*. Retrieved from ERIC database. (ED231833)

- Aydin, Y. C., & Woolfolk Hoy, A. (2005). What predicts student teacher self-efficacy? *Academic Exchange Quarterly, 10*, 123-127. Retrieved from <http://rapidintellect.com/AEQweb/>
- Baker, J. A., Grant, S., & Morlock, L. (2008). The teacher-student relationship as a developmental context for children with internalizing or externalizing behavior problems. *School Psychology Quarterly, 23*, 3-15. doi: 10.1037/1045-3830.23.1.3
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191-215. Retrieved from <http://www.apa.org/pubs/journals/rev/>
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122-147. doi: 0003-066X82/3702-0122100.75
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W. H. Freeman.
- Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology, 88*, 87-99. doi: 10.1037/0021-9010.88.1.87
- Barkley, R. A. (2003). Attention-deficit/hyperactivity disorder. In E. J. Mash & R. A. Barkley (Eds.), *Child psychopathology* (2nd ed.); (pp. 75-143). New York, NY: Guilford Press.
- Berman, P., McLaughlin, M. W., Bass, G., Pauly, E., & Sellman, G. (1977). *Federal programs supporting educational change, vol. VII: Factors affecting implementation and continuation*. Retrieved from ERIC database. (ED140432)
- Bleicher, R. E. (2004). Revisiting the STEBI-B: Measuring self-efficacy in preservice elementary teachers. *School Science and Mathematics, 104*, 383-392. Retrieved from <http://ssmj.tamu.edu/>

- Bromfield, C. (2006). PGCE secondary trainee teachers and effective behavior management: An evaluation and commentary. *Support for Learning, 21*, 188-193. doi:10.1111/j.1467-9604.2006.00430.x
- Brownell, M. T., & Pajares, F. M. (1996). *The influence of teachers' efficacy beliefs on perceived success in mainstreaming students with learning and behavior problems: A path analysis*. Retrieved from ERIC database. (ED409661)
- Burke, J. D., Lober, R., & Lahey, B. B. (2003). Course and outcomes. In C. A. Essau (Ed.), *Conduct and oppositional defiant disorders: Epidemiology, risk factors, and treatment* (pp. 61-94). Mahwah, NJ: Lawrence Erlbaum Associates.
- Burns, M. K., Jacob, S., & Wagner, A. R. (2008). Ethical and legal issues associated with using response-to-intervention to assess learning disabilities. *Journal of School Psychology, 46*, 263-279. doi:10.1016/j.jsp.2007.06.001
- Chester, M. D., & Beaudin, B. Q. (1996). Efficacy beliefs of newly hired teachers in urban schools. *American Educational Research Journal, 33*, 233-257. Retrieved from <http://aer.sagepub.com/>
- Coalition for Psychology in Schools and Education. (2006). *Report on the Teacher Needs Survey*. Retrieved from http://www.apa.org/ed/cpse/teachersneeds_final.pdf
- Cohen, M. A. (1998). The monetary value of saving a high-risk youth. *Journal of Quantitative Criminology, 14*, 5-33. Retrieved from <http://www.springer.com/social+sciences/criminology/journal/10940>

- Coladarci, T., & Breton, W. A. (1997). Teacher efficacy, supervision, and the special education resource-room teacher. *The Journal of Educational Research, 90*, 230-239. Retrieved from <http://www.heldref.org/pubs/jer/about.html>
- Conduct Problems Prevention Research Group. (2007). Fast track randomized controlled trial to prevent externalizing psychiatric disorders: Findings from grades 3 to 9. *Journal of the American Academy of Child & Adolescent Psychiatry, 46*, 1250-1262. doi: 10.1097/chi.0b013e31813e5d39.
- Cook, B. G. (2002). Inclusive attitudes, strengths, and weaknesses of preservice general educators enrolled in a curriculum infusion teacher preparation program. *Teacher Education and Special Education, 25*, 262-277. doi:10.1177/088840640202500305
- DeForest, P. A., & Hughes, J. N. (1992). Effect of teacher involvement and teacher self-efficacy on ratings of consultant effectiveness and intervention acceptability. *Journal of Educational and Psychological Consultation, 3*, 301-316. Retrieved from <http://www.informaworld.com/smpp/title~content=t775653646~db=all>
- Dellinger, A. B., Bobbett, J. J., Olivier, D. F., & Ellet, C. D. (2008). Measuring teachers' self-efficacy beliefs: Development and use of the TEBS-Self. *Teaching and Teacher Education, 24*, 751-766. doi:10.1016/j.tate.2007.02.010
- Educator certification, recertification and preparation. (2010). Retrieved February 16, 2010 from <http://www.isbe.state.il.us/certification/requirements/toc.htm>
- Edwards, J. L. (1996). *Teacher efficacy and school and teacher characteristics*. Retrieved from ERIC database. (ED397055)

- Edwards, J. L., & Green, K. E. (1999). *Persisters versus nonpersisters: Characteristics of teachers who stay in a professional development program*. Retrieved from ERIC database. (ED439115)
- Edwards, J. L., Green, K. E., & Lyons, C. A. (2002). Personal empowerment, efficacy, and environmental characteristics. *Journal of Educational Administration, 40*, 67-87. doi: 10.1108/09578230210415625
- Egyed, C. J., & Short, R. J. (2006). Teacher self-efficacy, burnout, experience, and decision to refer a disruptive student. *School Psychology International, 27*, 462-474. doi: 10.1177/014303406070432
- Emmer, E. T., & Hickman, J. (1991). Teacher efficacy in classroom management and discipline. *Educational & Psychological Measurement, 51*, 755-766. doi: 10.1177/0013164491513027
- Enochs, L. G., & Riggs, I. M. (1990). Further development of an elementary science teaching efficacy belief instrument: A preservice elementary scale. *School Science and Mathematics, 90*, 694-711. Retrieved from <http://ssmj.tamu.edu/>
- Enochs, L. G., Smith, P. L., & Huinker, D. (2000). Establishing factorial validity of the mathematics teaching efficacy beliefs instrument. *School Science and Mathematics, 100*, 194-103. Retrieved from <http://ssmj.tamu.edu/>
- Essau, C. A. (2003). Epidemiology and comorbidity. In C. A. Essau (Ed.), *Conduct and oppositional defiant disorders: Epidemiology, risk factors, and treatment* (pp. 33-59). Mahwah, NJ: Lawrence Erlbaum Associates.

- Evans-Palmer, T. (2010). The potency of humor and instructional self-efficacy on art teacher stress. *Studies in Art Education, 52*, 69-84. Retrieved from <http://www.arteducators.org/contact-us/studies>
- Evertson, C. M., & Weinstein, C. S. (2006). *Handbook of classroom management research, practice, and contemporary issues*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Farmer, E. M. Z., Compton, S. N., Burns, J. B., & Robertson, E. (2002). Review of the evidence base for treatment of childhood psychopathology: Externalizing disorders. *Journal of Consulting and Clinical Psychology, 70*, 1267-1302. doi: 10.1037/0022-006X.70.6.1267
- Farmer, T. W., Estell, D. B., Hall, C. M., Pearl, R., Van Acker, R., & Rodkin, P. C. (2008). Interpersonal competence configurations, behavior problems, and social adjustment in preadolescence. *Journal of Emotional and Behavioral Disorders, 16*, 195-212. doi: 10.1177/1063426608320355
- Fives, H., & Buehl, M. M. (2010). Examining the factor structure of the Teachers' Sense of Efficacy Scale. *The Journal of Experimental Education, 78*, 118-134. doi: 10.1080/00220970903224461
- Fowler, L. T. S., Banks, T. L., Anhalt, K., Hinrichs Der, H., & Kalis, T. (2008). The association between externalizing behavior problems, teacher-student relationship quality, and academic performance in young urban learners. *Behavioral Disorders, 33*, 167-183. Retrieved from <http://www.ccbd.net/behavioraldisorders/>

- Fry, S. W. (2009). Characteristics and experiences that contribute to novice elementary teachers' success and efficacy. *Teacher Education Quarterly*, 36, 95-110. Retrieved from <http://www.teqjournal.org/>
- Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76, 569-582. Retrieved from <http://www.apa.org/journals/edu/>
- Greene, R. W., Beszterczey, S. K., Katzenstein, T., Park, K., & Goring, J. (2002). Are students with ADHD more stressful to teach? *Journal of Emotional & Behavioral Disorders*, 10, 79-90. Retrieved from <http://ebx.sagepub.com/>
- Gresham, G. (2009). An examination of mathematics teacher efficacy and mathematics anxiety in elementary preservice teachers. *The Journal of Classroom Interaction*, 44, 22-39. Retrieved from <http://www.jciuh.org/index.htm>
- Hall, B. W. (1992). *Attributions that teachers hold to account for student success and failure and their relationship to teaching level and teacher efficacy beliefs*. Retrieved from ERIC database. (ED349280)
- Hancock, C. B. (2008). Music teachers at risk for attrition and migration. *Journal of Research in Music Education*, 56, 130-145. Retrieved from <http://jrm.sagepub.com/>
- Henson, R. K., Kogan, L. R., & Vacha-Haase, T. (2001). A reliability generalization study of the Teacher Efficacy Scale and related instruments. *Educational and Psychological Measurement*, 61, 404-421. Retrieved from <http://epm.sagepub.com/>
- Hinshaw, S. P., & Lee, S. S. (2003). Conduct and oppositional defiant disorders. In E. J. Mash & R. A. Barkley (Eds.), *Child psychopathology*, (2nd ed.); (pp. 144-198). New York, NY: The Guilford Press.

- Housego, B. E. J. (1992). Monitoring student teachers: Feelings of preparedness to teach, personal teaching efficacy, and teaching efficacy in a new secondary teacher education program. *The Alberta Journal of Educational Research*, 38, 49-64. Retrieved from <http://www.education.ualberta.ca/educ/journals/ajer.html>
- Hughes, J. N., Cavell, T., & Wilson, V. (2001). Further support for the developmental significance of the quality of the teacher-student relationship. *Journal of School Psychology*, 39, 289-301. Retrieved from http://www.elsevier.com/wps/find/journaldescription.cws_home/699/authorinstructions
- Interactive Illinois report card. (2010). Retrieved February 14, 2010, from <http://iirc.niu.edu/District.aspx?DistrictID=04101205025>
- Johnson, W., McGue, M., & Iacono, W. G. (2005). Disruptive behavior and school grades: Genetic and environmental relations in 11 year-olds. *Journal of Educational Psychology*, 97, 391-405. doi: 10.1037/0022-0663.97.3.391
- Kavale, K. A., Forness, S. R., & Mostert, M. P. (2005). Defining emotional and behavioral disorders: The quest for affirmation. In P. Clough, P. Garner, J. T. Pardeck, & F. Yuen (Eds.), *Handbook of emotional and behavioral difficulties* (pp. 45-58). Thousand Oaks, CA: Sage Publications Incorporated.
- Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102, 741-756. doi: 10.1037/a0019237

- Klassen, R. M., Tze, V. M. C., Betts, S. M., & Gordon, K. A. (2011). Teacher efficacy research 1998-2009: Signs of progress or unfulfilled promise? *Educational Psychology Review*, 23, 21-43. doi: 10.1007/s10648-010-9141-8
- Lahey B. B., Loeber, R., & Burke, J. (2002). Waxing and waning in concert: Dynamic comorbidity of conduct disorder with other disruptive and emotional problems over 17 years among clinic-referred boys. *Journal of Abnormal Psychology*, 111, 556-567. doi: 10.1037//0021-843X.111.4.556
- Lambert, E. W., Wahler, R. G., & Andrade, A. R. (2001). Looking for the disorder in conduct disorder. *Journal of Abnormal Psychology*, 11, 110-123. doi: 10.1037/0021-843X.110.1.110
- Leroy, N., Bressoux, P., Sarrazin, P., & Trouilloud, D. (2007). Impact of teachers' implicit theories and perceived pressures on the establishment of an autonomy supportive climate. *European Journal of Psychology of Education*, 22, 529-545. Retrieved from [http://www.springer.com/new+&+forthcoming+titles+\(default\)/journal/10212](http://www.springer.com/new+&+forthcoming+titles+(default)/journal/10212)
- Meijer, C. J. W., & Foster, S. F. (1988). The effect of teacher self-efficacy on referral chance. *The Journal of Special Education*, 22, 378-384. Retrieved from <http://sed.sagepub.com/>
- Meister, D. G., & Melnick, S. A. (2003). National new teachers study: Beginning teachers' concerns. *Action in Teacher Education*, 24, 87-94.
- Michigan Department of Education Office of Professional Preparation Services. (2011). *Facts on educator certification*. Retrieved from http://www.michigan.gov/documents/mde/Facts_About_Teacher_Certification_In_Michigan_230612_7.pdf

- Moffitt, T. E. (1993). Adolescence-limited and life-course persistent antisocial behavior: A developmental taxonomy. *Psychological Review*, *100*, 674-701. doi: 10.1037/0033-295X.100.4.674
- Morgan, P. L., Farkas, G., & Wu, Q. (2009). Kindergarten predictors of recurring externalizing and internalizing psychopathology in the third and fifth grades. *Journal of Emotional and Behavioral Disorders*, *17*, 67-79. doi: 10.1177/1063426608324724
- National Center for Education Statistics. (2011). *American community survey 2005-2009*. Retrieved June 21, 2011 from <http://nces.ed.gov/surveys/sdds/acs09/index.aspx>
- National Center for Juvenile Justice. (2007). *Juvenile court statistics 2003-2004*. Retrieved from <http://www.ncjrs.gov/pdffiles1/ojjdp/218587.pdf>
- National Education Association. (2010). *Status of the American public school teacher 2005-2006*. Retrieved from <http://www.nea.org/assets/docs/HE/200506StatusTextand/AppendixA.pdf>
- National Institute of Mental Health. (2007). *Attention deficit hyperactivity disorder* [Brochure]. Retrieved from: <http://www.nimh.nih.gov/health/publications/adhd/complete-publication.shtml>
- National Legal News. (2008). *Juvenile law* [Fact sheet]. Retrieved from <http://www.lawyershop.com/news/practice-areas/criminal-law/juvenile-law/faqs/>
- Nelson, J. R., & Roberts, M. L. (2000). Ongoing reciprocal teacher-student interactions involving disruptive behaviors in general education classrooms. *Journal of Emotional and Behavioral Disorders*, *8*, 27-38. Retrieved from <http://ebx.sagepub.com/>

- Nicholson, T. (2005). Academic achievement and behavior: An axiomatic link? In P. Clough, P. Garner, J. T. Pardeck, & F. Yuen (Eds.), *Handbook of emotional and behavioral difficulties* (pp. 45-58). Thousand Oaks, CA: Sage Publications.
- Pigge, F. L., & Marso, R. N. (1993). *Outstanding teachers' sense of teacher efficacy at four stages of career development*. Retrieved from ERIC database. (ED356206)
- Raudenbush, S. W., Rowan, B., & Cheong, Y. F. (1992). Contextual effects on the self-perceived efficacy of high school teachers. *Sociology of Education*, *65*, 150-167.
Retrieved from <http://soe.sagepub.com/>
- Reducing crime: Changing the trajectory of troubled lives: Joint Hearing before the Judiciary Subcommittee on Crime, Terrorism, and Homeland Security and Education Subcommittee on Healthy Families and Communities, 111th Cong. 12 (2009) (testimony of Thomas Blomberg)*. Retrieved from <http://judiciary.house.gov/hearings/pdf/Blomberg090312.pdf>
- Rimm-Kaufman, S. E., & Sawyer, B. E. (2004). Primary-grade teachers' self-efficacy beliefs, attitudes toward teaching, and discipline and teaching practice priorities in relation to the "Responsive Classroom" approach. *The Elementary School Journal*, *104*, 321-341.
doi: 10.1086/499756
- Ross, J. A. (1994). The impact of an inservice to promote cooperative learning on the stability of teacher efficacy. *Teaching and Teacher Education*, *10*, 381-394. Retrieved from http://www.elsevier.com/wps/find/journaldescription.cws_home/224/description#description

- Ross, J. A., Cousins, J. B., & Gadalla, T. (1996). Within teacher predictors of teacher efficacy. *Teaching and Teacher Education, 12*, 385-400. Retrieved from http://www.elsevier.com/wps/find/journaldescription.cws_home/224/description#description
- Rotter, J. B. (1954). *Social learning and clinical psychology*. Englewood Cliffs, NJ: Prentice-Hall.
- Sbarra, D., & Pianta, R. (2001). Teacher ratings of behavior among African American and Caucasian children during the first two years of school. *Psychology in the Schools, 38*, 229-238. Retrieved from <http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291520-6807;jsessionid=D29BA6F85983F14CF7D05B2676EC43BA.d01t02>
- Smolleck, L. A., & Yoder, E. P. (2008). Further development and validation of the Teaching Science as Inquiry (TSI) instrument. *School Science and Mathematics, 108*, 291-312. Retrieved from <http://ssmj.tamu.edu/>
- Soodak, L. C., & Podell, D. M. (1994). Teachers' thinking about difficult-to-teach students. *Journal of Educational Research, 88*, 44-51. Retrieved from <http://www.heldref.org/pubs/jer/about.html>
- Soodak, L. C., Podell, D. M., & Lehman, L. R. (1998). Teacher, students, and school attributes as predictors of teachers' responses to inclusion. *Journal of Special Education, 31*, 480-498. Retrieved from <http://sed.sagepub.com/>
- Stein, M. K., & Wang, M. C. (1988). Teacher development and school improvement: The process of teacher change. *Teaching and Teacher Education, 4*, 174-187. Retrieved from http://www.elsevier.com/wps/find/journaldescription.cws_home/224/description#description

- Sutherland, K. S., Lewis-Palmer, T., Stichter, J., & Morgan, P. L. (2008). Examining the influence of teacher behavior and classroom context on the behavioral and academic outcomes for students with emotional or behavioral disorders. *Journal of Special Education, 41*, 223-233. doi: 10.1177/0022466907310372
- Swars, S. L., Daane, C. J., & Giesen, J. (2006). Mathematics anxiety and mathematics teacher efficacy: What is the relationship in elementary preservice teachers? *School Science and Mathematics, 106*, 306-315. Retrieved from <http://ssmj.tamu.edu/>
- Tatar, M. (2009). Teachers turning for help to school counsellors and colleagues: Toward a mapping of relevant predictors. *British Journal of Guidance & Counselling, 37*, 107-127. doi: 107127
- Thornton, B., Peltier, G., & Medina, R. (2007). Reducing the special education teacher shortage. *Clearing House, 80*, 233-238. Retrieved from <http://www.tandf.co.uk/journals/titles/00098655.asp>
- Tschannen-Moran, M., & McMaster, P. (2009). Sources of self-efficacy: Four professional development formats and their relations to self-efficacy and implementation of a new teaching strategy. *The Elementary School Journal, 110*, 228-245. doi: 10.1086/605771
- Tschannen-Moran, M., & Woolfolk Hoy, A. (n.d.). The Teachers' Sense of Efficacy Scale. Retrieved from <http://people.ehe.ohio-state.edu/ahoy/files/2009/02/tses.pdf>
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*, 783-805. Retrieved from http://www.elsevier.com/wps/find/journaldescription.cws_home/224/description#description

- Tschannen-Moran, M., & Woolfolk Hoy, A. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education, 23*, 944-956. doi: 10.1016/j.tate.2006.05.003
- Tschannen-Moran, M., Woolfolk Hoy, A., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research, 68*, 202-248. Retrieved from <http://rer.sagepub.com/>
- Tsouloupas, C. N., Carson, R. L., Matthews, R., Grawitch, M. J., & Barber, L. K. (2010). Exploring the association between teachers' perceived student misbehavior and emotional exhaustion: The importance of teacher efficacy beliefs and emotion regulation. *Educational Psychology, 30*, 173-189. doi: 10.1080/01443410903494460
- Tucker, C. M., Porter, T., Reinke, W. M., Herman, K. C., Ivery, P. D., Mack, C. E., & Jackson, E. S. (2005). Promoting teacher efficacy for working with culturally diverse students. *Preventing School Failure, 50*, 29-34. doi: 10.3200/PSFL.50.1.29-34
- United States Department of Education. (2001). *Twenty-third annual report to Congress on the implementation of the Individuals with Disabilities Education Act*. Retrieved from <http://www.ed.gov/about/reports/annual/osep/2001/section-i.pdf>
- United States Department of Education. (2007). *Twenty-seventh annual report to Congress on the implementation of the Individuals with Disabilities Education Act*. Retrieved from <http://www.ed.gov/about/reports/annual/osep/2005/parts-b-c/27th-vol-1.pdf>
- Urban Strategies Council. (2007). *The rising cost of incarceration: Criminal investment decisions*. Retrieved from http://www.urbanstrategies.org/programs/csj/documents/CostsofIncarcerationFlyer_08.06.07_BH.pdf

- Wagner, M., Friend, M., Bursuck, W. D., Kutash, K., Duchnowski, A. J., Sumi, W. C., & Epstein, M. H. (2006). Educating students with emotional disturbances: A national perspective on school programs and services. *Journal of Emotional and Behavioral Disorders, 14*, 12-30. Retrieved from <http://ebx.sagepub.com/>
- Wagner, M., Kutash, K., Duchnowski, A. J., Epstein, M. H., & Sumi, W. C. (2005). The children and youth we serve: A national picture of the characteristics of students with emotional disturbances receiving special education. *Journal of Emotional and Behavioral Disorders, 13*, 79-96. Retrieved from <http://ebx.sagepub.com/>
- Waschbusch, D. A. (2002). A meta-analytic examination of comorbid hyperactive-impulsive-attention problems and conduct problems. *Psychological Bulletin, 128*, 118-150. doi: 10.1037/0033-2909.128.1.118
- Williams, R. (2009). Gaining a degree: The effect on teacher self-efficacy emotions. *Professional Development in Education, 35*, 601-612. doi:10.1080/19415250903059558
- Wolters, C. A., & Daugherty, S. G. (2007). Goal structures and teachers' sense of efficacy: Their relation and association to teaching experience and academic level. *Journal of Educational Psychology, 99*, 181-193. doi:10.1037/0022-0663.99.1.181
- Woods, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review, 14*, 361-384. Retrieved from <http://www.aom.pace.edu/amr/>

- Woolfolk, A., Rosoff, B., & Hoy, W. K. (1990). Teachers' sense of efficacy and their beliefs about managing students. *Teaching and Teacher Education*, 6, 137-178. Retrieved from http://www.elsevier.com/wps/find/journaldescription.cws_home/224/description#description
- Woolfolk, A. E., & Hoy, W. K. (1990). Prospective teachers' sense of efficacy and beliefs about control. *Journal of Educational Psychology*, 82, 81-91. Retrieved from <http://www.apa.org/journals/edu/>
- Woolfolk Hoy, A., & Burke Spero, R. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education*, 21, 343-356. doi:10.1016/j.tate.2005.01.007
- Woolfson, L. M., & Brady, K. (2009). An investigation of factors impacting on mainstream teachers' beliefs about teaching students with learning difficulties. *Educational Psychology*, 29, 221-238. doi:10.1080/01443410802708895
- World Health Organization. (2004). *Prevention of mental disorders: Effective interventions and policy options*. Retrieved from http://www.who.int/mental_health/evidence/en/prevention_of_mental_disorders_sr.pdf
- Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The Counseling Psychologist*, 34, 806-838. doi: 10.1177/0011000006288127

APPENDIX A: INITIAL SURVEY

Teacher Self-Efficacy Beliefs Related to Chronic Disruptive Behavior

1. What is your gender?

- Male
- Female

2. What is your ethnicity/race? Please mark all that apply

- American Indian
- Asian
- Black or African American
- Latino or Hispanic
- Multi-racial
- White
- Other (Please specify):

3. Which of the following most accurately describes your highest level of education?

- Bachelor's degree
- Bachelor's degree plus additional credit hours
- Master's degree
- Master's degree plus additional credit hours
- Other (Please specify):

4. Which of the following best describes your teaching certification?

- Provisional Certificate (Initial)
- Professional Education Certificate (Advanced)
- Other (Please specify):

5. How many years of teaching experience do you have?

6. How many years of teaching experience do you have at each of the following grade levels?

- Kindergarten
- 1st grade
- 2nd grade
- 3rd grade
- 4th grade
- 5th grade
- 6th grade
- 7th grade
- 8th grade
- Other (Please specify)

7. Which of the following best describes the primary focus area you currently teach?

- General education
- Special education resource room
- Special education self-contained
- Bilingual education/English as a second language
- Art education
- Music education
- Physical education
- Other (Please specify):

This study is gathering information related to students who display chronic disruptive behaviors.

Chronic disruptive behavior is defined as persistent observable actions which frequently have a negative impact on academic or social functioning and involve one or more of the following: annoying peers or adults, impulsive actions, disobeying rules, physical aggression toward peers or authority figures, verbal aggression toward peers or authority figures, and breaking of laws.

8. Please indicate the approximate number of students you are working with during the 2010-2011 school year who display chronic disruptive behavior.

9. Not including the current 2010-2011 school year, please indicate the approximate number of students you have worked with in your career who have displayed chronic disruptive behavior.

10. Have you received previous training or professional development concerning working with students displaying chronic disruptive behaviors?

- Yes
- No

11. If you have received previous training or professional development concerning working with students displaying chronic disruptive behaviors, please indicate in which of the following contexts you received this professional development.

- As part of an undergraduate program
- As part of a graduate program
- As part of a profession development or continuing education workshop or seminar
- Other (Please explain)

12. If you were given the opportunity to participate in a one day professional development seminar about effective teaching strategies for students displaying chronic disruptive behaviors, which of the following best explains your response.

- I would attend
- I would not attend

13. As it relates to working with students displaying chronic disruptive behavior, rate the interpersonal support you have received from

	Non-existent		Poor		Ade-quate		Good		Excel- lent
	1	2	3	4	5	6	7	8	9
Other teachers in your building	<input type="radio"/>								
Administrators	<input type="radio"/>								
Professional staff such as school counselors, social workers, psychologists, or nurses	<input type="radio"/>								
Parents	<input type="radio"/>								

(Tschannen-Moran and Woolfolk Hoy, 2007)

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. Your answers are confidential.

Chronic disruptive behavior is defined as persistent observable actions which frequently have a negative impact on academic or social functioning and involve one or more of the following: annoying peers or adults, impulsive actions, disobeying rules, physical aggression toward peers or authority figures, verbal aggression toward peers or authority figures, and breaking of laws.

When answering the following questions, please think specifically of students who display chronic disruptive behavior

The 12 questions from the short form of the Teacher Self-Efficacy Scale followed here (Tschannen-Moran & Woolfolk-Hoy, 2001).

APPENDIX B: INITIAL E-MAIL TO POTENTIAL PARTICIPANTS

Dear Elementary Education Colleague,

As a former teacher and current school counselor, I have become interested in helping students who display chronic disruptive behavior. I am inviting you to participate in a brief online survey about your experiences and thoughts related to working with students who display chronic disruptive behaviors. I identified you as a possible participant in this study based on your position as an elementary school teacher. I am conducting this study as part of a doctoral dissertation under the direction of Dr. Michele C. Boyer from the Department of Communication Disorders and Counseling, School, and Educational Psychology at Indiana State University.

Your participation in this online study does not pose greater than minimal risk, and there are no costs to you for participating in the study. The information you provide will contribute to advances in teacher preparation and knowledge that may help further children's education. The online questionnaire should take less than 9 minutes to complete. Although the information collected may not benefit you directly, the knowledge gained from this study could be helpful to teachers who work with children displaying chronic disruptive behaviors.

Your responses to the online survey will be kept confidential. You will not be asked to include your name or e-mail address on any of the items, and the online survey tool does not allow me to connect answers to specific individuals. Although it is highly unlikely that your identity will ever be known, please remember that transmissions via the internet are never completely secure. The results of this study will be used as part of my doctoral dissertation and may be published in a professional journal or presented in professional settings. No participants will be individually identified in either publications or presentations.

Your participation in this online study is voluntary, and you may discontinue your participation at any time without penalty. I obtained your e-mail address through a public domain (i.e., your school website) and want to emphasize that your participation is not a requirement of your job. By clicking on the link below, completing the survey, and submitting it you are voluntarily agreeing to participate. You are free to decline to answer any question you do not wish to answer for any reason.

In order to protect your confidentiality, the online response system does not retain a record of your personal e-mail information. Because I have no way of knowing which invited participants have completed the survey, in approximately three weeks, I will re-send this

invitation to all potential participants. When you receive the second e-mail, if you have already completed the survey, please disregard the invitation. If you do not wish to receive this second e-mail, you may send an e-mail to kjones56@indstate.edu and your e-mail address will be removed from the invitation e-mail list.

If you have any questions about the study, please contact Kalinda R. Jones by phone at 734-323-3995 or by e-mail at kjones56@indstate.edu. You may also contact Dr. Michele C. Boyer by mail at 401 N. 7th Street, Bayh College of Education, Rm. 226, Terre Haute, IN 47809, by phone at (812) 237-7693, or by e-mail at Michele.Boyer@indstate.edu.

If you have any questions about your rights as a research subject or if you feel you've been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN, 47809, by phone at (812) 237-8217, or by e-mail at irb@indstate.edu.

The following link will take you directly to the survey. Please click on the link or copy and paste it into your browser window:

https://indstate.qualtrics.com/SE/?SID=SV_bQ9Ucn6ZiNm0ppi

After reading this e-mail, please delete it.

Thank you in advance for your time and help!

Kalinda R. Jones, M. A.

Ph.D. Candidate, Counseling Psychology, Indiana State University

(734)323-3995

kjones56@indstate.edukjones56@indstate.edu

APPENDIX C: REVISED E-MAIL INVITATION FOR
PREVIOUSLY INVITED PARTICIPANTS

Dear Elementary Education Colleague,

As a former teacher and current school counselor, I have become interested in helping students who display chronic disruptive behavior. I am inviting you to participate in a brief online survey about your experiences and thoughts related to working with these students. It is my hope that the results of this study will be helpful to teachers who work with children exhibiting chronic disruptive behaviors.

This survey should take less than 9 minutes to complete. In return for your time, at the end of the survey you will be given the opportunity to enter a drawing for a \$50 gift certificate to Amazon.com. If you previously completed this survey and would like to be entered into the drawing, please contact me via e-mail and I will gladly add your name to the drawing.

Clicking on the link will take you to an informed consent introduction and to the survey:
https://indstate.qualtrics.com/SE/?SID=SV_37SkEs449xDyV1O

Thank you in advance for your time and help!

Kalinda R. Jones, M. A.

Ph.D. Candidate, Counseling Psychology, Indiana State University

(734)323-3995

kjones56@indstate.edu

APPENDIX D: REVISED E-MAIL INVITATION FOR NEW PARTICIPANTS

Dear Elementary Education Colleague,

As a former teacher and current school counselor, I have become interested in helping students who display chronic disruptive behavior. I am inviting you to participate in a brief online survey about your experiences and thoughts related to working with these students. It is my hope that the results of this study will be helpful to teachers who work with children exhibiting chronic disruptive behaviors.

This survey should take less than 9 minutes to complete. In return for your time, at the end of the survey you will be given the opportunity to enter a drawing for a \$50 gift certificate to Amazon.com.

Clicking on the link will take you to an informed consent introduction and to the survey:
https://indstate.qualtrics.com/SE/?SID=SV_d0toHs0tsXu0RkE

Thank you in advance for your time and help!

Kalinda R. Jones, M. A.

Ph.D. Candidate, Counseling Psychology, Indiana State University

(734)323-3995

kjones56@indstate.edu

APPENDIX E: INFORMED CONSENT AND REVISED SURVEY

Teacher Self-Efficacy Beliefs Related to Chronic Disruptive Behavior**Informed Consent**

Dear Elementary Education Colleague,

I appreciate your willingness to participate in this brief online survey about your experiences and thoughts related to working with students who display chronic disruptive behaviors. I am conducting this study as part of a doctoral dissertation under the direction of Dr. Michele C. Boyer from the Department of Communication Disorders and Counseling, School, and Educational Psychology at Indiana State University.

Your participation in this online study does not pose greater than minimal risk, and there are no costs to you for participating in the study. The information you provide will contribute to advances in teacher preparation and knowledge that may help further children's education. The online questionnaire should take less than 9 minutes to complete. Although the information collected may not benefit you directly, the knowledge gained from this study could be helpful to teachers who work with children displaying chronic disruptive behaviors.

Your responses to the online survey will be kept confidential. You will not be asked to include your name or e-mail address on any of the items, and the online survey tool does not allow me to connect answers to specific individuals. Although it is highly unlikely that your identity will ever be known, please remember that transmissions via the internet are never completely secure. The results of this study will be used as part of my doctoral dissertation and may be published in a professional journal or presented in professional settings. No participants will be individually identified in either publications or presentations.

At the end of the survey, you will be given the option of entering a drawing for a \$50 gift certificate to Amazon.com. If you choose to enter the drawing, you will be directed to a website and asked to provide a contact e-mail address. This e-mail can not be linked to your survey answers and will be kept solely for the purpose of randomly choosing a winner for the gift certificate. After the winner has been chosen and the prize received, all e-mail addresses will be permanently deleted.

Your participation in this online study is voluntary, and you may discontinue your participation

at any time without penalty. I obtained your e-mail address through a public domain (i.e., your school website) and want to emphasize that your participation is not a requirement of your job. By clicking on the arrow below, completing the survey, and submitting it you are voluntarily agreeing to participate. You are free to decline to answer any question you do not wish to answer for any reason.

If you have any questions about the study, please contact Kalinda R. Jones by phone at 734-323-3995 or by e-mail at kjones56@indstate.edu. You may also contact my dissertation adviser, Dr. Michele C. Boyer by mail at 401 N. 7th Street, Bayh College of Education, Rm. 226, Terre Haute, IN 47809, by phone at (812) 237-7693, or by e-mail at Michele.Boyer@indstate.edu.

If you have any questions about your rights as a research subject or if you feel you've been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN, 47809, by phone at (812) 237-8217, or by e-mail at irb@indstate.edu.

Thank you for your time and participation!

Kalinda R. Jones, M. A.

Ph.D. Candidate, Counseling Psychology, Indiana State University

(734)323-3995

kjones56@indstate.edu

Survey

1. What is your gender?

- Male
- Female

2. What is your ethnicity/race? Please mark all that apply

- American Indian
- Asian
- Black or African American
- Latino or Hispanic
- Multi-racial
- White
- Other (Please specify):

3. Which of the following most accurately describes your highest level of education?

- Bachelor's degree
- Bachelor's degree plus additional credit hours
- Master's degree
- Master's degree plus additional credit hours
- Other (Please specify):

4. Which of the following best describes your teaching certification?

- Provisional Certificate (Initial)
- Professional Education Certificate (Advanced)
- Other (Please specify):

5. How many years of teaching experience do you have?

6. How many years of teaching experience do you have at each of the following grade levels?

- Kindergarten
- 1st grade
- 2nd grade
- 3rd grade
- 4th grade
- 5th grade
- 6th grade
- 7th grade
- 8th grade
- Other (Please specify)

7. Which of the following best describes the primary focus area you currently teach?

- General education
- Special education resource room
- Special education self-contained
- Bilingual education/English as a second language
- Art education
- Music education
- Physical education

Other (Please specify):

8. Which county do you currently teach in?

- Kalamazoo County
 Washtenaw County
 Winnebago County
 Macomb County

This study is gathering information related to students who display chronic disruptive behaviors.

Chronic disruptive behavior is defined as persistent observable actions which frequently have a negative impact on academic or social functioning and involve one or more of the following: annoying peers or adults, impulsive actions, disobeying rules, physical aggression toward peers or authority figures, verbal aggression toward peers or authority figures, and breaking of laws.

9. Please indicate the approximate number of students you are working with during the 2010-2011 school year who display chronic disruptive behavior.

10. Not including the current 2010-2011 school year, please indicate the approximate number of

students you have worked with in your career who have displayed chronic disruptive behavior.

11. Have you received previous training or professional development concerning working with students displaying chronic disruptive behaviors?

- Yes
 No

12. If you have received previous training or professional development concerning working with students displaying chronic disruptive behaviors, please indicate in which of the following contexts you received this professional development.

- As part of an undergraduate program
 As part of a graduate program
 As part of a profession development or continuing education workshop or seminar
 Other (Please explain)

13. If you were given the opportunity to participate in a one day professional development

seminar about effective teaching strategies for students displaying chronic disruptive behaviors, which of the following best explains your response.

- I would attend
- I would not attend

14. As it relates to working with students displaying chronic disruptive behavior, rate the interpersonal support you have received from

	Non-existent		Poor		Adequate		Good		Excellent
	1	2	3	4	5	6	7	8	9
Other teachers in your building	<input type="radio"/>								
Administrators	<input type="radio"/>								
Professional staff such as school counselors, social workers, psychologists, or nurses	<input type="radio"/>								
Parents	<input type="radio"/>								

(Tschannen-Moran and Woolfolk Hoy, 2007)

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. Your answers are confidential.

Chronic disruptive behavior is defined as persistent observable actions which frequently have a negative impact on academic or social functioning and involve one or more of the following: annoying peers or adults, impulsive actions, disobeying rules, physical aggression toward peers or authority figures, verbal aggression toward peers or authority figures, and breaking of laws.

When answering the following questions, please think specifically of students who display chronic disruptive behavior

The 12 questions from the short form of the Teacher Self-Efficacy Scale followed here (Tschannen-Moran & Woolfolk-Hoy, 2001).