Spring 2017

Using Professional Development to Build Pre-Service Teachers' Self-Efficacy for Helping Students with Posttraumatic Stress Disorder to Learn

Natalie J. West
Western Kentucky University, natalie.west265@topper.wku.edu

USING PROFESSIONAL DEVELOPMENT TO BUILD PRE-SERVICE TEACHERS' SELF-EFFICACY FOR HELPING STUDENTS WITH POSTTRAUMATIC STRESS DISORDER TO LEARN

A Specialist Project
Presented to
The Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
Of the Requirements for the Degree
Specialist in Education

By
Natalie J. West

May 2017

USING PROFESSIONAL DEVELOPMENT TO BUILD PRE-SERVICE TEACHERS' SELF-EFFICACY FOR HELPING STUDENTS WITH POSTTRAUMATIC STRESS DISORDER TO LEARN

Date Recommended 3-28-17

Lisa C. Duffin, Director of Specialist Project

Samuel Y. Kim

Martha M. Day

Dean, Graduate School 4/24/17 Date

ACKNOWLEDGEMENTS

I must first extend my sincerest appreciation to my thesis chair, Dr. Lisa Duffin, for her unconditional support, guidance, and patience. Dr. Duffin's office door was always open whenever I needed advice or a question answered. She consistently allowed this project to be my own, while guiding me in the right direction and helping me to gain a greater appreciation for quality research. This project would not have happened without Dr. Duffin's steadfast dedication.

I would also like to thank Dr. Samuel Kim and Dr. Martha Day for devoting their time and effort to serve on my specialist project committee. Their assistance and support has helped to not only refine this project but also to sharpen my thinking and research skills.

Lastly, I would like to express my profound gratitude to my friends and family for their continuous support and encouragement throughout my educational career and the process of researching and writing this thesis. I would like to specifically thank my grandmother, Jane Lawson Pearson ("Gran"), for her unwavering optimism, generosity, and guidance. My accomplishments would not have been possible without her.

CONTENTS

LIST OF TABLES

USING PROFESSIONAL DEVELOPMENT TO BUILD PRE-SERVICE TEACHERS' SELF-EFFICACY FOR HELPING STUDENTS WITH POSTTRAUMATIC STRESS DISORDER TO LEARN

Natalie J. West May 2017 73 pages

Directed by: Lisa C. Duffin, Ph.D., Samuel Y. Kim, Ph.D., and Martha M. Day, Ph.D.

Department of Psychology Western Kentucky University

The current study determined if a professional development on PTSD would improve pre-service teachers' self-efficacy for helping students with posttraumatic stress disorder (PTSD) to learn. Participants consisted of 59 college students from one large, comprehensive, Mid-Southern university who were enrolled in an education program and an educational psychology course. Using a quasi-experimental method, participants either received the PTSD professional development (treatment) or regular instruction (control group). All participants completed a measure of demographics, a pre-test measure of self-efficacy for helping students with PTSD to learn, which was further dissected into four constructs (i.e., self-efficacy for identifying students with PTSD, adapting instruction to maximize learning, creating a safe and secure environment, and finding help), and a post-test measure of the same self-efficacy items. A one-way MANOVA indicated statistically significant differences between the two groups in self-efficacy for identifying students with PTSD. Furthermore, a paired-samples t-test revealed that the treatment groups' self-efficacy scores on all four constructs significantly improved from pre- to post-test. Information is offered to support this finding; additionally, possible reasons for non-significant findings are discussed.

Introduction

The most recent APA report noted that over two-thirds of children will experience some sort traumatic event by the time they are 16 years old (La Greca et al., 2008). Trauma-exposed children/adolescents may develop Post Traumatic Stress Disorder (PTSD), which carries with it symptoms such as numbing of general responsiveness, reduced concentration, flashbacks, and persistent symptoms of increased arousal (DSM-5; APA, 2013). Symptoms of PTSD affect children cognitively, as they can cause cognitive load, attention, and working memory difficulties. PTSD also causes difficulties with emotional regulation and heightened safety/security needs (Beers & De Bellis, 2002; Carrion, Wong, & Klette, 2013; Honzel, Justus, & Swick, 2014; Jelinek et al., 2006; Klemen, Buchel, Buhler, Menz, & Rose, 2010; Nadeau & Nolin, 2013; Nikulina & Widom, 2013; Richards & Gross, 2000; Samuelson, Krueger, Burnett, & Wilson, 2010; Scott et al., 2015). Children with PTSD essentially live in a "haunted house" state of arousal, and such problems hinder a student's with PTSD ability to learn in the classroom (Fecser, 2015).

As children are still expected to attend school, many educational professionals are likely to work with students who have been impacted by some traumatic event, putting educators in a prime position to intervene to help the student learn. However, teachers are not necessarily trained nor do they feel confident in helping students with mental health issues to learn (Graham, Phelps, Madison, & Fitzgerald, 2011; State, Kern, Starosta, & Mukherjee, 2011). Self-efficacy is considered to be one's beliefs about his/her abilities to deal with the task at hand or a perceived situation (i.e., confidence; Bandura, 1993).

While having knowledge on a topic is important, self-efficacy is often more critical, as it influences a teacher's decision-making, effort, and persistence in a situation (Fives & Buehl, 2012; Pajares, 1992; Woolfolk-Hoy, Davis, & Pape, 2006). If future teachers have stronger self-efficacy beliefs and knowledge for working with students with PTSD, they are more likely to appropriately manipulate the environment and provide the necessary supports to promote academic success for these students.

Research on pre-service teachers' self-efficacy for and knowledge of PTSD is seriously lacking, despite the breadth and severity of PTSD symptoms in the classroom (Alisic, 2012; Moss & Nichols, 2002; Whitle, Smith, & Vaillancourt, 2013). Thus, it was important to target pre-service teachers, as this is a critical period during which they grow their knowledge, self-efficacy, and teaching beliefs (Cattley, 2007; Gooya, 2007). Ultimately, an investigation into ways to improve pre-service teachers' self-efficacy for helping students with PTSD was warranted.

Overall, there is a dearth in the literature regarding childhood PTSD and its correlates in the classroom, as well as pre-service teachers' knowledge of this domain and their self-efficacy in working with these students. Thus, the objective of this study was to determine if a PTSD professional development could increase pre-service teachers' self-efficacy for helping students with PTSD overcome challenges and learn. It was hypothesized that pre-service teachers who received a PTSD professional development would have significantly higher self-efficacy scores compared to participants who did not receive the professional development.

Literature Review

In the mid-90s, researchers from the Center for Disease Control and Prevention paired up with a medical group from Kaiser Permanente located in southern California to create the Adverse Childhood Experiences (ACE) study. The purpose of this longitudinal ACE study was to investigate the impact of adverse childhood experiences (e.g., abuse, neglect, divorce) on later-in-life health and well-being (CDC, 2016; Felitti et al., 1998). The ACE study involving 17,337 participants has produced a large dataset that has been central to over 50 journal articles examining the impact of adverse childhood experiences on health issues ranging from chronic disease to promiscuity (e.g., Anda et al., 1999; Anda et al., 2002; Brown et al., 2010; Brown, Thacker, & Cohen, 2013; Dube et al., 2001; Dube et al., 2006; Schilling, Aseltine, & Gore, 2007). Research suggests that childhood trauma negatively impacts participants' health, social, academic, and economic outcomes (Felitti et al., 1998). Furthermore, multiple adverse experiences in childhood increases adults' risk for and intensity of negative life outcomes (e.g., alcoholism, depression, sexually transmitted diseases, suicide attempts, adolescent pregnancy, early initiation of smoking, and poor academic achievement; CDC, 2016). Such intense, wide-ranging and long-term repercussions only reinforce the importance of studying the impact of trauma on children.

Trauma-exposed individuals—or even witnessing a traumatic event—may then develop Posttraumatic Stress Disorder (PTSD; DSM-5; APA, 2013). While national studies and research regarding PTSD prevalence in children and adolescents is scarce, there is evidence that children do experience alarming rates of trauma. For example,

more than two-thirds of children in a sample (n = 1,420) from 11 counties in western North Carolina experienced a traumatic event by the age of 16 (Copeland, Keeler, Angold, & Costello, 2007). Furthermore, the ACE Study found that 63.9 percent (n = 11,078) of participants had at least one traumatic experience in childhood, with 12.5 percent (n = 2,167) having four or more (CDC, 2016). Perhaps most importantly, research on PTSD prevalence estimates that children exposed to traumatic events may have higher rates of PTSD compared to adults, which could be attributed to caregivers lacking awareness, not knowing symptoms of PTSD, or not knowing how to help (Chemtob et al., 2010; Gabbay, Oatis, Silva, & Hirsch, 2004; National Center for PTSD, 2016).

PTSD Interferes with Cognitive Functioning

Youth who develop PTSD may be particularly susceptible to behavioral, emotional, psychological, social, and academic problems (Fairbank, 2008). Youth with PTSD may experience tension, flashbacks, attention difficulties, sleep disturbances, separation anxiety, and reduced concentration, among other behaviors that could interfere with learning (DSM-5; APA, 2013; La Greca et al., 2008; Yildirimh, & Tosun, 2012). Specifically examining functions related to learning, a meta-analysis of 60 studies found PTSD to be associated with significant neurocognitive deficits, such as impaired abilities in verbal learning (d = -.62), attention and working memory (d = -.50), information processing speed (d = -.59), and verbal memory (d = -.46; Scott et al., 2015).

Studies on children with PTSD have observed a reduction in total cerebral volume and of the prefrontal cortex, which is associated with cognitive control and executive functioning (i.e., the ability to shift attention, process and organize information, utilize

working memory; Carrion, Haas, Garrett, Song, & Reiss, 2010; Carrion et al., 2013; Mahdavi, Pierre-Louis, Ho, Figueroa, & Olson, 2015). Multiple studies on youth with PTSD have evidenced dysfunction with these processes (Beers & De Bellis, 2002; Li et al., 2013; Nadeau & Nolin, 2013; Nikulina & Widom, 2013; Samuelson et al., 2010). Also, as a section of the prefrontal cortex is presumed to control some autonomic outputs (e.g., heart rate and respiration), youth with PTSD may have less control over their physiological reactions to stress (or perceived stress; Carrion et al. 2013).

PTSD also impacts the hippocampus, or the brain's learning and memory center (Carrion et al. 2013; Johnsen & Asbjorsen, 2008; Moradi et al., 1999). When experiencing stress, the body releases the hormone cortisol, which has been correlated with reduced hippocampal volume (Carrion, Weems, & Reiss, 2007). As the hippocampus is involved in learning, children with PTSD have shown deficits with learning, recalling learned material, and utilizing both general and verbal memory (Samuelson et al., 2010; Yasik, Saigh, Oberfield, & Halamandaris, 2007). For example, Carrion et al. (2010) gave participants a goal of differentiating previously-learned words among new words; compared to healthy children (n = 11), children with posttraumatic stress symptoms (n = 16) showed reduced activation of an area of the hippocampus during this task. Such deficits in the hippocampus and its activation may result in memory deficits with both storing and retrieving information, thus increasing the child's difficulties with learning (Carrion et al., 2013).

Another key component to effective learning is being able to pay attention. Children with PTSD have deficits in attention, specifically being more impulsive,

distractible, and unable to sustain attention (Beers & De Bellis, 2002). A structure tangentially involved in emotion processing, fear conditioning, and attention, the cerebellum also has reduced volume in children with PTSD (De Bellis & Kuchibhatla, 2006; Schmahmann, Weilburg, & Sherman, 2007; Schutter & Van Honk, 2005). Because of this, individuals with PTSD may have a persistent underlying state of amplified attention to environmental events they see as significant—but are otherwise irrelevant to the general population—thus impairing the ability to maintain attention during cognitive tasks (Scott et al., 2015; see Sullivan, Griffiths, & Sohlberg, 2014). This finding suggests that individuals with PTSD likely perceive non-threatening stimuli as threatening, thus straining their attentional capacities to focus on these events.

As youth with PTSD struggle to balance stimuli, internal physical and functional impairments are only amplified when met with external demands to perform on higher-order cognitive tasks. This balancing act often imposes a cognitive load on the child. Cognitive load occurs when one's available attentional resources are exceeded due to efforts to simultaneously process external stimuli and internal cognitions (Feldon, 2007). Children with PTSD "cannot simply remove their 'trauma glasses' as they go between home and school, from dangerous place to safe place" (Cole et al., 2005, p. 17); thus, they may see the school environment as threatening and will constantly scan for signs of danger. Attending to a perceived threat in the environment makes resources unavailable for a secondary task, thus causing processing of that task to suffer (Klemen et al., 2010). Conversely, efforts to suppress environmental stimuli can also impose a load on a learner's working memory (Choi, Van Merriënboer, & Paas, 2014). Even studies on

healthy youth have demonstrated decreases in effort, motivation, and learning outcomes when in poor physical learning environments (e.g., bad lighting, cluttered space, excessive visual or auditory noise; Cohen, Evans, Krantz, & Stokols, 1980; Evans & Stecker, 2004).

Emotions can also interfere with learning. The emotional state of students with PTSD may be affected by poor physical environments (e.g., feeling discomfort), and they may have difficulty returning to normal school routines (Broberg, Dyregrov, & Lilled, 2005; Choi et al., 2014). Other symptoms of PTSD, such as irritability, anger, and decreased mood, require students' to regulate such emotions in order to reduce physiological and behavioral responses and to maintain cognitive functioning (Gross, 2002; Richards & Gross, 2000). However, regulating emotions is an effortful process that can cause more distress and deplete mental resources (Richards & Gross, 2000; Thompson, 1991). Individuals with PTSD tend to use maladaptive coping strategies (e.g., suppression), which has been shown to interfere with memory and cognitive performance (Amir et al., 1977; Glass, Flory, Hankin, Kloos, & Turecki, 2009; Richards & Gross, 2000). For example, participants (female college students; $n = 20$) who tried to suppress negative emotions during a slide show performed worse on a verbal memory test than control participants ($n = 41$; Richards & Gross, 2000). Furthermore, negative effects of suppression were evident on low-emotion and high-emotion slides, suggesting it is the "process of engaging in suppression that is cognitively costly, rather than the amount of emotion that is actually suppressed" (Gross, 2002, p.286).

Ultimately, students with PTSD not only have to manage environmental factors but also must do so with the burden of unhealthy internal processes (e.g., intrusive thoughts, emotional arousal, executive dysfunctioning). When such students are incapable of implementing compensatory strategies on their own, these PTSD symptoms can grossly impact cognitive functioning and academic success.

How Teachers Can Help

Clearly, symptoms of PTSD hinder a student's ability to learn in the classroom. Exposure to traumatic events has also been associated with increased school absences and decreased reading ability and achievement, grade-point averages, and rates of high school graduation (Broberg et al., 2005; Duplechain, Reigner, & Packard, 2008; Kataoka, Langley, Wong, Baweja, & Stein, 2012; Porche, Fortuna, Lin, & Alegria, 2011). Nonetheless, children with PTSD are still expected to attend school—and they continue to live in the "haunted-house" state of arousal while concurrently being expected to achieve academically. As children spend 12-plus years in school, teachers and school staff are in the unique position to intervene with these students, and they have the opportunity to change the trajectory of a child dealing with trauma.

There are various strategies a teacher can utilize to help students with PTSD to learn. Adapting instruction to address students' deficits in attention and cognitive load is one way teachers can help. Examples include using multiple modes to present information or instructions; reducing visual overload and eliminating extraneous material (e.g., in instruction with media); providing cues to process information; breaking tasks into parts; and using graphic organizers (Cole et al., 2005; Mayer & Moreno, 2003).

Teachers can address attention and memory deficits using strategies such as providing practice (e.g., of an activity or routine); changing instruction and/or between-task events (e.g., movement breaks); utilizing signals and cues in instruction; and changing the consequences of task performance (e.g., increased intensity and immediacy of positive feedback; Clark, Nguyen, & Sweller, 2006; Zentall, 2005). Additionally, mindfulness practices (e.g., teaching students to monitor their attention) in the classroom can help students improve attention (Napoli, Krech, & Holley, 2005).

Teachers can also help students with PTSD learn how to regulate their own emotions in order to reduce (or even remove) that barrier to learning. One strategy would be to help the child identify and articulate his or her feelings, which helps with emotional regulation as the child can better process and understand what is going on (rather than acting impulsively; Cole et al., 2005). Another, more short-term strategy is to teach these students self-soothing techniques, such as progressive muscle relaxation (PMR; involves tensing and relaxing specific muscle groups) and controlled breathing (i.e., breathing deeply and slowly; Mannarino, Cohen, & Deblinger, 2014; NYS-TEACHS, 2015). These techniques are embedded in a larger therapeutic program called Trauma-Focused Cognitive Behavioral Therapy, which is an evidenced-based intervention for students with PTSD (Mannarino et al., 2014). While teachers would not be conducting therapy, they could borrow some of these simpler strategies. Such techniques can help children learn they can control some bodily functions, reduce tension, and distract themselves from unpleasant thoughts or images (Mannarino et al., 2014).

At the classroom level, there are numerous environmental strategies a teacher can utilize to put students with PTSD more at ease, such as understanding how the student may react differently (Walz & Kirkman, 2002); helping the student to regain their sense of control and competence (Cole et al., 2005); incorporating mindfulness into the classroom (Kataoka et al., 2012); and creating calm, predictable transitions (Simonsen, Fairbanks, Briesch, Myers, & Sugai, 2008). The latter is especially important, as routines help the student with trauma see the school environment as predictable and safe (Cole et al., 2005). It is also critical to ensure safety (e.g., avoiding power struggles, building relationships) and creating a welcoming environment (e.g., bright and clean classrooms, "safety corners" or "peace rooms"; Cole et al., 2005; NYS-TEACHS, 2015).

Lastly, although many children will likely need assistance from a professional (e.g., therapist, psychologist, etc.), teachers still must deal with the daily impact PTSD has on a student in the classroom (Grosse, 2001). Thus, it is critical that teachers also know where to find help, such as from a school psychologist, guidance counselor, or other mental health professional (National Institute of Mental Health, 2014).

The Influence of Self-Efficacy

Despite these available strategies, many teachers may be unaware of their applicability or be able to recognize that a student may benefit from them. For teachers, being informed "is the first step in helping traumatized children avoid the life-long consequences of PTSD" (Grosse, 2001, p. 5). However, pre-service teachers lack coursework in understanding mental health—thus they likely lack knowledge of the unique needs of students with PTSD and of the potential utility of information learned in

other courses (State et al., 2011). Even then, knowledge and skills are not always sufficient for overcoming challenges (such as helping a student with PTSD to learn). Self-efficacy, or one's beliefs about his or her abilities to deal with the task or situation at hand (i.e., task-specific confidence), influences how one thinks, feels, and behaves (Bandura, 1993). Thus, self-efficacy is of paramount importance for teachers dealing with unfamiliar or difficult situations.

When combined with appropriate knowledge and skills, self-efficacy is a powerful construct because it affects motivation and persistence (Fives & Buehl, 2012; Pajares, 1992; Woolfolk-Hoy et al., 2006). Teachers with high self-efficacy for teaching are more likely to use positive behavior management techniques, to positively influence students' achievement, and to be more open to new ideas and methods that better meet the needs of the students (Blankenship, 1988; Caprara, Barbaranelli, Steca, & Malone, 2006; Sears, Kennedy, & Kaye, 1997). More specifically, teacher self-efficacy refers to teachers' confidence in their abilities to impact students' learning (Bandura, 1993; Klassen, Tze, Betts, & Gordon, 2011). Self-efficacy for teaching impacts student outcomes; improves the educational environment (i.e., creating an atmosphere more conducive to learning); and influences teachers' actions, efforts, and orientation to the educational process (Gibson & Dembo, 1984; Pajares, 1996; Tschannen-Moran & Hoy, 2001). Teachers who have higher self-efficacy also are more likely to be resilient and persistent when facing setbacks (Tschannen-Moran & Hoy, 2001).

Self-efficacy can be a significant predictor of performance, as individuals do not typically enter into challenging situations they perceive to be beyond their capabilities

(Bandura, 1997; Stajkovic & Luthans, 1998). However, when a person does feel efficacious in some activity, researchers found a 28 percent increase in performance (d = .82), with self-efficacy being a greater influence than goal-setting, feedback interventions, and behavior modification (Stajkovic & Luthans, 1998). Essentially, teachers with a higher sense of self-efficacy for any given task not only take on more challenging tasks but also perform better at them.

Unfortunately, research shows that many teachers have little to no confidence (i.e., self-efficacy) in helping students with mental health issues in the classroom (Graham et al., 2011). More specifically, Graham et al. (2011) found that 35% of teachers (n = 508) did not feel efficacious in implementing mental health programs, and 30% did not feel efficacious in handling significant mental health issues in the classroom. Furthermore, less than half of the teachers reported feeling efficacious in working with a student in class who is experiencing abuse and/or family violence or conflict at home (Graham et al., 2011). Essentially, these teachers did not feel efficacious in working not only with students with mental health issues but, specifically, in helping students experiencing trauma. As self-efficacy is a powerful predictor of performance, it is important to target this construct for future teachers who are likely to have students with PTSD in their classrooms.

Improve Self-Efficacy with PD

There are four components that most strongly influence self-efficacy beliefs: mastery experiences, vicarious experiences, verbal persuasion, and affective arousal (Bandura, 1997). The most powerful source of self-efficacy comes from successful

mastery experiences, as they are direct and personal experiences and are usually attributed to one's own skill and effort (Bandura, 1997). The second strongest influence comes from vicarious experiences (e.g., observing others; Bandura, 1997). Such experiences (e.g., successful modeling) enable the pre-service teachers to better evaluate his or her own capabilities and to see the task as more manageable (Tschannen-Moran & McMaster, 2009). Verbal persuasion (e.g., praise, feedback) in isolation may not be as powerful an influence on self-efficacy, but it can lead to change by encouraging teachers to continue working toward a goal or developing a skill (Bandura, 1997; Tschannen-Moran & McMaster, 2009). Lastly, affective states can influence one's self-efficacy positively (e.g., excitement) or negatively (e.g., anxiety; Bandura, 1997).

While self-efficacy is a powerful influence on performance, it does not operate (or develop) in isolation, as many studies have pointed to the connection between one's knowledge and/or previous beliefs and self-efficacy (Fives & Buehl, 2012; Pajares, 1992; Woolfolk-Hoy et al., 2006). For instance, teachers' past behavior, attitudes, and access to mental health trainings were found to be the most significant predictors of intention to assess and refer students, and trainings positively affected teachers' knowledge about students experiencing mental health distress (Huckabee, 2014; Kelleher, 2014). When teachers lack knowledge and understanding, though, they may experience high levels of anxiety for teaching and perceive themselves as less efficacious (Ashcraft & Moore, 2009). Essentially, while self-efficacy is a critical component to teaching, it "will not produce competent performances when requisite skills are lacking" (Schunk, 1991, p. 209).

Thus, one of the more effective mediums for increasing knowledge and providing self-efficacy building experiences is through professional development (PD; Darling-Hammond & McLaughlin, 2011; Garet, Porter, Desimone, Birman, & Yoon, 2001; Heck, Banilower, Weiss, & Rosenburg 2008). For example, prior professional development (e.g., workshops, in-service trainings) was found to significantly impact teachers' emotional and behavioral responses to a challenging (i.e., aggressive) student (Alvarez, 2007). Additionally, professional development programs/trainings increased teachers' self-efficacy for intervening with suicidal students (King, Price, Telljohann, & Wahl, 1999); increased self-efficacy for handling children's challenging behaviors (Heller et al., 2011); and improved knowledge of, ability to recognize, and confidence in helping a student with a mental health problem (Mazzer & Rickwood, 2015). Such PDs provide an opportunity to provide new information, address misconceptions, and provide experiences to reinforce and practice newly-learned skills. PDs also help to challenge and build teachers' self-efficacy.

PD Can Benefit Pre-Service Teachers

Pre-service teachers are a key demographic to target because this training period is a malleable time in which a future teacher's knowledge and sense of self-efficacy develop. More specifically, teacher training is a critical period during which pre-service teachers grow their knowledge base, form professional identities, increase their self-efficacy in handling more difficult tasks, and are more likely to adjust their teaching beliefs (Cattley, 2007; Gooya, 2007). If pre-service teachers' knowledge, skills, and experience for helping children with PTSD to learn are increased, then their self-efficacy

beliefs will also improve. This is critical because of how self-efficacy impacts teachers' future in-class performance and motivation to persist in difficult situations (such as having a student with PTSD in the classroom). Additionally, teacher self-efficacy is one of the few variables that consistently impacts student outcomes, making it a highly important construct to target for intervention (see Henson, 2002; Woolfolk & Hoy, 1990). While it is not teachers' role to diagnose or treat mental health problems, they do need to be able to observe, identify, and refer (if necessary); they also need to be able to help the student learn when he or she is in class. Askell-Williams and Lawson (2013) stated, "… the teacher's increased awareness of, and responses to, the child's emotional state is potentially a mediating factor to the child's future wellbeing" (p. 138), and self-efficacy is the mediator of teachers' responses.

In many teacher education programs, pre-service teachers are required to complete an educational psychology course (Patrick, Anderman, Bruening, & Duffin, 2011). An educational psychology course would be a logical place to introduce pre-service teachers to mental health issues (e.g., PTSD) and how they impact students' learning. This is because such a course covers the knowledge and skills the National Academy of Education (NAE) recommended in order to be a highly effective teacher (Patrick et al., 2011). Some of the NAE recommendations include understanding and maintaining extensive knowledge on learners and how they develop and learn, individual differences among learners (e.g., school/family contexts, cultural influences), cognitive processing, metacognition, and motivation (Patrick et al., 2011).

Targeting such a course has its drawbacks, though. Since it is often taken early in the educational training sequence, students may not have been previously exposed to any knowledge/experiences regarding learners and their differences; thus, they may be too unfamiliar with the topic (i.e., learning differences and instructional strategies) to transfer that knowledge to students with PTSD. Because it is an earlier course, students also may have an unrealistic sense of self-efficacy, which may distort the impact of a professional development (Pajares, 1992; Pendergast, Garvis, & Keogh, 2011; Weisnstein, 1988). Nonetheless, an educational psychology course helps pre-service teachers connect theory and research to practice while establishing a foundation of professional knowledge, skills, and self-efficacy beliefs (Patrick et al., 2011). With such a focus on students and how they learn, it is a fitting course in which to instill knowledge and efficacy-building experiences related to PTSD and how it impacts student learning.

Designing a PTSD PD

Professional development—if designed appropriately—has the potential to positively transform teachers' knowledge, self-efficacy, and instructional strategies (Borko, 2004; Kedzior & Fifield, 2004). As pre-service teachers' knowledge and self-efficacy can be improved through such experiences, a PD was designed for pre-service teachers to intentionally influence the four sources of self-efficacy (i.e., mastery experiences, vicarious experiences, feedback, and physiological arousal); see Table 2 in Methods.

Instructional strategies chosen to influence self-efficacy during the PD included videos, case studies, and teacher feedback. Videos have been shown to not only elicit

prior knowledge but also to enhance participants' self-efficacy, motivation, and learning (Kay, 2012; McConville & Lane, 2005). Additionally, videos can induce various physiological/affective states within viewers and provide vicarious experiences. Case studies were another tool used to influence self-efficacy, as they provide an avenue for vicarious and mastery experiences (Albion, 1999; Stajkovic & Luthans, 2002). Participants (i.e., pre-service teachers) were provided vicarious experiences through case studies (e.g., modeling) and mastery experience through solving their own case study (e.g., performance exposure). Furthermore, the use of case studies provided opportunities for group inquiry and discussion, which help develop knowledge and skills by engaging participants in problem-solving (Moore, 2015). Lastly, feedback was used as a means of enhancing self-efficacy through verbal persuasion (Bandura, 1977; Bandura & Cervone, 1983; Ivancevich & McMahon, 1982). The combination of activities created active learning scenarios, which have been shown to improve performance and self-efficacy and to be a core feature of professional development programs (Darling-Hammond & McLaughlin, 2011; Garet et al., 2001).

Purpose of Current Study

Students with PTSD will be in future teachers' classrooms and will have unique challenges impeding their learning (La Greca et al., 2008; also see Beers & De Bellis, 2002; Carrion, Wong, & Klette, 2013; Honzel, Justus, & Swick, 2014; Jelinek et al., 2006; Klemen, Buchel, Buhler, Menz, & Rose, 2010; Nadeau & Nolin, 2013; Nikulina & Widom, 2013; Richards & Gross, 2000; Samuelson, Krueger, Burnett, & Wilson, 2010; Scott et al., 2015). Teachers can adapt instruction, create a safe environment, and even

find outside help to help these students to learn (see Clark et al., 2006; Cole et a., 2005; Katoaka et al., 2012; Mannarino et al., 2014; Mayer & Moreno, 2003; Napoli, Krech, & Holley, 2005; NYS-TEACHS, 2015; Simonsen et al., 2008; Walz & Kirkman, 2002). However, teachers must first be able to identify the problem in order to choose an appropriate course of action. Additionally, action is likely to occur only when the teacher feels efficacious in his or her abilities to perform, as self-efficacy influences motivation and persistence (Fives & Buehl, 2012; Pajares, 1992; Woolfolk-Hoy et al., 2006).

Luckily, self-efficacy can be influenced and strengthened (Bandura, 1997). Professional development is an effective method of transforming teachers' knowledge and self-efficacy, and the training period of pre-service teachers is a malleable time during which they grow their knowledge base and self-efficacy (Borko, 2004; Cattley, 2007; Gooya, 2007; Kedzior & Fifield, 2004). Thus, providing professional development to pre-service teachers may be a simple solution for improving their knowledge of and self-efficacy for helping students with PTSD to learn.

Therefore, the present study had two aims: (1) to design and implement an effective PD that focused on the topic of students with PTSD and how to help them in the classroom and (2) to test the effectiveness of the PD on participants' self-efficacy for working with students with PTSD compared to a control group of pre-service teachers using a quasi-experimental design. The guiding research questions were as follows:

(1) Compared to a control group of similar pre-service teachers, will pre-service teachers receiving a PTSD professional development have significantly higher

self-efficacy scores for identifying students with PTSD, adapting instruction, creating a safe and secure environment, and finding help for students with PTSD?

- Hypothesis: Participants who received a PTSD professional development program will have significantly higher self-efficacy scores (in each of the four areas) compared to participants who did not receive the PTSD professional development.

(2) Will participants receiving a PTSD professional development have significantly increased self-efficacy post-test scores compared to their pre-test scores for:
(a) recognizing the unique challenges and/or needs of students with PTSD?
(b) adapting instruction to maximize learning for students with PTSD?
(c) creating a safe and supportive learning environment for students with PTSD?
(d) finding help for students with PTSD?

- Hypothesis: Participants who received a PTSD professional development program will have significantly increased self-efficacy scores from pre- to post-test in each of the four areas.

Methodology

Participants

Participants in this study consisted of 59 college students in a teacher education program from a large, comprehensive university in the Mid-South. These students were majoring in various education programs (e.g., elementary, secondary, music) and were each enrolled in one of two sections of an educational psychology course taught by the same instructor. This course focuses on developing pre-service teachers' understanding of how people learn and general pedagogical knowledge (e.g., strategies) to promote learning in the classroom. The sample was comprised of 69.5% (n = 41) females and 30.5% (n = 18) males; 8.5% (n = 5) of the participants were minority races (i.e., Black/ African American, Native Hawaiian/Other Pacific Islander, or other), while 89.8% (n = 53) of participants were Caucasian (the missing 1.7% comes from one participant who did not answer this question). The majority of participants were majoring in Elementary Education (45.8%; n = 27). The average age of participants was 20.33, and most were sophomores (59.3%; n = 35). The average GPA was a 3.14.

At the sample university, the educational psychology course precedes many of the primary pedagogy courses within teacher education; thus, participants' pedagogical knowledge and experiences tend to be limited. This study used a quasi-experimental design at the classroom level (i.e., students could not be randomly assigned to conditions). Thus, classes were designated as either the control group (47.5%; n = 28) or treatment group (52.5%; n = 31). Participant demographics by group are presented in Table 1.

Table 1

Participant Demographics

	Treatment Group		Control Group	
	Frequency	Percent	Frequency	Percent
Gender				
Male	7	22.6	11	39.3
Female	24	77.4	17	60.7
Race/Ethnicity				
Black/African American	2	6.5	1	3.6
Hispanic/Latino	1	3.2	0	0
Native Hawaiian/Other Pacific Islander	0	0	1	3.6
Other	1	3.2	0	0
White	27	87.1	26	92.9
School Status				
Freshman	3	9.7	3	10.7
Sophomore	20	64.5	15	53.6
Junior	7	22.6	7	25.0
Senior	1	3.2	3	10.7
Major				
Early Childhood Education	0	0	1	3.6
Education	5	16.1	1	3.6
Elementary Education	12	38.7	15	53.6
English for Secondary Education	2	6.5	1	3.6
Exceptional Education	1	3.2	1	3.6
History	1	3.2	0	0
Middle Grades Education	1	3.2	2	7.1
Music	3	9.7	2	7.1
Music (B.M.)	3	9.7	3	10.7
Physical Education	0	0	1	3.6
Russian and East European Studies	1	3.2	0	0
Social Studies	2	6.5	1	3.6

Note. One participant in the treatment group did not designate his or her race.

Measures

Participants completed a pre-test survey including demographics (i.e., sex, race/ethnicity, school status, major, age, and GPA; see Table 1) and measures of self-efficacy. Then, following the study, each class completed a post-test of the same self-efficacy measures.

Research investigating teachers' self-efficacy for helping students with PTSD learn is scarce to nonexistent. Because there were no specific self-efficacy measures in the literature for assessing teachers' beliefs about helping a student with PTSD learn, one had to be created. There were studies examining somewhat similar constructs (i.e., Graham et al., 2011; Heller et al., 2011; King et al., 1999). However, the measures they used were not appropriate for utilization, as they were either not aligned with Bandura's (1997) theory or could not be adapted to meet the needs of this study. In addition, measures of teaching self-efficacy (i.e., the Teacher's Sense of Efficacy Scale; Tschannen-Moran & Woolkfolk Hoy, 2001) are well established (e.g., Fives & Buehl, 2010; Klassen et al., 2011); however, they were not specific enough to the task being studied (i.e., helping students with PTSD learn). Thus, a self-efficacy instrument was created using Bandura's (2006) guidelines, which indicate that self-efficacy scales must be tailored to the activity or task domain that is the object of interest (Bandura, 2006). In the current study, "learn" is rather ambiguous and not specific to students' with PTSD needs; hence, items focused on distinct actions teachers could take to help these students (i.e., identify them, adapt instruction, create a safe environment, and find help).

To ensure content validity, it was also important that items were phrased as what a teacher *can do* rather than *will do*; were distinguished from other constructs, such as self-esteem and outcome expectancies; and considered domain specificity and multi-causality of behaviors (i.e., items tied to factors that impact the domain of functioning—in this case, the various factors that help students with PTSD to learn; Bandura, 2006). Formatting for the response scale also followed the guidelines, as the measure included preliminary instructions and used nine-point scales (to be more sensitive and reliable than scales with few steps; Bandura, 2006). To eliminate the potential effects of response bias, additional items were included asking about pre-service teacher's abilities to help students with other exceptionalities (i.e., ADHD, communication disorders, eating disorders, Depression, poverty, English language learners, gifted/high-potential youth, Autism spectrum disorder, and learning disabilities). Only the scores from the PTSD ratings were used for comparative analyses. Response bias was also minimized by allowing participants to privately record their responses (i.e., through a solo, computer-based pre-test and then a solo, paper survey; Bandura, 2006). Lastly, two raters reviewed the items multiple times in order to discard and rewrite any ambiguous items; items needed to be broad enough to allow for interpretation yet specific enough to illicit realistic personal evaluations of competence (Bandura, 2006).

In this study, to measure participants' self-efficacy for working with students with PTSD, the measure required participants to rate their perceived self-efficacy on a nine-point Likert scale (1 = not at all confident to 9 = completely confident) in response to the following four prompts: If you were to be placed in charge of a classroom today (no

additional training will you receive), please indicate to what degree you feel capable of: (1) identifying students with the following exceptionalities in your classroom? (2) adapting instruction to maximize learning (rather than hinder it) of students with the following exceptionalities in your classroom? (3) creating a safe and supportive learning environment for students with the following exceptionalities in your classroom? and (4) finding help for students with the following exceptionalities in your classroom? These four constructs were refined and chosen based on the literature concerning what students with PTSD need in order to overcome their unique needs and to learn (e.g., Beers & De Bellis, 2002; Carrion et al., 2013; Cole et al., 2005; Richards & Gross, 2000; Scott et al., 2005). Additionally, self-efficacy measures offer better predictions of behavior when they are conceptualized within specific domains (Schunk, 1990). The specific domain for this measure was working with students with PTSD.

Although single-item measures are typically discouraged in psychological research due to concerns of reliability, single-item measures can be used if the item represents a construct that is unambiguous to the respondent (e.g., Dolbier, Webster, McCallister, Mallon, & Steinhardt, 2005; Nagy, 2002; Wanous, Reichers, & Hudy, 1997). Additionally, studies have found that such measures often have no difference in predictive validity compared to multi-item measures; they have also been found to positively correlate with established, multi-item measures (Bergkvist & Rossiter, 2007; Hoeppner, Kelly, Urbanoski, & Slaymaker, 2011). Ultimately, the use of a single-item measure for each of the four constructs was warranted for practical reasons, as a

shortened measure is more feasible in the classroom, less time-consuming/monotonous and less of a burden on participants (Hoeppner et al., 2011).

Procedure and Experimental Design

The goal of the project was to test the effects of a PTSD professional development on pre-service teachers' self-efficacy beliefs about working with students with PTSD (i.e., identifying, adapting instruction, creating a safe environment, and finding help). During the first week of the spring 2017 semester, participants completed a pre-test survey including the self-efficacy and demographic measures. These measures were embedded within the instructor's existing introductory course questionnaire.

During the second week of the semester, one of the two course sections of an educational psychology class received a professional development training during the 80-minute class period, while the other section received regular instruction. As this study was quasi-experimental in nature, random assignment to conditions at the class-level occurred through a coin flip. A control group provided a comparison to determine if any effects were due to the treatment (PD; Campbell & Stanley, 1963).

For this study, the control group received regular instruction from their instructor under normal conditions. To ensure fairness, both groups received quality instruction and student-centered pedagogical strategies on the given topics the day the experiment took place. The treatment group received professional development focused on students with PTSD and conducted by the author (not the regular classroom instructor). Essentially, both groups explored the topic of learners with exceptionalities; however, the treatment group focused solely on PTSD while the control group focused on other exceptionalities

(e.g., students with ADHD, communication disorders, eating disorders, depression, poverty, English language learners, gifted/high-potential youth, autism spectrum disorder, and learning disabilities), which was already included in their course materials. PTSD is not a topic typically explored in the course nor was it included in the course text. Thus, the design of the PD specifically sought to improve participants' self-efficacy for identifying and helping students with PTSD to learn.

During the PTSD PD, the treatment group received content about the causes and symptoms of PTSD, how symptoms may look across various ages, how they may manifest in the classroom (i.e., barriers to learning), and what teachers can do to help these students overcome these obstacles and learn (e.g., adapt instruction, create a safe and supportive environment, and find help). In addition to the content delivered to the treatment group, the professional development was intentionally designed to align with the four influences of self-efficacy (i.e., mastery experiences, vicarious experiences, feedback, and physiological reaction; Bandura, 1997). Table 2 outlines the specific components of the PTSD PD in alignment with PD content objectives and Bandura's (1997) sources for improving self-efficacy beliefs. Appendices A-G include materials used during the PD.

Following each session, participants completed a post-test that included the same self-efficacy measures as in the pre-test. Additionally, at the completion of the study, participants were provided resources (i.e., guide of additional resources for finding help) and had access to the study's materials (i.e., PowerPoint slides, images of each groups' posters, and case studies) to further their knowledge of the topics discussed.

Table 2

Components of the PTSD Professional Development

	Knowledge Components	Self-Efficacy Components
Identifying a Student	1. DSM-5 diagnostic criteria 2. PTSD in children (i.e., what it looks like at different ages) 3. Students' with PTSD unique needs/challenges to learning in the classroom 4. How PTSD compares to other exceptionalities	1. Mastery Experience: Student groups use case studies to 'problem solve" for helping student; create plan on poster (Albion, 1999; Moore, 2015; Stajkovic & Luthans, 2002) 2. Vicarious Experience: Students hear other groups' plan and see modeling of appropriate course of action; see other groups' posters (Albion, 1999; Stajkovic & Luthans, 2002) 3. Verbal Feedback: Check-in assessment and discussion (Bandura, 1977). Students receive verbal praise and feedback during plan creation and presentation (Bandura, 1977; Bandura & Cervone, 1983) 4. Physiological Arousal: Use of videos, case studies, and reflection to elicit emotional appeal (Bandura, 1977; 2012; McConville & Lane, 2005)
Adapting Instruction	1. Strategies for adapting instruction to meet unique needs 2. Additional strategies and what not to do	
Creating a Safe Environment	1. Strategies for creating a safe environment to meet unique needs 2. Additional strategies and what not to do	
Finding Help	1. Resources (in-school and online) for teachers to find help	

Analyses

To first determine if there were any statistically significant differences between the treatment and control groups' pre-test scores, a one-way between-groups multivariate analysis of variance (MANOVA) was conducted using the IBM SPSS 23 statistical program. To determine mean-level differences among post-test scores between the treatment and control group, a one-way between-groups MANOVA was also used. A MANOVA was the appropriate test for this study because there were four dependent variables that were conceptually related (i.e., the four self-efficacy constructs). Additionally, compared to conducting multiple ANOVAs, using a MANOVA helps to reduce the risk of Type I errors (Tabachnick & Fidell, 2007). To determine if there were mean-level differences between the treatment groups' self-efficacy scores from pre- to post-test, a paired-samples *t*-test was conducted.

Lastly, to determine the magnitude of the findings — or to determine the proportion of variance in the dependent variable (i.e., self-efficacy scores) that is attributed to an effect from the independent variable (i.e., PTSD PD) — partial eta-squared (MANOVA) and Cohen's *d* analyses (*t*-test) were conducted (Tabachnick & Fidell, 2007). Ferguson's (2009) guidelines were used to interpret the strength of reported effects sizes. Eta-squared interpretation guidelines recommended weak minimum "practically" significant effect = .04, moderate = .25, and strong = .64 (Ferguson, 2009). Guidelines for eta-squared were utilized because eta-squared and partial eta-squared are equivalent in single-factor designs, as was this study (Pierce,

Block, & Aguinis, 2004). Cohen's *d* interpretation guidelines recommended minimum effect = .41, moderate = 1.15, strong = 2.70 (Ferguson, 2009).

Results

Before conducting comparison analyses, the data were checked to ensure they met the assumptions for using a MANOVA (i.e., linearity, normality, univariate and multivariate outliers, multicollinearity, and homogeneity and equality of variance). Linearity plots showed no evidence of non-linearity, thus satisfying that assumption. The assumption of normality was met, as the critical value for four dependent variables is 18.47, which was larger than the Mahalanobis distance of 14.03. A check for multicollinearity indicated the dependent variables were moderately correlated, thus meeting this criterion and satisfying the assumption. Box's M Test of Equality of Covariance Matrices resulted in a significance value of 0.14, indicating the assumption of homogeneity of variance was met. Lastly, Levene's Test of Equality of Error Variances resulted in no significant values less than .05, thus meeting this assumption. Overall, no violations were noted in meeting the MANOVA assumptions.

Descriptive statistics for both groups' pre-test self-efficacy scores are presented in Table 3. There were no statistically significant differences between the two groups' pre-test self-efficacy scores, Wilks' $\lambda = .86$, $F\ (4, 54) = 2.29$, $p = .072$. Thus, the two groups are considered comparable.

Table 3

Descriptive Statistics for Self-Efficacy Pre-Test Constructs

		Treatment Group	Control Group
	Range	Mean (*SD*) (*n = 31)*	Mean (*SD*) (*n = 28)*
Identifying a Student	1.0 - 9.0	4.00 (1.75)	4.18 (2.07)
Adapting Instruction	1.0 - 9.0	4.84 (1.83)	4.14 (2.10)
Creating a Safe Environment	1.0 - 9.0	6.26 (2.08)	6.54 (2.08)
Finding Help	1.0 - 9.0	5.87 (1.93)	5.57 (2.28)

Note. There were no significant differences between the treatment and control group.

A second one-way MANOVA was conducted to explore the impact of the PTSD professional development on self-efficacy for helping students with PTSD to learn; this was measured by the post-test self-efficacy scores. Table 4 presents the descriptive and inferential statistics for both groups' post-test self-efficacy scores.

Table 4

Descriptive and Inferential Statistics for Self-Efficacy Post-Test Constructs

	Treatment Group	Control Group		
	Mean (*SD*) (*n = 30)*	Mean (*SD*) (*n = 28)*	*F*	Partial η^2
Identifying a Student	6.03 (1.45)	4.61 (1.66)	10.40*	0.16
Adapting Instruction	6.13 (1.66)	5.52 (1.78)	1.79	—
Creating a Safe Environment	7.17 (1.12)	6.68 (1.88)	1.71	—
Finding Help	7.10 (1.66)	7.32 (1.91)	0.23	—

Note. F statistics marked with an asterisk (*) are significant at the $p < .05$ level. Partial eta-squared (η^2) indicates effect sizes.

Results from the one-way MANOVA indicated a statistically significant difference between the two groups' across the four dependent variables, Wilks' $\lambda = .79$, F (4, 51) = 3.43, $p = .015$, partial eta-squared = .21. When the results for the dependent variables were considered separately, the only difference to reach statistical significance, using a Bonferroni adjusted alpha level of .0125, was self-efficacy for identifying a student with PTSD, F (1, 54) = 10.40, $p = .002$, partial eta-squared = .16. An inspection of the mean scores indicated that the post-test mean score for the treatment group (M_T = 6.03, SD = 1.45) was significantly larger than the mean score for the control group (M_C = 4.61, SD = 1.66). This difference in mean scores was fairly moderate in magnitude, as the effect size, calculated using partial eta-squared, was 0.16; this suggests that 16.1% of the variance in self-efficacy for identifying PTSD is explained by the treatment. The treatment group did not significantly differ from the control group among the other three self-efficacy variables (i.e., self-efficacy for adapting instruction, creating a safe environment, and finding help).

Lastly, a paired-samples t-test was conducted to evaluate the impact of the PTSD professional development on the treatment groups' pre- to post-test scores of the four self-efficacy variables. Table 5 presents the descriptive and inferential statistics highlighting the statistically significant increase in mean scores from pre-test to post on all four measures. To allow for comparison in the discussion, a paired-samples t-test was also conducted on the four self-efficacy variables from pre- to post-test for the control group (see Table 6).

Table 5

Descriptive and Inferential Statistics for the Treatment Groups' Pre- to Post-Test Self-Efficacy Constructs

	Pre-Test	Post-Test			
	Mean (*SD*) (*n = 30)*	Mean (*SD*) (*n = 30)*	Δ	*t*	*d*
Identifying a Student	4.00 (1.78)	6.03 (1.45)	+2.03	-5.09*	1.25
Adapting Instruction	4.90 (1.83)	6.13 (1.66)	+1.23	-3.45*	0.70
Creating a Safe Environment	6.27 (2.12)	7.17 (1.12)	+0.90	-2.70*	0.53
Finding Help	5.97 (1.92)	7.10 (1.66)	+1.13	-2.64*	0.63

Note. The pre-test *n* is different than in Table 3 because one participant who completed pre-test measures but did not participate in the PD was not included for the *t*-test analysis. *t* statistics marked with an asterisk (*) are significant at the $p < .05$ level. *d* indicates effect sizes.

Table 6

Descriptive and Inferential Statistics for the Control Groups' Pre- to Post-Test Self-Efficacy Constructs

	Pre-Test	Post-Test			
	Mean (*SD*) (*n = 28)*	Mean (*SD*) (*n = 28)*	Δ	*t*	*d*
Identifying a Student	4.18 (2.07)	4.61 (1.66)	+0.43	-1.05	—
Adapting Instruction	4.22 (2.10)	5.52 (1.78)	+1.30	-2.64*	0.67
Creating a Safe Environment	6.54 (2.08)	6.68 (1.88)	+0.14	-0.27	—
Finding Help	5.57 (2.28)	7.32 (1.91)	+1.75	-3.91*	0.83

Note. One participant did not respond to the Adapting Instruction item on the post-test, thus $n = 27$ for both the pre- and post-test data for that item. *t* statistics marked with an asterisk (*) are significant at the $p < .05$ level. *d* indicates effect sizes.

Discussion

Research suggests that symptoms of PTSD can cause significant impairments in the classroom (see Beers & De Bellis, 2002; Carrion et al. 2013; Klemen et al. 2010; Richards & Gross, 2000; Scott et al., 2015). However, teachers are not necessarily trained to nor do they feel confident in helping students with mental health issues to learn (Graham et al., 2011; State et al., 2011). Luckily, the period of teacher training (i.e., pre-service teachers) is a time when teaching beliefs are most malleable, and an appropriately-designed professional development could positively transform these pre-service teachers' knowledge and self-efficacy (Borko, 2004; Cattley, 2007; Gooya, 2007; Kedzior & Fifield, 2004). Self-efficacy is one of the most important constructs to target, as it has been shown to positively enhance the teacher's strategies/techniques, persistence, and decision making (Blankenship, 1988; Caprara et al., 2006; Fives & Buehl, 2012; Sears et al., 1997). Thus, the focus of the current study was to examine the impact of professional development on participants' self-efficacy for helping students with PTSD to learn.

It was first hypothesized that participants receiving the PTSD PD would have higher post-test self-efficacy scores for each construct compared to participants in the control group. Results indicated the groups were significantly different on measures of self-efficacy for the first construct (i.e., identifying students with PTSD), with the treatment group scoring higher on the measure. The reported effect size also suggested that this difference was minimal to moderate, meaning the PTSD PD was fairly successful in increasing participants' self-efficacy in this area. This improvement is likely

due to the fact that the treatment group received targeted information about PTSD (e.g., symptomology/diagnosis, what PTSD looks like at different ages, how it may manifest in the classroom) whereas the control group did not receive any information on PTSD. Also, while the treatment group received some straightforward information about PTSD (i.e., lecture format), this group also received mastery/vicarious experiences and verbal feedback through PTSD-focused activities embedded within the PD (e.g., case studies, group work, presentations). The control group did not receive such self-efficacy-building experiences (see Bandura, 1997). This instructional difference is likely another reason for the discrepancy.

While this finding may seem obvious, it is encouraging to know that pre-service teachers' self-efficacy for identifying students with PTSD can be significantly improved from an 80-minute professional development training. Being able to identify a student suffering from PTSD is the first step in appropriately helping that student—being efficacious in one's ability to do so will help motivate that teacher to move further and persist in the helping process (see Fives & Buehl, 2012; Pajares, 1992; Woolfolk-Hoy et al., 2006). This finding also contributes to the otherwise-lacking literature on pre-service teachers' knowledge of and competence in working with students with PTSD (Alisic, 2012; Moss & Nichols, 2002; Whitle et al., 2013).

Conversely, it was disappointing to find that the PTSD-PD group did not significantly differ from the control group on the other three constructs (i.e., adapting instructions, creating a safe environment, and finding help). There are many possible reasons for this finding. Perhaps it was due to the fact that both groups already perceived

themselves as fairly capable on the pre-test measures (i.e., somewhat to quite confident); thus, both groups continued to feel efficacious at post-test. A majority of participants were still early in their educational training/careers and had received little pedagogical training prior to the study. The educational psychology course is one of the first pedagogical classes taken in the participants' teacher training program, and pre-service teachers have been found to have unrealistic self-efficacy beliefs despite lacking actual experience (see Pajares, 1992; Pendergast et al., 2011; Weisnstein, 1988). Thus, it is likely these self-efficacy ratings were inflated to begin with and remained inflated.

Another possible reason for the lack of discrepancy between the two groups on the other three self-efficacy constructs (i.e., adapting instructions, creating a safe environment, and finding help) could be the learning opportunities experienced the day of the PD. Participants in both conditions were challenged to consider and/or explore possible strategies for helping students with exceptionalities to learn. In both conditions, pre-service teachers had to consider strategies for adapting instruction, creating a safe learning environment, and finding appropriate resources for referral. In the PTSD PD, the specific strategies for adapting instruction were given to the pre-service teachers during the lecture portion of the PD. When they were asked to analyze their case studies, pre-service teachers brainstormed ideas and created a specific plan for helping their case learn. Many of their ideas centered on strategies for creating a safe learning environment and seeking assistance from outside sources.

In the control condition, pre-service teachers experienced a jigsaw cooperative learning task where they were: divided into groups, given a specified exceptionality, and

charged with locating specific research-based strategies a teacher could use to maximize learning for their assigned specialized population. Their research included specific strategies for adapting instruction, creating a safe environment, and resources for finding help. They then shared these strategies to the larger group, noting similarities and differences between and among the different exceptionalities (sans PTSD). Researchers have found that self-efficacy for a certain task may generalize to other tasks, especially when different tasks use similar subskills (Bandura, 1997; Schunk, 1991). So, as the control group explored other learner exceptionalities (e.g., learning disorders, Autism, etc.), perhaps they generalized their knowledge and self-efficacy for helping these students and generalized those beliefs onto the PTSD items.

It was also hypothesized that participants receiving the PTSD PD would have significantly increased scores from pre- to post-test on each of the four self-efficacy constructs. Results indicated that the treatment group's scores did significantly increase from pre- to post-test on each construct. The "identify" construct had a rather moderate effect, as indicated by the Cohen's *d*; the other three constructs had rather minimal practical effects. Thus, the PTSD PD was found to improve participants' self-efficacy scores for each of the four areas. While the post-test scores for the other three constructs (i.e., adapting instruction, creating a safe environment, and finding help) did not significantly differ from the control groups' scores, the increases in self-efficacy from pre- to post-test still are meaningful. Treatment participants were at least moderately confident before the PD, but they became more confident by the end of the study. As a result, the significant increases in self-efficacy scores for the PTSD-PD group are a likely

result of the PD itself. Ultimately, the combination of experiences is a promising intervention for increasing participants' self-efficacy for identifying, adapting instruction, creating a safe environment, and finding help for students with PTSD.

Conclusion and Implications

The PTSD PD was somewhat effective at improving self-efficacy for identifying, adapting instruction, creating a safe environment and finding help for students with PTSD. The PD had the strongest impact on self-efficacy for identifying students with PTSD, which is an encouraging, though not surprising, finding. Pre-service teachers spent nearly 80 minutes in the PTSD PD engaging in learning opportunities that encouraged them to think about the unique challenges and needs of students with PTSD and what teachers could do to aid these students in learning. Unfortunately, these pre-service teachers were early in their teacher education careers and, thus, had only cursory understandings of PTSD and limited pedagogical knowledge prior to the PD. PD seminars are often criticized for being too short or lacking follow-up (Penuel, Fishman, Yamaguchi, & Gallagher, 2007); this PTSD might have been too ambitious for early-career pre-service teachers. The PTSD PD in its current form might, however, be appropriate for pre-service teachers nearing the end of their teacher training, as they are likely to have a greater knowledge-base from which to draw during the PD.

It is still encouraging that these pre-service teachers increased their self-efficacy beliefs for all four constructs after their participation in the PTSD PD. Feeling confident in one's abilities increases the likelihood of follow-through and persistence when faced with given situations (Fives & Buehl, 2012; Pajares, 1992; Woolfolk-Hoy et al., 2006).

This finding suggests that the PTSD PD content seems to have a natural place within pre-service teachers' training. The PTSD PD content and experiences align with suggested teacher education standards while delving deeper into a specific student group (National Academy of Education, 2007). Because pre-service teachers already should be receiving training on learners and learning (National Academy of Education, 2007; Patrick et al., 2011), the PTSD PD content could be integrated within teacher education programing. This content integration could occur as a series of PD seminars taking place throughout the training program, or the content could be embedded within relevant courses (e.g., educational psychology, exceptional education, and pedagogy courses).

Within this study, it seems that pre-service teachers in the control group might have generalized their knowledge and self-efficacy beliefs (Bandura, 1997; Schunk, 1991) to PTSD based on what they were learning on other learners with exceptionalities. It also appears that pre-service teachers' self-efficacy beliefs for working with students with PTSD might have been somewhat unrealistic and inflated (Bandura, 1997). By integrating the PTSD PD content into the teacher education curriculum, it could help pre-service teachers differentiate between the unique needs of each group of students, including those with PTSD, while developing an arsenal of strategies to help each of these students learn in the classroom. Tying relevant field experiences into the coursework could also offer students a wider range of mastery opportunities where self-efficacy beliefs would become more realistic as students experience success and failure in the real world (Bandura, 1997).

Ultimately, future educators are in a prime position to recognize children with PTSD and to provide the support they need. However, this can only occur if the teacher knows what to look for, how to respond, and feels efficacious in doing so. If an educator is not able to identify PTSD nor feels efficacious in the ability to do so, he or she may mistake these symptoms for another problem or even miss the need for help altogether. At the worst, they could be acting inadvertently as stressors to these students with PSTD (Wagner & Magnusson, 2005). Thus, the PTSD PD provided some benefit for these pre-service teachers: The findings suggest that a short 80-minute PD can be utilized to increase pre-service teachers' self-efficacy for identifying students with PTSD, adapting instruction, creating a safe environment, and finding help for these students. Results also provide a promising stepping stone for further research and interventions to build pre-service teachers' self-efficacy for helping students with PTSD to learn.

Limitations

Despite the promising results from this study, there are limitations. One of the first limitations was the small sample size. With only 59 participants, the level of generalizability of the findings is restricted. Additionally, having only participants at this early stage in their teaching careers also restricts generalization to teachers of all experience levels. For example, it is unclear if these findings would apply to in-service teachers or even pre-service teachers who are further in their training. Additionally, having participants from only one university also restricts the sample's representativeness of the larger population. Thus, future studies should attempt to increase the sample size and variation of participants. A second limitation is that the study was not able to

implement random assignment at the participant level. Though it occurred at the class level, random assignment of participants would have strengthened the study's outcomes.

Other limitations surround the professional development itself. As mentioned, PDs are most beneficial when they are a continuous and long-term process with additional follow-up trainings (Guskey, 2009; Hirsh, 2001). Unfortunately for this study, the PD had to fit within the 80-minute class period. Perhaps stronger and more salient findings would have resulted from a lengthier and continuous PD. Having more time to implement such a PD would also provide more self-efficacy building opportunities. As the PTSD PD required a significant portion of time discussing the disorder itself, this likely took away from opportunities to delve further and have more mastery experiences.

Additionally, it is possible that providing the PD to students before they had completed the educational psychology coursework is a limitation. As the students had little to no previous instruction on pedagogy and instructional methods, this lack of experience likely weakened with their ability to fully grasp the information and strategies utilized in the PD. Participants also may have had difficulty accurately assessing their self-efficacy for the areas of adapting instruction and creating a safe environment. In other words, it is quite possible that attempts to build self-efficacy in those two areas was too advanced for these participants' current stage of training.

Future Research

The strengths and limitations of the current study warrant future explorations on the topic of improving pre-service teachers' self-efficacy for working with students with PTSD. Findings are promising that a PD could impact pre-service teachers' self-efficacy

in this area. However, future studies should include more representative samples of students from various geographic locations and academic levels. Additionally, efforts should occur to utilize random sampling. It also would be prudent for future studies to examine the impact such a PD would have on pre-service teachers at various stages in their careers—or even in-service teachers. Perhaps pre-service teachers nearing the end of their training (e.g., with more real-world experience) would benefit more from a PD like the one in this study. Also, such teachers would likely have more realistic gauges of their self-efficacy for various tasks. Future studies could also administer additional post-tests after various lengths of time to determine if the PD has lasting effects. Lastly, further research should be conducted to determine ways to improve such a PD in order to better improve pre-service teachers' self-efficacy for helping students with PTSD to learn.

References

Albion, P. R. (1999). Self-efficacy beliefs as an indicator of teachers' preparedness for teaching with technology. *Technology and Teacher Education Annual, 2*, 1602-1618. Retrieved from https://eprints.usq.edu.au/6973/1/Albion_SITE_1999_AV.pdf

Alisic, E. (2012). Teachers' perspectives on providing support to children after trauma: A qualitative study. *School Psychology Quarterly*, *27*, 51. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/22582936

Alvarez, H. (2007). The impact of teacher preparation on responses to student aggression in the classroom. *Teaching and Teacher Education, 23,* 1113-1126. Retrieved from http://dx.doi.org/10.1016/j.tate.2006.10.001

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC.

Amir, M., Kaplan, Z., Efroni, R., Levine, Y., Benjamin, J., & Kotler, M. (1997). Coping styles in post-traumatic stress disorder (PTSD) patients. *Journal of Personality and Individual Differences*, *23*, 399–405.

Anda, R. F., Chapman, D.P., Felitti, V. J., Edwards, V., Williamson, D. F., Croft, J. P., Giles, W. H. (2002). Adverse childhood experiences and risk of paternity in teen pregnancy. *Obstetrics Gynecology,* 100, 37–45.

Anda, R. F., Croft, J. B., Felitti, V. J., Nordenberg, D., Giles, W. H., Williamson, D. F., Giovino, G. A. (1999). Adverse childhood experiences and smoking during adolescence and adulthood. *JAMA*, *282*, 1652–1658.

Ashcraft, M. H., & Moore, A. M. (2009). Mathematics anxiety and the affective drop in performance. *Journal of Psychoeducational Assessment*, *27*, 197-205. Retrieved from http://jpa.sagepub.com/cgi/content/abstract/27/3/197

Askell-Williams, H., & Lawson, M. J. (2013). Teachers' knowledge and confidence for promoting positive mental health in primary school communities. *Asia-Pacific Journal of Teacher Education, 41,* 126-143. Retrieved from http://dx.doi.org/10.1080/1359866X.2013.77702

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84,* 191-215. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download? doi=10.1.1.315.4567&rep=rep1&type=pdf

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, *28*, 117-148.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. Macmillan.

Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-efficacy beliefs of adolescents*, *5,* 307-337. Retrieved from http://web.stanford.edu/dept/psychology/bandura/pajares/014-BanduraGuide2006.pdf

Bandura, A., & Cervone, D. (1983). Self-evaluative and self-efficacy mechanisms governing the motivation effects of goal systems. *Journal of Personality and Social Psychology, 45,* 1017-1028. Retrieved from https://web.stanford.edu/dept/psychology/bandura/pajares/Bandura1983JPSP.pdf

Beers, S. R., & De Bellis, M. D. (2002). Neuropsychological function in children with maltreatment-related posttraumatic stress disorder. *American Journal of Psychiatry*, *159*, 483–486.

Bergkvist, L., & Rossiter, J. R. (2007). The predictive validity of multiple-item versus single-item measures of the same constructs. *Journal of Marketing Research, 44,* 175-184. Retrieved from http://ro.uow.edu.au/cgi/viewcontent.cgi?article=4032&context=commpapers

Blankenship, C. (1988). Structuring the classroom for success. *Australasian Journal of Special Education*, *12*, 25-30.

Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational Researcher, 3,* 3-15. Retrieved from http://www.jstor.org/stable/3699979

Broberg, A. G., Dyregrov, A., & Lilled, L. (2005). The Göteborg discotheque fire: Posttraumatic stress, and school adjustment as reported by the primary victims 18 months later. *Journal of Child Psychology and Psychiatry*, *46*(12), 1279-1286. doi10.1111j1469-7610.2005.01 439.x

Brown, D. W., Anda, R. F., Felitti, V. J., Edwards, V. J., Malarcher, A. M., Croft, J. B., & Giles, W. H. (2010). Adverse childhood experiences and the risk of lung cancer. *BMC Public Health, 10*.

Brown, M. J., Thacker, L. R., & Cohen, S. A. (2013). Association between adverse childhood experiences and diagnosis of cancer. *PLoS One*, *8*(6).

Campbell, D. T., & Stanley, J. C. (1963). Experimental and quasi-experimental designs for research. Boston: Houghton Mifflin Company. Retrieved from https://www.sfu.ca/~palys/Campbell&Stanley-1959Exptl&QuasiExptlDesignsForResearch.pdf

Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, *44*(6), 473-490.

Carrion, V. G., Weems, C. F., & Reiss, A. L. (2007). Stress predicts brain changes in children: a pilot longitudinal study on youth stress, posttraumatic stress disorder, and the hippocampus. *Pediatrics*, *119*(3), 509-516.

Carrion, V. G., Haas, B. W., Garrett, A., Song, S., & Reiss, A. L. (2010). Reduced hippocampal activity in youth with posttraumatic stress symptoms: An fMRI study. *J Pediatr Psychol, 35*, 559-569. doi: 10.1093/jpepsy/jsp112

Carrion, V. G., Wong, S. S., & Klette, H. (2013). Update on neuroimaging and cognitive functioning in maltreatment-related pediatric PTSD: treatment implications. *Journal of Family Violence, 28*, 53-61. doi: 10.1007/s10896-012-9489-2

Cattley, G. (2007). Emergence of Professional Identity for the Pre-Service Teacher. *International Education Journal, 8*(2), 337-347.Chicago

CDC. (2016). Adverse Childhood Experiences (ACEs). Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Violence Prevention. Retrieved from https://www.cdc.gov/violenceprevention/acestudy/

Chemtob, C. M., Nomura, Y., Rajendran, K., Yehuda, R., Schwartz, D., & Abramovitz, R. (2010). Impact of maternal posttraumatic stress disorder and depression following exposure to the September 11 attacks on preschool children's behavior. *Child Development*, *81*, 1129 –1141. doi:10.1111/j.1467-8624.2010.01458.x

Choi, H. H., Van Merriënboer, J. J., & Paas, F. (2014). Effects of the physical environment on cognitive load and learning: towards a new model of cognitive load. *Educational Psychology Review*, *26*(2), 225-244.

Clark, R. C., Nguyen, F., & Sweller, J. (2006). *Efficiency in learning: Evidence-based guidelines to manage cognitive load.* John Wiley & Sons.

Cohen, S., Evans, G. W., Krantz, D. S., & Stokols, D. (1980). Physiological, motivational, and cognitive effects of aircraft noise on children: Moving from the laboratory to the field. *American Psychologist*, *35*(3), 231.

Cole, S. F., O'Brien, J. G., Gadd, M. G., Ristuccia, J., Wallace, D. L., & Gregory, M. (2005). Helping traumatized children learn: Supportive school environments for children traumatized by family violence. Boston, MA: Massachusetts Advocates for Children, Trauma and Learning Policy Initiative. Retrieved from https://

traumasensitiveschools.org/wp-content/uploads/2013/06/Helping-Traumatized-Children-Learn.pdf

Copeland, W. E., Keeler, G., Angold, A., & Costello, E. J. (2007). Traumatic events and posttraumatic stress in childhood. *Archives of General Psychiatry, 64*(5), 577-584. doi:10.1001/archpsyc.64.5.577

Darling-Hammond, L., & McLaughlin, M. W. (2011). Policies that support professional development in an era of reform. *Phi Delta Kappan, 92*, 81-92.

De Bellis, M. D., & Kuchibhatla, M. (2006). Cerebellar volumes in pediatric maltreatment-related posttraumatic stress disorder. *Biological Psychiatry*, *60*(7), 697-703. doi: 10.1016/j.biopsych.2006.04.035

Dolbier, C. L., Webster, J. A., McCalister, K. T., Mallon, M. W., & Steinhardt, M. A. (2005). Reliability and validity of a single-item measure of job satisfaction. *American Journal of Health Promotion*, *19*(3), 194-198. Retrieved from https://www.edb.utexas.edu/steinhardt/Files/Dolbier.McCalister.Steinhardt(2005).pdf

Dube, S. R., Anda, R. F., Felitti, V. J., Chapman, D., Williamson, D. F., & Giles, W. H. (2001). Childhood abuse, household dysfunction and the risk of attempted suicide throughout the life span: Findings from Adverse Childhood Experiences Study. *JAMA, 286*, 3089–3096.

Dube, S. R., Miller, J. W., Brown, D.W., Giles, W. H., Felitti, V. J., Dong, M., & Anda, R.F. (2006). Adverse childhood experiences and the association with ever using alcohol and initiating alcohol use during adolescence. *Journal of Adolescent Health*, *38*(4).

Duplechain, R., Reigner, R., & Packard, A. (2008). Striking differences: The impact of moderate and high trauma on reading achievement. *Reading Psychology*, *29*(2), 117-136.

Evans, G. W., & Stecker, R. (2004). Motivational consequences of environmental stress. *Journal of Environmental Psychology*, *24*(2), 143-165. doi:10.1016/S0272-4944(03)00076-8

Fairbank, J. (2008). The epidemiology of trauma and trauma related disorders in children and youth. *PTSD Research Quarterly, 19*. Retrieved from http://www.nctsn.org/products/nctsn-affiliated-resources/epidemiology-trauma-and-trauma-related-disorders-children-and-youth%20

Fecser, M. E. (2015). Classroom strategies for traumatized, oppositional students. *Reclaiming Children and Youth*, *24*(1).

Feldon, D. F. (2007). Cognitive load and classroom teaching: The double-edged sword of automaticity. *Educational Psychologist*, *42*(3), 123-137.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., ... & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, *14*(4), 245-258.

Ferguson, C. J. (2009). An effect size primer: A guide for clinicians and researchers. *Professional Psychology: Research and Practice, 40,* 532-538.

Fives, H., & Buehl, M. M. (2012). Spring cleaning for the "messy" construct of teachers' beliefs: What are they? Which have been examined? What can they tell us? *APA Educational Psychology Handbook*, *2*, 471-499.

Gabbay, V., Oatis, M. D., Silva, R. R., & Hirsch, G. (2004). Epidemiological aspects of PTSD in children and adolescents. *Posttraumatic stress disorder in children and adolescents: Handbook*, 1-17. W. W. Norton & Company: New York, NY.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, S. K. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38, 915-945.*

Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology, 76*, 569-582.

Glass, K., Flory, K., Hankin, B. L., Kloos, B., & Turecki, G. (2009). Are coping strategies, social support, and hope associated with psychological distress among Hurricane Katrina survivors? *Journal of Social and Clinical Psychology*, *28*(6), 779. doi: 10.1521/jscp.2009.28.6.779

Gooya, Z. (2007). Mathematics teachers' beliefs about a new reform in high school geometry in Iran. *Educational Studies in Mathematics*, *65*(3), 331-347.

Graham, A., Phelps, R., Maddison, C., & Fitzgerald, R. (2011). Supporting children's mental health in schools: teacher views. *Teachers and Teaching: Theory and Practice*, *17*(4), 479-496. http://dx.doi.org/10.1080/13540602.2011.580525

Gross, J. J. (2002). Emotion regulation: Affective, cognitive, and social consequences. *Psychophysiology*, *39*(3), 281-291. doi: 10.1017/S0048577201393198

Grosse, S. J. (2001). Children and post traumatic stress disorder: What classroom teachers should know. *ERIC Digest.* Retrieved from http://www.ericdigests.org/2002-3/post.htm

Guskey, T. R. (2009). Closing the knowledge gap on effective professional development. *Educational Horizons*, *87*, pp. 224-233. Retrieved from http://files.eric.ed.gov/fulltext/EJ849021.pdf

Heck, D. J., Banilower, E. R., Weiss, I. R., & Rosenberg, S. L. (2008). Studying the effects of professional development: The case of the NSF's local systemic change through teacher enhancement initiative. *Journal for Research in Mathematics Education*, 113-152.

Heller, S. S., Boothe, A., Keyes, A., Nagle, G., Sidell, M., & Rice, J. (2011). Implementation of a mental health consultation model and its impact on early childhood teachers' efficacy and competence. *Infant Mental Health Journal, 32,* 143-164

Henson, R. K. (2002). From adolescent angst to adulthood: Substantive implications and measurement dilemmas in the development of teacher efficacy research. *Educational Psychologist, 37,* 137-150.

Hirsh, S. (2001). We're growing and changing. *Journal of Staff Development, 22,* 255-258. Retrieved from http://eds.b.ebscohost.com.libsrv.wku.edu/ehost/detail/detail?sid=158b2fe4-2d82-4ba4-88aa-5d0cafd60d51%40sessionmgr104&vid=0&hid=122&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#AN=507697421&db=eft

Hoeppner, B. B., Kelly, J. F., Urbanoski, K. A., & Slaymaker, V. (2011). Comparative utility of a single-item versus multiple-item measure of self-efficacy in predicting relapse among young adults. *Journal of Substance Abuse Treatment, 41,* 305-312. doi: 10.1016/j.jsat.2011.04.005

Honzel, N., Justus, T., & Swick, D. (2014). Posttraumatic stress disorder is associated with limited executive resources in a working memory task. *Cognitive, Affective, & Behavioral Neuroscience*, *14*(2), 792-804.

Huckabee, S. S. (2014). Effects of teacher training on preservice teachers' knowledge, personal beliefs, and attitudes. All Dissertations. Paper 1405. Retrieved from http://tigerprints.clemson.edu/cgi/viewcontent.cgi article=2404&context= all_dissertations

Johnsen, G. E., & Asbjørnsen, A. E. (2008). Consistent impaired verbal memory in PTSD: a meta-analysis. *Journal of Affective Disorders*, *111*(1), 74-82.

Jelinek, L., Jacobsen, D., Kellner, M., Larbig, F., Biesold, K. H., Barre, K., & Moritz, S. (2006). Verbal and nonverbal memory functioning in posttraumatic stress disorder (PTSD). *Journal of Clinical and Experimental Neuropsychology*, *28*(6), 940-948.

Kataoka, S., Langley, A., Wong, M., Baweja, S., & Stein, B. (2012). Responding to Students with PTSD in Schools. *Child and Adolescent Psychiatric Clinics of North America*, *21*(1), 119–x. http://doi.org/10.1016/j.chc.2011.08.009

Kay, R. (2012). Exploring the use of video podcasts in education: A comprehensive review of the literature. *Computers in Human Behavior, 28*, 820–831. http:// dx.doi.org/10.1016/j.chb.2012.01.011

Kedzior, M., & Fifield, S. (2004). Teacher professional development. *Education Policy Brief, 15*, 76–97.

Kelleher, S. R. (2014). Teachers' Beliefs About Mental Health Issues. *Electronic Theses, Projects, and Dissertations*. Paper 16. Retrieved from http://scholarworks.lib.csusb.edu/etd/16

King, K. A., Price, J. H. Telljohann, S. K., & Wahl, J. (1999). High school health teachers' perceived self-efficacy in identifying students at risk for suicide. *Journal of School Health, 69,* 202-207.

Klassen, R. M., Tze, V. M., Betts, S. M., & Gordon, K. A. (2011). Teacher efficacy research 1998–2009: Signs of progress or unfulfilled promise? *Educational Psychology Review*, *23*(1), 21-43.

Klemen, J., Büchel, C., Bühler, M., Menz, M. M., & Rose, M. (2010). Auditory working memory load impairs visual ventral stream processing: toward a unified model of attentional load. *Journal of Cognitive Neuroscience*. *22*, 437–446. doi: 10.1162/jocn.2009.21204

La Greca, A. M., Boyd, B. A., Jaycox, L. H., Kassam-Adams, N., Mannarino, A. P., Silverman, W. K., … Wong, M. (2008). Children and trauma: Update for mental health professionals. Washington, DC: American Psychological Association. Retrieved from http://www.apa.org/pi/families/resources/update.pdf

Li, Y., Dong, F., Cao, F., Cui, N., Li, J., & Long, Z. (2013). Poly-victimization and executive functions in junior college students. *Scandinavian Journal of Psychology*, *54*(6), 485-492. doi: 10.1111/sjop.12083

Mahdavi, Z., Pierre-Louis, N., Ho, T. T., Figueroa, S. A., & Olson, D. M. (2015). Advances in cerebral monitoring for the patient with traumatic brain injury. *Critical care nursing clinics of North America, 27*(2), 213-223. http://dx.doi.org/10.1016/j.cnc.2015.02.002

Mannarino, A. P., Cohen, J. A., & Deblinger, E. (2014). Trauma-Focused Cognitive-Behavioral Therapy. In *Evidence-based approaches for the treatment of maltreated children* (pp. 165-185). Springer Netherlands.

Mayer, R. E., & Moreno, R. (2003). Nine ways to reduce cognitive load in multimedia learning. *Educational Psychologist*, *38*(1), 43-52.

Mazzer, K. R., & Rickwood, D. J. (2015). Teachers' role breadth and perceived efficacy in supporting student mental health. *Advances in School Mental Health Promotion, 8,* 29-41.

McConville, S. A., & Lane, A. M. (2005). Using on-line video clips to enhance self-efficacy toward dealing with difficult situations among nursing students. *Nurse Education Today, 26*, 200-208. doi: 10.1016/j.nedt.2005.09.024

Moradi, A. R., Taghavi, M. R., Doost, H. T., Neshat, H.T., Yule, W., & Dalgleish, T. (1999). Performance of children and adolescents with PTSD on the Stroop colour-naming task. *Psychological Medicine, 29*, 415–419. Retrieved from https://www.mrc-cbu.cam.ac.uk/personal/tim.dalgleish/moradistroop.pdf

Moss, G., & Nichols, J. D. (2002, May 22). Reflective practitioner preparation: In the wake of 21st century terrorism. *Current Issues in Education*, *5*(3). Retrieved from http://cie.ed.asu.edu/volume5/number3/index.html

Nadeau, M. E., & Nolin, P. (2013). Attentional and executive functions in neglected children. *Journal of Child & Adolescent Trauma*, *6*(1), 1-10.

Nagy, M. S. (2002). Using a single-item approach to measure facet job satisfaction. *Journal of Occupational and Organizational Psychology*, *75*(1), 77-86. doi: 10.1348/096317902167658

Napoli, M., Krech, P. R., & Holley, L. C. (2005). Mindfulness training for elementary school students: The attention academy. *Journal of Applied School Psychology*, *21*(1), 99-125.

National Academy of Education. (2007). A good teacher in every class- room: Preparing the highly qualified teachers our children deserve. L. Darling-Hammond and J. Baratz-Snowden (Eds.). *Educational HORIZONS.* Retrieved from http:// files.eric.ed.gov/fulltext/EJ750647.pdf

National Center for PTSD. (2016). U.S. Department of Veteran's Affairs. http:// www.ptsd.va.gov/public/family/ptsd-children-adolescents.asp

The National Child Traumatic Stress Network. (NCTSN). (2008). Child Trauma Toolkit for Educators: Suggestions for educators. Retrieved from http://www.nctsn.org/ sites/default/files/assets/pdfs/CTTE_Educators.pdf

National Institute of Mental Health. (2014). Helping children and adolescents cope with violence and disasters: What community members can do. Retrieved from https:// www.nimh.nih.gov/health/publications/helping-children-and-adolescents-cope-with-violence-and-disasters-community-members/index.shtml

Nikulina, V., & Widom, C. S. (2013). Child maltreatment and executive functioning in middle adulthood: A prospective examination. *Neuropsychology*, *27*(4), 417.

NYS-TEACHS. (2015). Meeting the unique learning needs of students exposed to trauma: How to apply trauma-sensitive strategies to improve academic outcomes for students in temporary housing. Retrieved from http://www.nysteachs.org/media/SSF_%20Intro_Toolkit.pdf

Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, *62*(3), 307-332.

Pajares, M. F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research*, *66*(4), 543-578

Patrick, H., Anderman, L. H., Bruening, P. S., & Duffin, L. C. (2011). The role of educational psychology in teacher education: Three challenges for educational psychologists. *Educational Psychologist, 46,* 71-83. doi: 10.1080/00461520.2011.538648

Pendergast, D., Garvis, S., & Keogh, J. (2011). Pre-service student-teacher self-efficacy beliefs: An insight into the making of teachers. *Australian Journal of Teacher Education, 36*(12). http://dx.doi.org/10.14221/ajte.2011v36n12.6

Penuel, W. R., Fishman, B. J., Yamaguchi, R., & Gallagher, L. P. (2007). What makes professional development effective? Strategies that foster curriculum implementation. *American Educational Research Journal, 44,* 921-958.

Pierce, C. A., Block, R. A., & Aguinis, H. (2004). Cautionary note on reporting eta-squared values from multifactor ANOVA designs. *Educational and Psychological Measurement, 64,* 916-924. doi: 10.1177/0013164404264848

Porche, M. V., Fortuna, L. R., Lin, J., & Alegria, M. (2011). Childhood trauma and psychiatric disorders as correlates of school dropout in a national sample of young adults. *Child Development*, *82*(3), 982-998.

Richards, J. M., & Gross, J. J. (2000). Emotion regulation and memory: The cognitive costs of keeping one's cool. *Journal of Personality and Social Psychology, 79*(3), 410. doi: 10.1037/70O22-3514.79.3.410

Samuelson, K. W., Krueger, C. E., Burnett, C., & Wilson, C. K. (2010). Neuropsychological functioning in children with posttraumatic stress disorder. *Child Neuropsychology*, *16*(2), 119-133.

Schilling, E. A., Aseltine, R. H., & Gore, S. (2007). Adverse childhood experiences and mental health in young adults: A longitudinal survey. *BMC Public Health*, *7*(1), 1.

Schutter, D. J., & Van Honk, J. (2005). The cerebellum on the rise in human emotion. *The Cerebellum*, *4*(4), 290-294. doi: 10.1080/14734220500348584

Schmahmann, J. D., Weilburg, J. B., & Sherman, J. C. (2007). The neuropsychiatry of the cerebellum—insights from the clinic. *The Cerebellum*, *6*(3), 254-267. doi: 10.1080/14734220701490995

Schunk, D. H. (1990). Goal setting and self-efficacy during self-regulated learning. *Educational Psychologist, 25*, 71-86.

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist, 26*, 207-231.

Scott, J. C., Matt G. E., Wrocklage, K. M., Crnich, C., Jordan, J., Southwick, S. M., Krystal, J. H., & Schweinsburg, B. C. (2015). A quantitative meta-analysis of neurocognitive functioning in posttraumatic stress disorder. *Psychology Bulletin*, *141*. 105-140.

Sears, S. J., Kennedy, J., & Kaye, G. L. (1997). Myers-Briggs personality profiles of prospective educators. *Journal of Educational Research*, *94*(4), 195-202.

Simonsen, B., Fairbanks, S., Briesch, A., Myers, D., & Sugai, G. (2008). Evidence-based practices in classroom management: Considerations for research to practice. *Education and Treatment of Children*, *31*(3), 351-380.

Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta analysis. *Psychological Bulletin*, *124*(2), 240.

State, T. M., Kern, L., Starosta, K. M., & Mukherjee, A. D. (2011). Elementary pre-service teacher preparation in the area of social, emotional, and behavioral problems. *School Mental Health*, *3*(1), 13-23.

Sullivan, M. P., Griffiths, G. G., & Sohlberg, M. M. (2014). Effect of posttraumatic stress on study time in a task measuring four component processes underlying text-level reading. *Journal of Speech, Language, and Hearing Researc*h, *57*(5), 1731-1739.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Pearson Education. Retrieved from http://tocs.ulb.tu darmstadt.de/135813948.pdf

Thompson, R. A. (1991). Emotional regulation and emotional development. *Educational Psychology Review*, *3*(4), 269-307.

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783-805.

Tschannen-Moran, M., & McMaster, P. (2009). Sources of self-efficacy: Four professional development formats and their relationship to self-efficacy and implementation of a new teaching strategy. *Elementary School Journal, 110*, 228-248.

Walz, G. R., & Kirkman, C. J. (2002). Helping people cope with tragedy and grief: Information, resources & linkages. *ERIC Counseling and Student Services Clearinghouse.* University of North Carolina at Greensboro.

Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: How good are single-item measures? *Journal of Applied Psychology*, *82*(2), 247.

Whitle, J., Smith, J. D., & Vaillancourt, T. (2013). Promoting mental health literacy among educators: Critical in school-based prevention and intervention. *Canadian Journal of School Psychology*, *28*(1), 56-70. doi: 10.1177/0829573512468852

Woolfolk, A. E., & Hoy, W. K. (1990). Prospective teachers' sense of efficacy and beliefs about control. *Journal of educational Psychology, 82*, 81-91. doi: 10.1037/0022-0663.82.1.81

Woolfolk-Hoy, A., Davis, H., & Pape, S. J. (2006). Teacher knowledge and beliefs. *Handbook of Educational Psychology*, *2*, 715-737.

Yasik, A. E., Saigh, P. A., Oberfield, R. A., & Halamandaris, P. V. (2007). Posttraumatic stress disorder: Memory and learning performance in children and adolescents. *Biological Psychiatry*, *61*(3), 382-388. doi:10.1016/j.biopsych.2006.06.005

Yildirimh, G., & Tosun, A., (2012). Cognitive processes in post-traumatic stress disorder. *International Journal of Human Sciences*, *9*, 1429-144

Zentall, S. S. (2005). Theory- and evidence-based strategies for children with attentional problems. *Psychology in the Schools*, *42*(8), 821-836. doi: 10.1002/pits.20114

Appendix A: PTSD Professional Development Plan

Learning Objectives:

By the end of the PD, pre-service teachers will be able to:

1. Identify a student with PTSD from a description of specific characteristics aligned with DSM-5.
2. Evaluate a case study to
    A. Determine the unique challenges and needs of students with PTSD
    B. Design an instructional plan to:
        (1) maximize learning for students with PTSD (strategies)
        (2) create a safe and supportive learning environment for students with PTSD.
3. List specific key persons/agencies to find help for students with PTSD.

PTSD PD

1. **5 minutes:** Answer any pending questions, pass around an attendance sign-in sheet, make sure students are in appropriate groups/seats

2. **15 minutes total**
    a. **Play video (8 minutes) --** (Pass out paper with blank space during video)
    b. **Reflection Task (5 minutes):**
        i. These children are in your classroom right now—you just saw their stories:
            a. What is your initial reaction to this video? (What are you feeling? What do you think? What do you wonder?)
            b. What are the potential long-term outcomes for a child experiencing this?
    c. **Check-in Assessment – (2 minutes)**
        1. How many of you are having a distinct emotional response right now? (Raise hands)
        2. You will have kids like these in your classroom. (Statement reinforces feeling.)

3. **PowerPoint: Intro PTSD (15 minutes)**
    1. **Give Quick Facts (1 minute)**
    2. **Discussion: (4 minutes) --** What are the potential long-term effects to experiencing trauma? (Solicit responses).
    3. **Assessment: (1 minute) --** How many of you have heard of posttraumatic stress disorder or PTSD? (visual assessment -- raise hands)
    4. **Lecture (9 minutes):**
    C. DSM-5 diagnostic criteria
    D. Childhood PTSD

E. Differences among ages (i.e., 5 and under, 6-11, 12-17)
F. As teachers, not one treating, but you still may teach students with PTSD.
    1. What might this look like in your classroom?
    2. What are unique/challenges and needs?
    3. How might PTSD compare with other exceptionalities that you might see in the classroom? You describe.

4**. Activity (30 minutes):**

1. Case Studies (20 minutes):

1. Class gets into groups and given case studies
2. Groups provided with large sticky posters and markers
3. Directive: "Imagine this is a student in your classroom. This is your teaching team, you share this student, and you each are seeing the same behaviors in your classrooms. As a professional learning community (PLC), come together to figure out what to do (divided by elementary and middle/high school)."
    a. What are unique challenges/needs?
    b. Create specific plan for helping this child learn in your class.

** Circulate and provide ongoing feedback

2. Discussion/Feedback (10 minutes):

1. Groups with same case post their posters and present at same time
2. Discuss: What did you guys think? Commonalities? Is this everything?
    a. Visual scan of posters
    b. FEEDBACK on unique needs
    c. FEEDBACK on plan

3. REVEAL correct info: (compilation in PowerPoint)
    a. Here was the case: unique needs and plan
    b. Each case choose (environment and learning)

*** SLIDE OF KEY STRATEGIES

4. Reveal the DO's/DO NOT's & Finding Help (PowerPoint) – **(5 minutes)**

1. Additional strategies and what NOT to do
2. Information about finding help

5. Assessment (10 minutes):

Post-Test: 3-2-1

1. What are 3 things you learned from today's lesson?
2. What are 2 things you found interesting that you would like to learn more about?
3. Answer the 1 survey.

6. Additional resources will be posted to Blackboard

Appendix B: Reflection Task

Name: _____ 800#_____

Reflection Task

1. What is your initial reaction from viewing this video? (What are you feeling? What do you think? What do you wonder?)

2. What are the potential long-term outcomes for a child experiencing trauma?

Appendix C: Case Studies

Case Study 1: Alexa
Age: Middle/high school
Gender: Female
Race: Bi-racial
SES: Low

Throughout her school career, Alexa (14 years old) has enjoyed school. Six months ago, she began working on the weekends to help out her family while her father is unemployed. Nonetheless, she is an A/B student who never misses an assignment and is eager to participate in class; Alexa says your class is her favorite, and she often researches more into the subject outside of school. She sometimes gets anxious during exams yet still performs highly. She's also the captain of the volleyball team and has a tight-knit group of friends.

One Monday, you noticed that she did not add anything to the discussion and, instead, appeared to be staring out the window during your whole class. The same behaviors occurred on Tuesday—she even fell asleep on her desk. You asked her after class if anything was going on, but she said, "I'm fine. It doesn't matter." During the next week and a half, you observed similar behaviors: You find yourself having to constantly call on her by name to redirect her to the lesson, and she often says "I don't know" in response to questions. Alexa is still turning in homework, but you noticed it's only partially finished, and her answers are brief. One day, there was a lockdown drill, and you noticed that Alexa started breathing heavily, her face flushed, and her eyes darted across the room.

At the end of that day, you address Alexa again, telling her what you've noticed in the classroom and asking, "What is going on?" Alexa replies, "I just have a lot on my mind. I can't talk. I have to get to work. I've called in sick the past few weeks, so I have to go or they'll fire me." Later that evening, you saw on the news that a man armed with a knife who attempted to rob the cash register at Stakz frozen yogurt shop last month had finally been caught. You remember that Stakz is where Alexa works on the weekends.

Case Study 2: Matthew
Age: Elementary School
Gender: Male
Race: Hispanic
SES: High

Matthew (8 years old) is the class clown in your room. Often, Matthew will get in trouble for getting out of his seat, teasing a peer, or shouting out answers. You can usually get him to do his work, but reading is the hardest, as he said he hates reading (but also struggles with it). Matthew enjoys math, PE and his music class. Overall, he usually performs in the middle of the road on academic tasks but excels in music—and in making his friends laugh. One day, though, you notice that Matthew seems a little down in the dumps: He doesn't speak up as much and seems sluggish going to recess. However, he seems fine the next few days.

The next week, on Monday, Matthew was late to class and escorted in by the principal, who told you Matthew intentionally missed his school bus that morning and had an outburst in the office about coming to school. In math, Matthew joins a group for "career" stations, but appears to have trouble following the rules for each station and is constantly asking you or a peer about what to do; after Matthew left the medical doctor/ physician station, he leaves and sits in his seat. When you ask what's going on, Matthew shouts, "This is stupid!" After talking with him, Matthew tells you his stomach is aching, so you send him to the nurse. The next few days, Matthew is more compliant, though you notice he seems a little more lethargic and not moving around as much. Nonetheless, he is happy-go-lucky in PE and is cutting up with his friends again. On Friday, though, you start to see the same behaviors as Monday: In music class, Matthew had difficulty correctly playing his instrument and, at the end of the day, starts crying and refuses to leave school. Over the next few weeks, you notice this same pattern of behavior. Matthew's grades are falling and he is not turning in his work as often. He also doesn't appear to enjoy his favorite subjects anymore.

One day, you give the class a "free write" about what they did over the weekend. Afterward, you read his paper and find out that he spent the weekend at the hospital visiting his mom who is "very very sick." You later ascertain that Matthew's mother is suffering from stage 4 cancer; she has been receiving chemotherapy and recently underwent surgery that had complications, which put her in the hospital over the past month.

Appendix D: "Reactions Across Ages" Handout

Children 5 and under
Show signs of fear
Cling to parent or caregiver
Return to behaviors common to being younger (e.g., thumbsucking, bedwetting)
Be afraid of the dark.
Forget how or being unable to talk
Act out the scary event during playtime
Cry or scream
Whimper or tremble
Move aimlessly
Become immobile

Ages 6-11
Isolate themselves
Become quiet around friends, family, and teachers
Have nightmares or other sleep problems
Refuse to go to bed
Become irritable or disruptive
Have outbursts of anger, start fights
Be unable to concentrate
Refuse to go to school
Complain of physical problems
Develop unfounded fears
Become depressed
Express guilt over what happened
Feel numb emotionally
Do poorly with school and homework
Lose interest in fun activities

Ages 12-17
Develop unfounded fears
Become depressed
Express guilt over what happened
Feel numb emotionally
Do poorly with school and homework
Loss of interest in fun activities
Have physical complaints
Feel isolated or confused
Be angry, want to get revenge
Have suicidal thoughts.

Appendix E: "Resources for Finding Help" Handout

When should a referral be made for additional help for a traumatized child?
When reactions are severe (such as intense hopelessness or fear) or go on for a long time (more than one month) and interfere with a child's functioning, give referrals for additional help. As severity can be difficult to determine—with some children becoming avoidant or appearing to be fine (e.g., a child who performs well academically no matter what)—don't feel you have to be certain before making a referral. Let a mental health professional evaluate the likelihood that the child could bene t from some type of intervention.

When to seek self care?
Seek support and consultation routinely for yourself in order to prevent "compassion fatigue," also referred to as "secondary traumatic stress." Be aware that you can develop compassion fatigue from exposure to trauma through the children with whom you work.

Trauma Resources

Access to disaster help and resources:
Website: http://www.disasterassistance.gov

Centers for Disease Control and Prevention
Website: http://emergency.cdc.gov/mentalhealth

Federal Emergency Management Agency
Phone: 1-800-480-2520
Website: http://www.ready.gov/kids

National Center for PTSD
Website: http://www.ptsd.va.gov

The National Child Traumatic Stress Network
Website: http://www.nctsn.org

Substance Abuse and Mental Health Services Administration
Disaster Distress Helpline
Phone: 1-800-985-5990
Website: http://www.disasterdistress.samhsa.gov

U.S. Department of Justice Office for Victims of Crime
Website: http://www.ovc.gov/help/index.html

If you or someone you know is in crisis or thinking of suicide, get help quickly.
Call your doctor.
Call 911 for emergency services or go to the nearest emergency room.
Call the toll-free 24-hour hotline of the National Suicide Prevention Lifeline at 1-800-273-TALK (1-800-273-8255); TTY: 1-800-799-4TTY (4889).

Appendix F: "Personal Help" Handout

Agency Contact information: If you feel upset or experience psychological problems, there are several centers at Western Kentucky University that can help you. Below is a list of centers that you can contact.

Center	**Address**	**Telephone**
WKU Counseling and Testing Center	Potter Hall 4th floor, RM 409	270-745-3159
Greenwood Hospital Emergency Dept.	1801 Ashley Circle Bowling Green, KY 42104-9024	270-793-1000

Appendix G: Post-Test

Post-Test: 3-2-1

1. **What are 3 things you learned from today's lesson?**

2. **What are 2 things you found interesting that you would like to learn more about**

3. **Based on what you have learned today, please answer the following (1) survey (next few pages):**

To what degree do you feel capable of <u>identifying students</u> with the following exceptionalities in your classroom?

(In other words, how well could you "pick out" students with the following exceptionalities in your classroom?)

CIRCLE the value that represents your current level of confidence for each exceptionality

	Not at all confident		Not very confident		Somewhat confident		Quite confident		Completely confident
Attention Deficit/ Hyperactivity Disorder	1	2	3	4	5	6	7	8	9
Learning Disabilities	1	2	3	4	5	6	7	8	9
Autism Spectrum Disorders	1	2	3	4	5	6	7	8	9
Communication Disorders	1	2	3	4	5	6	7	8	9
English Language Learners	1	2	3	4	5	6	7	8	9
Depression	1	2	3	4	5	6	7	8	9
Eating Disorders	1	2	3	4	5	6	7	8	9
Poverty	1	2	3	4	5	6	7	8	9
Posttraumatic Stress Disorder	1	2	3	4	5	6	7	8	9
Gifted, Talented, High-Potential Youth	1	2	3	4	5	6	7	8	9

To what degree do you feel capable of <u>adapting instruction</u> to MAXIMIZE LEARNING (rather than hinder it) of students with the following exceptionalities in your classroom?

(In other words, how well could you "adjust your instructional methods" to make sure the student was successfully learning (i.e., mastering concepts) in your classroom?)

CIRCLE the value that represents your current level of confidence for each exceptionality

	Not at all confident		Not very confident		Somewhat confident		Quite confident		Completely confident
Attention Deficit/ Hyperactivity Disorder	1	2	3	4	5	6	7	8	9
Learning Disabilities	1	2	3	4	5	6	7	8	9
Autism Spectrum Disorders	1	2	3	4	5	6	7	8	9
Communication Disorders	1	2	3	4	5	6	7	8	9
English Language Learners	1	2	3	4	5	6	7	8	9
Depression	1	2	3	4	5	6	7	8	9
Eating Disorders	1	2	3	4	5	6	7	8	9
Poverty	1	2	3	4	5	6	7	8	9
Posttraumatic Stress Disorder	1	2	3	4	5	6	7	8	9
Gifted, Talented, High-Potential Youth	1	2	3	4	5	6	7	8	9

To what degree do you feel capable of <u>creating a safe and supportive learning environment</u> for students with the following exceptionalities in your classroom?

(In other words, how well could you make each of these students feel safe and supported; not singled out or made to feel different in your classroom?)

CIRCLE the value that represents your current level of confidence for each exceptionality

	Not at all confident		Not very confident		Somewhat confident		Quite confident		Completely confident
Attention Deficit/ Hyperactivity Disorder	1	2	3	4	5	6	7	8	9
Learning Disabilities	1	2	3	4	5	6	7	8	9
Autism Spectrum Disorders	1	2	3	4	5	6	7	8	9
Communication Disorders	1	2	3	4	5	6	7	8	9
English Language Learners	1	2	3	4	5	6	7	8	9
Depression	1	2	3	4	5	6	7	8	9
Eating Disorders	1	2	3	4	5	6	7	8	9
Poverty	1	2	3	4	5	6	7	8	9
Posttraumatic Stress Disorder	1	2	3	4	5	6	7	8	9
Gifted, Talented, High-Potential Youth	1	2	3	4	5	6	7	8	9

To what degree do you feel capable of <u>finding help</u> for students with the following exceptionalities in your classroom?

(In other words, how well could you connect these students with appropriate school/ community resources to help them experience social, emotional, and cognitive success in your classroom?)

CIRCLE the value that represents your current level of confidence for each exceptionality

	Not at all confident		Not very confident		Somewhat confident		Quite confident		Completely confident
Attention Deficit/ Hyperactivity Disorder	1	2	3	4	5	6	7	8	9
Learning Disabilities	1	2	3	4	5	6	7	8	9
Autism Spectrum Disorders	1	2	3	4	5	6	7	8	9
Communication Disorders	1	2	3	4	5	6	7	8	9
English Language Learners	1	2	3	4	5	6	7	8	9
Depression	1	2	3	4	5	6	7	8	9
Eating Disorders	1	2	3	4	5	6	7	8	9
Poverty	1	2	3	4	5	6	7	8	9
Posttraumatic Stress Disorder	1	2	3	4	5	6	7	8	9
Gifted, Talented, High-Potential Youth	1	2	3	4	5	6	7	8	9