

CULTURALLY RESPONSIVE TEACHER SELF-EFFICACY AND TEACHER  
PRACTICES FOR ELL INSTRUCTION IN A SOCIAL STUDIES CLASSROOM

by

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## **DEDICATION**

This is dedicated to my supportive and loving husband and best friend who has continuously reminded me what it means to live. His insight into the world of second language learning has provided me with knowledge that cannot be found elsewhere. This is also dedicated to my parents who have never let me forget the value of education. Their support and constructive feedback is what has allowed me to pursue my educational goals. My mother, and first language teacher, showed me what it meant to be multicultural and multilingual. Her strength and perseverance, particularly during these last few months, has reminded me that life is worth fighting for and giving up is not an option.

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## LIST OF ABBREVIATIONS

Analysis of Variance.....	ANOVA
Center for Urban Learning/Teaching and Urban Research in Education and Schools.....	
.....	CULTURES
Certification .....	Cert
Cognitive Academic Language Learning Approach .....	CALLA
Culturally and Linguistically Diverse .....	CLD
Culturally Responsive .....	CR
Culturally Responsive Teacher Self-efficacy .....	CRTSE
Culturally Responsive Teaching .....	CRT
English as a Second Language.....	ESL
English Language Learner .....	ELL
First Language .....	L1
Multivariate Analysis of Variance .....	MANOVA
National Center for Education Statistic .....	NCES
National Council for Accreditation of Teacher Education .....	NCATE
Principal Axis Factoring .....	PAF
Second Language .....	L2
Self-efficacy for Student-oriented Teaching.....	SE-SOT
Teacher Self-efficacy .....	TSE
Teachers of English to Speakers of Other Languages .....	TESOL
Teaching American History.....	TAH
Years .....	Yrs

## **ABSTRACT**

### **CULTURALLY RESPONSIVE TEACHER SELF-EFFICACY AND TEACHER PRACTICES FOR ELL INSTRUCTION IN A SOCIAL STUDIES CLASSROOM**

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George Mason University, 2013

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The purpose of this investigation was to explore two types of teacher self-efficacy and how they relate to teachers' beliefs regarding classroom instruction for English Language Learners (ELLs) within the context of an American history professional development program. With guidance from theoretical and empirical research related to social cognitive theory, a measure – the Self-efficacy for Student-oriented Teaching (SE-SOT) Scale– was developed. The SE-SOT, in conjunction with a measure of Culturally Responsive Teacher Self-efficacy (CRTSE) and a measure of ELL best practices, was administered to in-service teachers in the mid-Atlantic region. The purpose of this investigation was threefold. Firstly, it sought to explore the relationship between self-efficacy for student-oriented teaching and culturally responsive teacher self-efficacy. Secondly, it sought to examine the relationships and predictive nature of these two measures with that of a third measure – the Best Practices for ELLs in Social Studies

(BPELS) Scale— the development of which was guided by research and literature that described appropriate classroom instruction for ELLs. Thirdly, it sought to explore the factorial nature of these three measures and investigate how the resulting dimensionality of the CRTSE Scale relates to that of previous research. This study revealed several important findings: (1) teacher's self-efficacy for student-oriented teaching and culturally responsive teacher-self efficacy are moderately correlated, (2) both measures of teacher self-efficacy are correlated to teachers' projected use of best practices in the classroom, (3) culturally responsive teacher self-efficacy was revealed as a mediator between teachers' self-efficacy for student-oriented teaching and best practices for ELLs in social studies, and (4) three factors appear to be key when measuring best practices for ELLs in social studies. The limitations and implications of these findings are discussed.

## **CHAPTER ONE: INTRODUCTION**

### **The Issue: A Changing School Population**

As the student population of the United States continues to evolve, the need for equitable and culturally appropriate instruction has continued to gain attention in educational research and pre-service teacher programs (Siwatu, 2007). In the year 2010, almost 13 percent of the U.S. population was foreign born, indicating a nearly two percent increase since 2000 (U.S. Census Bureau, 2012). According to the National Center for Education Statistic (NCES, 2012), in 2010, 22 percent of the school-age population spoke a language other than English at home, which is a three percent increase in only four years. As these statistics continue to increase, it is estimated that by the year 2025 approximately 25 percent of students will be English Language Learners (ELLs) (Spellings, 2005). In light of this information, educators, teachers, and teacher preparation programs have begun to focus on the need for systematic changes in the levels of cultural awareness and sensitivity. Specifically, research has indicated the need for teachers to learn about and develop skills related to effective instruction for culturally and linguistically diverse (CLD) students (Leavell, Cowart, & Wilhelm, 1999).

### **The Need for Culturally Responsive Teachers**

As the number of CLD students, who are currently the fastest-growing segment in the U.S. public school system (Afterschool Alliance, 2011), continues to grow, more research needs to be conducted in relation to effective culturally responsive instructional

practices. More specifically, there is an increasing need for research to investigate levels of teacher confidence related to culturally responsive teaching and how those beliefs affect teachers' classroom practices. Because ELLs are more frequently being placed in content classrooms with limited English as a Second Language (ESL) instructional support, the challenges of meeting the needs of all students has extended to teachers who have not been formally prepared and/or certified to teach diverse populations. As more teachers find themselves working with ELLs, there are specific issues that teachers need to address in their classrooms in order to serve CLD students effectively. One of the areas of greatest concern with ELLs is their levels of achievement in comparison to their non-ELL peers (Short & Fitzsimmons, 2007). Vital to addressing this achievement gap between ELLs and non-ELLs is the need for teachers to consider the specific and sometimes unique needs of CLD students.

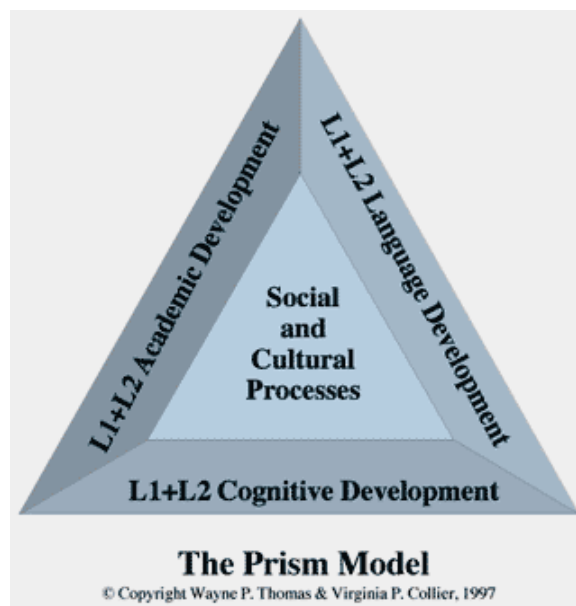
According to Short and Fitzsimmons (2007), both students' in- and out-of-school contexts and how the two are interrelated are examples of considerations that teachers need to make when instructing ELLs. A student's out-of-school context, for example, includes interests that are external to the classroom (e.g. hobbies, culture, and music). Teachers need to address this type of literacy in order to gain entrée to ELL students' literacy in the classroom (Short & Fitzsimmons, 2007). In their research that focuses on the low reading scores of ELLs compared to their non-ELL counterparts, Short and Fitzsimmons (2007) emphasize the need for teachers to engage students in reading by connecting literature to students' home lives. This includes not only using personal and cultural interests to engage students, but also acknowledging that ELL students' out-of-

school literacy is often related to household responsibilities, such as reading bills and communicating with professionals on behalf of non-English-speaking family members. In order to meet the needs of ELLs effectively, Short and Fitzsimmons (2007) describe the responsibility that teachers hold in acknowledging that ELLs do “double the work,” by learning the language and content simultaneously. As a result, their academic needs often differ from those of their non-ELL peers, and a failure to recognize and account for those differences will continue to produce below basic reading scores with ELLs (Short & Fitzsimmons, 2007).

Tse (2001) also emphasizes the need for schools to consider content instruction as it pertains to authentic and relevant aspects of students’ lives. She indicates that in order to improve the current quality of education that many ELLs receive, it is important to focus on the availability of educational resources in the students’ heritage languages that specifically consider the students’ needs and interests. This is essential because ELLs are able to learn English more efficiently when teachers build on background knowledge in their L1s (Tse, 2001). Successful English reading skills, for example, are highly dependent on the students’ oral and written skills and knowledge already available in their L1s (i.e. Baker, 2011; Collier & Thomas, 2009; Cummings, 1979; Davison, Hammer, & Lawrence, 2011; Tse, 2001). For this reason, it is important for teachers to recognize and utilize the students’ prior knowledge and heritage or native language as a strength rather than an impediment. Using this strength in a content classroom to improve students’ English language skills and content knowledge has the potential to both

increase achievement as well as empower students through the sociocultural aspects of their lives (Collier & Thomas, 2009).

Like Tse, Collier and Thomas (2009) emphasize the need for school environments, most importantly teachers, to be socioculturally supportive as a means by which to facilitate academic and cognitive development. Represented in their *Prism Model* (Figure 1), Collier and Thomas (2009) emphasize that teachers and administrators need to understand that the sociocultural processes of an individual form the center of their academic, cognitive, and linguistic development.



**Figure 1: The Prism Model**

Although all four components are interdependent, it is imperative that educators provide a school environment that is socioculturally supportive in order for the other

three components to develop successfully. This includes the components as they pertain to both the students' L1s and L2s. Through Collier and Thomas's (2009) longitudinal studies of ELLs, they have found that when ELLs are provided with instruction based on the principles of this model, the achievement gap that exists between ELLs and non-ELLs can be effectively closed in four to ten years, depending on prior educational experience and program instruction (i.e. English only versus dual immersion).

More so with ELLs than non-ELLs, teachers need to make instructional and content-related accommodations in order to create an equitable learning environment. One way for teachers to do so is through the integration of the content materials and the students' funds of knowledge or social capital (e.g. Collier & Thomas, 2009; Moll, 2010; Moll, Amanti, Neff, & Gonzales, 1992). This, for example, includes using a student's household and the local community as sources of knowledge.

According to Collier and Thomas's (2009) *Prism Model*, because the sociocultural context of ELLs is central to cognitive, linguistic, and academic development, providing instruction that incorporates the students' culture and aspects related to their home lives has a greater impact than instruction that does not relate to the students' real life experiences. Collier and Thomas (2009) emphasize the need, specifically for teachers, to focus on the sociocultural school environment as a means by which to motivate ELLs and potentially begin to close the achievement gap that exists between ELLs and non-ELLs. This is of particular importance in relation to teachers' instructional methods, in which culturally relevant content material should include opportunities to draw upon the knowledge of ELLs' cultures and home environments.

Additionally, by making classroom material more relevant to the students and their cultures, teachers have the potential to increase students' levels of motivation and engagement, potentially leading to higher academic achievement.

In support of Collier and Thomas's (2009) model, Alderman (2008) points out the significant role that motivation plays in classrooms that are socioculturally supportive. For example, in one such study, Rueda and Moll (1994) investigated writing quality and quantity with 12 teachers across three junior high schools in southern California using an intervention design. The students were predominantly working-class Latinos of mainly Mexican descent with varying levels of English proficiency. This particular population was studied because of the frequent challenges that teachers reported in reference to the quality and amount of their students' writing progress. In the study, as part of the intervention, the teachers provided their CLD students with opportunities to write about personal and culturally relevant topics such as community violence. The researchers sought to create a link between experiences in and out of the classroom by engaging students through their writing. Additionally, Rueda and Moll (1994) discuss the emphasis they placed on using meaning-centered writing tasks, in which students associate writing with a way to communicate important and meaningful aspects of their lives. The results of their study support the need for a socioculturally relevant curriculum by demonstrating that with the inclusion of socioculturally significant topics, students increased the quantity of their written text and the quality of their writing abilities (e.g. coherence and organization) (Rueda & Moll 1994).

Similarly, in a two year study conducted by Shields (1995) and his colleagues, which included 68 classrooms, the act of connecting classroom assignments with students' backgrounds resulted in more active engagement. This study investigated how different teaching style responses (i.e. nonconstructive versus constructive and passive versus active) affected students' classroom engagement in high poverty classrooms. The majority of the students studied were from low socioeconomic backgrounds, including a broad spectrum of ethnic and racial backgrounds. Many of the classrooms observed in the study included recent immigrants with no English language skills and a large number of students of varying English language proficiency, whose L1s were a language other than English. Shields (1995) and his colleagues found that teachers who more actively and constructively responded to their student' differences (e.g. culture, native language, and poverty level) tended to hold higher expectations for their students and use instructional methods that directly and explicitly built upon students' backgrounds and heritage. In turn, this lead to higher levels of student classroom engagement, which was reported based on qualitative data collected from classroom observations.

Additionally, a significant amount of research on ELLs has focused on the need to support the students through their native language; in other words, supporting their first language (L1) while acquiring their second language (L2). Although most public school systems currently do not support bilingual education, there is a significant amount of evidence that demonstrates how the use of the student's L1 can accelerate their acquisition of their L2 (Collier & Thomas, 2009; Nguyen, Shin, & Krashen, 2001; Tse,

2001). Specifically, Tse (2001) indicates the importance of supplying school resources and reading materials in the students' L1s.

Despite the multitudes of second language research (e.g. Baker, 2011; Collier & Thomas, 2009; Cummins, 1979, 1982; Hall Haley & Austin, 2004; Herrera, Perez, & Escamilla, 2010; Tse, 2001) that indicate the importance of being culturally responsive and using CLD students' L1s, Siwatu's (2007) study indicates that teachers are hesitant and lack confidence, or self-efficacy, in doing so. This disconnect between theory and practice in an ESL classroom, hypothesized to be mediated by beliefs and self-efficacy, maintains the potential to elucidate the current gap that exist between ELL and non-ELL student achievement.

## **CHAPTER TWO: LITERATURE REVIEW**

### **Culturally Responsive Teaching (CRT)**

According to Ladson-Billings (1994), Culturally Responsive Teaching (CRT) is a method of teaching in which the instructor utilizes culture as a way to empower students intellectually, socially, and politically. It is an effective way to integrate the environmental and personal aspects of the student such as culture, community setting, and prior knowledge, with the learning environment (Gay, 2000). The concept was first introduced in the early 1970s as a response to growing classroom diversity during the civil rights movement (Santamaria, 2009). Research related to CRT has focused on a variety of CLD student populations including, but not limited to, Latinos, Asians, Pacific Islanders, African Americans, and Native Hawaiians (e.g. Irvine, 2002; McCarty, 2002; Moll, 1991). These studies have indicated that students' sociocultural components form the foundation of the theory. Furthermore, such research has indicated that CRT, when implemented in diverse classrooms, results in increased achievement scores (Gay, 2000). Foundations of CRT have since been used to help improve instruction for teachers of diverse populations (Gay, 2000). For example, Gay (2002) highlights the effectiveness of CRT approaches when dealing with ethnic and culturally-related controversy. She indicates that such controversy can be managed directly by the inclusion of and discussion about multiple cultures, kinds of knowledge, perspectives, and ethnic groups in the classroom. One such example is through analysis of textbooks and related material.

Gay (2002) describes how teachers who are culturally responsive perform cultural textbook analyses to better comprehend the obstacles that exist in multicultural education. They identify areas of bias and supplement the information to include more accurate and appropriate representations of cultures and races. Additionally, CR teachers promote equity in the classroom through the physical environment (i.e. culturally inclusive bulletin boards, multicultural literature, and statements of social equity).

Furthermore, Gay (2002) indicates how CRT can be used to critically analyze the manner in which CLD populations are represented in the media and popular culture. Culturally responsive teachers use this information in constructive ways to counteract their influences and to guide students in becoming more aware of these stereotypes and biases. Finally, Gay (2000) discusses the concept of caring and how it relates to CRT. She mentions both qualitative and quantitative studies that investigate the relationship between teachers' style of caring (i.e. caring and noncaring) and teachers' expectations and interactions with diverse students. She reports that noncaring teachers (e.g. teachers who have low performance expectations or who do not advocate for their students or empower them) favor European American students both in quality and quantity of interactions (e.g. number of kinds of student contact, student wait-time allotted, praise and criticism, etc.) over students of diverse races, ethnicities, and other factors (i.e. social class, gender, etc.). She cites this as one of the reasons that more CRT methods and approaches need to be included in teacher preparation programs, as well as teacher professional development programs.

Researchers of CRT (e.g. Gay, 2000, 2002; Ladson-Billings, 1994; Moll et al., 1992) have indicated a multitude of positive outcomes (i.e. enhanced teacher-learning processes, stronger teacher-student relationships, and increased educational support) when teachers of CLD students use the community's funds of knowledge to relate to classroom instruction. According to Moll, et al. (1992), the term funds of knowledge describes "historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well being" (p 133). This includes concepts such as budgets, cooking, construction knowledge, and crop planting, among numerous other examples (Moll, et al., 1992). Moll et al. (1992) describe how funds of knowledge can be used to assist teachers in learning about their students as a whole, and not simply from their school performance and behavior. Their research indicates that members of the household, especially children, are not passive participants; they actively participate and are sometimes central to the functionality of the home. By analyzing students' funds of knowledge, teachers have the potential to inform classroom instruction that is interesting and meaningful. Furthermore, funds of knowledge can be utilized in the classroom to help improve academic development by engaging students through information that is culturally and personally relevant to their unique situation (Moll, et al., 1992).

Irvine (2002) has also conducted numerous research studies (mainly with African American populations) about CRT as it relates to the Center for Urban Learning/Teaching and Urban Research in Education and Schools (CULTURES), the professional development center that she founded. Irvine created CULTURES in

response to the increasing challenges related to culturally diverse school systems. Since the beginning of her program, numerous investigations, both quantitative and qualitative, have been conducted to evaluate the program's success. One such study, a case study of an African American middle school teacher, documents the methods she utilizes to achieve success with her students (Lee, 2002). The information outlined in this case study describes the teacher's confidence in both her teaching competence, as well as her ability to positively affect her African American students. The teacher cites her sources of efficacy as derived from her teacher preparation program, prior and current teaching experience, and the context of her teaching (i.e. school environment). The context was significant for the teacher because she credited her high TSE partially to the positive and collaborative atmosphere of her school (Lee, 2002). She describes this support as integral in her ability to be culturally responsive, which equated to demonstrating care, holding high expectations, and planning instructional activities that motivated her students. She maintained high expectations and clear academic goals for her students, which created a positive school environment for her students to focus on their learning (Lee, 2002). These findings are important in the realm of Culturally Responsive Teacher Self-efficacy (CRTSE) because they indicate that in order for teachers to feel more efficacious in their ability to serve CDL students effectively, there is a need for adequate teacher preparation and in-service professional development, as well as school-based teacher collaboration.

Additionally, through qualitative observation, Ladson-Billings (1994) reported evidence of academic achievement, student-centered discourse, and positive perspectives of CLD learners and their families when CRT was utilized in the classroom. Likewise,

Gay (2000) found classrooms of CR teachers to encourage student validation through their cultures and experiences. Through implementation of CRT, Gay (2000) indicates its transformative nature, by which the teacher recognizes the existing strengths and experiences of the students as a way to enhance the value of instruction. Moreover, Ware's (2006) qualitative investigation of two African American teachers revealed that teachers who consider and value the cultures of their students and integrate them into the classroom lead to a number of positive outcomes, namely the students' embrace of a culture of achievement. Contrastingly, when teachers fail to consider the students' cultures, negative outcomes (i.e. student withdrawal, low achievement) are more likely to result.

Because the ability for teachers to be culturally responsive begins with their beliefs, it is necessary to explore the construct of teacher self-efficacy. The discussion will begin with the construct's foundation in general teacher self-efficacy, and progress to culturally responsive teacher self-efficacy and self-efficacy for student-oriented teaching.

### **Teacher Self-efficacy (TSE)**

Rotter's (1966) theory of Locus of Control formed the foundation for the construct of self-efficacy, introduced through Bandura's (1977) work. Bandura (1977) defined the construct of self-efficacy as the belief in one's ability to accomplish a course of action in order to attain some desired goal or outcome. It requires the individuals to go beyond knowledge and development of skills, whereby beliefs become accurate predictors of behavior (Pajares, 1996). According to Bandura (1977), one's beliefs act as the mediators between knowledge and skills and subsequent actions. Since Bandura's

introduction of self-efficacy, his theory has been applied to various contexts. He also further developed his theory, which he later named Social Cognitive Theory. During the 1980s, self-efficacy theory was applied to teachers and referred to as teacher self-efficacy (Siwatu, 2007).

Since the construct of teacher self-efficacy was first introduced, it has been greatly analyzed and debated. Initial measures of the construct were founded in Rotter's (1966) Locus of Control theory, while later measures tended towards Bandura's (1977) Social Cognitive Theory. Throughout this evolutionary process of the construct, numerous researchers contributed to the development and measurement of the construct under Bandura's conceptual framework, namely Gibson and Dembo (1984). Not surprisingly, as the construct underwent alterations and multiple proposed definitions for measure, researchers began to question the validity of the two-factor model proposed by Gibson and Dembo's (1984) model: personal and general teaching efficacy. Decades after the development of Gibson and Dembo's (1984) scale, researchers are still reviewing and debating whether it best describes and measures the construct. Disagreement aside, Gibson and Dembo's (1984) scale of TSE is still used and cited as a source for the development of subsequent scales of teacher self-efficacy.

One important review of the construct, conducted by Tschannen-Moran and Hoy (2001), explored existing measures of self-efficacy. One of the issues that the researchers perceived with the measures was the measures' lack of specificity in defining and implementing TSE measure. Like Wheatly (2005), Tschannen-Moran and Hoy (2001) argued that the existing measures of teacher self-efficacy were not addressing task-

specific abilities, for example those defined by content area, student groups, or grade level. This approach to measuring TSE supports Bandura's (1977) developmental work surrounding the construct, in which he described self-efficacy beliefs as being context-, task-, and domain-specific. As a result, Bandura (2006) suggests avoiding general or global measures of self-efficacy that are absent of specifically defined parameters (i.e. levels of specificity). While some existing measures of TSE have failed to follow Bandura's (2006) suggestions for scale development, he argues that this lowers the predictive validity of the measure. Following that same trajectory, Pajares (1996) cites this lack of attention to specificity as a possible barrier to finding relationships between beliefs and performance.

While debate surrounding the construct of teacher self-efficacy continues, previous research has analyzed the construct in relation to how it correlates with teaching experience and professional development, among other variables. Because of the differences reported between pre- and in-service teachers' levels of self-efficacy, several studies have identified the importance of providing pre-service teachers with opportunities to increase their levels of self-efficacy through practices of modeling (Gorrell & Capron, 1988, 1989), in-classroom field experiences (Parameswaran, 1998), adequate pre-service preparation across contexts (Siwatu, 2011b), and culturally responsive teacher self-efficacy-forming experiences (Siwatu, 2011a). The last of these purported influences on TSE levels refers to ways in which teachers' experiences with CLD students and CRT can affect their levels of a specific type of teacher self-efficacy,

aptly termed Culturally Responsive Teacher Self-efficacy (CRTSE). This type of TSE will be addressed in the following section.

**Culturally Responsive Teacher Self-efficacy (CRTSE).** More recently, in light of the changing school population demographics and needs, a limited number of researchers have begun to explore the construct of culturally responsive teacher self-efficacy (CRTSE), which stems from the construct of culturally responsive teaching (CRT) (e.g, Montgomery, 2001; Phuntsog, 2001; Siwatu, 2007). This type of TSE focuses on specific skills necessary to serve a culturally diverse population effectively (i.e. cultural awareness, racially and ethnically inclusive materials, positive student-teacher relationships, etc.).

Distinguished from a teacher's overall self-efficacy, CRTSE specifically addresses a teacher's belief in her ability to provide instruction in a culturally appropriate and responsive manner (Siwatu, 2007). The construct is founded in Bandura's (1977) theory of self-efficacy, with a focus on the following four competencies: curriculum and instruction, classroom management, student assessment, and cultural enrichment (Siwatu, 2007). To explore this construct, Siwatu (2007) designed a measure of CRTSE that explored teachers' levels of confidence to deliver culturally responsive instruction. His specific use of this measure and findings will now be discussed.

In a study investigating CRTSE, Siwatu (2007) found that pre-service teachers reported higher levels of CRTSE when related to their ability to "help students feel like important members of the classroom" and form relationships, than they did when related to their ability to communicate with ELLs, for example by using their students' native

languages (L1s) for greetings and praise (p. 1092). Because teachers' use of students' L1s to enhance and build knowledge in their L2s is imperative to academic success, these findings require further investigation. Furthermore, Siwatu (2007) found that teachers who reported higher levels of CRTSE also more strongly believe in positive outcomes related to CRT. This is important because it indicates the positive relationship between CRTSE and beliefs about positive outcomes, which is applicable to classroom practice. Siwatu's (2007) study was one of the first to shed light on teachers' levels of CRTSE and his findings indicate that there is a growing need to address areas of CRT where teachers' levels of CRTSE are low, particularly when related to the use of students' L1.

Because of the increasing likelihood that teachers will find themselves working with CLD students, it is crucial that teachers are aware of both the effective approaches when working with ELLs, and how confident they feel in their ability to utilize those approaches (Collier & Thomas, 2009; Siwatu, 2007; Taylor & Sobel, 2001; Torok & Aguilar, 2000). This is important because as Bandura (1982) describes, self-efficacy beliefs, although separate, are strongly correlated to outcome expectancy beliefs. More importantly, self-efficacy beliefs have been shown to accurately predict behavior (Pajares, 1996). These finding directly relate to the implementation of CRT with ELLs because, as research previously mentioned has shown, in order for teachers to be CR they must believe in the success of their students and instruct them through that central principle. This type of methodological implementation, as a result, frequently leads to increased student engagement (Shields, 1995), motivation and writing development

(Rudea & Moll, 1994), and achievement (Collier & Thomas, 2009), among various other positive outcomes.

When discussing CRTSE, using students' L1s is only one aspect of becoming a culturally responsive instructor. According to Siwatu (2007), culturally responsive teachers know how to communicate and work with CLD students. They understand their students' cultures and know how to use them to segue to classroom instruction. Most importantly, culturally responsive teachers understand the importance of incorporating aspects of a student's social and cultural processes into the curriculum (Collier & Thomas, 2009).

Furthermore, according to Phuntsog (2001), culturally responsive teaching begins at the pedagogical level, whereby teachers have to understand this concept of integrating multicultural education into the school system. His investigation of pre- and in-service teachers explored teachers' perceptions and beliefs about the importance of culturally responsive practice in their classrooms. According to his study, teacher participants believe that culturally responsive teaching is an important aspect of working with CLD students (Phuntsog, 2001). While he found that teachers strongly agreed that respect and tolerance are critical aspects of culturally responsive teaching, he also found high levels of variance in relation to teachers' beliefs about the use of students' native languages, and the use of culturally diverse literature in the classroom (Phuntsog, 2001). The results of his study indicate that the beliefs on which teachers' levels of agreement varied the most involve tenets of two of the most important approaches to successful second language

acquisition: (1) students' use of their L1s (Cummins, 1979), and (2) inclusion of culturally and linguistically relevant and diverse literature (Herrera, et al., 2010).

### **Self-efficacy for Student-oriented Teaching**

As the school population continues to change, and the needs of many students require teachers who provide culturally responsive instruction, research needs to begin to explore teachers' beliefs and levels of confidence as they more directly relate to the student. While Siwatu's (2007) CRTSE measure considers how confident teachers feel in their ability to provide culturally responsive instruction, another measure of teacher self-efficacy, referred to as self-efficacy for student-oriented teaching (SE-SOT), purports to measure how confident teachers feel in their ability to provide instruction that addresses elements of relevance and ownership. These two scales, following the guidance of Bandura (2006), focus on the specific needs of the students as they relate to context- and domain-specific tasks. Through the inclusion of items that address how well teachers feel about their ability to relate specific classroom materials beyond the classroom (e.g. future academic goals, home culture), they explore levels of teacher self-efficacy as they relate the students' specific needs. However, while the SE-SOT scale explores the concepts of relevance at a more general level of student needs, the CRTSE scale explores more specific needs related to linguistic, cultural, and home-related relevance.

The exploration of TSE through the SE-SOT measure aims to address the current and ongoing lack of field consensus related to the construct of teacher self-efficacy. As previously discussed, much debate has arisen from existing measures of TSE, for example, Wheatley (2005) argues the need to move away from global scales of TSE and

reconceptualize the construct altogether. In response to this concern, the current study will focus on two measures of teacher self-efficacy that measure CRTSE and SE-SOT in the context of a social studies classroom. As Wheatley (2005) suggests, these two measures of TSE address a specific type of TSE within a defined context. By moving away from more global scales of TSE, the potential exists to improve the level of usefulness of TSE measures for teachers and teacher educator, which Parjares (1996) explains is instrumental in finding belief and performance relationships. Likewise, Wheatley (2005) suggests that current SE scales fail to provide specific information about which instructional tasks teachers feel more or less efficacious. Moreover, he raises the question of how well the current TSE measures address instructional approaches that are student-oriented. Specifically, student-oriented TSE focuses on a classroom where the learners assume a more active role in their learning. For example, including opportunities for collaboration, discovery learning, and autonomy-supporting (Ryan & Deci, 2000) activities. It is through these more specific efficacy beliefs that Wheatley (2005) believes TSE research has the potential to inform teacher educators as to how the particular types of TSE are beneficial, problematic, or inconsequential.

Furthermore, Wheatley (2005) argues that TSE scales require a focus on goals (e.g. autonomy, ownership), and efficacy as it pertains to a process of learning how to become a better teacher. As opposed to some of the existing TSE scales that focus on the immediate future, student-oriented TSE focuses on the long-term goals of the students, accomplished through the efforts of the teacher to provide provisions of choice, student-relevant connections to the instructional materials, and opportunities for students to

maintain ownership over their learning. These components have been informed by literature that evaluates self-regulated learning (Zimmerman, 2002), expectancy-value theory (Wigfield & Eccles, 2000), and aspects of intrinsic motivation (Ryan & Deci, 2000).

### **Culturally Responsive Teacher Self-efficacy and Context**

An additional area of CRTSE that has been recently explored is its relation to context. In a study of pre-service teachers, Siwatu (2011b) found that teachers' levels of CRTSE decreased for urban school settings compared to suburban school settings. For example, when the same teacher was given an urban classroom scenario and a suburban classroom scenario, she rated her level of CRTSE as significantly higher for the suburban setting. Additionally, when asked to rate levels of confidence to instruct ELLs compared to non-ELLs, teachers' levels of preparedness and confidence decreases for ELLs, regardless of context. Siwatu (2011b) explores possible reasons for this disparity, mentioning the possibility of lack of pre-service preparation (e.g. Chizhik, 2003). Because teacher preparation programs have embraced common approaches to prepare teachers, many teachers are not being adequately trained to work with CLD students. As a result, they feel more efficacious in their abilities to teach White non-ELL students (Ladson-Billings, 2000). These findings support Bandura's (1997) claim that self-efficacy beliefs vary across context. Siwatu (2011b) also posits the possibility that pre-service teachers' exposure to CLD student populations through mastery and vicarious experiences are limited, therefore lowering their CRTSE for such populations.

In a subsequent study by Siwatu (2011a), he conducted a mixed method investigation to explore how levels of CRTSE related to teachers' pre-service experiences. Not surprisingly, he found that teachers who had lower CRTSE reported less opportunities and exposure to theory and practice of CRT in their pre-service teacher courses (Siwatu, 2011a). Likewise, teachers with higher CRTSE reported more exposure to and experience with CRT in their teacher preparation courses. When interviewed about their responses on the CRTSE scale, teacher participants who reported high levels of CRTSE indicated direct practice with the tasks mentioned in the scale. This investigation also revealed that teachers were more confident in their ability to perform more general teaching practices (i.e. "build a sense of trust in my students") than those more directly associated with the cultural and linguistic backgrounds of the students (i.e. "identify ways that the school culture is different from my students' home culture") (Siwatu, 2011a, p. 363).

Because of the lack of preparation and experience with CLD students that pre-service teachers receive during their teacher education, it is imperative to find alternative outlets to fill those gaps. Specifically because self-efficacy beliefs are more malleable in the first few years of teaching, it is important to use teacher support programs, such as professional development programs, to help teachers increase their levels of CRTSE. This is particularly important in a social studies context, where many in-service teachers encounter numerous challenges to instruction for ELLs.

## **Culturally Responsive Teaching in a Social Studies Context**

Within a social studies context, there is a greater need than other content areas for culturally responsive teacher beliefs to be explored. As Pahl (2007) explains, social studies presents higher-level challenges to ELLs because the content instruction includes decontextualized and abstract vocabulary (Weisman & Hansen, 2007) and language that is frequently difficult for English proficient non-ELLs to comprehend. Because of the challenges that social studies present to ELLs, teachers are also faced with the challenge of devising and implementing strategic accommodations to adapt the instruction to the needs of the ELLs in their classrooms.

Although social studies content can be particularly challenging for many ELLs, Weisman and Hansen (2007) cite social studies instruction as an opportunity for teachers' to integrate students' cultural and linguistic experiences and perspectives. However, contrary to second language acquisition research, Weisman and Hansen (2007) indicate that some educators believe that social studies is best taught in an English-only environment. However, because the vocabulary and concepts (e.g. *democracy* and *liberty*) are abstract, teachers encounter difficulties when instructing ELLs (Weisman & Hansen, 2007). In response to the challenges, Weisman and Hansen (2007) identify the following strategies for effective instruction in an elementary social studies context with ELLs: using background knowledge, cultural and familiar experiences, graphic organizers, comprehensible input, explicit vocabulary support, visual aid and realia, and appropriate scaffolding.

More specifically, social studies teachers encounter challenges with instruction for ELLs because of deep roots that many of the topics have in the American culture

(Thornton, 2005). This is a great challenge when teachers present content materials within an American History classroom. ELLs are faced with the challenge of mastering a curriculum involving low frequency words (e.g. Constitutional Congress and Bill of Right, Szpara & Ahmad, 2007) with high cognitive demand. Particularly within a social studies context, teachers perceive making the content culturally relevant more difficult than in other content areas (Szpara & Ahmad, 2007). Many teachers are not familiar with the cultures and languages of their students, and therefore feel less capable of providing culturally relevant instruction. Moreover, because American history is fundamentally based in the culture of the United States, teachers are faced with the additional challenge of working with students who may have no prior knowledge of American history, whereby making it difficult to build from prior knowledge (Szpara & Ahmad, 2007). Furthermore, social studies is unique in that it depends on several other areas of study (i.e. natural sciences, social sciences, humanities, Szpara & Ahmad, 2007) that require an understanding of terminology and concepts to be synthesized and integrated.

In response to these numerous challenges, Szpara & Ahmad (2007) propose an array of strategies to accommodate the needs of ELLs in social studies classrooms. They list the following three overarching approaches: “(1) providing social and cultural supports during the process of acculturation, (2) providing explicit instruction in academic strategies necessary for successful comprehension of in depth content, and (3) making social studies curriculum more accessible through strategies that reduce cognitive load without reducing content” (Szpara & Ahmad, 2007, p.190). Specifically, they addressed the three following best practices for teachers when instructing ELLs in a

social studies context: “(1) the development of socially supportive classroom environments, (2) the explicit teaching of academic skills through the Cognitive Academic Language Learning Approach (CALLA), and (3) approaches for reducing cognitive load in curriculum materials combined with strategies for increasing the accessibility of complex content” (Szpara & Ahmad, 2007, p.190). These three approaches form the foundation of the scale of Best Practices for ELLs in Social Studies (BPELS) that will be used in the current study to investigate the frequency of teacher implementation regarding ELLs in a social studies classroom. The CALLA approach will be further defined because of its significant influence in relation to the development of the aforementioned scale.

### **Cognitive Academic Language Learning Approach (CALLA)**

The Cognitive Academic Language Learning Approach (CALLA) was first developed in 1986 by Chamot and O’Malley. It is currently being implemented in over 30 locations within the U.S., as well as several other countries around the world (Robbins, 2013). The model can be used with instruction related to ESL, English as a Foreign Language (EFL), bilingual education, and general education classrooms (Robbins, 2013). Within ESL classrooms, the model assists ELLs to improve their academic achievement by providing grade-level content instruction and language skill development (reading, writing, listening, and speaking) through a focus on explicit learning strategies (Chamot, 1995). The cognitive learning theory forms the foundation for CALLA, in which learning occurs through active students (Chamot, 1995). The

model utilizes prior knowledge, meaningful relationships, higher level thinking skills, and self-regulated and reflective learning (Chamot, 1995).

The CALLA model emphasizes the need for students to improve achievement in both content and language areas. This is why it has been particularly successful with ELLs, by allowing students to integrate academic language and content, learning both simultaneously. However, Chamot (1995) emphasizes that in order for teachers to implement the CALLA method successfully, there must be a component of professional development during which teachers continue to enhance their teaching skills. Additionally, successful implementation of the CALLA method provides students with opportunities to collaborate, use their L1s, and learn through hands-on activities (Chamot, 1995).

When implemented in ESL classrooms, the CALLA method has demonstrated its potential to improve science content achievement over time (Chamot, 1995). In a longitudinal study investigating the CALLA method in mathematics and science content classrooms, 29 percent of the students instructed with CALLA methods received a grade of B or better in their science course, compared to only 22 percent of students instructed with non-CALLA based approaches (Chamot, 1995). In mathematics, student achievement has continuously indicated rapid gains when compared to the national group in computation, and even larger gains in mathematic concepts and applications (Chamot, 1995). The results from this study revealed that when students were instructed using CALLA methods, they improved both their content and language skills (Chamot, 1995).

## **Implementation of ELL Best Practices in Social Studies**

In addressing the three approaches listed previously, Szpara and Ahmad (2007) describe how the three best practices categories are accurately and effectively implemented in a high school social studies classroom. Szpara and Ahmad (2007) emphasize the need for a learning environment that connects students' home languages and cultures, and one that provides multilingual and multicultural resources, including bilingual thesauruses, dictionaries, and examples projects. They also discuss the need for students to have successful verbal production opportunities, explicit instruction of both strategies and content, such as vocabulary, as a means to reduce cognitive load, and multimodal forms of content presentation to reinforce key information.

Although these strategies and approaches are reported as useful with ELLs, teachers must believe in their effective and practical nature and furthermore their ability to use the methods before they will begin to utilize them in their classrooms. For this reason, it is vital to investigate the role that teacher self-efficacy, CRTSE, and beliefs about ESL classroom practices plays in the context of instruction with ELLs.

Additionally, because researchers are now aware that many teacher preparation programs lack information regarding and exposure to CLD students, it becomes the responsibility of programs, like professional development programs, to try to support teachers in these areas of need. They have the potential to increase teachers' levels of CRTSE, perchance acting as a mediator to increase levels of achievement for ELLs.

## **Current Study**

The current study investigated culturally responsive teacher self-efficacy as it related to the intention to implement best practices for instruction of ELLs in a social

studies context. It also explored the relationship between self-efficacy for student-oriented teaching and teachers' levels of confidence to be culturally responsive. This study was exploratory in nature both because of its connection to a limited field of research, as well as its use of researcher-developed scales of teacher self-efficacy and best practices for ELLs in a social studies context.

The following research questions were investigated:

1. What factors will result from the newly created measures of teachers' culturally responsive teacher self-efficacy, self-efficacy for student-oriented teaching, and projected frequency of use of best practices for ELLs in social studies?
2. What is the relationship among teachers' culturally responsive teacher self-efficacy, self-efficacy for student-oriented teaching, and projected frequency of use of best practices for ELLs in social studies?
3. Do teachers report varying levels of culturally responsive teacher self-efficacy, self-efficacy for student-oriented teaching, and projected frequency of use of best practices for ELLs in social studies based on years of teaching experience and levels of diversity training?
4. Do teachers' reported levels of culturally responsive teacher self-efficacy and self-efficacy for student-oriented teaching predict their projected frequency of use of best practices for ELLs in social studies?

## CHAPTER THREE: METHODS

### **Design**

This study utilized a correlational design via quantitative methods. The research questions were analyzed using correlation and statistical regression methods. All data were collected from participants by survey at one time.

### **Setting and Participants**

**Setting.** This study initially was investigated across two public school districts in a metropolitan area in the Mid-Atlantic region of the United States. Human Subjects Review Board applications were submitted separately to each county. The school districts involved were included in the study on a volunteer basis and no compensation was provided for conducting the research.

Upon approval from the Human Subjects Review Board, approval was granted to recruit participants from outside of the two initial school districts, through snowball sampling procedures.

**Participants.** The initial sample, of which the majority of the results were comprised, was recruited from an available population associated with *Teaching American History* (TAH) grants awarded to two districts in the Mid-Atlantic region of the United States. During the initial round of participant recruiting, approximately 350 questionnaires were sent to teachers across the two school districts. Teacher participants included individuals associated with the *TAH* grant, including teachers who had applied

to the program, those who had already participated, and those who were scheduled to participate in future sessions. Participants included teachers from elementary, middle, and high school grades, with varying levels of experience. All teachers were responsible for social studies instruction, including for student populations of English Language Learners and Special Education. Teachers participated on a volunteer basis and no compensation was provided for their participation. Participation was anonymous.

A second round of recruiting included teachers from a snowball sample, the procedures for which will be described in the following section. Participants recruited from this sample maintained some association to teachers from the initial *TAH* sample. As with the initial participants, teachers varied in years of experience, instructional responsibilities, and grade level, and were all responsible for social studies instruction. Teachers from the snowball sample were not necessarily associated with the *TAH* grant.

Demographics data for the sample are presented in Table 1. Of the 146 total participants, 121 (82.9%) were female and 25 (17.1%) were male. The majority of the sample self-identified as Caucasian, totaling 131 (89.7%). The remaining participants identified as African American (4.1%), Asian (2.7%), Hispanic (2.7%), Other (2.1%), and American Indian (.7%). Years of experience were reported in ranges as follows, 1-3 years (18.5%), 4-10 years, (30.8%), 11-15 years (17.8%), 16-24 years (19.2%), and 25+ (13%).

**Table 1: Demographic Data**

Characteristic	Total n = 146	%
Gender		
Male	25	17.1
Female	121	82.9
Ethnicity		
Caucasian	131	89.7
African American	6	4.1
Asian	4	2.7
Hispanic	4	2.7
Other	3	2.7
American Indian	1	.7
Grade-level		
Elementary	84	57.5
Middle	36	24.7
High	23	15.8
Number of Years Teaching		
1 – 3 Years	27	18.5
4 – 10 Years	45	30.8
11 – 15 Years	26	17.8
16 – 24 Years	28	19.2
25 + Years	19	13.0
Number of Years Teaching Social Studies		
1 – 3 Years	37	25.3
4 – 10 Years	49	33.6
11 – 15 Years	23	15.8
16 – 24 Years	25	17.1
25 + Years	8	5.5
Instructional Responsibilities		
Social Studies	144	98.6
Language Arts	91	62.3
Science	70	47.9
Math	77	52.7
Other	18	12.3
Teaching Certification		
Elementary Ed.	86	58.9
Secondary Ed.	53	36.3
English Language Learners	9	6.2
Special Education	16	11.0
Other	2	1.4
Community		
Urban	13	8.9
Suburban	125	85.6
Rural	3	

Diversity Classes		
0 Classes	17	11.6
1 Class	33	22.6
2 Classes	37	25.3
3 Classes	17	11.6
4+ Classes	42	28.8

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## Procedures

The aforementioned teachers were contacted based on permission granted from the project director of the grant. All study information and survey materials were distributed by mail, email, or in-person at program meetings. Depending on the individual requirements of each school district, participants received either an electronic or a paper copy of the survey. Paper copies were distributed in one of two ways: (1) at teacher workshop events, or (2) via the intra-district mail system. Surveys included identical information, varying only on the format via which they were delivered. A full copy of the *Educational Ratings Questionnaire* can be seen in *Appendix E*.

Printed correspondence was presented on university letterhead and emails were sent via a “.gmu.edu” address. Surveys were not completed during the time allotted for the grant workshops, rather they were distributed before the workshops began and were completed by teachers at a later time and returned through the district mail system. Materials were distributed and asked to be voluntarily submitted or returned in a pre-addressed envelope prior to the end of the 2013 school year.

Participants, who were scheduled to attend a professional development workshop between April 22, 2013 and June 17, 2013, received a copy of the survey and recruitment materials in-person. They were invited to return the survey in-person if convenient, or via

mail. Teachers who had formerly participated in the professional development program were mailed a copy of the survey and recruitment materials. Teachers who received the survey by mail were asked to return the survey prior to the end of the 2013 school year, provided their consent to participate. The survey took approximately 15-20 minutes to complete. All data was collected at one time.

To increase the overall sample size, additional participants were later recruited via snowball sampling. Previous participants were sent information electronically, indicating the need to collect additional data. The information included a link to the electronic survey, a description of the research being conducted, and contact information. One question was added to the survey that requested participants to record the state in which they teach. Because of the nature of the second round of sampling, this question was added because of the possibility that teachers outside of the state were included.

## **Measures**

**General demographics and information.** Each survey included 16 items that addressed general teacher demographics, instructional responsibilities, and professional development experience. The following information was collected for demographic purposes: 1) gender, 2) age, 3) race/ethnicity, 4) number of years teaching, and 5) number of years teaching social studies. The following information related to instructional responsibilities was collected: 1) grade level, 2) subjects taught, 3) primary instructional certificate, 4) classroom demographics (i.e. number of ELLs), and 5) school community (i.e. urban, suburban, or rural). Items concerning professional development experience were also included, which addressed the date of participation and program association.

Finally, to investigate the relationship between levels of CRTSE and exposure to diversity training, teachers were asked to identify how many courses they took that were related to diversity.

**Self-efficacy for student-oriented teaching (Kilday & Lenser, 2012).** The self-efficacy for student-oriented teaching (SE-SOT) scale contained two subscales, one that investigated teacher self-efficacy for fostering relevance and the second that investigated teacher self-efficacy for supporting students' ownership of learning. The subscale that pertains to relevance was developed based on autonomy support literature by Ryan and Deci (2000), as well as components of expectancy-value theory (e.g. Wigfield & Eccles, 2000). The subscale pertaining to ownership of learning was also informed by autonomy support literature by Ryan and Deci (2000), as well as literature concerning self-regulated learning by Zimmerman (2002). Each scale contained seven items that were rated on a ten-point scale, ranging from 10 to 100. This scale was utilized based on self-efficacy literature (Bandura, 1977), and was presented based on a percentage of certainty (i.e. "I am \_\_\_\_% certain that I can provide a rationale to make academic tasks relevant").

All items were piloted prior to use in the current study and analyzed for reliability. Results from the pilot testing indicated reliability levels at  $\alpha = .68$  for relevance subscale, and  $\alpha = .77$  for the ownership subscale. Minor revisions were made after analysis was conducted from the pilot testing. All items from each subscale are located in *Appendix A*.

**Culturally responsive teacher self-efficacy (Siwatu, 2007).** Twenty items from Siwatu's (2007) scale for Culturally Responsive Teacher Self-efficacy (CRTSE) were used to assess participants' levels of confidence regarding their ability to provide culturally appropriate instruction (e.g. "I am able to identify ways that the school culture (e.g., values, norms, and practices) is different from my students' home culture). The original scale included 40 items that all loaded onto one factor, including items related to the construct of culturally responsive teaching competencies (Siwatu, 2007), and Bandura's (1977) self-efficacy. Siwatu's (2007) factor analysis revealed that the instrument did not clearly identify subgroups. For this reason, twenty of the most relevant items were extracted from the original measure. Fifteen of the items include factor loading scores of .60 or higher. The other five items included had factor loading scores ranging from .39-.56. These five items were unique in their relation to the students' cultures, contributions of individuals from the students' cultures, and native language. These items were included for two reasons: (1) because they included aspects that are central to successful CRT, and (2) because they were items that resulted with the lowest item-specific means in Siwatu's (2007) study. Because the factors embedded within these items play a central role in effective CRT, they have the potential to inform specific areas in which teachers lack confidence and therefore require support.

The twenty items that were not used were either perceived by the researcher to be repetitive of other items in the teacher self-efficacy scales, or not applicable to the research questions for the current study. Internal reliability of the full scale was reported at .96, as estimated by Cronbach's alpha (Siwatu, 2007). The instrument asked

participants to rate their level of confidence utilizing a rating scale ranging from 0 (no confidence at all) to 100 (completely confident). Scores from the scale were totaled to indicate the participants' overall level of confidence; a high score indicated a high level of confidence for culturally responsive teacher self-efficacy. Wording for two of the items was also altered to appropriately address the social studies context of the current study (item 16. "Design a lesson that shows how other cultural groups have made use of social studies" and item 10. "Teach students about their cultures' contributions through social studies"). The modified version of the CRTSE scale can be found in *Appendix B*.

#### **Scale of best practices for ELLs in social studies (BPELS) (Lenser, 2013).**

The development of this scale is based on best practices for ELLs in a social studies classroom presented in the Szpara and Ahmad (2007) study, and was utilized to investigate levels of teachers' beliefs. This measure focused on the three areas of best practices identified in Szpara and Ahmad's (2007) study: 1) supportive classroom environments, 2) explicit instruction through CALLA methods, and 3) approaches for reducing cognitive load. The scale elicited information from teacher participants regarding their frequency of intention to use the given approaches with ELLs in a social studies classroom. The instrument included three subscales: Using home language and culture, Cognitive Academic Language Learning Approach (CALLA) instructional practices, and Reducing cognitive load. Each subscale contained seven items that were rated on a 9-point scale, based on how often the teacher would use each approach (e.g. "I would give recognition to the students' home language and culture."). Instructions for the survey requested that the respondents "imagine" that they are teaching a social studies

class with ELLs. Responses were therefore structured according to how often teachers would utilize the approaches in the given scenario. Anchors were provided for points 1 (never), 5 (occasionally), and 9 (always). Prior to the implementation of this measure, it was reviewed for construct validity by three experts in the field of English as a Second Language (ESL) research and instruction. Minor changes were made based on their suggestions and the scale was piloted to a sample of 11 pre- and in-service teachers of ESL. The following coefficient alphas were obtained from the pilot test:  $\alpha = .746$  for Home Language and Culture,  $\alpha = .793$  for CALLA, and  $\alpha = .818$  for Reducing Cognitive Load. All items for this scale are located in *Appendix C*.

## **CHAPTER FOUR: DATA ANALYSIS & RESULTS**

To investigate the research questions, the data collected from the questionnaire were analyzed to determine the dimensionality of the three scales utilized in this study. After factorial analysis, the scales were then analyzed using statistical methods of Pearson correlations and regression.

### **Research Question 1: Factor Analysis**

To assess the dimensionality of the three measures utilized in this study, factor analysis was performed using principal axis factoring (PAF). The following sections present the results for each of the three measures.

**Culturally Responsive Teacher Self-Efficacy (CRTSE).** To assess the dimensionality of the 20 items selected from Siwatu's (2007) CRTSE scale, a principal axis factor analysis was performed. To determine the numbers of factors to retain, Kaiser's criterion of eigenvalues greater than one rule and Cattell's scree test were utilized. A PAF analysis with varimax rotation of the 20 items resulted in three factors with eigenvalues greater than one, which accounted for 61.5% of the variance in the participants' scores. A scree test was then used to compare the factors produced from the first analysis. The scree test clearly identified one factor, however, the second and third factors were not clearly distinguishable from the factors with eigenvalues lower than one.

Because of the inconsistencies in the two procedures used, a one-factor model was retained. The one-factor model accounted for 52.3% of the variance, which is in line with the 53% average referred to in Siwatu (2007) that Henson and Roberts (2001) maintain is typical for factor analysis studies. Factor loadings from the exploratory factor analysis of the CRTSE scale ranged from .55-.83 and are reported in Table 2. Communalities ranged from .31 to .87.

**Table 2: Summary of Factor Loading Result for CRTSE (N=144)**

Items	Factor Loading
(1) Identify ways that the school culture (e.g., values, norms, and practices) is different from my students' home cultures	.77
(2) Implement strategies to minimize the effects of the mismatch between my students' home cultures and the school culture	.83
(3) Obtain information about my students' home life	.78
(4) Establish positive home-school relations	.59
(5) Develop a community of learners when my class consists of students from diverse backgrounds	.64
(6) Use my students' cultural background to help make social studies learning meaningful	.71
(7) Use my students' prior knowledge to help them make sense of new social studies information	.60
(8) Identify ways how students communicate at home may differ from the school norms	.75
(9) Obtain information about my students' cultural background	.75
(10) Teach students about their cultures' contributions through social studies	.80
(11) Greet English Language Learners with a phrase in their native language	.65
(12) Design a classroom environment using displays that reflect a variety of cultures	.75
(13) Praise English Language Learners for their accomplishments using a phrase in their native language	.68
(14) Identify ways that standardized tests may be biased towards linguistically diverse students	.55
(15) Critically examine the curriculum to determine whether it reinforces negative cultural stereotypes	.74
(16) Design a lesson that shows how other cultural groups have made use of social	.76

studies	
(17) Model classroom tasks to enhance English Language Learners' understanding	.58
(18) Communicate with the parents of English Language Learners regarding their child's achievement	.65
(19) Revise instructional material to include a better representation of cultural groups	.76
(20) Use examples that are familiar to students from diverse cultural backgrounds	.81
Sum of squared loadings	10.5
% of explained variance	52.31%

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In a previous study conducted by Siwatu (2007), his full 40-item scale produced items that all loaded onto one factor. Through his use of principal component factor analysis and a scree test, he determined that none of the proposed multiple-factor solutions were interpretable, and therefore concluded that a one-factor model was appropriate (Siwatu, 2007, p.1092). The exploratory factor analysis of the current study was performed to evaluate whether this previous one-factor model was replicated for these data. Based on results from the current analysis, a one factor model was also found.

Although a potential three-factor model could be interpretable when reviewing the rotated factor loadings, the data did not provide evidence strong enough for such an argument. However, compared to that of Siwatu's (2007) analysis, two of the items ("Greet English Language Learners with a phrase in their native language" and "Praise English Language Learners for their accomplishments using a phrase in their native language") loaded more strongly with the other scale items in the current study than they did in Siwatu's (2007) study. In Siwatu's (2007) analysis, the first item, "Greet English Language Learners with a phrase in their native language," produced a factor loading of .39, whereas in the current study it resulted with a factor loading of .65. Likewise, the

second item, “Praise English Language Learners for their accomplishments using a phrase in their native language,” resulted with a factor loading of .38 in Siwatu’s (2007) study, whereas in the current study it loaded at .68. Because the two scales are not identical, it is unclear whether this difference was due to a variance in the items or results. However, in the potential three-factor model determined solely by eigenvalues greater than one, these two items held together as Factor 3. This suggests that with the addition of items that explore similar concepts (e.g. teacher use of the L1) stronger evidence may be found for a two- or three-factor model.

**Self-efficacy for Student-oriented Teaching (SE-SOT).** To assess the dimensionality of the SE-SOT, a factor analysis was performed. It was hypothesized that the SE-SOT scale was comprised of two factors: relevance and ownership. To analyze this theory, a principal axis factor analysis was performed to assess the 14 items included in the scale. Only one factor resulted with an eigenvalue greater than one, which accounted for 59.04% of the variance. The factor loadings ranged from .61 to .84, which can be seen in Table 3. Communalities ranged from .38 to .71.

**Table 3: Summary of Factor Loading Results for SE-SOT (N=135)**

Items	Factor loading
(1) Present content in my social studies classroom that students relate to other subjects	.76
(2) Provide a rationale to make social studies tasks relevant	.72
(3) Recognize students’ thoughts in my explanation of social studies learning tasks	.74
(4) Help students recognize how social studies material has value for reaching future personal goals	.82
(5) Help students recognize how social studies material has value for their	.71

learning	
(6) Create authentic learning opportunities for students to make social studies content knowledge relevant	.84
(7) Help students make personal connections to the social studies content I teach	.71
(8) Help students identify methods to monitor their own social studies classroom performance	.78
(9) Help students identify strategies to support their own learning in social studies	.82
(10) Model strategies in social studies that students can use in other classes beyond the academic year	.76
(11) Assist struggling students in my social studies class in identifying strategies that support their own learning	.75
(12) Create opportunities for students to make choices about their learning in social studies	.71
(13) Create a learning environment in my social studies class that encourages independent thinking	.61
(14) Provide opportunities for students in my social studies class to set their own learning goals	.71
Sum of squared loadings	8.27
% explained variance	59.04%

**Best Practices for ELLs in Social Studies (BPELS).** The 21 items included in this measure were theorized to be contained within one of the three following strategy subcategories: using home language and culture (items 1-7), reducing cognitive load (items 8-14), and Cognitive Academic Language Approach (CALLA) (items 15-21).

An exploratory factor analysis was performed to evaluate whether this three-factor model aligned with the data from this study. Principal axis factoring was used, retaining only factors with eigenvalues greater than one, and requesting varimax rotation. From this analysis, three separate factors appeared to form, resulting in an explained variance of 51.98%.

The three factors that resulted in eigenvalues greater than one were retained and rotated. After varimax rotation was performed, Factor 1 accounted for 23.21% of the variance, Factor 2 accounted for 15.98% of the variance, and Factor 3 accounted for 12.79% of the variance. In summation, the three factors accounted for 51.98% of the variance in the data collected. Communalities for variables, which are reported in Table 4, ranged from .31 - .71.

**Table 4: Summary of Rotated Factor Loadings and Communalities Results for BPELS (N=144)**

Items	Rotated Factor Loadings			Communalities
	Native/ Personal Support	Content Support	Cognitive Support	
(2) Display example projects in other languages	<b>.82</b>	.18	-.06	.71
(3) Use vocabulary in the students' native language to support new content material	<b>.81</b>	.17	.10	.70
(6) Allow students to complete assignments in their native language	<b>.79</b>	.18	.02	.66
(12) Identify cognates and false cognates in the students' native language	<b>.74</b>	.12	.15	.58
(4) Allow students to use their native languages	<b>.74</b>	.12	.17	.59
(5) Assign project groups based on the students' native languages	<b>.68</b>	.15	.26	.55
(7) Assign students with an autobiographical assignment	<b>.55</b>	.11	.27	.39
(8) Make bilingual dictionaries and/or thesauruses available to students	<b>.51</b>	.21	-.09	.31
(1) Give recognition to the students' home language and culture	<b>.49</b>	.27	.33	.43
(16) Provide students with supplementary materials	.30	<b>.72</b>	.18	.65

(17) Use graphic organizers and visual resources	.11	<b>.67</b>	.07	.47
(18) Present key information in both verbal and written formats	.00	<b>.66</b>	.33	.55
(11) Pose higher thinking questions through the use of scaffolding	.20	<b>.61</b>	.25	.47
(9) Explicitly identifying specific academic strategies	.18	<b>.63</b>	.38	.58
(10) Provide explicit vocabulary instruction	.27	<b>.49</b>	.29	.39
(19) Use activities such as role-playing and dramatization	.35	<b>.49</b>	.21	.40
(20) Use primary source materials or real objects/artifacts	.40	<b>.47</b>	.29	.38
(21) Use simpler language to explain more abstract topics	.05	.31	<b>.73</b>	.63
(13) Give explicit instruction in literacy skills such as alphabetizing and use of context clues	.11	.17	<b>.72</b>	.55
(15) Simplify the content material	.12	.22	<b>.71</b>	.56
(14) Explicitly teach test-taking skills	.10	.19	<b>.58</b>	.38
Sum of squared loadings	7.4	2.5	1.1	
% explained variance	23.21%	15.98%	12.79%	

Rotated factor loadings were examined to assess the nature of the three varimax-rotated factors. Nine items that had factor loadings of .49 or greater on the first factor were consistent with items that related to strategies that support the native language and culture of the student, or ones that provide support at a personal level. Hence, this Factor could be labeled “Native/Personal Support.” Eight items that had factor loadings of .47 or greater on the second factor were identified as items that related to strategies that support students through content accommodations (e.g. scaffolding, graphic organizers, and

multiple format presentation). This Factor could be labeled “Content Support.” Of these eight items, two (items 19 and 20) were factorially complex because they also demonstrated similar degrees of factor loadings for Factor 1. The final four items that had factor loadings of .58 or greater on the third factor were consistent with strategies that are used to support the cognitive processes of the students, or reduce their cognitive load. Therefore, this third factor could be labeled “Cognitive Support.”

Interestingly, the three factors that resulted from the analysis were similar to those hypothesized. However, not all of the items in each of the hypothesized subcategories matched the items that separated into the three resulting Factors. Items that deviated from the previously identified groups include items 8, 12, 15, and 21. Items 8 and 12, which were hypothesized as grouping with the subcategory of cognitive load, factored more appropriately with items in Factor 1, “Native/Personal Support.” Although item eight refers to the use of bilingual dictionaries and thesauruses, the principal component in this item appears to be the support of the native language as opposed to the reduction in cognitive load, as it was initially categorized. Likewise, item 12 refers to the use of cognates, which also held together with items that support the students’ native languages as opposed to a reduction in cognitive load. Although both items logically fit in the subcategory of reducing cognitive load, based on the data, participants viewed these items as relating more to the use of the students’ native languages. Items 15 and 21 were included in the CALLA subgroup because they are two strategies that the CALLA method identified. However, based on the data, they appeared to load better with items that were initially categorized as reduction in cognitive load. Because the CALLA

method uses many strategies that help simplify material in an effort to reduce cognitive load, this result was not surprising.

### **Analyses of Scales**

To evaluate the scales that were utilized and the variables that were measured in this study, statistical analyses of Pearson correlations, regression, and analysis of variance were conducted. Descriptive statistics (means, range, standard deviations, and distribution descriptors) were reviewed and reported in Table 5.

**Table 5: Descriptive Statistics of Measured Variables**

Variable	<i>n</i>	Range	M	SD	$\alpha$	Skew	Kurtosis
SE-SOT	137	67	81.78	11.82	.93	-.91	1.68
CRTSE	146	67	75.64	13.9	.95	-.63	.17
BPELS	144	4.95	6.59	1.15	.91	.04	-.67
BPELS-Nat	144	7.67	5.07	1.87	.89	.06	-.88
BPEL-Con	144	5	7.85	.91	.85	-1.04	1.44
BPELS-Cog	144	5.75	7.52	1.21	.77	-.98	1.01
Div. Training	146	4	2.23	1.39	-	-.03	-1.28
No. of ELLs	141	132	11.94	21.4	-	3.80	16.24

Items included in the SE-SOT, CRTSE, and BPELS-Nat, BPELS-Con, and BPELS-Cog scales were summed and averaged to calculate participant and scale means. Possible mean scores ranged from 10-100 for the SE-SOT and CRTSE scales, and 1-9 for all BPELS measures. For all five scales, higher scores indicated a higher level of each construct measured.

Internal reliability scores for the measures used are also reported in Table 5. All scales exhibited moderate to high levels of reliability, with Cronbach's alphas ranging

from .77 - .95. The BPELS-Cog measure only included four items, which may explain why the alpha for this measure was lower than for the other measures. Mean scores for the measures were also relatively high, with the exception of the BPELS-Nat scale ( $M = 5.07$ ). Of the three BPEL scales, the BPELS-Nat also exhibited the highest level of variance among scores, indicating less overall participant agreement for this scale compared to the other two BPELS measures. When comparing the SE-SOT and CRTSE scales, the mean for the CRTSE fell approximately 6 points below that of the SE-SOT. However, the CRTSE scale showed a greater standard deviation, indicating a greater variance from the mean compared to that of the SE-SOT. Variables for diversity training and number of ELLs are also included in Table 5.

Used as a categorical variable, levels of diversity training were determined based on the number of classes related to diversity taken by the participants (i.e. 0, 1, 2, 3, or 4+). The mean number of classes taken was 2.23, with a standard deviation of 1.39. This variable will be described in subsequent analyses to describe how the individuals' responses vary depending on their exposure to diversity training. The number of ELLs for which teachers provided instruction and teachers who reported holding ESL certifications were also included for variable comparison. These variables will be discussed in the next chapter.

### **Research Questions 2 and 3: Correlations**

To investigate the relationships among the measures of SE-SOT, CRTSE, and the three measures of the BPELS, Pearson correlations were explored. Analyses of variance (ANOVAs) and multivariate analyses of variance (MANOVAs) were also conducted to

investigate how levels of these measures vary across years of teaching experience and levels of diversity training. The following sections outline relationships among the measures, as well as similarities and differences across variables that result in varied levels of the three measures. Variables, including years of teaching, diversity training (i.e. number of classes related to diversity taken), number of ELLs instructed, and ESL certification, were also investigated to determine how these underlying variables affect scores on the three scales. The following sections summarize the results from the correlations and ANOVAs conducted. Table 6 provides a summary of the correlations for the measures as well as variables mentioned above.

**Table 6: Summary of Intercorrelations Among the Measures & Variables**

Measure	1	2	3	4	5	6	7	8	9	10
1. SE-SOT	--	.76**	.56**	.40**	.63**	.47**	.31**	.12	.03	.27**
2. CRTSE		--	.66**	.59**	.50**	.44**	.19*	.28**	.08	.27**
3. BPELS			--	.95**	.78**	.57**	.17*	.23**	.06	.24**
4. BPELS-Nat				--	.53**	.30**	.09	.21*	.07	.18*
5. BPELS-Con					--	.51**	.23**	.18*	.03	.24**
6. BPELS-Cog						--	.21*	.17*	-.03	.21*
7. Yrs Teaching							--	.09	.06	.20*
8. ELL Cert.								--	.22**	.18*
9. ELLs									--	.18*
10. Div.										--

Note. SE-SOT = self-efficacy for student-oriented teaching; CRTSE = culturally responsive teacher self-efficacy; BPELS = best practices for ELLs in social studies; Nat = Native; Con = Content; Cog = Cognitive; Yrs = Years; ELL = English Language Learner; Div. = Diversity Training

\* $p < .05$ . \*\* $p < .01$

**Correlations Across Measures.** As hypothesized, self-efficacy for student-oriented teaching and culturally responsive teacher self-efficacy were positively and significantly related to one another, as well as the three measures of best practices for ELLs in social studies. While the correlation between the SE-SOT and the CRTSE scales was the strongest, where  $r(137) = +.76, p < .01$ , correlations between the CRTSE and the BPELS measures were also moderate.

**Years of Teaching Experience.** Years of experience were self-reported by participants based on five available categories: 1-3 years, 4-10 years, 11-15 years, 16-24 years, and 25+ years. These groups were used to determine if score differences on the three measures used in this study could be explained to a certain extent based on years of teaching experience. Because it is well established that as individuals have more exposure to mastery and vicarious experiences, their levels of self-efficacy increase, it was hypothesized that mean scores would increase with years of experience.

To determine how scores reported for the SE-SOT and CRTSE measures differed based on years of experience, two separate one-way between subjects ANOVAs were conducted to compare the mean scores. Prior to the analyses of variance, the Levene test for homogeneity of variance was employed to determine whether there were violations of the assumption of homogeneity of variance across groups. No significant violations were found: SE-SOT:  $F(4, 131) = .364, p = .42$ ; and CRTSE:  $F(4, 140) = .593, p = .59$ .

For the SE-SOT, the overall  $F$  for the one-way ANOVA was statistically significant,  $F(4, 129) = 3.44, p < .01$ . The effect size was calculated to be  $\eta^2 = .10$ ; that is, approximately 10% of the variance in the SE-SOT scores was predictable from the years

of experience. According to Cohen (1988), the magnitude of this effect size is considered to be on the upper end of medium, nearing large. Scores for each group are recorded in Table 7.

**Table 7: Analysis of Variance for Teachers' SE-SOT by Years of Experience**

Group	<i>n</i>	M	SD	F	<i>df</i>	<i>p</i>	$\eta^2$
1-3 Years	26	77.2	15.4	3.92	4,131	.01	.10
4-10 Years	41	79.2	10.9				
11-15 Years	26	83.0	10.1				
16-24 Years	25	85.5	10.4				
25+ Years	18	87.5	8.9				

All possible pairwise comparisons were made using the Tukey HSD test. Based on this test (using  $\alpha = .05$ ), it was found that one pairwise comparison was statistically significant. Teachers with 1-3 years of experience ( $M = 77.2$ ) reported significantly lower levels of self-efficacy for student-oriented teaching than teachers with 25+ years of experience ( $M = 87.5$ ). This finding is somewhat expected given the typical relationship between self-efficacy and mastery experiences. Additionally, the standard deviation scores generally decreased as levels of experience increased. Again, this aligns with previous self-efficacy research in that as experience increases, teachers tend to converge on more stable patterns of self-efficacy, resulting in less variance within each group.

For the CRTSE scale, the overall  $F$  for the one-way ANOVA was not statistically significant,  $F(4, 140) = 1.60, p > .05$ . This analysis indicated that the data do not provide

sufficient evidence to reject the null hypothesis, therefore, years of experience is not a statistically significant variable to explain variance of CRTSE scores among teachers.

Scores for each group are recorded in Table 8.

**Table 8: Analysis of Variance for Teachers' CRTSE by Years of Teaching Experience**

Group	<i>n</i>	M	SD	F	<i>df</i>	<i>p</i>	$\eta^2$
1-3 Years	27	73.1	16.9	1.60	4,140	.179	.04
4-10 Years	45	72.7	11.9				
11-15 Years	26	77.1	13.5				
16-24 Years	28	79.5	13.5				
25+ Years	19	78.7	14.3				

This result was somewhat surprising because although the data demonstrate a generally increasing pattern, there is no significant difference between groups for CRTSE based on years of experience. Additionally, the standard deviations among the groups do not decrease with experience, as might be expected. Rather, the standard deviation for the 25+ years group shows a greater variance than the three middle groups. This differs from that of the results seen with the SE-SOT. One possible explanation for this relates to the level of exposure that the participants have had with culturally and linguistically diverse (CLD) students. Although teachers may have more teaching experience, this does not necessarily indicate their mastery or vicarious experiences with CLD students, which would affect their level of confidence in their ability to provide culturally responsive instruction. This finding aligns with Siwatu's (2011a; 2011b) indication that pre-service

teachers' levels of CRTSE are affected based on their level of exposure and number of experiences, both mastery and vicarious, with CLD students.

To evaluate the three measures of BPELS across levels of teaching experience, a 3 x 1 multivariate analysis of variance (MANOVA) was performed. The Box *M* test did not indicate a significant violation of the assumption of homogeneity of variance/covariance across conditions. For the overall MANOVA, the test was approaching, although not statistically significant using  $\alpha = .05$  as the criterion, Wilks's  $\Lambda = .862$ , approximate  $F(4, 138) = .059$ ,  $p > .05$ . As a result, no pairwise comparisons using the Tukey HSD test were statistically significant. This analysis indicated that the data do not provide sufficient evidence to reject the null hypothesis, therefore, years of experience is not a statistically significant variable to explain variance across the three BPELS measures. Results from the univariate follow-up test to the MANOVA are found in Table 9.

**Table 9: Univariate Follow-Up MANOVA Results for BPELS Across Years of Experience**

Measure	<i>n</i>	M	SD	<i>F</i>	df	<i>p</i>	Partial $\eta^2$
<b>BPELS-Nat</b>	143	5.06	1.88	1.53	4,138	.196	.04
1-3 Yrs	25	5.29	2.02				
4-10 Yrs	45	4.58	1.60				
11-15 Yrs	26	5.34	2.27				
16-24 Yrs	28	4.95	1.83				
25+ Yrs	19	5.67	1.67				
<b>BPELS-Con</b>	143	7.85	.91	2.07	4,138	.088	.06
1-3 Yrs	25	7.52	1.19				
4-10 Yrs	45	7.74	.86				
11-15 Yrs	26	7.95	.91				
16-24 Yrs	28	8.02	.82				
25+ Yrs	19	8.30	.64				

Measure	<i>n</i>	M	SD	<i>F</i>	df	<i>p</i>	Partial $\eta^2$
<b>BPELS-Cog</b>	143	7.53	1.21	2.44	4,138	.050	.07
1-3 Yrs	25	7.22	1.22				
4-10 Yrs	45	7.24	1.25				
11-15 Yrs	26	7.93	.78				
16-24 Yrs	28	7.62	1.36				
25+ Yrs	19	7.94	1.17				

\* $p < .05$

As seen in Table 9, means for the BPELS-Nat do not increase in a straightforward linear pattern when measured by years of experience. Rather they increase and decrease in an alternating pattern. Although the BPELS-Nat includes items that investigated teachers' intentions to use specific strategies related to the use of the native language, as opposed to their levels of self-efficacy, this pattern is similar to what Tschannen-Moran and Hoy (2007) found when looking at self-efficacy in the context of a teacher professional development program. That is, as teachers were exposed to new teaching strategies, their levels of self-efficacy exhibited an increase, which later dropped and subsequently increased again with the introduction of additional novel strategies. Although this pattern looks at one teacher over time, the concept that the effect of information has on behavior suggests that such a pattern may hold true for actual ESL practices as well.

Moreover, for the BPELS-Nat, as seen with the CRTSE scale, the standard deviations did not narrow as years of experience increased. Contrastingly, the least amount of variance was seen for the 4-10 years group, and the greatest for the 11-15 years group. Interestingly, two of the groups that reported higher means (1-3, and 11-15)

also showed greater variance within groups. In other words, teachers in those groups exhibited greater variance in mean scores than in the other three groups.

As described with the CRTSE scale, the possibility exists that this relationship is partially explained by levels of exposure to culturally and linguistically diverse (CLD) students and ESL strategies, rather than actual disbeliefs about the effectiveness of the strategies listed in the BPELS-Nat. Again, this finding aligns with Siwatu's (2011a; 2011b) indication that pre-service teachers' confidence in their ability to be culturally responsive relates to actual experiences, both mastery and vicarious, with CLD students. Not surprisingly, teachers with less experience working with CLD students may also report less intention to use effective ESL strategies.

For the BPELS-Con scale, mean scores increased as years of experiences increased, exhibiting a positive relationship. Like the pattern seen for the SE-SOT, standard deviation scores also decreased with year of experience. Mean scores for the BPELS-Cog scale also increased with years of experience. However, the level of variance within those scores showed a different pattern: increasing from for first group (1-3 years) to the second group (4-10 years), then showing the least amount of variance for the middle group (11-15 years), then increasing again for the fourth group (16-24), and slightly decreasing for the last group (25+).

**Levels of Exposure to Diversity Training.** To further investigate differences among scale mean scores, levels of diversity training were used to explore additional relationships. Levels of diversity training were identified based on how many classes that relate to diversity teachers reported taking. Five possible options or groups were listed:

(1) 0 Classes, (2) 1 Class, (3) 2 Classes, (4) 3 Classes and (5) 4 + Classes. In order to make groups that were more appropriate for comparison, three final groups were used for analysis: (1) 0-1 Classes, (2) 2-3 Classes, and (3) 4+ Classes. Given Siwatu's (2011a) research that explores the possibility of lower levels of CRTSE based on mastery and vicarious experiences with culturally responsive teaching, this variable was analyzed to determine if teachers reported higher mean scores across CRTSE and the three measures of BPELS when they received more formal instruction and exposure related to CLD students.

To investigate CRTSE across levels of diversity training, a one-way between subjects ANOVA was conducted to compare the three diversity groups. Prior to the analyses of variance, the Levene test for homogeneity of variance was employed to determine whether there were violations of the assumption of homogeneity of variance across groups. No significant violations were found:  $F(2, 143) = .620, p = .54$ . For the CRTSE scale, the overall  $F$  for the one-way ANOVA was statistically significant,  $F(2, 143) = 4.76, p = .01$ . The effect size was calculated to be  $\eta^2 = .06$ ; that is, approximately 6% of the variance in the CRTSE scores was predictable from the levels of diversity training. According to Cohen (1988), the magnitude of this effect size is considered to be medium. Scores for each group are recorded in Table 10.

**Table 10: Analysis of Variance for Teachers' CRTSE by Levels of Diversity Training**

Group	<i>n</i>	M	SD	F	<i>df</i>	<i>p</i>	$\eta^2$
0-1 Classes	50	71.66	13.7	4.76	2, 143	.010	.06
2-3 Classes	54	75.62	14.3				
4+ Classes	42	80.42	12.3				

All possible pairwise comparisons were made using the Tukey HSD test. Based on this test (using  $\alpha = .05$ ), it was found that one pairwise comparison was statistically significant. Teachers who took four or more classes related to diversity ( $M = 80.42$ ) reported significantly higher levels of culturally responsive teacher self-efficacy than teachers who took zero classes or one class related to diversity ( $M = 71.66$ ). This finding is supported by Siwatu's (2011b) research related to CRTSE and pre-service teachers' exposure to CLD student populations through mastery and vicarious experiences. He found that teachers who had lower CRTSE reported less opportunities and exposure to theory and practice of CRT in their pre-service teachers' courses (Siwatu, 2011a). Likewise, teachers with higher CRTSE reported more exposure and experience with CRT in their teacher preparation courses. The same pattern was found in the current study with in-service teachers. That is, as teachers reported taking more classes related to diversity, they also reported higher levels of CRTSE. Likewise, when a teachers had less formal instruction surrounding diversity, lower levels of CRTSE were reported. Moreover, the standard deviation for the 4+ Classes group was the lowest of the three groups. This indicates that teachers who took four or more course related to diversity also reported less variance in CRTSE scores. These findings also relate to those found by Taylor and Sobel

(2001), which indicate that teachers require explicit pre-service instruction and exploration of beliefs related to diversity in the classroom in order to address effectively the needs of students whose backgrounds differ from their own.

To investigate how levels of diversity training affect scores of the BPELS-Nat, BPELS-Con, and BPELS-Cog, a 3 x 1 MANOVA was conducted. The Box *M* test did not indicate a significant violation of the assumption of homogeneity of variance/covariance across conditions. For the overall MANOVA, the test was statistically significant using  $\alpha = .05$  as the criterion, Wilks's  $\Lambda = .894$ , approximate  $F(2, 144) = 2.67, p < .05$ . Therefore, levels of diversity training is a statistically significant variable in explaining the variance across the three BPELS measures. Partial effect sizes ranged from .05-.07, explaining between 5-7% of the variance in the BPELS measures based on levels of diversity training. Results from the univariate follow-up test to the MANOVA are found in Table 11.

**Table 11: Univariate Follow-Up MANOVA Results for BPELS Across Levels of Diversity Training**

Measure	n	M	SD	<i>F</i>	df	<i>P</i>	Partial $\eta^2$
<b>BPELS-Nat</b>	144	5.07	1.87	3.45	2, 144	.035	.05
0-1 Classes	48	4.75	1.74				
2-3 Classes	54	4.87	1.76				
4+ Classes	42	5.69	2.05				
<b>BPELS-Con</b>	144	7.85	.91	5.28	2, 144	.006	.07
0-1 Classes	48	7.55	.86				
2-3 Classes	54	8.89	.79				
4+ Classes	42	8.15	1.02				

Measure	n	M	SD	<i>F</i>	df	<i>P</i>	Partial $\eta^2$
<b>BPELS-Cog</b>	144	7.52	1.21	4.64	2, 144	.011	.06
0-1 Classes	48	7.19	1.26				
2-3 Classes	54	7.48	1.07				
4+ Classes	42	7.95	1.22				

\* $p < .05$

Three pairwise comparisons using the Tukey HSD test were found to be statistically significant. For all three BPELS scales, teachers who took four or more classes related to diversity reported significantly higher scores on the BPELS-Nat, BPELS-Con, and the BPELS- Cog, than did teachers who took zero classes or one class related to diversity. As seen with the results from the ANOVA for CRTSE, these results are supported by Siwatu's (2011a) findings that indicated how levels of exposure to diverse populations and formal instruction can affect variables related to CRT. These data even extend that finding, indicating that exposure to CRT and experiences not only affects levels of CRTSE, it also affects how likely teachers are to use effective ESL strategies in their classrooms. These results also appear to support Pajares's (1996) findings that describe the relationship between beliefs and behaviors. For teachers who reported taking fewer classes related to diversity, they not only reported less confidence in their ability to provide culturally responsive instruction, but also lower levels of intention to use best practices for ELLs in social studies. Although there were not enough participants with ESL certification to compare how these results may vary across types of certification, this possibility will be addressed in the subsequent chapter.

#### Research Question 4: Regression Analysis for SE-SOT, CRTSE, and BPELS

To address the fourth and final research question, a multiple regression analysis was conducted to determine if the scores from the two measures of teacher self-efficacy predicted the scores of the BPELS. Also, CRTSE was examined as a mediator variable between SE-SOT and BPELS.

For the overall multiple regression to predict BPELS from SE-SOT and CRTSE,  $R = .67$  and  $R^2 = .45$ . That is, when both SE-SOT and CRTSE scores were used to predict BPELS, approximately 45% of the variance in BPELS scores could be predicted. The adjusted  $R^2$  was .45. The overall regression was statistically significant,  $F(2, 132) = 54.76, p < .001$ .

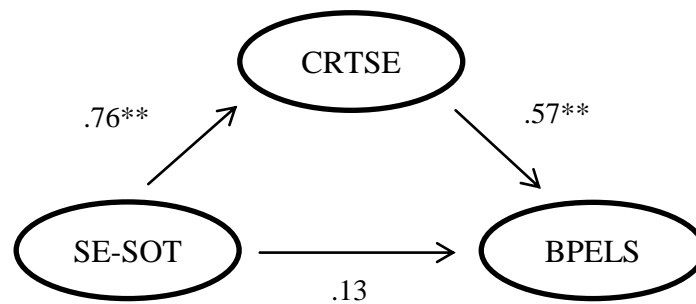
**Table 12: Results from Multiple Regression to Predict BPELS from SE-SOT and CRTSE**

Step 1	<i>b</i>	$\beta$
SE-SOT	.894***	.757
Step 2		
SE-SOT	.013	.130
CRTSE	.047***	.569

\*\*\* $p < .001$ ; \*\* $p < .01$

The relationship between SE-SOT and BPELS was mediated by CRTSE. As Figure 5 illustrates, the standardized regression coefficient between SE-SOT and BPELS decreased substantially when controlling for CRTSE. The other conditions of mediation were also met: SE-SOT was a significant predictor of BPELS and of CRTSE, and

CRTSE was a significant predictor of BPELS while controlling for SE-SOT. Using the Sobel procedure to test the indirect effect of the mediated relationship, the product of  $r$  values (.50), which represents the overall strength of the mediation relationship, was statistically significant.



**Figure 2: Standardized Regression Coefficients for the Relationship Between SE-SOT and BPELS as Mediated by CRTSE**

**\*\* $p < .01$**

This mediation relationship, although not hypothesized, follows patterns seen in the literature. As discussed in the literature review, the measures of SE-SOT and CRTSE are similar in relation to their elements of relevance. While the SE-SOT explores relevance in a more general student realm, CRTSE looks at relevance through the lens of specific cultural and linguistic components related to the student.

Although SE-SOT is positively correlated with BPELS, this relationship is not easily understood without considering how CRTSE acts as a mediator. The BPELS, for example, addresses ESL strategies that teachers would intend to use more frequently, given higher levels of confidence in their ability to provide culturally responsive instruction. This mediation, therefore, supports Siwatu's (2007) finding that teachers who

report higher levels of CRTSE also more strongly believe in positive outcomes related to CRT (i.e. more likely to implement such strategies). Although the BPELS does not directly represent a positive outcome, the measure identifies effective ESL strategies that, when implemented, are shown to produce positive outcomes (Chamot, 1995). This mediation model provides statistical evidence for a theoretical suggestion that higher levels of SE-SOT correlate to higher levels of CRTSE, which in turn correlate to higher levels of intention to use effective ESL strategies. In other words, when teachers exhibit higher levels of SE-SOT, they are also more likely to exhibit higher levels of CRTSE, which encourages a greater likelihood of implementation of effective ESL strategies in the classroom.

## **CHAPTER FIVE: DISCUSSION**

### **Introduction**

The purpose of this study was threefold. Firstly, it aimed to explore two measures of teacher-self efficacy (TSE). The first measure was exploratory in nature with the purpose of investigating a novel type of TSE, referred to as Self-efficacy for Student-oriented Teaching (SE-SOT). The second was a measure that was introduced within the last several years to explore an important, yet understudied, type of TSE referred to as Culturally Responsive Teacher Self-efficacy (CRTSE). Secondly, this study aimed to explore how these two types of TSE relate and predict teachers' behaviors surrounding best practices for English Language Learners (ELLs) in a social studies context, which was accomplished through the development of a measure. Thirdly, the final purpose of this study was to analyze the data necessary to explore the psychometric properties and dimensionality of the three measures utilized, for which the analysis of CRTSE would serve as a comparison to previous research.

Moreover, in response to some researchers (e.g. Tschannen-Moran & Hoy, 2001; Wheatley, 2005) who argue for reform of TSE measures, this study intended to explore alternative avenues to measure the construct, namely through the lens of Bandura's (1977) Social Cognitive Theory and culturally responsive teaching as described by Gay (2000). Additionally, it sought to explore how the developed measure of SE-SOT would relate to that of one previously established to measure CRTSE (Siwatu, 2007).

Furthermore, the study was designed to investigate the relationship among teachers' levels of SE-SOT, CRTSE, and BPELS. Because of the importance of effective instruction for ELLs, it also sought develop a reliable and valid measure of best practices for ELLS in social studies, and use that measure to investigate how BPELS can be predicted by other factors.

This study found that measures for self-efficacy for student-oriented teaching, culturally responsive teacher self-efficacy, and best practices for ELLs in social studies, demonstrated positive linear relationships when correlated pairwise. Moreover, it was detected that the scores on the CRTSE measure acted as a mediator variable between scores on the SE-SOT and the BPELS measure. In addition, the analysis identified additional variables that have the potential to influence teachers' SE-SOT, CRTSE, and BPELS beliefs. The purpose of this section is to provide a general discussion of the findings, including those found from the factor analysis of the BPELS. The final section of this chapter will conclude with a discussion of the implications of the findings and suggestions for future research.

### **General Findings**

The relationship found in this study between SE-SOT and CRTSE, although seemingly simple in nature, provides much needed support in understanding how teachers can better serve students, specifically English Language Learners (ELLs), who are currently the fastest-growing segment in the U.S. public school system (Afterschool Alliance, 2011). Moreover, it is well established that there is a great need for research to investigate effective instruction as it relates to culturally and linguistically diverse

populations (Leavell, et al., 1999). As Pajares (1996) and others have demonstrated in their research, beliefs become accurate predictors of behavior, which indicates the importance of building effective instruction through a foundation of well-understood self-efficacy beliefs.

While the SE-SOT focuses on tasks that demonstrate student relevance and ownership, the CRTSE measure investigates relevance at a cultural and linguistic level. However, the data from this study provide preliminary evidence as to how the two constructs are interrelated. Most importantly, they indicate that as teachers feel more confident in the ability to provide instruction that is relevant to the students and allows them to take ownership over their work, they also feel more efficacious in their ability to provide culturally responsive instruction. These results align well with the theoretical foundations of the SE-SOT and CRTSE scales, whereby both address the development of student skills beyond the context of the classroom, similar to what Short and Fitzsimmons (2007) refer to as the students' out-of-school context. This also coincides with what Collier and Thomas (2009) refer to in their *Prism Model* as the sociocultural context of the student. In both measures of teacher-self efficacy, the focus goes beyond that of the in-class only skills and questions teachers as to their level of confidence when providing instruction that extends to the home lives of the students and subsequent school years.

Extending beyond just beliefs that surround the needs of CLD students, the current study sought to explore best practices for ELLs in the context of social studies. Although it has been established that social studies presents challenges to ELLs for a number of reasons (Pahl, 2007; Weisman & Hansen, 2007), a measure to explore the

kinds of practices that teachers use with ELLs in social studies could not be located for use in the current study, which lead to the development of the BPELS measure. The development and implementation of the BPELS scale went beyond simply filling this gap in the current research, whereby it explored how best practices for ELLs in social studies related to in-service teachers' levels of CRTSE. Because of the numerous studies that have indicated that teachers who are more culturally responsive or aware are also more likely to implement culturally responsive strategies in the classroom (e.g. Gay, 2000; Irvine, 2002; Lee, 2002; Siwatu, 2009), it was hypothesized that CRTSE and BPELS would be positively correlated. While it was found that teachers' intention to use best practices could be predicted from their levels of CRTSE, it was also found that all three measures of BPELS were affected by levels of diversity training. As teachers reported more exposure to diversity training, they also reported higher levels of intention to use the BPELS. This finding supports Siwatu's (2011a) research, which found that teachers who had lower CRTSE reported less opportunities and exposure to theory and practice of CRT in their pre-service teachers' courses (Siwatu, 2011a). Similarly, Fitchett, Starker, and Salyers (2012) explored CRTSE for pre-service social studies teachers and how teachers' levels of confidence to teach CR content can be improved through pre-service programs that include CRT method courses. Based on their findings, they suggest that pre-service teachers should gain experiences with CLD students through programs such as professional development and clinical placements (Fitchett, et al., 2012). They suggest that by gaining such experiences, as Siwatu (2011a) suggests, pre-service teachers' levels of CRTSE will increase. This argument supports much research that advocates for the

reevaluation of pre-service programs to include methods courses that address the needs of CLD students through CRT (Collier & Thomas, 2009; Fitchett, et al., 2012; Gay, 2000; Ladson-Billings, 2000; Phuntsog, 2001; Siwatu, 2011a).

Going beyond confidence in one's ability, the current study also explored how formal teacher preparation affects what practices teachers intend to use in social studies while considering ELLs. In doing so, the data not only provided information as to what practices teachers are more likely to use, but they also explored how teachers view the construct of best practices. The original BPELS scale was defined by the three categories proposed by Szpara and Ahmad (2007) (i.e. home language and culture, CALLA, and reducing cognitive load), and the factor analysis revealed that teachers viewed the construct to be best subdivided as: (1) home/native support, (2) content support, and (3) cognitive support. Generally, the items remained in their hypothesized subcategories, with only a few items more appropriately being placed in a different subcategory than the one hypothesized. However, the results clearly demonstrated that teachers view the use of the native language as a separate aspect of best practices. This is of great importance because Szpara and Ahmad (2007) emphasize the need for a social studies learning environment that connects students' home language and culture to the classroom. Specifically, research indicates the importance of using the students' L1s to develop their L2s (e.g. Baker, 2011; Collier & Thomas, 2009; Cummings, 1979; Davison, et al., 2011; Tse, 2001). However, of the three scales of BPELS, the BPELS-Nat resulted with the lowest mean scores, revealing that teachers are less likely to use strategies that support the students' home language and culture than they are to use strategies that relate to

content (e.g. supplementary materials) and cognitive support (e.g. simplified language). This indicates the need for teacher preparation and development programs to enlighten teachers about the importance of using students' L1s in the classroom. Not surprisingly, this finding supports Phuntsog's (2001) research that indicated teachers' beliefs surrounding CRT varied the greatest when related to the use of the L1 and culturally diverse materials. This finding also highlights Siwatu's (2011a) suggestion that pre-service preparation programs be reevaluated based on how effective they are at preparing teachers to work with all students, specifically CLD students.

The findings just discussed are invaluable in both future research as well as future restructuring of teacher preparation and in-service programs. They indicate the need for administrators to focus on how confident teachers feel in their ability to provide culturally responsive instruction. Specifically, the relationship between the CRTSE and BPELS measures demonstrates that there is a need to investigate practices that can build and increase teachers' level of CRTSE, which in turn have the potential to affect the actual practices that teachers use in their social studies classrooms with ELLs. As Szpara and Ahmad (2007) argue, both teacher preparation and in-service programs need to consider the integration of pedagogy and program development related to best practices for ELLs. The failure to do so, they consider a disservice to the next generation of students and Americans (Szpara & Ahmad, 2007).

### **SE-SOT & BPELS Mediated by CRTSE**

While SE-SOT and BPELS were positively correlated, a multiple regression revealed that this relationship was fully mediated by CRTSE. While this relationship was

not hypothesized, it aligns well with culturally responsive teaching research, which indicates that teachers who report high levels of CRTSE are more likely than teachers who report low levels of CRTSE to implement strategies in their classrooms based on culturally responsive pedagogy (Siwatu & Starker, 2010). Moreover, in a more general sense, this finding supports Bandura's (1997) suggestion that when teachers feel more confident in their ability to employ certain skills, they are also more likely to use greater effort to engage those skills. Again, this relates to Pajares' (1996) suggestion of how beliefs and practices are related.

Based on the mediation model, high scores of SE-SOT can predict high scores of CRTSE. However, SE-SOT can only accurately predict greater projected frequency of use of BPELS via CRTSE. This indicates that although teachers may exhibit high levels of SE-SOT, if they do not also exhibit high levels of CRTSE, a reliable prediction related to intended use of ESL strategies cannot be made. This further supports Gay's (2002) described need for CR instruction in both pre- and in-service teacher programs. It reveals that teachers who feel confident in their ability to provide student-oriented instruction will not necessarily use more ESL instruction unless they also feel more confident in their ability to provide culturally responsive instruction.

As Siwatu (2011a) argues, there is a true need to reevaluate the instruction that pre-service teachers are receiving. Many enter the classroom without formal instruction related to effectively educating CLD students (Siwatu, 2011a). Furthermore, this same pattern was seen in low item means for specific items on the CRTSE measure that related to the teachers' use of the L1. Item-specific means were lowest among teachers for ability

to “praise English Language Learners for their accomplishments using a phrase in their native language” ( $M = 57.05$ ,  $SD = 29.60$ ) and “greet English Language Learners with a phrase in their native language” ( $M = 57.42$ ,  $SD = 29.70$ ), which were much lower than the overall scale statistics ( $M = 75.64$ ,  $SD = 13.9$ ). Similarly, in Siwatu’s (2007) study, these same two items resulted with the lowest items-specific means. Although the use of the L1 with ELLs has been shown to be an effective method of instruction (e.g. Baker, 2011; Collier & Thomas, 2009; Cummings, 1979; Davison, et al., 2011; Tse, 2001), these data support previous research that indicates that the beliefs on which teachers’ levels of agreement varied the most involve tenets of two of the most important approaches to successful second language acquisition: students’ use of their L1s to develop their L2 (Cummins, 1979) and inclusion of culturally and linguistically relevant and diverse literature (Herrera, et al., 2010).

These findings relate to what Siwatu (2007) describes as teachers’ hesitance to use the students’ L1s because of their lack of preparedness. Furthermore, his qualitative data revealed that teachers felt uncomfortable in their ability to use the students’ L1s. However, as Siwatu (2007) describes, the use of the students’ L1s can be used to varying degrees and still produce positive outcomes. As numerous researchers have indicated, by simply acknowledging the cultures and languages of the students, they can begin to feel as though they are part of the greater classroom community. For example, Moll, et al. (1992) has shown that when teachers use the social capital of their students, they are able to include CLD students in their classroom instruction more effectively. While it may not be feasible for teachers to provide materials in all of the L1s represented in their

classrooms, it is possible to learn one word or phrase in each of the students' L1s. Likewise, as Siwatu (2007) describes, even when teachers make an effort to pronounce students' names correctly, positive outcomes are experienced. As Tse (2001) describes, teachers can promote the use of the L1s in their classrooms by allowing students to read recreationally in their L1s, which encourages students to read for pleasure in the future. This allows students to experience reading success, which may not occur when reading in English. Furthermore, Herrera, et al. (2010) describe simple and quick ways to learn about students by having them complete linguistic literacy profiles. This provides information to the teacher as to the students' L1s, in what language they feel more comfortable speaking, and their general history of language learning. While it may not be practical for teachers to make home visits (Moll, et al., 1992) or provide bilingual education (Collier & Thomas, 2009) to see positive outcomes, there are several simple and quick methods related to the use of the students' L1s that have positive and long-lasting effects.

The implications from these findings extend well beyond pre- and in-service teacher programs. They indicate that without appropriate ESL instruction, the achievement gap that currently exists between ELLs and non-ELLs will not begin to close. If teachers responsible for instruction of ELLs are not more prepared to teach CLD students and informed of specific strategies known to be effective with ELLs, it will be impossible to elevate ELLs to the academic level of their peers. While CRTSE appears to mediate SE-SOT and BPELS, focus needs to be directed at how measures of culturally responsive teaching and CRTSE can be used to identify beliefs that teachers hold about

CR and ESL instruction, and use those data to change beliefs that have been erroneously formed. By specifically identifying less adaptive beliefs and practices, there exists the possibility to change incorrect and negative beliefs and provide experiences that are more positive with CLD students, which can be used as a way to help build teachers' levels of CRTSE. In turn, these increased levels of CRTSE have the possibility to affect teachers' practices with ELLs in a positively manner.

Additionally, because researchers (e.g. Gay, 2000; Siwatu, 2011a; & Siwatu, 2011b) are now aware that many teacher preparation programs lack information regarding and exposure to CLD students, it becomes the responsibility of programs, like professional development programs, to try to support teachers in these areas of need. Although it would be ideal for pre-service teachers to gain exposure to CLD students and effective instruction through field experiences, this is not always feasible. As a result, in-service programs have to first identify these gaps and then devise a plan to fill them appropriately. In doing so, they have the potential to increase teachers' levels of CRTSE, perchance acting as a mediator to increase levels of achievement for ELLs.

Not surprisingly, the concepts just discussed directly relate to standards created and currently in place by Teachers of English to Speakers of Other Languages (TESOL) and National Council for Accreditation of Teacher Education (NCATE). According to the most recent revision for *Standard for Recognition of Initial TESOL Programs in P-12 ESL Teacher Education* (TESOL, 2010), Domain 2 (Culture) directly addresses the skills required of ESL teacher candidates. Specifically, Standard 2 of Domain 2 describes how the teacher candidates must demonstrate their knowledge and understanding of the role

culture plays in the achievement of the students. Furthermore, Standard 2 explicitly states how teacher candidates must be able to use appropriate teaching techniques based on information that they acquire from the background of the students. Considering these requirements, it is not only beneficial for pre-service teachers to receive formal instruction related to diversity training, rather it is a requirement for teachers who intend to work with ELLs.

More broadly, when addressing the NCATE (2012) standards for initial teacher licensure, Standard 4 (Professional Knowledge and Skills) states the requirement that all teacher candidates must have a solid understanding and possess the ability to provide instruction that is equitable for all students (including ELLs). More specifically, when looking at NCATE's (2010) *Content and Content Pedagogy Components in Social Studies Education*, the first of the NCSS Thematic Standards is 1.1 Culture and Cultural Diversity. As demonstrated by these standards, teachers who are formally prepared to work with non-ELLs are still required to address diversity and culture in their future classrooms.

### **Limitations**

As with any investigation, there are obvious limitations to this study. One of the key concerns in interpreting the results is bearing in mind the composition of the sample. Because the sample that was used was done so out of convenience, possible limitations must be considered. The sample was mainly comprised of teachers who were part of a professional development program. While the implications of the study lend themselves to improving such programs, there are possible common characteristics of teachers who

participate in such programs that also differentiate them from the average teacher. For example, it is likely that teachers who are more motivated than others to participate in professional development are also more likely to feel more efficacious in their teaching ability. Moreover, the relationship between participation in a professional development program and subsequent increases in levels of self-efficacy has been demonstrated in prior research (e.g. Powell-Moman & Brown-Schild, 2011). Additionally, it is possible that teachers associated with the program are more knowledgeable of effective strategies both with ELLs and non-ELLs, compared to the average schoolteacher. In general, because beliefs and prior experiences (e.g. skills learned in a professional development program) affect actions (Bandura, 1977), it is not unreasonable to hypothesize that teachers who were associated with the professional development program would have responded more favorably to the SE-SOT and CRTSE items than teachers who were not.

Furthermore, the sample did not include enough English as a Second Language (ESL) certified teachers in order to make effective arguments regarding ESL and non-ESL differences. A very small number of the teachers reported having ESL certified ( $n = 9$ ). Teachers also reported limited instructional responsibilities related to ELLs; only 37 teachers (26%) reported instructing more than ten ELLs. Comparatively, 59% of the sample reported instructing five or less ELLs, and 15% reported instructing six to ten ELLs. Accordingly, it is likely that findings would differ when collected from a sample of ESL certified teachers. For example, it would be assumed that ESL certified teachers would be familiar with best practices, whereas teachers certified in other fields may not be. This would affect how frequently teachers would predict using such practices, as they

may not be familiar with their effectiveness or use with ELLs. Additionally, although research indicates that most teachers, whether certified or not, will be responsible for ELLs in their classrooms, a comparison of formally-prepared ESL teachers to non-ESL teachers would shed light on the necessary restructuring of pre-service preparation programs that Siwatu (2011a) considers absolute. This would be important because the BPELS measures include items that are used with both ELLs and non-ELLs, which creates the possibility that teachers who have not received formal ESL preparation may have responded to ESL-specific strategies (e.g. use of cognates) with a low projected frequency of use because of unfamiliarity rather than lack of belief in their effectiveness. For results that better represent ESL teachers who are responsible for social studies instruction, more ESL certified teachers would have to be studied. Furthermore, to explore the variable of context, as Siwatu (2011b) did in his study, samples consisting of greater variance across context (i.e. urban, suburban, and rural) would be necessary. In the current study, the vast majority of teachers considered their context to be suburban, which did not provide enough comparative data for analysis.

Additionally, because results were based solely on self-report, some of the results may be skewed due to social desirability bias and possible lack of self-awareness compared to peer respondents. Secondly, because the data were all collected at one time, it is difficult to draw certain conclusions based on levels of SE and projected use of BPELS. In order to investigate changes of SE over time, for example due to some intervention or exposure to some stimuli (e.g. CLD students and instruction), it would be necessary to have participants complete the measures on more than one occasion.

Moreover, and presumably of greatest importance, two of the three measures utilized were researcher-developed and only piloted prior to this study. The one measure that was not researcher-developed, the CRTSE (used in a modified form), previously developed by Siwatu (2007), has only been introduced in recent years and used in limited studies with pre-service teachers. Although the scales maintained high levels of reliability, additional investigation is necessary to support their dimensionality and usefulness with future research. To do so, particularly for a factor analyses, a larger and more varied (e.g. more ESL teachers) sample would be necessary.

### **Implications and Future Research**

Limitations aside, the findings of this study undoubtedly provide insight surrounding a limited, yet very instrumental body of research. Particularly, because teachers have the potential to begin to close the achievement gap between ELLs and non-ELLs through effective ESL instruction, it is important to focus future research attention on teachers' levels of confidence and practices implemented when working with such populations. Because little is known about culturally responsive teacher self-efficacy and how it relates to actual practices, this study has provided information related to how well teachers feel that they are prepared to work with CLD students in a social studies context. Furthermore, it begins to explore how likely in-service teachers would be to use practices that are well established in the field of bilingual education. Unlike previous studies, the current study looked at these relationships for in-service teachers, as opposed to pre-service teachers. By doing so, more insight is provided as to how levels of TSE and frequency of projected use of BPELS actually look for teachers who are already teaching

(ranging in years of experience). Most importantly, because the current study explored these constructs with in-service teachers, the data provide important differences that occur between pre-service instruction and multiple years of experience. As a result, these data, more so than those collected from pre-service teachers, address issues that exist for practicing teachers.

Specifically, in the context of social studies, where teachers struggle to make content relevant to CLD students, this study can guide future pre-service programs and professional development programs in terms of specific areas of concern for teachers. The data identify specific tasks, such as the use of the L1, where teachers tend to lack confidence. Although not causal, the research seems to indicate that as a result, teachers may be less likely to implement effective ESL techniques and strategies. If future research begins to investigate the specific, effective strategies that teachers avoid implementing, pre-service and in-service professional development programs can begin to address the beliefs that surround those decisions. Through such investigations, research can better assist teachers improve key skills needed to instruct CLD students effectively and begin to provide an equitable opportunity for ELLs to obtain higher achievement. Based on data collected from the current study, such skills would include identifying simple ways to integrate the students' L1s in the classroom instruction, displaying classroom material in other languages, and building on students' prior knowledge through student autobiographies and linguistic literacy profiles. The last two of which help the teacher form an understanding of the students' existing linguistic abilities. All of these skills would not only better integrate CLD students into the classroom community, but

they would help increase their levels of engagement (Shield, 1995), motivation (Lee, 2002), and achievement (Collier & Thomas, 2009) through the use of culturally responsive teaching methods.

Moreover, the investigation of teacher self-efficacy explored through the specific context of social studies and regarding a specific population (i.e. ELLs) directly responds to concerns surrounding existing measures of global self-efficacy (e.g. Tschannen-Moran & Hoy 2001; Wheatley, 2005). The SE-SOT, for example, explores the construct of TSE while accounting for the interactions between the teacher and the student, which reflect the manner in which the construct truly occurs in the classroom; it does not occur in isolation from the students. While it is important to investigate further why the two hypothesized subconstructs of SE-SOT were not perceived as separate by the participants, the existing SE-SOT scale provided information related to a measure of SE-SOT that did not previously exist. In reviewing item means and standard deviations, no items seems to stand out from the rest. Furthermore, most of the items that were hypothesized to be associated with the ownership subscale included the word “own” when referring to the student. Likewise, some the items associated with the relevance subscale included the word “relevant.” Nevertheless, participants did not detect a clear distinction between the two sets of items. These data seem to reveal the concept that teachers did not view skills related to making material relevant and having students take ownership over their work as two independent skill-sets. This indicates that teachers may view both sub-types of self-efficacy for student-oriented teaching in a more general context in terms of the ability to support students. If this is accurate, it would be

important for in-service teacher professional development programs to focus on how teachers can begin to distinguish such skills. Additional data should be collected to further investigate this concept.

In relation to the self-efficacy scales used in this study and how they related to the classroom, one of the interesting findings that concerns the level of variance among teachers is how years of experience affects level of TSE. While the SE-SOT exhibited expected results across years of experience, that is increased confidence with more experience, the CRTSE measure and the measures of the BPELS did not follow this relationship. This is important to highlight because it indicates that another factor must be responsible for some of this variance. Looking to the future, subsequent studies should investigate variables that differ based on years of teaching experience, potentially accounting for the unexpected relationships and levels of variance that occurred; specifically, investigating why the BPELS-Nat scores exhibited a fluctuating pattern (i.e. up and down alternating by years of experience). This type of investigation would help identify why teachers, given a certain level of teaching experience, report varying levels of likelihood to use strategies related to the use of the L1. Specifically, it may identify what similarities and differences teachers who have been teaching for the same length of time possess when investigating how such variables affect levels of CRTSE and frequency of use of BPELS.

By exploring the measures of SE-SOT, CRTSE, and the three BPELS, both pre- and in-service programs would have more detailed information as to how certain beliefs relate to certain outcomes, and what that equates to for instructional practices.

Furthermore, they would have the opportunity to take necessary action (e.g. intervention) to support teachers as a means of increasing their levels of efficacy related to a specific context and population. Overall, all of the measures used in this study began to look at the relationship between the student and the teacher, as opposed to the teacher in isolation. For example, how efficacious does the teacher feel in her ability to relate content material to the student, and/or how likely are teachers to make specific instructional and strategic accommodations for ELLs in their classrooms. By exploring these relationships in more detail, future research has the potential to guide instruction more effectively, which in turn could produce more enduring positive achievement results. Most importantly, future research needs to consider how well teachers are using instructional practices that are authentic and relevant to students' lives and cultures. As previously described, this is a component of CRT that numerous researchers (e.g. Collier & Thomas, 2009; Ladson-Billings, 1994; Moll, et al., 1992; Siwatu, 2007; & Tse, 2001) define as imperative in empowering and supporting ELLs in closing the achievement gap that currently exists between them and their non-ELL peers.

## **APPENDIX A: CULTURALLY RESPONSIVE TEACHER SELF-EFFICACY SCALE**

### **Adapted from Siwatu (2007) Culturally Responsive Teacher Self-Efficacy**

1. Identify ways that the school culture (e.g., values, norms, and practices) is different from my students' home culture
2. Implement strategies to minimize the effects of the mismatch between my students' home culture and the school culture
3. Obtain information about my students' home life
4. Establish positive home-school relations
5. Develop a community of learners when my class consists of students from diverse backgrounds
6. Use my students' cultural background to help make social studies learning meaningful
7. Use my students' prior knowledge to help them make sense of new social studies information
8. Identify ways how students communicate at home may differ from the school norms
9. Obtain information about my students' cultural background
10. Teach students about their cultures' contributions through social studies
11. Greet English Language Learners with a phrase in their native language
12. Design a classroom environment using displays that reflects a variety of cultures
13. Praise English Language Learners for their accomplishments using a phrase in their native language
14. Identify ways that standardized tests may be biased towards linguistically diverse students
15. Critically examine the curriculum to determine whether it reinforces negative cultural stereotypes
16. Design a lesson that shows how other cultural groups have made use of social studies
17. Model classroom tasks to enhance English Language Learners' understanding
18. Communicate with the parents of English Language Learners regarding their child's achievement
19. Revise instructional material to include a better representation of cultural groups
20. Use examples that are familiar to students from diverse cultural backgrounds

## **APPENDIX B: SELF-EFFICACY FOR STUDENT-ORIENTED TEACHING SCALE**

### **Self-efficacy for Student-oriented Teaching (Kilday & Lenser, 2012)**

#### *Fostering Relevance*

1. Present content in my social studies classroom that students relate to other subjects.
2. Provide a rationale to make social studies tasks relevant.
3. Recognize students' thoughts in my explanation of social studies learning tasks.
4. Help students recognize how social studies material has value for reaching future personal goals.
5. Help students recognize how social studies material has value for their learning.
6. Create authentic learning opportunities for students to make social studies content knowledge relevant.
7. Help students make personal connections to the social studies content I teach.

#### *Supporting students' ownership of learning*

1. Help students identify methods to monitor their own social studies classroom performance.
2. Help students identify strategies to support their own learning in social studies.
3. Model strategies in social studies that students can use in other classes beyond the academic year.
4. Assist struggling students in my social studies class to identify strategies that support their own learning.
5. Create opportunities for students to make choices about their own learning in social studies.
6. Create a learning environment in my social studies class that encourages independent thinking.
7. Provide opportunities for students in my social studies class to set their own learning goals.

## APPENDIX C: BEST PRACTICES FOR ELLS IN SOCIAL STUDIES SCALE

**Imagine that you are teaching a social studies class that includes English Language Learners. How often would you use the following instructional approaches to help your students learn the content?**

Using the scale below, please rate the items based on how often you would use the following approaches in your classroom.

**I would ...**

**NEVER**

**OCCASIONALLY**

**ALWAYS**

**1      2      3      4      5      6      7      8      9**

### **Using Home Language & Culture**

1. Give recognition to the students' home language and culture.
2. Display examples projects in other languages.
3. Use vocabulary in the students' native language to support new content material.
4. Allow students to use their native languages.
5. Assign project groups based on the students' native languages.
6. Allow students to complete assignments in their native language.
7. Assign students with an autobiographical assignment.

### **Cognitive Academic Language Learning Approach (CALLA) Instructional Practices**

8. Make bilingual dictionaries and/or thesauruses available to students.
9. Explicitly identifying specific academic strategies.
10. Provide explicit vocabulary instruction.
11. Pose higher thinking questions through the use of scaffolding.
12. Identify cognates and false cognates in the students' native language.
13. Give explicit instruction in literacy skills such as alphabetizing and use of context clues.
14. Explicitly teach test-taking skills.

### **Reducing Cognitive Load**

15. Simplify the content material.
16. Provide students with supplementary materials.
17. Use graphic organizers and visual resources.

18. Present key information in both verbal and written formats.
19. Use activities such as role-playing and dramatization.
20. Use primary source materials or real objects/artifacts.
21. Use simpler language to explain more abstract topics.

## **APPENDIX D: BEST PRACTICES FOR ELLS IN SOCIAL STUDIES SCALE – FINAL**

**Imagine that you are teaching a social studies class that includes English Language Learners. How often would you use the following instructional approaches to help your students learn the content?**

Using the scale below, please rate the items based on how often you would use the following approaches in your classroom.

**I would ...**

**NEVER**

**OCCASIONALLY**

**ALWAYS**

**1      2      3      4      5      6      7      8      9**

### **Native/Home Support**

1. Display examples projects in other languages.
2. Use vocabulary in the students' native language to support new content material.
3. Allow students to complete assignments in their native language.
4. Identify cognates and false cognates in the students' native language.
5. Allow students to use their native languages.
6. Assign project groups based on the students' native languages.
7. Assign students an autobiographical assignment.
8. Make bilingual dictionaries and/or thesauruses available to students.
9. Give recognition to the students' home language and culture.

### **Content Support**

1. Provide students with supplementary materials.
2. Use graphic organizers and visual resources.
3. Present key information in both verbal and written formats.
4. Pose higher thinking questions through the use of scaffolding.
5. Explicitly identifying specific academic strategies.
6. Provide explicit vocabulary instruction.
7. Use activities such as role-playing and dramatization.
8. Use primary source materials or real objects/artifacts.

### **Cognitive Support**

1. Use simpler language to explain more abstract topics.
2. Give explicit instruction in literacy skills such as alphabetizing and use of context clues.
3. Simplify the content material.
4. Explicitly teach test-taking skills.

## APPENDIX E: EDUCATIONAL RATINGS QUESTIONNAIRE

This questionnaire is designed to give us a better understanding of teachers' beliefs about classroom challenges, practices, and goals to identify areas that could inform professional development. Your responses are anonymous and there are no right or wrong answers. Please complete each section as described below.

### Section I: Demographics

Gender <input type="checkbox"/> Male <input type="checkbox"/> Female  Age: _____  Race / Ethnicity <input type="checkbox"/> Caucasian <input type="checkbox"/> African American <input type="checkbox"/> American Indian <input type="checkbox"/> Asian <input type="checkbox"/> Hispanic <input type="checkbox"/> Other: _____	Number of years teaching <input type="checkbox"/> 1 – 3 Years <input type="checkbox"/> 4 – 10 Years <input type="checkbox"/> 11 – 15 Years <input type="checkbox"/> 16 – 24 Years <input type="checkbox"/> 25 + Years  Number of years teaching social studies <input type="checkbox"/> 1 – 3 Years <input type="checkbox"/> 4 – 10 Years <input type="checkbox"/> 11 – 15 Years <input type="checkbox"/> 16 – 24 Years <input type="checkbox"/> 25 + Years
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### Section II: Instructional Responsibilities

Grade-level <input type="checkbox"/> Elementary (K-5) <input type="checkbox"/> Middle School (6-8) <input type="checkbox"/> High School (9-12) <input type="checkbox"/> Other: _____  Subjects taught (check all that apply) <input type="checkbox"/> Social Studies <input type="checkbox"/> Language Arts <input type="checkbox"/> Science <input type="checkbox"/> Math <input type="checkbox"/> Other: _____  Primary instructional certification <input type="checkbox"/> Secondary Content Area <input type="checkbox"/> Elementary Education <input type="checkbox"/> English Language Learning (ESL) <input type="checkbox"/> Special Education <input type="checkbox"/> Other: _____	Classroom demographics (please estimate) a) Number of students you teach: _____ b) Number of students who are English Language Learners: _____ c) Number of students who receive English as a Second Language Services: _____ d) Number of students with IEPs: _____ Which best describes your school community? <input type="checkbox"/> Urban <input type="checkbox"/> Suburban <input type="checkbox"/> Rural
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### Section III: Professional Development

Which dates have you participated, or you plan to participate, in the Teaching American History grant. <b>If more than one, check all that apply.</b>  <input type="checkbox"/> September 2010 – April 2011 <input type="checkbox"/> May 2011 – April 2012 <input type="checkbox"/> May 2012 – April 2013 <input type="checkbox"/> May 2013 – April 2014 <input type="checkbox"/> None, I have not participated	Which Teaching American History grant opportunity is (or has been) open for your participation?  <input type="checkbox"/> Unveiling History: Exploring America's Past <input type="checkbox"/> Everyday Americans, Exceptional Americans <input type="checkbox"/> I'm not sure	How many classes have you taken, if any, that address diversity in the classroom?  <input type="checkbox"/> 0 Classes <input type="checkbox"/> 1 Class <input type="checkbox"/> 2 Classes <input type="checkbox"/> 3 Classes <input type="checkbox"/> 4 Or more classes
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#### Section IV: Confidence Ratings

Teachers have various levels of confidence for instructional tasks that may vary over the course of their career.

Considering your present teaching situation, please rate the percentage of how certain you are that you can do each of the following:

I am ___% certain that I can...		10%									100%
1	Provide a rationale to make social studies tasks relevant.	10	20	30	40	50	60	70	80	90	100
2	Model strategies in social studies that students can use in other classes beyond the academic year.	10	20	30	40	50	60	70	80	90	100
3	Get students in my class to believe they can do well in social studies schoolwork.	10	20	30	40	50	60	70	80	90	100
4	Assist struggling students in my social studies class to identify strategies that support their own learning.	10	20	30	40	50	60	70	80	90	100
5	Create authentic learning opportunities for students to make social studies content knowledge relevant.	10	20	30	40	50	60	70	80	90	100
6	Use my students' cultural background to help make social studies learning meaningful.	10	20	30	40	50	60	70	80	90	100
7	Use my students' prior knowledge to help them make sense of new social studies information.	10	20	30	40	50	60	70	80	90	100
8	Create a learning environment in my social studies class that encourages independent thinking.	10	20	30	40	50	60	70	80	90	100
9	Provide opportunities for students in my social studies class to set their own learning goals.	10	20	30	40	50	60	70	80	90	100
10	Help students recognize how social studies material has value for reaching future personal goals.	10	20	30	40	50	60	70	80	90	100
11	Identify ways how students communicate at home may differ from the school norms.	10	20	30	40	50	60	70	80	90	100
12	Help students recognize how social studies material has value for their learning.	10	20	30	40	50	60	70	80	90	100
13	Obtain information about my students' cultural background.	10	20	30	40	50	60	70	80	90	100
14	Help students make personal connections to the social studies content I teach.	10	20	30	40	50	60	70	80	90	100
15	Identify ways that the school culture (e.g., values, norms, and practices) is different from my students' home culture.	10	20	30	40	50	60	70	80	90	100
16	Implement strategies to minimize the effects of the mismatch between my students' home culture and the school culture.	10	20	30	40	50	60	70	80	90	100
17	Obtain information about my students' home life.	10	20	30	40	50	60	70	80	90	100
18	Establish positive home-school relations.	10	20	30	40	50	60	70	80	90	100
19	Develop a community of learners when my class consists of students from diverse backgrounds.	10	20	30	40	50	60	70	80	90	100
20	Teach students about their cultures' contributions through social studies.	10	20	30	40	50	60	70	80	90	100
21	Greet English Language Learners with a phrase in their native language.	10	20	30	40	50	60	70	80	90	100

I am ___% certain that I can...		10%										100%
22	Help students identify methods to monitor their own social studies classroom performance.	10	20	30	40	50	60	70	80	90	100	
23	Design a classroom environment using displays that reflects a variety of cultures.	10	20	30	40	50	60	70	80	90	100	
24	Praise English Language Learners for their accomplishments using a phrase in their native language.	10	20	30	40	50	60	70	80	90	100	
25	Present content in my social studies class that students relate to other subjects.	10	20	30	40	50	60	70	80	90	100	
26	Identify ways that standardized tests may be biased towards linguistically diverse students.	10	20	30	40	50	60	70	80	90	100	
27	Help students identify strategies to support their own learning in social studies.	10	20	30	40	50	60	70	80	90	100	
28	Revise instructional material to include a better representation of cultural groups.	10	20	30	40	50	60	70	80	90	100	
29	Critically examine the curriculum to determine whether it reinforces cultural stereotypes.	10	20	30	40	50	60	70	80	90	100	
30	Recognize students' thoughts in my explanation of social studies learning tasks.	10	20	30	40	50	60	70	80	90	100	
31	Design a lesson that shows how other cultural groups have made use of social studies.	10	20	30	40	50	60	70	80	90	100	
32	Model classroom tasks to enhance English Language Learners' understanding.	10	20	30	40	50	60	70	80	90	100	
33	Create opportunities for students to make choices about their own learning in social studies.	10	20	30	40	50	60	70	80	90	100	
34	Communicate with the parents of English Language Learners regarding their child's achievement.	10	20	30	40	50	60	70	80	90	100	
35	Help my students to value learning in social studies.	10	20	30	40	50	60	70	80	90	100	
36	Use examples that are familiar to students from diverse cultural backgrounds.	10	20	30	40	50	60	70	80	90	100	
37	Motivate students who show low interest in social studies schoolwork.	10	20	30	40	50	60	70	80	90	100	
38	Assist families in helping their children do well in social studies.	10	20	30	40	50	60	70	80	90	100	
<b>Please consider, right now, in your present teaching situation, the strength of your personal beliefs in your capabilities to...</b>								<b>Weak beliefs</b>	<b>Very strong beliefs</b>			
39	Motivate students to perform to their fullest potential in social studies.							1	2	3	4	
40	Provide a positive influence on the academic development of students in social studies.							1	2	3	4	
41	Maintain an environment in my social studies class in which students can work cooperatively.							1	2	3	4	

**Section V: Other Educational Practices**

Imagine that you are teaching a **social studies** class that includes **English Language Learners**. How often would you use the following instructional approaches to help your students learn the content? Using the scale below, please rate the items based on how often you would use the following approaches in your classroom.

In my social studies classroom, I would...		Never			Occasionally			Always		
1	Give recognition to students' home language and culture.	1	2	3	4	5	6	7	8	9
2	Explicitly teach test-taking skills.	1	2	3	4	5	6	7	8	9
3	Simplify the content material.	1	2	3	4	5	6	7	8	9
4	Give explicit instruction in literacy skills such as alphabetizing and use of context clues.	1	2	3	4	5	6	7	8	9
5	Use simpler language to explain more abstract topics.	1	2	3	4	5	6	7	8	9
6	Assign project groups based on the students' native languages.	1	2	3	4	5	6	7	8	9
7	Use activities such as role-playing and dramatization.	1	2	3	4	5	6	7	8	9
8	Use vocabulary in the students' native language to support new content material.	1	2	3	4	5	6	7	8	9
9	Assign students with an autobiographical assignment.	1	2	3	4	5	6	7	8	9
10	Present key information in both verbal and written formats.	1	2	3	4	5	6	7	8	9
11	Make bilingual dictionaries and/or thesauruses available to students.	1	2	3	4	5	6	7	8	9
12	Provide explicit vocabulary instruction.	1	2	3	4	5	6	7	8	9
13	Use primary source materials or real objects / artifacts.	1	2	3	4	5	6	7	8	9
14	Identify cognates and false cognates in the students' native language.	1	2	3	4	5	6	7	8	9
15	Allow students to complete assignments in their native language.	1	2	3	4	5	6	7	8	9
16	Explicitly identify specific academic strategies.	1	2	3	4	5	6	7	8	9
17	Pose higher thinking questions through the use of scaffolding.	1	2	3	4	5	6	7	8	9
18	Allow students to use their native languages.	1	2	3	4	5	6	7	8	9
19	Provide students with supplementary materials.	1	2	3	4	5	6	7	8	9
20	Display example projects in other languages.	1	2	3	4	5	6	7	8	9
21	Use graphic organizers and visual resources.	1	2	3	4	5	6	7	8	9

Sometimes teachers use different strategies depending on their classroom context, please use this space to elaborate on any exceptionalities to your ratings.

**Section VI: Educational Goals**

Teachers differ in their goals as teachers, and in the kinds of things that make them feel they had a good and successful day at work. Please rate the degree to which you personally agree or do not agree with each of the following statements.

		Do not agree at all			Agree completely	
1	I'd feel I had a particularly successful day in school if my classes scored higher on an exam than those of other teachers.	1	2	3	4	5
2	I'd feel I had a successful day in school if I learned something new about myself as a teacher.	1	2	3	4	5
3	I'd feel I had a successful day in school if in a meeting the principal did not include me as one of the teachers having difficulty.	1	2	3	4	5
4	My main goal as a teacher is to build a deep personal relationship with each and every student.	1	2	3	4	5
5	I feel I had a successful day when I got by without having to work hard.	1	2	3	4	5
6	I'd feel I had a successful day in school if pupils did not ask any questions that I could not answer.	1	2	3	4	5
7	I'd feel I had a particularly successful day in school if I was praised for showing high teaching ability relative to my colleagues.	1	2	3	4	5
8	I feel I had a particularly successful day when I didn't have any tests or homework to mark.	1	2	3	4	5
9	More than anything, I strive to create and maintain meaningful relationships with students.	1	2	3	4	5
10	I'd feel I had a particularly successful day in school if something that happened in class made me want to deepen my professional knowledge.	1	2	3	4	5
11	I'd feel I had a particularly successful day in school if my lesson plans were singled out as better than those of other teachers.	1	2	3	4	5
12	I'd feel I had a successful day in school if I saw that my classes are not further behind in the curriculum than those of other teachers.	1	2	3	4	5
13	I'd feel I had a particularly successful day if some of my classes were cancelled.	1	2	3	4	5
14	My relationships with students are more important to me than anything else in my role as a teacher.	1	2	3	4	5
15	I'd feel I had a successful day in school if a student asked a question in class that made me think again about the subject matter.	1	2	3	4	5
16	I'd feel I had a particularly successful day if the principal singled me out as one of the best teachers in the school.	1	2	3	4	5
17	I feel I had a successful day if the material was easy and I didn't have to spend much time preparing lessons.	1	2	3	4	5
18	I feel that I have succeeded as a teacher if I create close and warm relationships with students and classes.	1	2	3	4	5
19	I'd feel I had a particularly successful day in school if I saw that I am developing professionally and teaching more effectively than in the past.	1	2	3	4	5
20	My goal is that my classes did not do any worse than those of other teachers on an exam.	1	2	3	4	5

## APPENDIX F: HSRB APPROVAL NOTIFICATION



### Office of Research Integrity and Assurance

Research Hall, 4400 University Drive, MS 6D5, Fairfax, Virginia 22030  
Phone: 703-993-5445; Fax: 703-993-9590

TO: Angela Miller, Psychology

FROM: Aurali Dade  
Assistant Vice President, Research Compliance 

PROTOCOL NO.: 8678      Research Category: Masters Thesis

PROPOSAL NO.: N/A

TITLE: Teacher Beliefs regarding educational practices

DATE: July 22, 2013

Cc: Jessica Kilday  
Monica Lenser

Under George Mason University (GMU) procedures, the amendment submitted on July 18, 2013, to this protocol does not change the status of the project. This project remains exempt since it falls under DHHS Exempt Category 2, research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior.

You may proceed with data collection. **Please note that any further modifications to your protocol must be submitted to the Office of Research Integrity & Assurance (ORIA) for review and approval prior to implementation.** Any adverse events or unanticipated problems involving risks to subjects including problems with confidentiality of data identifying the participants must be reported to the GMU Office of Research Integrity & Assurance.

GMU is bound by the ethical principles and guidelines for the protection of human subjects in research contained in The Belmont Report. Even though your data collection procedures are exempt from review by the GMU IRB, GMU expects you to conduct your research according to the professional standards in your discipline and the ethical guidelines mandated by federal regulations.

Thank you for cooperating with the University by submitting this protocol for review. Please call me at 703-993-5381 if you have any questions.

## **APPENDIX G: INFORMED CONSENT**

### **<Teacher Beliefs Regarding Educational Practices>**

#### **RESEARCH PROCEDURES**

This research is being conducted to learn more about how teachers rate their educational beliefs. If you choose to complete the survey, you will be asked to provide general demographic information about you and the students you teach and to answer questions that address your instructional responsibilities (i.e. grade-level, subjects/students taught), your professional development experience, confidence ratings, and other educational ratings related to teacher practice and instructional strategies. The survey should take approximately 15-20 minutes to complete.

#### **RISKS**

There are no foreseeable risks for participating in this research.

#### **BENEFITS**

There are no benefits to you as a participant other than to further research in teaching and professional development.

#### **CONFIDENTIALITY**

The data in this study will be confidential. The survey will be collected anonymously and no identifying data will be requested.

#### **PARTICIPATION**

Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party.

#### **CONTACT**

This research is being conducted by Jessica Kilday <jkilday@gmu.edu> and Monica Lenser <monica.lenser@masonlive.gmu.edu> at George Mason University under the supervision of Dr. Angela Miller (703-993-5590). You may call Jessica (571-308-6840) for questions or to report a research-related problem. You may also contact the George Mason University Office of Research Integrity & Assurance at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research.

This research has been reviewed according to George Mason University procedures governing your participation in this research.

#### **CONSENT**

By completing and returning this survey, I agree to participate in this study and have read this form.

Version date: 4/11/13

## APPENDIX H: RECRUITING LETTER

Teacher Name  
School  
School District

Re: Invitation to participate

Dear Teacher:

As a capstone to my program of study at George Mason University, I am interested in learning more about how teachers rate their educational beliefs. Therefore, I am writing to invite you to participate in a short survey that should take no more than 15-20-minutes to complete.

With permission from the program director, I consulted application and attendance records from the Teaching American History grant in conjunction with public school websites to compile a recruitment list for this project. Please note that your participation in this short survey is entirely voluntary and is not associated with grant or school district. No identifying data will be collected on the survey.

Your contribution is valuable and will help further research on teacher professional development. Items on the survey will address:

- General demographic information
- Instructional responsibilities
- Professional development experience
- Confidence ratings
- Other educational ratings related to teacher practice and instructional strategies

Please consider completing this survey, we value your time and input. This research is being conducted by me <jkilday@gmu.edu>, in collaboration with a fellow graduate student <monica.lenser@masonlive.gmu.edu>, under the supervision of Dr. Angela Miller at George Mason University. If you have any questions about the completion of the survey, please feel free to contact us.

Enclosed, you will find a copy of the confidentiality and consent forms, a blank survey for you to complete if you choose to participate, and an addressed envelope to return the survey through interoffice mail. Survey responses will be accepted through the end of the 2013 school year. Thank you again for considering this request.

Sincerely,

Jessica Kilday  
George Mason University  
571-308-6840

## APPENDIX I: RECRUITING FLYER



### Participants Needed!

As part of a research project on teacher beliefs about social studies instructional strategies, we are seeking participants to complete a short survey that should take approximately 15-20 minutes to complete.

You are eligible to participate if:

- You teach social studies in elementary, middle, or high school
- You are responsible for social studies content with English Language Learners or special education students
- You have the above instructional responsibilities during the 2012-2013 or 2013-2014 school year

Your contribution is valuable and will help further research on teacher professional development. If you would like to participate, please visit

<https://www.surveymonkey.com/s/ratings-questionnaire>

Items on the survey will address: (a) general demographic information, (b) instructional responsibilities, (c) professional development experience, (d) confidence ratings, and (e) other educational ratings related to teacher practice and instructional strategies.

You may contact Jessica Kilday ([jkilday@gmu.edu](mailto:jkilday@gmu.edu)) or Monica Lenser ([mlenser@masonlive.gmu.edu](mailto:mlenser@masonlive.gmu.edu)) with any questions regarding this research.

### Thank you!

APPROVED  
  
George Mason University

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## **BIOGRAPHY**

Mónica L. Lenser received her Bachelor of Arts in Psychology from George Mason University in 2007. After completing her undergraduate coursework, she continued to explore psychological-related research, as well as work informally with students who were learning English as a second language. From these experiences, she decided to pursue a Master of Science degree in Educational Psychology, along with a Graduate certificate to teach English as a Second Language.