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PRACTICING TEACHERS' BELIEFS REGARDING RACIALLY, CULTURALLY,
ETHNICALLY, AND LINGUISTICALLY DIVERSE (RCELD) STUDENTS
IN A TITLE I SECONDARY-SCHOOL ENVIRONMENT

by

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A dissertation in practice submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the College of Education and Human Performance
at the University of Central Florida
Orlando, Florida

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ABSTRACT

Based on school-level data that included disparities in discipline rates, Title I status, teacher attrition, and teachers' statements, I designed a dissertation in practice to understand practicing teachers' personal and professional diversity beliefs regarding racially, culturally, ethnically, and linguistically diverse (RCELD) students in a Title I, secondary-school setting. Four hypotheses concerning type of secondary degree, years of experience, subjects taught, and racial or ethnic background were tested. Pohan and Aguilar's (2001a) Teachers' Belief Survey was administered to 59% of the GHS staff in order to measure the personal and professional beliefs of practicing teachers. I used descriptive and parametric tests to analyze the survey's data. Based on the parametric and non-parametric tests no statistically significant differences were found for the four hypotheses tested. Although no statistically significant differences were noted in the data, this dissertation in practice starts a conversation about diversity issues at GHS. The initial school-level data were indicative of a problem of practice at GHS, and practicing teachers did self-report high levels of diversity beliefs. I recommend that further research build upon this study and include a qualitative component. I conclude that further research is necessary in order to investigate why practicing teachers' self-report diversity beliefs were high, yet school-level data indicated discriminatory practices.

This is dedicated to the greatest teachers I ever had.
Thank you for guiding and protecting me.

Dr. Michele Gregoire Gill
Mrs. Deborah D. Williams
Mr. Charles Reagan Overall

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CHAPTER 1 PROBLEM OF PRACTICE

Introduction to the Problem

Legislation guarantees educational equality for all students (Americans with Disabilities Act, 1990; Brown v. Board of Education, 1954; Elementary and Secondary Education Act, 2001; English Language Acquisition, Language Enhancement, and Academic Achievement Act of 2001, 2001). From this legislation, litigation and advocacy have addressed previous problems with equal treatment in schools (e.g., segregation and Title I status); however, disparities in discipline, poverty, teacher attrition, and negative beliefs about students have continued to be organizational problems of practice that disproportionately affect racially, culturally, ethnically, and linguistically diverse students (RCELD).

Coupled with over fifty years of educational legislation and student advocacy, society has measured social justice based on the equality of treatment for all students. As Lyndon B. Johnson stated, “Education is the key to opportunity in our society, and the equality of educational opportunity must be the birthright of every citizen.” (Item 291: Statement by the President Announcing the Calling of a White House Conference on Education, 1965). Therefore, any indication that teachers treat students unequally shall be a cause for concern.

Examples of Student Treatment Inequalities

Disparities in discipline. Minority students have experienced unequal treatment through disciplinary practices. Monroe (2005) discussed Black students being targeted for excessive school discipline. Skiba, Michael, Nardo, and Peterson (2002) and Wallace, Goodkind, Wallace, and Bachman (2008) identified that Black students received more office referrals despite evidence that Black students did not misbehave any more frequently than other students.

Poverty-level schools. Poverty divides students. Lawmakers enacted Title I legislation so students in poverty received equal educational opportunities (Title I of the No Child Left Behind Act of 2001, 2001). However, Title I funds that were bookmarked for educational programs and products were used for student social and psychological needs (Lane & White, 2010). Students in poverty experienced these inequalities because schools used Title I money for student services rather than academic materials (Lane & White, 2010).

Teacher attrition. Darling-Hammond (2003) found teachers left their teaching positions at poverty-level schools within the first five years. Stemming from the job vacancy which may occur any time during the school year, students will encounter a teacher who may be ill-prepared to teach. As a consequence, students will meet an ongoing parade of teachers in urban areas or low-performing schools (Darling-Hammond, 2003).

Perpetuation of stereotypes. Jussim and Harber (2005) researched the effects of teacher expectations and discussed the effects of self-fulfilling prophecies. The

researchers discovered that teacher expectations affected student performance. RCELD students are influenced based on teachers' preconceived notions. If the teacher believes a student will fail, then the student is likely to fail. If the belief was negative, then the teacher developed negative feelings about the student. For example, the students do not care whether they pass or fail. Gay (2013) stated:

findings are generally consistent that teachers' instructional behaviors are strongly influenced by their attitudes and beliefs about various dimensions of student diversity. Positive attitudes about ethnic, racial, and gender differences generate positive instructional expectations and actions toward diverse students, which, in turn, have positive effects on students' learning efforts and outcomes.

Conversely, negative teachers' beliefs produce negative teaching and learning behaviors. (p. 56)

Previous research has shown some teachers treat RCELD students unequally through discipline practices, allocated resources, attrition, and bias and stereotype (Darling-Hammond, 2003; Jussim & Harber, 2005; Lane & White, 2010; Monroe, 2005; Skiba et al., 2002; Wallace et al., 2008). Could it be that teachers are not even aware that they have these biases and beliefs? To answer this question, the upcoming study was developed to understand practicing teachers' beliefs regarding racially, culturally, ethnically, and linguistically diverse (RCELD) students at a Title I, secondary-school because inequitable treatment may stem from teachers' beliefs about diverse students.

Purpose of the Study

I designed this dissertation in practice to understand practicing teachers' personal and professional beliefs regarding RCELD students in a Title I, secondary-school setting.

Background of the Problem of Practice

To understand the problem of practice, I gathered four sources of school-level data. The four sources of data included discipline data, designation of Title I status, rates of teacher attrition, and teacher statements about the school.

First, I gathered school-level discipline data. I noticed a discrepancy in student enrollment percentages and the percentage of suspensions students received at GHS. Black, non-Hispanic students comprised 28% of the total student population, yet they received 53% of the office referrals. In contrast, White, non-Hispanic students comprised 53% of the total student population, and they received 23% of office referrals. These discrepancies at GHS mirrored the findings by Skiba et al. (2002) and Wallace et al. (2008) which addressed disparities in student discipline percentages.

Second, I compiled data on the percentage of students receiving free- and reduced-lunch status and the number of homeless or transitional students. GHS has one of the highest percentages (80.61%) of students on free- or reduced-price lunch in the district (Free and Reduced-Lunch Data, 2014). I also examined the lunch assistance numbers for GHS's feeder schools, Middle School 1 (73.64%) and Middle School 2 (85.27%), and the area was considered economically disadvantaged (Free and Reduced-Lunch Data, 2014). During the 2014-2015 school year, GHS served 15 homeless or

transitional students, Middle School 1 served 29, and Middle School 2 served 47 (Title 1 Central District County Schools, 2015).

Next, I researched teacher attrition data for GHS. An average of 24 teachers, or 25%, leave GHS each year, and the number has been steady since the 2008-2009 school year. As of February 9, 2015, nine teachers had left the school (Gravitas High School, 2015). In addition to the number of teachers who left GHS, the school secretary sent a daily attendance report, and substitute teachers filled five teacher vacancies throughout the 2014-2015 school year. Based on GHS' teacher attrition data, the teaching staff will remain unstable.

Finally, I conducted confidential, informal interviews with GHS faculty during the 2014-2015 school year and gathered practicing teachers' beliefs regarding students. The responses included: "Does anyone else feel like things are falling apart? In my 14 years of teaching at Gravitas High School, I have never felt fear while I was in the hallways" (Confidential, personal communication, September 12, 2014). The responder gave the impression that she was fearful and afraid to be in the hall when the students transitioned between classes. Furthermore, one teacher asked: "Where is the civility?" (Confidential, personal communication, November 7, 2014). This responder wrote discipline referrals for student profanity and defiance directed toward him.

The next question I asked concerned school culture. I asked four additional teachers: "What are your thoughts on the school culture here?" Responses included: "We have a population of students who do not know how to engage with adults" (Confidential 25-year veteran teacher, personal communication, November 7, 2014);

“The subculture has taken over. The majority culture is becoming the minority” (Confidential eight-year veteran teacher, personal communication, November 7, 2014); “Combative” (Confidential first year teacher, personal communication, November 7, 2014); “Street mentality, and they are winning” (Confidential four-year teacher, personal communication, November 7, 2014).

Context of the Study

All names, organizations, and locations will be identified with pseudonyms. Gravitas High School (GHS) is located in Central District County, a rural, southeast portion of the United States, and employs 107 faculty members. The State Department of Education identified GHS for failing to make Adequate Yearly Progress (AYP) for four years in a row and provided state-led assistance through Differentiated Accountability (DA) status for three years. Beginning with the 2006-2007 school year, GHS earned a school grade of D; in 2007-2008, D; in 2008-2009, D; in 2009-2010, C; in 2010-2011, C; and in 2011-2012, C. GHS was released from state oversight for the 2014-2015 school year.

GHS has experienced several examples of educational reform initiatives since 2007. These included, for example, differentiated accountability and state oversight for three years that focused attention on instructional rigor and standards-based instruction. While this focus did improve the school’s grade, failure to acknowledge practicing teachers’ beliefs may have resulted in pedagogical practices which did not meet the needs of RCELD students (Lerma & Stewart, 2012). Without sufficient information regarding

the proposed change, teachers' beliefs will often stay the same or teachers will outright reject the new information (Chinn & Brewer, 1993). As a consequence, instructional practices and teachers' beliefs about their students will remain the same.

One possible factor contributing to the problems at GHS is the possibility that practicing teachers' beliefs contribute to inequalities in student treatment. These beliefs may have an influence on how practicing teachers interact with RCELD students. No other studies have been conducted at GHS, so I used the four levels of school data to justify this study. Disparities in discipline, Title I status, teacher attrition, and teacher comments indicate inequitable treatment of students. During the 2014-2015 school year, Black, non-Hispanic students comprised 28% of GHS' student population, yet 53% received discipline referrals. GHS was identified as Title I since the 2013-2014 school year. Twenty-five percent of teaching staff left the school year over an eight year period, and informal interviews revealed that some GHS teachers possess negative opinions about students and the school culture. Considering the four examples of student inequality noted, I initiated a dissertation in practice research cycle to understand practicing teachers' diversity beliefs. Understanding practicing teachers' beliefs will benefit GHS because all students deserve fair and equitable treatment in the classroom.

GHS' problem of practice has further implications outside of the classroom and teacher/student interactions. Not only may RCELD students be affected, the communities in which they live may be affected as well. Failing schools have an economic impact on the surrounding community, because students with poor academic skills are unprepared to participate in the local economy (McKinsey & Company, 2009).

Ultimately, the school grade is used to define the school's reputation as effective, and if the school is failing, the surrounding communities are influenced. Due to the symbiotic relationship of a school's success within its community, it is vital to investigate causes and possible solutions to GHS' problem of practice. I hope to build on the findings of the current study through future research involving outcomes of this study, either an extension of this study or feedback to create teacher professional development.

I included Figure 1 to outline the sequence of this study. It will illustrate the two outcomes possible from the study.

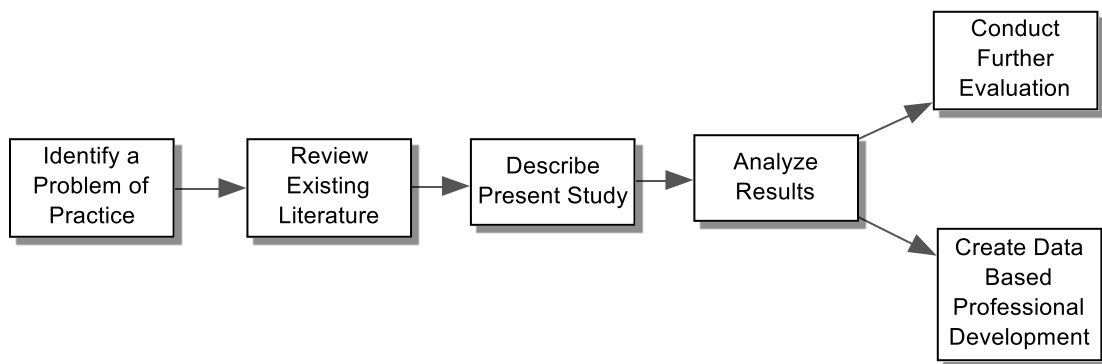


Figure 1: Outline of the Study's Sequence of Events

Statement of the Problem

Practicing teachers may be treating RCELD student unequally as a result of their beliefs. I justified my dissertation's problem of practice based on GHS' disparities in discipline, Title I status, teacher attrition, and teacher stereotypes and bias. Therefore, I developed this study to understand practicing teachers' beliefs regarding RCELD students.

Rationale for Theoretical Framework

In order to address GHS' problem of practice, I started with the most accessible population first: the practicing teacher. This individual has face-to-face interactions with students for 180 days. From this standpoint, I wanted to understand what their diversity beliefs were.

Since there was evidence of inequality in the treatment of students, I focused this study based on the theoretical framework of Conceptual Change, because my purpose was to understand practicing teachers' beliefs regarding RCELD students. Perhaps conceptual change would allow teachers to uncover their beliefs. For example, a teacher who was a model student herself might be shocked to encounter difficult students in the classroom, and she would need to adjust her thinking and methods. Conceptual change would occur during this thinking experience. I became curious about this inequality in student treatment when I noticed disparities in discipline data at GHS. I used the theoretical framework of Conceptual Change because my purpose was to understand practicing teachers' beliefs regarding RCELD students.

When there is a flaw in an individual's thinking, a teacher can use the conceptual change process to repair the gaps in the knowledge. The researcher can accomplish this change by helping the learner to recognize the faulty beliefs and then by replacing the faulty beliefs with new, correct information (Chi & Roscoe, 2002). If the educator repairs the learner's preconceptions and misconceptions, then the learner will experience a conceptual change because the flaw in the original knowledge is replaced or modified.

Conceptual change theory is a constructivist learning theory that was previously studied in the 1980's and early 1990's as possible changes linked to existing student knowledge, ongoing student development, and implementing of instructional methods (Sinatra, 2005). In the case of conceptual change, some learners changed while others did not (Sinatra, 2005). To address the inconsistencies of change, Gregoire (2003) presented the Cognitive-Affective Model of Conceptual Change (CAMCC). While previous researchers focused on developmental and instructional methods as catalysts to change, Gregoire (2003) introduced student motivation as a cause for the learner to change.

If conceptual change theory is considered a repair in one's thinking, how does an individual know his or her thinking is flawed? Would teachers recognize that they might possess a bias toward RCELD students? In other words, would they even know that they are unconsciously treating a student differently from another? Implied or unexpressed beliefs can be identified, challenged, and modified by reflection through sound argumentation (Posner, 1982). In other words, an individual will maintain his or her belief as the status quo because there is no reason for him to believe that his thinking is flawed.

Simply telling the individual about his faulty beliefs will not repair them; the process is more complex. Exposure to new information can result in seven possible scenarios: (a) ignore new information totally, (b) reject new information, (c) acknowledge new information yet exclude it from existing beliefs, (d) suspend acceptance of the new information, (e) reinterpret new information to conform to existing

beliefs, (f) make changes to unessential information while overlooking the truly important data, and (g) accept new information totally and out right (Chinn & Brewer, 1993). Therefore, explicit methods of instruction such as telling or instructing are considered ineffective ways to change an individual's beliefs (Cooney, Shealey, & Arvold, 1998). In order for an individual to change his or her thinking, methods that help him identify his thinking as flawed are necessary. The change occurs when the faulty belief is identified, replaced with new information, and reinforced (Gregoire, 2003).

No other studies have been conducted at GHS on practicing teachers' beliefs regarding RCELD students. Other researchers have conducted studies on pre-service or novice teachers while the participants were enrolled in diversity classes (Torok & Aguilar, 2000; Trent & Dixon, 2004). In some ways, students enrolled in a course are a captive audience and change is expected due to participation in a class. Therefore, pre-service or novice teachers could identify and examine their diversity beliefs in order to learn about RCELD students. What happens when the coursework is removed? Will practicing teachers still be able to identify and understand their present diversity beliefs?

Conceptual Change theory was initially developed to address student misconceptions in science curricula (Mayer, 2002). With this in mind, pre-service or novice teachers experienced a change in their thoughts because they were able to examine their thinking and receive feedback from a teacher (Kim & Morningstar, 2007).

A possible limitation for Conceptual Change Theory as my theoretical framework is related to the accuracy in which practicing teachers will self-report diversity beliefs (Gill & Hoffman, 2009). The ability of teachers to be willing to identify their faulty

beliefs in order to replace them with new beliefs is at the heart of the Conceptual Change Process. Unless an individual is willing or able to address his beliefs, then nothing will change.

In a survey of the literature, I discovered that effective teacher training for diversity included some form of pre-test, intervention with a reflection, and a post-test. For example, Trent and Dixon (2004) conducted a study in which their students completed a pre-test, participated in self-reflection, and completed a post-test. In another study, Torok and Aguilar (2000) focused their research on their students in a multicultural education course. The researchers found that changes in beliefs were related to a participant actually examining their beliefs. In other words, the participants had some ownership of their understanding of diversity beliefs which may have influenced the change in beliefs. Based on the literature I reviewed, I concluded that conceptual change theory will be the most effective framework to identify practicing teachers' beliefs. Much of the research I reviewed focused on understanding diversity beliefs through coursework or experiences (Clark & Drudy 2006; Gallavan, 2007; Olsen, 2008)

Significance to Gravitas High School (GHS)

This study will describe practicing teachers' beliefs and result in one of two outcomes in relation to the organization's problem of practice: (a) evaluate the problem further or (b) present proposals for professional development. No other study has been conducted at GHS to examine practicing teachers' beliefs regarding RCELD students including (a) type of post-secondary degree, (b) years of experience, (c) subjects taught,

and (d) racial demographics. Although copious research exists on pre-service and novice teachers to study their beliefs about diverse students (Dedeoglu & Lamme, 2011; Liang & Zhang, 2009; Pohan, 1996; Premier & Miller, 2010), the research is sparse in regards to practicing teachers' beliefs about diverse students (Gay, 2015).

Based on the theoretical framework, I will attempt to describe practicing teachers' beliefs as a first step in the conceptual change process. To accomplish this, I chose a cross-sectional survey design to identify practicing teachers' beliefs because I wanted to describe the beliefs at one-point in time (Lidwell, Holden, & Butler, 2003). Although previous research has been conducted on pre-service and novice teachers and their beliefs about diverse students (Dedeoglu & Lamme, 2011; Liang & Zhang, 2009; Pohan, 1996; Premier & Miller, 2010), I have designed the dissertation in practice to understand practicing teachers' beliefs while in the classroom. The outcome of this study will be used to develop data-based research either to continue with the evaluation or to provide feedback to change the problem of practice. Until educators understand practicing teachers' beliefs, creating professional development or suggesting implications for teacher practice will remain counter-productive.

Research Question

What beliefs do practicing teachers possess regarding racially, culturally, ethnically, and linguistically diverse (RCELD) students in a Title I, secondary-school setting?

Definitions of Terms

I used and defined the following terms in the dissertation in practice:

Belief: A belief is a conviction of the truth or some statement or the reality of some being or phenomenon especially when based on examination of evidence (Merriam-Webster, Retrieved June 22, 2015).

Personal Belief: A belief a practicing teacher possesses regardless of classroom experience.

Practicing Teacher: A practicing teacher holds a temporary (three-year non-renewable) or professional (5 year renewable) teaching certificate and works full-time at the school.

Professional Belief: A belief a practicing teacher possesses during experience in the classroom or school setting.

RCELD students: The acronym is used to describe racially, culturally, ethnically, and linguistically diverse students.

Assumptions

The following assumptions are present in the dissertation in practice:

1. The school-level data were accurate as of January 21, 2015.
2. The principal investigator taught at GHS during the 2014-2015 school year and did not participate in the study.
3. The principal investigator conducted the study ethically, used proper design methods, and analyzed data to describe practicing teachers' beliefs at GHS.
4. The study's outcomes were not generalizable and were specific for GHS.
5. All participants received some form of diversity training prior to this study.

Threats to Internal Validity

Threats to internal validity exist and may lead to unexpected results (Fraenkel, Wallen, & Hyun 2012). The following limitations are found in this study:

1. There may be a loss of subjects during survey administration due to ongoing teacher attrition, absenteeism, illness, or refusal to complete the instrument.
2. Not all staff may be comfortable discussing diversity issues. Although the survey is confidential, some staff may not participate in the survey.
3. The school-level data may not be complete or accurate. Although there is no indication of a data storage or retrieval problem, there is no guarantee these data have no errors.
4. This study will be conducted at one point in time. If teachers experienced a particularly good or bad day, their responses may vary.

5. Data will be used to direct (a) further research or (b) provide feedback to develop professional development.

Acknowledgement of the Researcher's Role

I am employed by Central District County Schools and taught 9th grade at the school site where I administered the survey. Since this study is included in a dissertation in practice, my results may not be generalizable to any population other than GHS. The intention will be to understand practicing teachers' beliefs regarding RCELD students. The results of the upcoming cross-sectional survey study will be used to guide appropriate further research and implications for teacher practice at GHS.

Organization of the Remainder of the Study

I present the dissertation in practice in a five-chapter format. Chapter 1 includes introduction to the problem, examples of student treatment inequalities, purpose of the study, background of the problem of practice, context of the study, statement of the problem, theoretical framework, significance to GHS, hypotheses and research question, definition of terms, assumptions, limitations, and acknowledgment of researcher's role.

Chapter 2 includes a thematic literature review to present relevant research regarding teachers' beliefs about diverse students. Chapter 3 includes a discussion of the study's methodology and includes my justification for using a cross-sectional research study. Chapter 3 also includes psychometric properties for the survey.

Chapter 4 presents demographic data, results and analysis of the survey's data using descriptive, parametric, and non-parametric tests. Chapter 5 includes a summary of the dissertation in practice, discussion of the key findings in the study, suggestions for further research, and implications for teacher practice.

CHAPTER 2 LITERATURE REVIEW

Introduction

I will discuss inclusion and exclusion criteria for the literature in the first section of Chapter 2. In the thematic literature review, I will include research on teachers' attitudes and beliefs regarding racially, culturally, ethnically, and linguistically diverse (RCELD) students. Having established the research on teachers' attitudes and beliefs concerning RCELD student populations in public schools, I will review the research, and narrow the studies to present pre-service, novice, or beginning teachers' beliefs formation and beliefs change during teacher preparation programs, coursework, or professional development. I will use the research on pre-service, novice, or beginning teachers to guide the development of this study to understand practicing teachers' beliefs regarding RCELD students in a Title I, secondary-school. In addition, I will discuss research limitations to justify the upcoming methodology. I will conclude the literature review with a brief summary of the chapter.

Inclusion and Exclusion Criteria

To search for the literature, I used Google Scholar and the connector "and" with the keywords CLD students and teachers' beliefs. In addition, I used the connector "and" with the keywords teacher self-efficacy and cultural diversity. I used the connector "and" among three key phrases: practicing teachers, DCP, and beliefs. I combined the terms (RCELD, CLD, pre-service, and in-service) to further reduce the results.

To organize the amount of literature, I created a Yes, No, and Maybe file and categorized the literature into the three folders. Next, I organized the literature into subcategories that corresponded to major sections on my outline. As an exclusionary step, I accepted no studies prior to 1994 and eliminated any articles unsupported by a research study. Last, I annotated the articles for (a) type of study, (b) participants, and (c) hypotheses/findings to establish common themes and to synthesize the material for the literature review.

Teachers' Attitudes and Beliefs Regarding (RCELD) Students

A new, more diverse population is emerging in the United States, and the diverse characteristics are more prevalent in the classroom. By the year 2035, populations of diverse students will increase while the demographics of teachers will remain predominantly White, female, and middle class (Kumar & Harner, 2012). In addition, American schools will need 1.5 million teachers in the next decade ("A Million New Teachers are Coming," 2015). At the time of this study, according to numbers from the National Center for Education Statistics (NCES, Racial/Ethnic Enrollment in Public Schools, 2015) racial and ethnic enrollment in public schools decreased from 59% to 51% for White students while enrollment for Hispanic students increased from 18% to 24% from 2002 to 2012. Based on diverse student population data, I began my review by including studies involving teachers' beliefs and attitudes regarding diverse students.

Teachers' Beliefs Concerning Diverse Students

Teachers' beliefs regarding RCELD students may stem from a deficit perspective (Brock, Moore, & Parks, 2007; Friedman & Herrmann, 2014; Gay, 2013; Hoy, Hoy, & Kurz, 2008). A deficit implies something is missing or lessened and focuses on "problems or pathologies" rather than "talent" and "potential" (Gay, 2010a, p. 144). Friedman and Herrmann (2014) addressed the deficit perspective and how telementoring enabled English teacher candidates to help urban high school students. In their study, they discovered teacher candidates lack experience in their traditional teacher preparation coursework, significant time to discuss and reflect, or participate in authentic experiences with diverse students (Friedman & Herrmann, 2014). Significantly, these researchers attempted to match 30 ninth-grade students to 36 teacher-mentors to challenge deficit perspectives by engaging in authentic experiences and opportunities with diverse students (Friedman & Herrmann, 2014). As a result, they discovered that teachers exposed to RCELD students' cultural identity broadened the teachers' understanding of the diverse student (Friedman & Herrmann, 2014). Accordingly, teachers who had an opportunity to have personal interaction and reflection reduced their deficit perspective due to purposeful interactions with diverse students.

Hoy et al. (2008) presented a similar trend in the research about the deficit perspective. In their research, they indicated teachers' beliefs influence thoughts and actions. Teachers who hold negative beliefs or have deficit thinking may also hold negative or deficit beliefs about diverse students. In light of Hoy et al.'s (2008) work, Seligman and Csikszentmihalyi (2000) and Seligman (2002) studied how meaningful

interactions with diverse students replaced the deficit perspective. Teachers who dwelt on the negative had more negative interactions with their students, while teachers who dwelt on the positive replaced the negative beliefs (Hoy et al., 2008; Seligman and Csikszentmihalyi, 2000; Seligman, 2002).

Hoy et al. (2008) used a questionnaire and sampled 205 third and fourth-grade teachers to measure academic optimism. A finding from Hoy et al.'s (2008) study was relatable to Friedman and Herrmann's (2014) study because replacing deficit thinking with academic optimism influenced how teachers related with their diverse students. Thus, teachers who have a deficit perspective regarding RCELD students, once they replaced it with more authentic experiences and positive exposure, were able to increase their positive beliefs regarding RCELD students (Brock et al., 2007; Friedman & Herrmann, 2014; Hoy et al., 2008). Other researchers attempted to address the relationship gap by engaging with diverse students through acculturation.

Acculturation

Acculturation is defined as a person attempting to adapt or borrow behaviors from another culture. Teachers have used acculturation to relate to diverse students. Hyland (2005) conducted a study and found teachers unknowingly perpetuated racism by mimicking the talk and behavior of Black students. In several studies, researchers have shown respect and interest for culturally diverse students without appropriating their culture (Boucher, 2014; Ware, 2006). Ware (2006) conducted a study and examined the pedagogy of two African-American teachers. Through observations and interviews,

researchers documented teachers' beliefs and described how they transferred their pedagogical practices to the classroom. In their research, Hyland (2005) and Ware (2006) showed White teachers attempted to relate to Black students by incorporating characteristics and behaviors from the students' culture. In particular, the researchers focused their studies on how teachers interacted with, spoke to, and disciplined students to indicate how they believed their students could and would learn (Hyland, 2005; Ware, 2006). The study was significant to this review because researchers addressed teacher attempts to relate to diverse students.

Egalitarian Beliefs and Color-Blindness

In some instances, teachers tried to be like a member of a diverse culture while other teachers did not address diversity at all. In other words, the teachers were color-blind. Students of color simply being allowed in schools and classrooms did not, however, ensure the resolution of cultural diversity (Delgado & Stefancic, 2012). Color-blindness was intended to prove teachers' beliefs were unaffected by cultural diversity issues. Teachers who believe they are color-blind avoid the diversity question; however, these teachers could not see the differences nor have the ability to help diverse students (Delgado & Stefancic, 2012; Kauffman, Conroy, Gardner, & Oswald, 2008; Milner & Tenore, 2010; Sue, Rivera, Capodilupo, Lin, & Torino, 2010).

Cultural Mismatch.

One contemporary belief is that it is advantageous to attract teachers from the same backgrounds as their diverse students because teachers of the same race or ethnicity

are more effective to teach diverse students (Gay, 2015). As stated in Fryberg, Troop-Gordon, D'Arrioso, Flores, Ponizovskiy, Ranney, Mandour, Tootoosis, Robinson, Russo, and Burack (2012), Stephens' Cultural Match Theory indicated cultural mismatch has occurred when the cultural norms between student and teacher vary greatly. However, a counter-argument to cultural matching is akin to thinking individuals of color will flourish best if they live and work within communities of the same color. Therefore, the problem has existed because of a lack of experience with people from different backgrounds (Gay, 2010a). For example, teachers who have authentic experiences with individuals from diverse backgrounds tend to have more positive beliefs regarding RCELD students (Brock et al., 2007; Friedman & Herrmann, 2014; Hoy et al., 2008). In other words, more time with diverse cultures would allow for constant reflecting on experiences.

The Strength of Beliefs

Individuals hold tenaciously onto their beliefs. For example, teachers whose professional teaching assignments differ from their student-teaching experiences may encounter a dissonance in beliefs (Siwatu, Frazier, Osaghae, & Starker, 2011). Teachers modify what they believe and how they act according to this discord in beliefs. Lyons and Kashima (2003) investigated whether individuals who shared stereotypes had similar beliefs. Lyons and Kashima (2003) studied 128 undergraduates at a university. They studied the dissemination or affirmation of stereotypes by circulating two versions of a story to participants to determine if stereotypes were perpetuated. Based on the results,

the nature of the stereotype reflected the common beliefs shared between the communicators (Lyons & Kashima, 2003). Therefore, the findings suggested that shared beliefs or stereotypes are strengthened when shared with others who have the same beliefs.

Teachers' beliefs form based on early-life experiences, interactions with friends and peers, and first-hand experiences (Cockrell, Placier, Cockrell, & Middleton., 1999; Dedeoglu & Lamme, 2011; Gay, 2010a; Kyles & Olafson, 2008; Liang & Zhang, 2009; Schulte, 2005). Flores and Smith (2009) examined how years of teaching experience influenced attitudinal beliefs regarding RCELD students. In a study similar to Lyons and Kashima's (2003) study, Flores and Smith (2009) attempted to examine reinforcement of teachers' beliefs due to ongoing experiences with student failure. Overall, the importance of the studies reviewed underscores that teachers' beliefs were related to school experiences.

Flores and Smith (2009) used a modified version of the Language Attitude Scale (LATS). Two hundred and ninety-seven teachers participated in the study to measure language diversity beliefs. Researchers discovered that teachers with more years of experience did not change how they viewed language diversity students. Actually, the teachers with more years between their initial teacher training and classroom practice had the stronger deficit belief toward language diversity students (Flores & Smith, 2009).

In another study related to teachers' beliefs and language diversity students, Rodriguez, Manner, and Darcy (2010) studied how in-service teachers experienced difficulty and challenges concerning a lack of time when working with English language

learners (ELLs). Much like Flores and Smith (2009), Rodriguez et al. (2010) studied conflicting issues between teachers having the ability to implement school-based coursework, beliefs about ELLs, and student achievement. The researchers in both studies used surveys to identify teachers' beliefs; however, Rodriguez et al. (2010) attempted an intervention to determine if teachers' beliefs changed while working with ELLs. They found that the achievement levels of ELLs did not change due to teacher participation in cultural diversity coursework. The researchers claimed that social challenges influenced achievement more than academic issues (Rodriguez et al., 2010).

In the first section of the literature review, I discussed teachers' beliefs regarding RCELD students. Then, I reviewed literature to show (a) deficit thinking impacts teachers' beliefs, (b) acculturation has been used as a pedagogical practice to strengthen teacher/student relationships, (c) egalitarian and color-blind ideologies have avoided addressing diversity issues and (d) cultural mismatch was a contemporary pedagogical practice. Advancing into the next section, I will discuss studies which focus on how pre-service or novice teachers' beliefs are formed, changed, and sustained.

Pre-Service or Novice Teachers' Beliefs

A plethora of research exists on pre-service teachers and their training on culturally diverse pedagogy (Dedeoglu & Lamme, 2011; Liang & Zhang, 2009; Pohan, 1996; Premier & Miller, 2010). By the same token, professionals have used multicultural education coursework to prepare teachers to work with RCELD students. The coursework has entailed examination of existing beliefs and reasons for entering the

teaching profession (Clark & Drudy 2006; Gallavan, 2007; Olsen, 2008), has addressed how beliefs were changed or modified through student-teacher journaling (Amos, 2011; Causey, Thomas, & Armento, 2000; Kyles & Olafson, 2008; Torok & Aguilar, 2000; Williams & Power, 2010), and has explored how ongoing professional development complemented practicing teachers' beliefs (Evans, 2013; Schulte, 2005; Tucker Porter, Reinke, Herman, Ivery, Mack, & Jackson, 2005).

Examining Existing Teachers' Beliefs

Gay (2010a; 2010b) and Liang and Zhang (2009) claimed that previous beliefs and experiences have created the foundation for present actions. Equally important, pre-service teachers who received training for cultural diversity were able to modify their existing beliefs before they entered the classroom. Lipman, who was cited in Ladson-Billings (1995), stated educational reform can be successfully undertaken if teachers' beliefs were addressed because beliefs often remain unchanged. From this research perspective many believe that past experiences may have influenced present teachers' beliefs.

Olsen (2008) studied teachers who played teacher as a child to understand present teachers' beliefs. The importance of studying early teaching experiences has emerged because belief formation occurred before a teacher candidate took coursework or worked in an academic setting. To accomplish the study, Olsen (2008) interviewed six secondary, first-year English teachers to gather personal and professional histories and reasons for entering the teaching profession.

In another study, Gallavan (2007) surveyed 62 novice teachers and gathered novice teachers' beliefs. In both Gallavan (2007) and Olsen's (2008) studies, novice teachers questioned their established beliefs. Both studies included the hypothesis that novice teachers' beliefs were formed before they entered the teaching profession. Both studies were significant because they initiated examination of early beliefs to understand and modify them.

Olsen (2008) stipulated experiences prior to becoming a teacher had influence on the type of teacher he or she would become. The importance of studying early teacher belief formation has revealed another significant feature. New teachers have experienced conflicts between what they believe will happen in the classroom versus what actually does happen in the classroom (Olsen, 2008). For example, students, events, and instruction during teacher-play were flawless as planned and were dictated by a solitary leader (Olsen, 2008). In reality, this is not always the case. Gay (2010a) and Liang and Zhang (2009) reinforced that teachers who pretended to be teachers as a child created foundational beliefs and solidified their beliefs of school and its "educational machinery" (Ahonen, Pyhältö, Pietarinen, & Soini 2014). These studies were important because they addressed novice and pre-service teachers' beliefs formed based on prior experiences.

Amos (2011) studied teacher dispositions in relation to student achievement. The hypothesis included that certain teacher dispositions hindered a teacher from becoming culturally competent when working with RCELD students. Amos (2011) deviated from Olsen's (2008) study because teachers' beliefs were maintained regardless of training or intervention. Therefore, Amos (2011) argued novice or pre-service teacher journaling

was contributory to cultural beliefs and competence. In Amos' (2011) study, 54 teacher candidates enrolled in a required multicultural education class and engaged in self-reflective writing. Observational data were collected and Amos (2011) observed that participants' beliefs regarding color-blindness conflicted with beliefs regarding multiculturalism. In particular, the researcher confirmed unless beliefs are sufficiently explored, cultural competence remains elusive (Amos, 2011).

Olsen (2008) claimed teachers' beliefs were developed based on past experiences. The experiences included playing teacher as a child or their actual experiences as students. Amos (2011) explored how established beliefs have shaped teacher attitudes or dispositions in the classroom. Also, Groulx and Silva (2010) studied how prior experiences linked to teachers' beliefs. The study's subjects consisted of an initial cohort of 232 undergraduate participants and was culled to 28 participants. Groulx and Silva (2010) used the Multicultural Efficacy Scale (MES) developed by Gayton and Wesche. From the findings, they discovered that prior experience and dispositions were influential on how novice and pre-service teachers related to diverse students (Groulx & Sila, 2010).

Edwards (2011) studied teacher candidate development as teachers progressed through their urban-setting field work. The study has contributed to the body of knowledge because Edwards (2011) addressed the importance of teachers being aware of their own beliefs before entering the classroom (Gay, 2013). By using a qualitative case study design with five teacher candidates, Edwards (2011) and Causey et al. (2000), Kyles & Olafson (2008), Pattnaik (1997), and Schulte (2005) used journaling or self-reflection to examine personal beliefs regarding cultural diversity. Reflection and

examination through self-identification and examination of personal perspectives have provided context for their beliefs (Edwards, 2011).

From a wealth of literature, researchers have articulated that beliefs form before a novice or pre-service teacher decided or trained to become a teacher. Therefore, teachers' beliefs were guided by early experiences. Presently, novice or pre-service teachers experience cultural diversity training through their teacher training coursework, professional development, or mentor-led programs.

Changed/Modified Teachers' beliefs in Regard to RCELD Students

Cockrell et al. (1999) completed an action research project with a subgroup of 24 students who were enrolled in a three-semester-hour educational foundations course. Study participants completed a demographic questionnaire, position paper, journal, and a capstone assignment regarding diverse students. Cockrell et al. (1999) hypothesized pre-service teachers lacked diversity experience and beliefs. After the action-research project was completed, the researchers concluded the subjects possessed different beliefs based on their personal and political ideologies (Cockrell et al., 1999). Professionals used these results to explore multicultural education beyond abstract theory and mandates to focus on addressing, reforming, and understanding the beliefs teachers have (Cockrell et al. 1999).

In a similar study, Causey et al. (2000) addressed cultural diversity during a six-week course that included student-journaling, interning at an urban-school, and conducting in-class activities. Amos (2011), Causey et al., (2000), Kyles & Olafson

(2008), Torok and Aguilar (2000), and Williams and Power (2010) asked students to document existing beliefs autobiographically. In addition, Causey et al. (2000) hypothesized that interns' experiences and diversity beliefs would continue to change well into their professional lives. The importance of studying belief change emerged because teachers discovered through journaling and personal-growth plans that their beliefs could change (Causey et al., 2000). The research underscored the importance of examining teachers' beliefs because of the various challenges teachers will encounter in their future profession. If teachers' beliefs remain intact, teachers may revert to stereotypical beliefs (Causey et al., 2000).

Much like the Causey et al. (2000) study, Akiba (2011) presented a study on how field experiences influenced pre-service teachers' interactions with diverse students. By using a pre- and post-test survey design, Akiba (2011) studied 243 university-level, pre-service teachers to examine their beliefs through background demographics, personal and professional beliefs, and teacher preparation coursework (Akiba, 2011). Overall, Akiba (2011) found that a change in a teacher's beliefs would occur after participating in the coursework. Rodriguez et al. (2010) and Akiba (2011) reported one course in diversity was not enough to enact significant change, especially in the personal beliefs domain. Based on their results, longitudinal studies were recommended to determine whether beliefs change once teachers entered the professional setting (Akiba, 2011). Therefore, the implications for the reviewed study underscored the importance of the cyclical nature of teachers' beliefs and reflection (Akiba, 2011).

Mills and Ballantyne (2010) analyzed teachers' beliefs in an Australian school to examine participant beliefs through autoethnography. The researchers discovered that reflection led to further understanding of diversity issues more than stand-alone courses did (Mills & Ballantyne, 2010).

In addition, Trent and Dixon (2004) conducted a study to determine if teachers' beliefs changed between a pre- and post-activity during a university-level diversity course. Similar to Mills and Ballantyne's (2010) study, Trent and Dixon (2004) studied data collected from their students. Also, Torok and Aguilar (2000) used their students to study existing teachers' beliefs through reflection. A significant finding emerged and was relatable to teacher professional development that involved journaling because engagement and reflection on beliefs transformed teachers' beliefs (Trent & Dixon, 2004).

Brown (2004) conducted a study at a Midwestern public university with 109 students to assess the link between beliefs and cultural diversity awareness. By using two instruments to measure beliefs about cultural diversity, Brown (2004) measured the beliefs of the students during their required cultural diversity class. Brown (2004) was not the participants' teacher. The results from the participants in the stand-alone multicultural course did not depend on a teacher grading the participant. The study was designed as 10-week course, and the questionnaire was separated from the coursework. Brown (2004) discovered changes in cultural diversity beliefs may not be sustainable over time. Therefore, Brown's (2004) study was similar to Torok & Aguilar's (2000) and

Rodriguez et al.'s (2010) findings because one course in cultural diversity did not significantly create changes in beliefs.

Torok and Aguilar (2000) performed a study and explored the idea that language beliefs may be changeable after completing a multicultural education course. Participants included 33 volunteer, undergraduate, pre-service teachers in a multicultural education course. As in previous studies, the participants were the researchers' students. The researchers included a caveat that voluntary participation would not impact course grade or have any compensatory benefit for the participants (Torok & Aguilar, 2000). The study's methodology included a qualitative and a quantitative measure (Torok & Aguilar, 2000). The researchers achieved significant findings that participants in the multicultural education course were more accepting in their beliefs because of self-reflection (Torok & Aguilar, 2000). In sum, the study reviewed was relevant to the body of knowledge because it underscored findings in similar research that a one-time, stand-alone course did not change a person's diversity beliefs.

Kyles and Olafson (2008) conducted a mixed-method study to discover pre-service teachers' beliefs through reflective writing. Hypotheses were included to examine whether engaging in guided reflective writing would change teachers' beliefs (Kyles & Olafson, 2008). The study's findings related to Kim and Morningstar's (2007) findings because unexamined beliefs without feedback remained the same. Identifying teachers' beliefs without feedback simply described a belief and did not change it. Participants completed three survey measures in a mixed method design with quantitative and qualitative components throughout the semester-long course (Kyles & Olafson,

2008). According to the quantitative analysis of the data, none of the hypotheses resulted in confirmation; thus, the findings from Kyle and Olafson (2008) varied from Torok and Aguilar's (2000) findings because Torok and Aguilar included more opportunities for the participant to explore, question, and analyze their beliefs. From these studies, the first step in identifying teachers' beliefs has remained at the descriptive level. Therefore, the researchers found inclusion of structured feedback to the participants helped them understand their own beliefs in order to make changes in their beliefs about RCELD students (Kyles & Olafson, 2008).

Stockall and Davis (2011) addressed the beliefs pre-service teachers have regarding elementary students through a photo elicitation methodology. Visuals and photographs tended to influence and shape the beliefs people had about individuals featured in the visual (Stockall & Davis, 2011). It is through the senses people process their surroundings which, depending on what is felt, seen, and touched, becomes the basis of their beliefs (Balcetis & Dunning, 2006). To describe the study, the researchers conducted a qualitative study to determine pre-service teachers' beliefs regarding young children based on visuals (Stockall & Davis, 2011). To conduct the study, the researchers chose 20 pre-service teachers in a teacher-preparation course to participate. By creating collages of young children, conducting interviews, and using guided questioning, the researchers gathered data to establish descriptive themes (Stockall & Davis, 2011). The findings were linked to examining teachers' beliefs through visuals because beliefs were "mediated through multiple lenses" (Stockall & Davis, 2011, p. 205). Two cultures meet for the first time in the classroom and knowledge about each

other are filtered through mass media which may cause distorted views about each other (Gay, 2010a). Additionally, Stockall and Davis' (2011) study linked to Kyles and Olafson's (2008) findings because simply identifying the belief did not cause a belief to change.

Much research has been conducted on teachers' beliefs that included methods teachers use to demonstrate cultural diversity, e.g., Friedman & Herrmann, 2014, training to work with RCELD students, e.g., Dedeoglu & Lamme, 2011, and changing teachers' beliefs in regards to RCELD students, e.g., Cockrell et al., 1999.

As I reviewed the literature, I was critical of the studies regarding novice or pre-service teachers because researchers used their students as study subjects. The student being asked to participate may cause severe limitations in the reviewed literature because students may repeat researcher beliefs to achieve a passing grade. On the other hand, the wealth of literature on pre-service, novice, and training teachers may exist because this refers to where the demand for cultural diversity training mainly exists. Torok and Aguilar (2000) addressed the possible conflict of results from using their students. My critique of the literature was not intended to undermine the work and research of the authors who did their studies on degree- or certificate-seeking students (e.g., Dedeoglu & Lamme, 2011), yet it did limit the validity of the studies. My critique did not focus on participants, rather on who conducted the study.

Practicing Teachers' Beliefs

As I reviewed the literature, I found much of the research was focused on novice and pre-service teachers e.g., Torok and Aguilar (2000), yet I found little regarding practicing teachers' beliefs (Gay, 2015). A multitude of instructional resources are available for practicing teachers to use when interacting with students (Griner, 2011). Teachers' beliefs, however, have remained prevalent in teacher development and training. Lavigne (2014) wrote that teachers developed their identities throughout their lifetimes, so it was possible teachers may change their beliefs once they entered the profession.

Lavigne (2014) conducted a study to determine practicing teachers' beliefs within the first five years of becoming a classroom teacher and determined which teachers would most likely leave the profession. Lavigne (2014) measured teachers' beliefs at one point in time and studied how the beliefs changed over time. The study was focused on belief changes which caused teachers to leave the profession. The longitudinal study consisted of 163 of the original 315 teachers in a cohort (Lavigne, 2014). A final number of 67 teachers participated in the study. A critique of Lavigne's (2014) study has emerged because 240 teachers left from the original cohort without reference in the data over the three years. Therefore, no data were available why the 240 teachers left. Lavigne (2014) and Kagan (1992) suggested teachers continue to modify their beliefs past the first year.

Lavigne (2014) found teachers possessed more adaptive and positive beliefs about students throughout the course of three to five years. The finding was significant

as the study had a 41% response rate in relation to the 163 participants. However, 51% left from the original cohort of 315, so these findings led to more questions than answers because had the number of the larger cohort stayed, what beliefs would have emerged?

Vásquez-Montilla, Just, and Triscari (2014) studied 425 predominantly White practicing teachers from a tri-county area in southwest Florida. The goal was to measure their beliefs and attitudes. The researchers attempted to isolate factors that influenced a teacher's beliefs when working with an increasing population of RCELD students (Vásquez-Montilla et al., 2014). Psychometric properties of the Likert-type Language Attitude Scale (LATS) by Flores and Smith (2008) were not included in their study. Even though the researchers used the LATS in study by Flores and Smith (2008), the study's design, mirrored the purpose of my study of evaluating practicing teachers' beliefs. Vásquez-Montilla et al. (2014) attempted to isolate the beliefs of teachers, and as a result, the researchers reported the need to examine teachers' beliefs and attitudes to meet the needs of diverse students.

It is imperative for teachers to constantly examine their assumptions and expectations to be more effective in the classroom (Ladson-Billings, 1995; Love & Kruger, 2005). In addition, teachers are encouraged to avoid the "language of lacking" and practice self-reflection regarding their practice (Ladson-Billings, 1995, p. 479). Thus, Williams and Power (2010) examined teachers' beliefs through a self-study with two teachers to reflect on their teaching identities and practices. The researchers described the study's methodology as three hour-long reflections during one school semester (Williams & Power, 2010). By using a qualitative element in the study design,

the researchers explored teachers' beliefs and practices superficially, but through reflective practice teachers revealed hidden beliefs (Williams & Power, 2010). Two teachers participated in the self-reflection and two conclusions emerged: conversations with a peer allowed for examination of not only teaching practices but teacher identities, and that the importance of being able to identify core qualities of practice and teacher identities influenced teacher development (Williams & Power, 2010). Though the limited nature of the participant pool remained a critique of the study, the findings had practicality for practicing teacher development when working with RCELD students. For example, self-reflection, belief identification, and peer collaboration helped practicing teachers better understand RCELD students (Williams & Powers, 2010).

Kose and Lim (2011), in their quantitative research, sought to predict elementary school teachers' beliefs, practices, and expertise that contributed to transformative teaching in a diverse school setting. Based on their hypothesis, Kose and Lim (2011) created a study to measure teachers' beliefs within a school setting. Unlike previous studies on pre-service teachers using students in a teacher preparation course, e.g., Lyons and Kashima (2003), Kose and Lim (2011) focused on practicing teachers' beliefs. Using a survey instrument created specifically for general education elementary school teachers, the lead author field tested and validated the instrument over a three-year period. Kose and Lim (2011) used a survey to establish (a) the relationship between professional learning and what a teacher believes about diversity, (b) the determination as to whether professional learning transformed teacher expertise, and (c) the relationship between professional learning and teacher practice. By conducting the survey during a

teacher's regular workday, the researchers reported a 70% return rate (Kose & Lim, 2011). For all three hypotheses, all of the results were reported as statistically significant. Hence, Kose and Lim (2011) related to Kyle and Olafson's (2008) work on teacher reflection and journaling. Kose and Lim (2011) observed teachers experienced belief change if they had time to collaborate with peers. In many ways, these researchers found through their studies that unexamined beliefs stay unchanged, but reflection influenced belief change.

Nateson, Webb-Hasan, Carter, and White (2011) performed a mixed method study to examine the validity of the Cultural Awareness and Beliefs Inventory (CABI) to measure educators' cultural awareness and beliefs. Nateson et. al. (2011) conducted a study on 1,253 urban teachers during the teachers' professional development program to determine survey's validity. Based on the results, the researchers validated the CABI as being usable as a measure to establish cultural awareness in an urban setting.

Nelson and Guerra (2014) conducted a qualitative study to examine the beliefs practicing teachers held regarding RCELD students and families. Through the qualitative nature of the study, the researchers explored educators' beliefs regarding RCELD students, educators' cultural knowledge, and how educators applied the cultural knowledge to their practice (Nelson & Guerra, 2014). Through the study, the researchers discovered that personal beliefs have influenced professional practice and knowledge (Pajares, 1992; Pohan, 1996; Pohan & Aguilar, 2001b). This study was important because the researchers reinforced that one course in diversity in either a teacher preparation program or professional development course was insufficient to make a

change. In addition, even the effectiveness of graduates of teacher preparation programs was different (“A Million New Teachers are Coming,” 2015). Both quality and number of courses were insufficient to make a change in diversity beliefs.

In their study, one-hundred and eleven participants in a year-long diversity-training addressed deficit thinking theory through a newly analyzed instrument. Nelson and Guerra (2014) used the instrument to collect participant responses regarding scenarios of student actions and circumstances. From the results, they discovered that 72% of the respondents displayed some form of deficit beliefs regarding RCELD students (Nelson & Guerra, 2014). A major finding from the study reviewed was that the majority of educators have some form of deficit beliefs in regards to RCELD students (Nelson & Guerra, 2014). Thus, Nelson and Guerra (2014) established the study as a conduit to justify examinations regarding the beliefs teachers have regarding RCELD students. Simply put, establishing the existence of a deficit belief suggested teachers operated in the classroom with some form of bias.

Ladson-Billings (1995) discussed that affection and caring toward a student was not entirely characterized by demonstrative emotions, but rather on the importance education had on the lives of the students. Therefore, in a study, Hachfield, Hahn, Schroeder, Anders, Stanat, and Kunter (2011) attempted to describe the multicultural and egalitarian beliefs of teachers by using a new measure called the Teacher Cultural Beliefs Scales (TCBS). Hachfield et al. (2011) attempted to discern the role teachers play in the classroom as either multicultural or egalitarian. On one hand, the teachers addressed the diversity of the students while other teachers emphasized treating all students equally.

Through the study, the researchers found that multiculturalism and egalitarianism were two methods in the classroom. Much like Ladson-Billings (1995) who clarified the differences between overt affection versus teaching from a social justice perspective, Hachfield et al. (2011) suggested teachers' beliefs influenced teaching practices. Thus, the researchers in these two studies described different methods of interactions made a difference in the classroom.

According to the literature reviewed, I discovered that personal reflection was a means to identify cultural diversity beliefs. Turning the lens of introspection upon oneself can be intimidating for what it may reveal. In matters as sensitive as race, teachers adopted the safe language of diversity and spoke in generalities so as not to draw attention or reveal hidden racism or negative beliefs regarding students (Sue et al., 2010).

A possible consequence of exploring teachers' beliefs may be the influence on employment and reputation. Therefore, the anonymity of online training may alleviate the pressure of revealing beliefs about students in a collaborative, public forum. Kim and Morningstar (2007) examined how online training may increase knowledge of CLD families and improve practitioners' attitudes about diverse students. By using two instruments, an online module and a survey, the researchers collected data from 85 participants. The participants engaged in control and experimental groups to see how engagement in the activity influenced their levels of competence when working with RCELD students. In conclusion, the results for the levels of competence when working with CLD families were not significant due to the lack of specific feedback from the self-directed training (Kim & Morningstar, 2007). The findings of Kim and Morningstar's

(2007) study appeared inconsistent with the findings in the Edwards (2011) study in regards to the enhanced understanding of diverse cultures through self-reflection and journaling. Hence, through their research Kim and Morningstar's (2007) suggested the presence of an instructor or guide when journaling or engaging in self-reflection significantly influenced the participant's outcome.

Through the literature I reviewed, I discovered that teachers became more aware of their pedagogical and personal cultural beliefs through awareness of one's culture (Ladson-Billings, 1995).

New Perspectives Lead to the Research Question

Based on the literature presented in the review, I have discovered that much research has been conducted to examine teachers' beliefs in regard to pre-service or novice teachers (Dedeoglu & Lamme, 2011; Liang & Zhang, 2009; Pohan, 1996; Premier & Miller, 2010), while limited research has been conducted on practicing teachers' regarding RCELD students (Gay, 2015). Therefore, to address GHS' problem of practice of possible student inequitable treatment, I created this study to understand practicing teachers' beliefs regarding RCELD students in a Title I, secondary school. Previous researchers found (a) present teacher practices like acculturation and color-blindness have influenced teachers' beliefs and interactions within diverse student populations and (b) exhaustive studies on pre-service or novice teachers have dominated the scholarship through teacher training programs or certification coursework.

Zeroing in on the Research Question

Based on the limitations in the literature regarding the beliefs practicing teachers have regarding RCELD students in a Title I, Secondary School setting, I believed that no survey of the literature would be complete without looking at the gaps in the scholarship to establish the research question for GHS. Based on the previous sections, I identified gaps in the literature which included: (a) online teaching and (b) practicing teachers and their entrance into the profession, years of experience, subjects taught, and racial and ethnic background.

Limitations in the Literature

Online Teaching

Teaching tools, methods, and programs meld together to create online learning environments for students. A gap in the literature became apparent when I noticed the absence of online coursework and how virtual school systems have addressed RCELD students. In the scholarship, I saw a gap in the research on how practicing teachers view diversity without face-to-face interactions. To the best of my knowledge, however, no study exists which addressed teachers' beliefs regarding students they physically did not see or students engaged in a virtual format. A study focusing on virtual versus face-to-face instruction has implications to address the importance of instructional practice before addressing diversity beliefs. In other words, do beliefs shape teacher actions or do actions shape teachers' beliefs? Therefore, the gap in the literature includes diversity in

the virtual school. The effect of the online environment on RCELD students remains to be studied.

Practicing Teachers

Evident from several studies, training and understanding how to relate and work with RCELD students remains an expectation and requirement in teacher preparation programs (Gay, 2015). Based on the plethora of research that addressed pre-service teachers through examination of their beliefs through journal writing (Cockrell et al., 1999), I discovered a gap regarding experiences that practicing teachers have while working in the school. To the best of my knowledge, one study was conducted to address teachers' beliefs on how they entered the teaching profession (Chiner, Cardona-Moltó, Puerta, 2015), years they taught, subject they taught, or race and ethnic background. The effects of experiences practicing teachers have at school regarding diverse students remain to be studied.

Similar Studies

In a study conducted by Dedeoglu and Lamme (2011), the researchers studied teachers' beliefs of pre-service teachers' during a children's literature class and used demographic variables to determine if they influenced diversity beliefs. Based on the results, Dedeoglu and Lamme (2011) discovered that students who had more cross-cultural friendships scored higher on the scales than individuals who did not have as many cross-cultural friendships. As an acknowledgement of the instrument used in

Dedeoglu & Lamme's study (2011), the purpose of the dissertation in practice was to understand practicing teachers' beliefs regarding RCELD students in a Title I, secondary school. Diversity issues will continue to be part of classroom experiences for years to come, and according to Pohan and Aguilar (2001b), identification of teachers' beliefs must be acknowledged to initiate change in the beliefs. Otherwise, students represented in groups which have experienced bias, stereotypes, or cultural misconceptions of any kind may remain recipients of misguided pedagogical practices (Pohan & Aguilar, 2001b). Because I attempted to understand attitudinal beliefs within the confines of one organization, the following question was developed: What beliefs do practicing teachers possess regarding racially, culturally, ethnically, and linguistically diverse (RCELD) students in a Title I, secondary school? Based on the research question, I aligned implications for theory, future research, and practice to develop my methodology which will be explained in Chapter 3.

Implications for Theory, Future Research, and Practice

Beliefs stem from experiences, from exposure to friends and peers, and from early experiences teachers had even before they considered teaching as a career (Cockrell, 1999; Dedeoglu & Lamme, 2011; Kyles & Olafson, 2008; Liang & Zhang, 2009; Schulte, 2005). Therefore, the Conceptual Change Theory influenced the development of this study for GHS because the organization (a) had no other studies performed on it even though a disparity in disciplinary data between Black and White students emerged, and

(b) teacher attrition rates and the negative themes from the informal interviews surfaced at GHS.

As a first step, I reviewed literature on teachers' beliefs regarding RCELD students to underscore how these beliefs have resulted in student depersonalization and uniformity in pedagogy (Aloe, Amos, & Shanahan, 2014), which may have caused students to receive unequal treatment (Delgado & Stefancic, 2012). In the reviewed literature, I found a possible link between teachers' beliefs and the equality of student treatment.

Khoury-Kassabri (2012) examined the relationship between teachers' beliefs and teacher-directed violence against students and studied teachers' beliefs to determine the level of physical or emotional violence enacted against the student. Therefore, they developed an investigation to find a relationship between practicing teachers' beliefs and the characteristics of their professional lives. I developed a study to address teachers' beliefs at one point in time to determine if significant differences existed depending upon how they entered the teaching profession, number of years they taught, subject(s) they taught, or race and ethnic background.

Implications for Upcoming Methodology

I developed a cross-sectional survey study for GHS faculty concerning the beliefs of practicing teachers based on the two limitations in the literature. Practicing teachers were the focus of this study because online coursework serves more than the population at GHS and the topic was deemed too broad now, and the organizational context of a

disparity in discipline data, poverty levels, teacher attrition, and themes from informal interviews suggested that practicing teachers at GHS treated students inequitably.

No other study has been conducted at GHS to examine how practicing teachers' beliefs about RCELD students relate to how they entered the teaching profession, number of years they taught, subject(s) they taught, or race and ethnic background. Therefore, I chose to administer a cross-sectional survey of the faculty at GHS based on the literature reviewed. I wanted to determine if a significantly statistical difference among sub-groups of practicing teachers' may have any contributory factor to the possible inequity in student treatment based on cultural diversity topics.

Implications for Practice

Through this study, I hope to help practicing teachers because so much of the literature concerned teachers' beliefs in their pre-service training. To the best of my knowledge, little is known regarding practicing teachers' beliefs (Gay, 2015). Practicing teachers have instructional tools and procedures in abundance, yet the focus on their diversity beliefs has tended to diminish in importance once the teacher has entered the classroom full time. Therefore, practicing teachers would benefit from my upcoming study, which serves as a beginning to investigate the cultural beliefs they possess. Having established practicing teachers' beliefs at GHS, two outcomes for this study will be possible (a) further research will be necessary, or (b) feedback will be provided to initiate professional development coursework.

Summary

In the literature review, I discovered that teachers' beliefs have guided teacher interactions, training, and development for novice and pre-service teachers. Teachers' beliefs have been strengthened once the teachers' beliefs were reinforced based on prior experiences. Therefore, I propose a new perspective to address GHS' problem of practice from the reviewed literature to understand practicing teachers' beliefs regarding RCELD students because of several factors:

1. Present teacher practices like acculturation and color-blindness have defined teachers' beliefs and interactions with diverse student populations.
2. Exhaustive studies on pre-service or novice teachers have dominated the scholarship through teacher training programs or certification coursework.
3. Diversity training for practicing teachers was conducted once for teacher preparation coursework.

Through acculturation and color-blind instructional practices teachers avoided acknowledging their cultural beliefs and attempted to acquire behaviors and mannerisms of their diverse students. In an attempt to be relatable to the student, teachers did not address the differences. Through acculturation and color-blind methodologies, teachers have attempted to erase cultural and racial differences from the classroom.

In the last point in the literature review, I addressed how practicing teachers replaced their beliefs with curriculum mandates, programs, and strategies when working with diverse student populations. In many ways, practicing teachers no longer have time to address their beliefs about their students because new teaching responsibilities and

instructional strategies were the new pedagogical focus. Based on the literature presented, it is safe to assume that teachers' beliefs play a significant part in teacher development and training, yet they become minimized as practicing teachers stay in the profession.

In the review, I presented the inclusion and exclusion criteria for the literature. Through a thematic literature review, I included a focus on teachers' attitudes and beliefs concerning RCELD student populations in public schools, and novice and pre-service teachers before and during teacher preparation programs, coursework, or development. Based on the significance of the research on novice and pre-service teachers and limitations in the literature, I developed a cross-sectional survey to measure practicing teachers' beliefs regarding diversity issues. My purpose was to understand what diversity beliefs practicing teachers possess at GHS. In the next chapter, I will detail this study's upcoming methodology.

CHAPTER 3 METHODOLOGY

Purpose of the Study

The purpose of my dissertation in practice was to focus on an examination of the beliefs practicing teachers have about racially, culturally, ethnically, and linguistically diverse (RCELD) students in a Title I, secondary-school setting. Based on descriptive and inferential statistics, I used data from the Teachers' Beliefs Survey developed by Pohan and Aguilar (2001a) to guide recommendations for further research and future implications for teacher practices for GHS.

Sources of Data

I accessed several sources of school-level data to examine the possibility that practicing teachers at GHS were not treating students equitably: (a) discipline percentages, (b) free- and reduced-price lunch percentages, (c) teacher attrition numbers, and (d) informal interviews. I used the Persona Creation and Fact Finding at GHS interview questions (Appendix A) to conduct the anonymous, informal interviews and to gather teacher opinions about the school culture at GHS. Here is an example of a question:

What are your thoughts on the school culture here?

Research Question

I used school-level data to develop a research question to guide the dissertation in practice: “What beliefs do practicing teachers possess regarding racially, culturally, ethnically, and linguistically diverse (RCELD) students in a Title I, secondary-school setting?” To support my research question, I developed four hypotheses.

1. There is a statistically significant difference in practicing teachers’ personal and professional beliefs between those who graduated from a college of education and those who did not.
2. There is a statistically significant difference in practicing teachers’ personal and professional beliefs determined by years of teaching experience.
3. There is a statistically significant difference in practicing teachers’ personal and professional beliefs determined by subjects taught.
4. There is a statistically significant difference in practicing teachers’ personal and professional beliefs according to racial or ethnic background.

Research Design

I used a cross-sectional survey study design because I sought to examine practicing teachers’ beliefs about diverse students at one point in time. I chose a quantitative study design because, as indicated by Creswell (2007) and Fraenkel et al. (2012), attitudes or beliefs of participants are determined at one point in time. Since I was employed at GHS at the time of the study, I rejected qualitative research methods because the time frame to conduct interviews was short, and I wanted to ensure that I did

not inject bias into this study (Creswell, 2007). In sum, I determined that a confidential, quantitative study was the best method to use to consider time constraints, to create the snapshot of practicing teachers' beliefs, and to address any limitations regarding researcher bias.

Setting and Sample

Gravitas High School was the setting for this study. I conducted the study with the permission of (a) the University of Central Florida's Institutional Review Board (IRB; Appendix B); (b) the Central County School District Evaluation and Research Department (Appendix C), (c) the GHS principal, and (d) the participants. The sample's demographics were 42% male and 58% female; 8% Black, 5% Hispanic, 67% White, and 19% Other.

Participants included any individuals designated as guidance counselors, practicing teachers, and teacher assistants on the GHS internal phone listing. I excluded administrators, office staff, food service, staff, and school resource officers from the sample. Also, I did not include any special populations such as individuals who were not yet adults, or prisoners. In sum, the sample included (a) all GHS personnel who had students assigned to them in the electronic gradebook, Skyward (b) individuals responsible for student grades, and (c) individuals assigned to a classroom at any time to teach a mini-lesson or teach a class. Ultimately, I invited 107 members of the GHS staff which included (a) four guidance counselors, (b) 94 practicing teachers, and (c) 12 teaching assistants to participate in the survey.

I provided no benefits, other than a composition book worth one dollar, to faculty participating in the research, and I informed all participants that their participation or non-participation would not affect their employment or standing at Gravitas High School.

Instrumentation

The instrument used in my study was the Teachers' Beliefs Survey (Appendix D) designed by Pohan and Aguilar (2001a), who gave me permission to use the instrument in this study (Appendix E). The Teachers' Beliefs Survey consists of a 40-item survey measuring two dimensions of diversity. The first scale consists of 15 items related to seven diversity issues: (a) race/ethnicity, (b) gender, (c) social class, (d) sexual orientation, (e) disabilities, (f) languages, and (g) immigration (Pohan & Aguilar, 2001b, p. 163). The second scale consists of 25 items to measure diversity beliefs in (a) race/ethnicity, (b) gender, (c) social class, (d) sexual orientation, (e) disabilities, (f) language, and (g) religion in regards to educational contexts that include (a) instruction, (b) staffing, (c) segregation/integration, (d) ability tracking, (e) curricular materials, and (f) multicultural versus monocultural education (Pohan & Aguilar, 2001b, p. 163). I scored the instrument using a five-point Likert-type scale with the response options (1) "Strongly Disagree," (2) "Disagree," (3) "Undecided," (4) "Agree," and (5) "Strongly Agree" (Pohan & Aguilar, 2001b). Previously published data included reliability coefficients of .71 to .81 for the personal beliefs scale and a .78 and .90 for professional beliefs (Aguilar & Pohan, 2001b).

Pohan and Aguilar (2001b) provided evidence of construct validity through preliminary and field testing of the instrument to be sure it clearly measured the personal and professional beliefs of teachers. Previously published data on the construct validity for the Teachers' Beliefs Survey resulted in a strongly and positively correlated instrument from preliminary testing ($r = .72$) and field testing ($r = .77, p = .001$ for pre-service teachers and $r = .67, p = .001$ for practicing teachers (Pohan & Aguilar, 2001b).

I addressed an additional sample of participants in the construct validity for pre-service and practicing teachers and found that pre-service teachers were more likely to experience reinforcement of cultural diversity in their college curriculum than practicing teachers, while practicing teachers did what was most convenient and efficient to meet the demands in the classroom (Pohan & Aguilar, 2001b). In sum, I deemed the measure appropriate to study practicing teachers' beliefs about cultural diversity.

Data Collection Procedures

I obtained permission to conduct human research from the University of Central Florida's Institutional Review Board in March 2015 (Appendix B) and from the Director of Testing and Accountability for Central District County Schools in early March 2015 (Appendix C). I invited 107 members of the GHS staff (four guidance counselors, 94 practicing teachers, and 12 teaching assistants) to participate during a principal-led faculty meeting on April 8, 2015.

I administered the Teachers' Belief Survey in the GHS auditorium because the faculty remained seated after the faculty meeting. To protect the teacher's identity and

ensure confidentiality, I made 108 copies of the instrument and wrote numbers 1 through 108 on the upper right hand corner of the instrument. The number became the participant's identifier. I placed a copy of the instrument and an adult consent form inside a 9 x 12 inch Kraft envelope. The identification numbers (1-108) were known only to the participant during the survey to ensure confidentiality. The procedures used to assign the identification numbers and to administer the survey are detailed in the Appendix.

I used school-level data in the development of the study; to recap, data on juvenile suspensions, free- and reduced-price lunch data, teacher attrition data, and informal interviews of staff. I did not use or include these data in the cross-sectional survey study's results.

Data Analysis

In the Teachers' Beliefs Survey, the Likert-type scale was coded as (1) "Strongly Disagree," (2) "Disagree," (3) "Undecided," (4) "Agree," and (5) "Strongly Agree" (Pohan & Aguilar, 2001b). Because the response choices on the Teachers' Beliefs Survey do not equate to distance between responses, I coded the data as ordinal in SPSS version 21.

I analyzed the data using descriptive statistics to determine measures of central tendency. First, I calculated the measures of central tendency to identify demographic data for the participants and included the demographics in a table. Next, I performed measures of central tendency for the Personal and Professional beliefs scales on the

Teachers' Beliefs Survey. Since the mean scores from the Teachers' Beliefs Survey are used to define levels of cultural awareness (Pohan & Aguilar, 2001b), I presented the mean scores for the Personal and Professional scales in a table next to corresponding means for low, high, or inconclusive levels of cultural awareness. Then, I conducted independent *t*-tests, one-way ANOVAs, and Kruskal-Wallis Tests to analyze differences between or among the dependent and independent variables. If a sub-group had more than two characteristics like years in education, subject taught, or race, I adjusted the level of significance using the Bonferroni Adjustment.

Ethical Considerations

The survey did not link to the identity of any of the participants and was confidential. Therefore, the risk was minimal because participants were not expected to experience any greater risks than normally encountered in everyday life. Participants were able to withdraw from the study at any time or to choose not to participate at all.

Internal Validity

A study is intended to measure specific variables and is not the result of unrelated factors (Fraekel et al., 2012). Therefore, I undertook a systematic examination of the threats to this study's internal validity. Threats to internal validity include subject characteristics, loss of subjects, location, instrumentation, testing, history, maturation, subject attitude, regression, data collector characteristics and bias, and implementation (Fraenkel et al., 2012, p. 179). Internal validity was important to the study because the

findings were not intended to be generalized beyond Gravitas High School, and I am a GHS faculty member at the time of the study. In Table 1, I present the threats to internal validity from Fraenkel et al. (2012), the possible threat scenarios, and the possible controls I used to avoid them.

Table 1

Internal Validity: Threats, Possible Threat Scenarios, and Potential Controls

Threats	Possible Threat Scenario	Possible Researcher Control
Subject Characteristics	Selection bias	All guidance counselors, practicing teachers, and teaching assistants were invited to take the survey; no additional selection of subjects was conducted.
Loss of Subjects	Loss of faculty since the beginning of the year	A cross-sectional survey study addressed one-point in time and did not depend on individuals present at another time of the year.
Location	School setting	Survey was conducted in the auditorium, a location of regular faculty meetings or trainings.
Instrumentation	Data collector bias	Principal researcher did not discuss opinions or survey instrument before, during, or after survey is conducted.
Testing	None	The survey was administered one-time; thus, no practice effect could apply to the survey.
History	An unforeseen event at the school, e.g., interruption in school day, sports celebration	As survey was a one-point-in-time event, events of the day of the survey could affect the outcome.
Maturation	End-of-the-year fatigue	Because survey was a one-point in time, the date of the survey could affect the outcome.
Subject Attitude	Near the end of the year fatigue or fear of not being rehired	The teacher demographics portion of the survey may indicate differences in first year and tenured teachers' beliefs.
Regression	None	The survey was conducted at one-point in time; thus, no pretest or post-test was administered.
Implementation	Certain individuals may know of principal researcher's study	No individuals were given any preview of the survey.

External Validity

I designed my study specifically for Gravitas High School; thereby, generalizability to other schools and districts was not intended. Overall, it was not the intention for this study to be generalizable to a larger population, but rather to address the personal and professional beliefs at Gravitas High School to understand practicing teachers' beliefs regarding racially, culturally, ethnically, and linguistically diverse (RCELD) students in a Title I, secondary-school setting.

CHAPTER 4 DATA ANALYSIS

Introduction

I initiated this study to understand the possibility that practicing teachers at Gravitas High School (GHS) were not treating RCELD students equitably. Even though the results may not be generalizable, I focused the purpose of this study on understanding practicing teachers' beliefs regarding RCELD students. I achieved this purpose by evaluating the Likert-type scale responses from the Teachers' Beliefs Survey. The following chapter will present the data analysis for the research question and the four hypotheses.

I collected descriptive statistics from the Teachers' Beliefs Survey and from teacher sub-groups that included type of secondary-degree held, years in education, subject(s) taught, and race or ethnic background. Using the descriptive statistics, I derived a mean scale score denoting the level of a practicing teachers' diversity beliefs. In addition, I conducted independent *t*-tests, one-way ANOVA, and the Kruskal-Wallis H Test to determine if differences existed among the sub-groups' variables.

Handling of Teachers' Beliefs Survey Data

Using SPSS version 21, I calculated descriptive statistics for both sections on the Teachers' Beliefs Survey: the Personal Scale and the Professional Scale. Using the scoring sheet developed by Pohan and Aguilar (2001a), I calculated the responses from the Likert-type scale. Some items on the survey had a reverse-score value. To calculate

the reverse-scale value, the respondent's first choice was reversed, so a 2 became a 4 on the final score sheet.

To ensure accuracy, I checked every fifth score sheet during the transfer of the Likert-type scale responses from the surveys. Next, I entered the Likert-type scale response scores into Microsoft Excel and used the SUM function to calculate overall totals for both the Personal and the Professional Beliefs Scales. In addition, I compared every fifth score against the totals in Microsoft Excel to ensure that values were transcribed and added correctly.

For manageability purposes, I created two files in SPSS version 21 for the overall totals for the Personal and Professional Beliefs Scales. Again, to ensure accuracy, I checked every fifth score sheet against the data in SPSS version 21. Both scales had different mean scale scores. One measured the respondent's personal diversity beliefs while the other measured the respondent's professional diversity beliefs. Ultimately, I used the mean scale scores to determine the level of a teacher's diversity beliefs.

Teacher Demographic Data

I invited 107 participants to take the Teachers' Belief Survey, and 63 participated which yielded a 59% return rate. I conducted the survey during a faculty meeting on April 8, 2015.

In Table 1, I included practicing teachers' sub-group demographics. I conducted frequency distributions to determine total percentages.

Table 2

Practicing Teacher Sub-Group Demographics

Demographic Value	<i>N</i>	Total Percentage
Type of Post-Secondary Degree		
Graduated from a College of Education	28	44.4
Did Not Graduate from a College of Education	30	47.6
Years in Education		
First Year	2	3.2
2-8 Years	23	36.5
9-15 Years	19	30.2
15-21 Years	6	9.5
21 or More Years	10	15.9
Subjects Taught		
English language arts	16	25.4
Mathematics	9	14.3
Science	5	7.9
Social Studies	6	9.5
Physical Education, Career and Technical, or Electives	16	23.8
Other	9	14.3
Racial or Ethnic Background		
Black, non-Hispanic	6	9.5
Hispanic	5	7.9
Native American or Alaskan Native	2	3.2
White, non-Hispanic	47	75.6

Fifty-eight individuals provided a response to the question: “Which statement best describes how you entered into the teaching profession?” 30 (47.6%) did not have a degree in education while 28 (44.4%) did have a degree in education. These data are meaningful because practicing teachers without a degree in education are given a three-year, non-renewable teaching certificate. Practicing teachers with a temporary certificate are permitted to teach while completing requirements toward a five-year, renewable professional teaching certificate. The number of respondents that have a college of education degree and those who do not are fairly similar in number. This detail is

meaningful because half of the faculty surveyed interacted with students without some form of pre-service diversity training for teachers.

Twenty-three teachers (38.3%) marked 2-8 years of experience on the survey, while only two (3.3%) were in their first year of teaching. The majority of respondents taught either English language arts 16 (25.4%) or physical education, career and technical education, or an elective 16 (23.8%). Also, 47 (76%) practicing teachers identified themselves as White, non-Hispanic. These demographic details are meaningful because they underscore the homogeneity of the GHS faculty in regards to subject(s) taught and race or ethnic background.

Teachers' Beliefs Survey

Interpretation of Mean Scale Scores

I used the Teachers' Beliefs Survey to collect practicing teachers' personal and professional beliefs regarding various diversity issues. The range on the mean scale scores on the personal and the professional spectrums was 15-75 and 25-125 respectively. To interpret the mean scale score, teachers who had low mean scale scores possessed a low tolerance for diversity issues while teachers who had high mean scale scores possessed a high tolerance to diversity related issues. In addition, some teachers had mid-range scores, which demonstrated either general tolerance or a degree of indifference to the diversity issues or resulted from averages in high and low score responses (Pohan & Aguilar, 2001a, p. 166).

Personal Beliefs Scale

The mean on the Personal Beliefs Scale was 58, and the standard deviation was 8.521 on a 60-point spectrum from 15 to 75 (Pohan & Aguilar, 2001a). On the histogram, I saw two outliers which were deleted from the data file due to missing scores. I included in Table 2 the mean and standard deviation, minimum and maximum mean scale scores, and quartiles.

Table 3

Personal Beliefs: Descriptive Data

N	M	SD	Minimum Mean Scale Score	Maximum Mean Scale Score	25 th Percent Quartile	50 th Percent Quartile	75 th Percent Quartile
61	58.4	8.521	40	75	53	60	64

Note: M = Mean, SD = Standard Deviation

GHS faculty scored a mean scale score of 58.4 on the 15 to 75 diversity belief spectrum. This finding is meaningful because it confirms the GHS staff self-report acceptance of personal diversity beliefs. As I analyzed the survey, I saw that 25% of the 61 respondents were above the mid-point value, and 43 teachers out of the 61 surveyed were placed at increasing points across the spectrum regarding personal diversity beliefs.

In addition, I included the minimum and maximum mean scale scores. The lowest was 40.00 and the highest was 75. Six (9.6%) respondents held a general tolerance or indifference regarding personal diversity issues, and this finding is important because it may imply these teachers were neither dismissive nor advocative toward RCELD students. In addition, five scores above the mid-score included 53 (5 times), 58

(4 times), 62 (7 times), and 67 (5 times). I noted clusters of common mean scale scores, which may indicate that groups of practicing teachers may hold similar diversity beliefs. In addition, I noted one respondent scored a perfect personal diversity belief score (75.00).

Professional Beliefs Scale

The mean was 89.2 on the Professional Beliefs Scale, and the standard deviation was 10.632 on a 100-point spectrum from 25 to 125 (Pohan & Aguilar, 2001a). On the histogram, I noted two outliers which were deleted from the data file due to missing scores. I included in Table 3 the mean and standard deviation, minimum and maximum mean scale scores, and quartiles.

Table 4

Professional Beliefs: Descriptive Data

N	M	SD	Minimum Mean Scale Score	Maximum Mean Scale Score	25 th Percent Quartile	50 th Percent Quartile	75 th Percent Quartile
61	89.2	10.632	66	115	82.5	89	97.5

Note: M = Mean, SD = Standard Deviation

GHS faculty scored a mean scale score of 89.2 on the 25 to 125 spectrum. This finding is meaningful because it confirms the GHS staff self-report acceptance on professional diversity beliefs. As I analyzed the survey, I noted 25% of the 61 respondents were above the mid-point value and 46 out of 61 teachers possessed an increasing level of professional diversity beliefs.

In addition, I included the minimum and maximum mean scale scores. The lowest was 66 and the highest was 115. Seven (11.1%) respondents held a general tolerance or indifference regarding professional diversity issues, and this finding is important because it would imply that seven respondents were not dismissive or advocative for RCELD students regarding professional beliefs. In addition, nineteen scores were above the mid-score 83 (3 times), 85 (3 times), 87 (3 times), 90 (3 times), 91 (4 times), 95 (3 times), and 100 (3 times). I noted clusters of common mean scale scores, which may indicate groups of practicing teachers may hold similar diversity beliefs. Unlike the Personal Belief Scale, no respondent scored a perfect professional diversity belief mean scale score.

Testing the Hypotheses

I conducted further analysis to determine if any significant differences were evident between the independent and dependent variables in each demographic sub-group. I chose to use parametric tests, including the independent *t*-test and the one-way ANOVA, for any teacher sub-group that indicated evidence of normality. I used the Kruskal Wallis H Test if a subgroup did not indicate evidence of normality. Since I worded my hypotheses to analyze differences rather than relationships, I used parametric tests instead of multi-regression or correlations. Furthermore, I chose the statistical tests based on research presented in my literature review. The majority of researchers have focused on differences rather than relationships in diversity training and teacher beliefs.

H₁: There is a statistically significant difference in practicing teachers' personal and professional beliefs between those who graduated from a college of education and those who did not.

Personal

I collected personal belief data from 28 practicing teachers who graduated from a college of education and from 30 practicing teachers who did not. I included in Table 3 the descriptive statistics for practicing teachers' personal diversity beliefs.

Table 5

Personal Beliefs: Descriptive Statistics

Degree in Education	<i>N</i>	<i>M</i>	<i>SD</i>	Std. Error Mean
Yes	28	58.9	9.35	1.77
No	30	58.6	7.92	1.45

Note: M = Mean, SD = Standard Deviation

The mean scale scores for both sub-groups were above the mid-range value, which underscores that regardless of pre-service teacher training, personal diversity beliefs are typical.

I conducted an independent *t*-test to determine if the mean scale score of practicing teachers' personal beliefs who graduated from a college of education differed from those who did not. I included in Table 4 Levene's Test for Equality of Variances.

Table 6

Personal Beliefs: Levene's Test for Equality of Variances

	Levene's Test for Equality of Variances		t-test for Equality of Means	
	F	Sig.	t	Df
Equal variances assumed	.298	.587	.130	56
Equal variances not assumed			.129	53.114

When I conducted the Levene's Test for Equality of Variances, I determined that the equal variance assumption was met ($F = 298, p = .587$). Based on this finding, the Levene's test is not statistically significant, thus, confirming the equality in sample sizes for both sub-groups. As a next step, I examined the results from the independent t -test. I included in Table 5 the t statistic values used to determine statistically significant differences.

Table 7

Personal Beliefs: Independent Samples Test

	t -test for Equality of Means		
	Sig (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.897	.29524	2.27045
Equal variances not assumed	.898	.29524	2.28354

By using the independent t -test, I determined the mean scale score for practicing teachers' personal beliefs were not statistically different for those who graduated from a

college of education and those who did not. I concluded from the independent *t*-test for hypotheses 1 that personal diversity beliefs at GHS were unaffected by type of post-secondary degree earned.

Professional

I collected personal belief data from 28 practicing teachers who graduated from a college of education and from 30 practicing teachers who did not. I included in Table 6 the descriptive statistics for practicing teachers' professional diversity beliefs.

Table 8

Professional Beliefs: Descriptive Statistics

Degree in Education	<i>N</i>	<i>M</i>	<i>SD</i>	Std. Error Mean
Yes	28	89.1	11.057	2.09
No	30	90.0	10.680	1.95

Note: *M* = Mean, *SD* = Standard Deviation

The mean scale scores for both sub-groups were above the mid-range value, which underscores that regardless of pre-service teacher training professional diversity beliefs are typical.

I conducted an independent *t*-test to determine if the mean scale score of practicing teachers' professional beliefs who graduated from a college of education differed from those who did not. I included in Table 7 Levene's Test for Equality of Variances.

Table 9

Professional Beliefs: Levene's Test for Equality of Variances

	Levene's Test for Equality of Variances		t-test for Equality of Means	
	F	Sig.	t	df
Equal variances assumed	.294	.590	-.313	56
Equal variances not assumed			-.312	55.392

Using the Levene's Test for Equality of Variances, I determined the equal variance assumption was met ($F = 294, p = .590$). Based on this finding, the Levene's test is not statistically significant, thus confirming the equality in sample sizes for both sub-groups. As a next step, I examined the results from the independent t -test. I included in Table 8 the t -statistic values used to determine statistically significant differences.

Table 10

Professional Beliefs: Independent Samples Test

	t -test for Equality of Means		
	Sig (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	.756	-.89286	2.85455
Equal variances not assumed	.756	-.89286	2.85802

By using the independent t -test, I determined that the mean scale score for practicing teachers' professional beliefs were not statistically different for those who graduated from a college of education and those who did not. I concluded from the

independent *t*-test for hypotheses 1 that professional diversity beliefs at GHS were unrelated and unaffected by type of post-secondary degree earned.

H₂: There is a statistically significant difference in practicing teachers' personal and professional beliefs determined by years of teaching experience.

Personal

I collected personal belief data from 60 practicing teachers who reported the years they have been in education. I included in Table 9 the descriptive statistics for practicing teachers' personal diversity beliefs and their years of experience.

Table 11

Personal Beliefs: Descriptive Statistics for Years in Education

	<i>N</i>	<i>M</i>	<i>SD</i>	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
First Year	2	44.5000	3.53553	2.50000	12.7345	76.2655
2-8 Years	23	59.6087	7.52414	1.56889	56.3550	62.8624
9-15 Years	19	59.7368	8.28548	1.90082	55.7434	63.7303
15-21 Years	6	59.1667	7.67898	3.13493	51.1081	67.2253
21 or More Years	10	56.4000	10.44775	3.30387	48.9261	63.8739
Total	60	58.5667	8.50397	1.09786	56.3699	60.7635

The mean scale score was at the mid-range for the first year teachers. First-year practicing teachers did not have the same exposure to the diverse students. I included Table 10 to illustrate that each sub-group possessed a practicing teacher at the mid-range,

which underscored that each sub-group did have a respondent that indicated general tolerance or intolerance for diversity issues.

Table 12

Personal Beliefs: Minimum and Maximum Mean Scale Scores

	Minimum	Maximum
First Year	42.00	47.00
2-8 Years	41.00	72.00
9-15 Years	40.00	75.00
15-21 Years	45.00	68.00
21 or More Years	40.00	74.00
Total	40.00	75.00

To test Hypothesis 2, I conducted a one-way ANOVA at the $p < .05$ level of significance to determine if the mean scale scores of practicing teachers' personal beliefs differed because of the years they have been in education. I included Table 11 to ensure that the homogeneity of variances was met.

Table 13

Personal Beliefs: Test of Homogeneity of Variances

Levene Statistic	<i>df1</i>	<i>df2</i>	Sig.
.856	4	55	.496

After reviewing the test, I saw that equal variances in the variables tested were satisfied.

Next, I reviewed the one-way ANOVA which revealed no statistically significant difference between any of the sub-groups. I included Table 12.

Table 14

Personal Beliefs: one-way ANOVA Years in Education

	Sum of Squares	<i>df</i>	Mean Square	F	Sig
Between Groups	495.838	4	123.959	1.808	.140
Within Groups	3770.896	55	68.562		
Total	4266.733	59			

I concluded from the one-way ANOVA that practicing teachers' personal diversity beliefs were not influenced by the number of years of experience in education. I conducted no additional testing because of the significance level of the one-way ANOVA.

Professional

I collected professional belief data from 60 practicing teachers who reported the years they have been in education. I included in Table 13 the descriptive statistics for practicing teachers' professional diversity beliefs based on their years of experience.

Table 15

Professional Beliefs: Descriptive Statistics for Years in Education

	<i>N</i>	<i>M</i>	<i>SD</i>	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
First Year	2	83.0000	7.07107	5.00000	19.4690	146.5310
2-8 Years	23	89.0000	9.34199	1.94794	84.9602	93.0398
9-15 Years	19	93.6316	11.12660	2.55262	88.2687	98.9944
15-21 Years	6	91.0000	11.73030	4.78888	78.6898	103.3102
21 or More Years	10	82.2000	10.17404	3.21731	74.9219	89.4781
Total	60	89.3333	10.71774	1.38365	86.5646	92.1020

The mean scale score was higher than the mid-range for practicing teachers regardless of years in education. As a surveyed group, they possessed typical professional diversity beliefs. I included Table 14 to illustrate how all sub-groups except first-year teachers possessed a mid-range score or lower, which differed from the Personal Scale. First year teachers possessed a lower personal belief regarding diversity issues, yet they possessed a higher professional belief regarding diversity issues.

Table 16

Professional Beliefs: Minimum and Maximum Mean Scale Scores

	Minimum	Maximum
First Year	78.00	88.00
2-8 Years	72.00	107.00
9-15 Years	72.00	115.00
15-21 Years	75.00	105.00
21 or More Years	66.00	101.00
Total	66.00	115.00

To test Hypothesis 2, I conducted a one-way ANOVA at the $p < .05$ level of significance to determine if the mean scale scores of practicing teachers' professional beliefs differed because of the years they have been in education. I included Table 15 to ensure that homogeneity of variances was met.

Table 17

Professional Beliefs: Test of Homogeneity of Variances

Levene Statistic	<i>df1</i>	<i>df2</i>	Sig.
.475	4	55	.754

After reviewing the test, I saw that equal variances in the variables tested were satisfied. I reviewed the one-way ANOVA which revealed no statistically significant difference between any of the sub-groups. I included Table 16 to present the results of the one-way ANOVA.

Table 18

Professional Beliefs: one-way ANOVA Years in Education

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig
Between Groups	959.312	4	239.828	2.267	.074
Within Groups	5818.021	55	105.782		
Total	6777.333	59			

I concluded from the one-way ANOVA that practicing teachers' professional diversity beliefs were not influenced by the number of years of experience in education. I conducted no additional testing because of the significance level of the one-way ANOVA

H₃: There is a statistically significant difference in practicing teachers' personal and professional beliefs influenced determined by subjects taught.

I conducted the non-parametric Kruskal-Wallis test because the sub-group subjects taught did not meet the assumption of a normal distribution. I noted that the histogram distribution was high on the ends and low in the middle of the graph.

Personal and Professional Beliefs

I tested for statistical significance at $p < .05$. I included Table 17 to present the test statistic.

Table 19

Personal and Professional Beliefs: Subjects Taught

Personal Beliefs		Professional Beliefs	
Chi-Square	2.867	Chi-Square	4.944
<i>Df</i>	5	<i>Df</i>	5
Asymp. Sig.	.721	Asymp. Sig.	.423

The Kruskal-Wallis Test revealed no statistical differences between teachers' personal and professional diversity beliefs and the subjects they taught.

H₄: There is a statistically significant difference in practicing teachers' personal and professional beliefs determined by racial or ethnic background.

I conducted the non-parametric Kruskal-Wallis test because the sub-group race or ethnic background did not meet the assumption of a normal distribution. I noted that the histogram distribution was skewed to the left and was not evenly distributed for the races or ethnicities surveyed.

Personal and Professional Beliefs

I tested for statistical significance at $p < .05$. I included Table 18 to present the test statistic.

Table 20

Personal and Professional Beliefs: Race and Ethnic Background

Personal Beliefs		Professional Beliefs	
Chi-Square	4.944	Chi-Square	5.372
<i>Df</i>	5	<i>Df</i>	3
Asymp. Sig.	.423	Asymp. Sig.	.146

The Kruskal-Wallis Test revealed no statistical difference between teachers' personal and professional diversity beliefs and their race or ethnic backgrounds.

Summary

I conducted descriptive, parametric, and non-parametric statistics to describe the findings for the one research question and the four hypotheses.

I used descriptive statistics which included frequency distribution, averages, highest and lowest values and the mean scale scores from the Teachers' Beliefs Survey to indicate the level of acceptance on cultural diversity issues.

I included Hypothesis 1 to determine if there was a statistically significant difference in the practicing teachers' personal and professional beliefs between those who graduated from a college of education and those who did not. The respondents were evenly split and mean scale scores were similar for both groups. The independent t -test was not significant.

I included Hypothesis 2 to determine if there was a statistically significant difference in personal and professional beliefs among the five sub-groups of years a teacher has been in education. The mean scores for the group were relatively similar except for first-year practicing teachers and the distributional shape met evidence of normality. The one-way ANOVA was not significant.

I included Hypothesis 3 to determine if there was a statistically significant difference in personal and professional beliefs among the five subjects taught. The distributional shape did not meet evidence of normality. The Kruskal-Wallis test was not statistically significant.

I included Hypothesis 4 to determine if there was a statistically significant difference in personal and professional beliefs among the four racial or ethnic sub-groups. The distributional shape did not meet evidence of normality. The Kruskal-Wallis Test was not statistically significant.

CHAPTER 5 SUMMARY, DISCUSSION, AND CONCLUSIONS

Introduction

I reported data analysis in the previous chapter. Chapter five includes a summary of the study, a discussion of the findings, implications for teacher practice, recommendations for further research, and a conclusion.

Summary of the Study

I used school-level data to identify a problem of practice at GHS. Based on previous research that addressed disparities in discipline (Monroe, 2005; Skiba et al., 2002; Wallace et al., 2008), equitable access to resources (Lane & White, 2010), teacher attrition (Darling-Hammond, 2003), and teacher bias and stereotypes (Jussim & Harber, 2005; Lyons & Kashima, 2003), I conducted this study to understand practicing teachers' beliefs about RCELD students.

Discussion of the Findings

The Research Question

I evaluated practicing teachers' beliefs regarding RCELD students because school-level data indicated the possibility that GHS practicing teachers treated students inequitably. Mean scale scores could range from 15 to 25 on the Personal Scale and 25 to

125 on the Professional Scale, indicating acceptance, tolerance, or intolerance of diversity beliefs. As an example, low mean scores equated to low tolerance or non-acceptance of diversity issues while high mean scores indicated high tolerance or acceptance of diversity issues (Pohan & Aguilar, 2001a). In addition, Pohan and Aguilar (2001a) presented information on interpreting mid-range mean scale scores. A mid-range mean scale score indicated a general tolerance or indifference regarding diversity beliefs (Pohan & Aguilar, 2001a). Therefore, for a practicing teacher at GHS to be generally intolerant or to exhibit both extremely high and low responses, the mean scale score would equal 45, on a scale from 15 to 75 on the personal beliefs scale and 75, on a scale from 25 to 125 on the professional beliefs scale.

Significance of the Findings

I included school-level data which indicated the possibility of inequitable student treatment. At this Title I, secondary school, Black students received 53% of office discipline referrals while they comprised 23% of the total student population. Twenty-five percent of teachers have left the school annually since 2009, and teachers made negative statements about the students. I surmised that teacher beliefs were part of the problem, so I conducted a study to understand practicing teachers' diversity beliefs. The results from the Teachers' Belief Survey were not statistically significant and were indicative of acceptable diversity beliefs. What I found troublesome about the school-level data and the survey data was the seemingly contradictory findings.

At first, I analyzed the Teachers' Belief Survey to understand practicing teachers' beliefs regarding RCELD students. I used the mean scale scores to determine the practicing teachers' level of diversity acceptance. I concluded from the survey that practicing teachers provided answers that did not mirror the reality of the school's data.

Since individuals tend to overestimate their abilities and beliefs on self-report measures (Gill & Hoffman, 2009), it is possible that practicing teachers at GHS presented their diversity beliefs in the best light. The reality of the school-level data was not a variable at the time of the survey, so they did not have that data present to challenge their existing beliefs.

Conceptual change is a repair in someone's thinking (Chi & Roscoe, 2002). The non-significant findings of the Teachers' Belief Survey indicates that the diversity beliefs are not in need of repair. Rather, it is practicing teachers' actions that need fixing. Recognition of the action, not the belief, should spark the conceptual change in order to address the problem of practice.

Testing the Hypotheses

I conducted Independent *t*-tests, one-way ANOVAs, and Kruskal-Wallis Tests to determine if significant differences in mean scale scores were evident for the dependent and independent variables on the personal and professional scales. I found no significant differences among any of the sub-groups and their beliefs about cultural diversity.

I concluded from my data that further evaluation on the organization is warranted. While the data did show that practicing teachers at GHS possessed a high to acceptable

level of diversity beliefs, the problem of practice remained unsolved. It is possible my data were not statistically significant due to sample size.

Relationship to Conceptual Change Process

How can it be possible for practicing teachers to profess acceptance of diversity, while private conversations and school-level data appear not to accept diversity issues? Legislators have advocated equal treatment for all students and initiated laws as protection for students. In addition, social justice advocates have created diversity programs to educate others on diversity issues. As an example, certain months of the year are designated as African-American Heritage Month or Hispanic Awareness Month. Individuals who are not from these racial or ethnic backgrounds are able to learn about a particular culture. While the attempt at diversity education is there, it is not enough. Simply stated, this type of diversity exposure is like visitors going to EPCOT's foreign country pavilions and thinking they fully represent the richness and diversity of the nation.

In the 1980's and early 1990's, conceptual change research was observational in that it was conducted in the realm of educational research (Sinatra, 2005). Researchers looked for developmental signs and instructional methods to explain changes in a study's subjects thinking (Sinatra, 2005). In some way the researchers were watching for the changes to occur in their participants. Conceptual Change could be thought of as a researcher standing behind the glass and looking for the change based on structured or prescribed methods for change.

Based on my study, I proposed that the Conceptual Change process will not only strengthen diversity training, it will metaphorically break the glass between the two cultures. No longer will diversity training issues be prefaced with guidelines, methods, or strategies; teachers will take ownership of their experiences and explore diversity as an ongoing, fluid experience. It seems fitting that a theory that was proposed to improve science instruction would complement diversity issues as well, because both issues are complex and ever-changing. Mason and Boscolo (2000) discussed how writing influenced conceptual change. There is a difference between the narrative, or being told, versus the argumentative, or being allowed to prove and support one's thinking (Mason & Boscolo, 2000). In relation to the contradiction that I discovered in my study, teachers reported high levels of diversity acceptance, yet the school-level data were low in regards to diversity issues. The teachers were simply stating their beliefs without having to provide proof.

Kim and Morningstar (2008) and Kyles and Olafson's (2008) studies determined that diversity beliefs did not change unless they were identified and examined. Much like the Groulx and Silva's study (2010), diversity beliefs changed when participants were exposed to different cultures. In my study, participants selected a choice on the Likert-type scale on the Pohan and Aguilar (2001a) Teachers' Beliefs Survey. The respondents did not examine the reasons why they selected the choices.

In several studies reviewed, practicing teachers experienced a change in their diversity beliefs due to the exposure and subsequent reflection on the diverse cultures (Causey et al., 2000; Kyle & Olafson, 2008; Pattnaik, 1997; Schulte, 2005). While

exposure to diverse cultures may have a positive influence on practicing teachers' beliefs, the converse is possible if exposure is connected to negative stereotypes and bias (Lyons & Kashima, 2003).

All in all, the practicing teachers provided intuitive beliefs about diversity issues by agreeing with what seemed naturally right (Vosniadou, 2007). There was no reason to think that a problem in diversity existed. Until practicing teachers are encouraged to engage with diverse cultures and constantly reflect on these experiences, they will be no more than tourists to the pavilions of diversity.

Overall Findings

The possibility that teachers treated RCELD students inequitably led to this study's purpose, to understand practicing teachers' beliefs. Thus, I concluded in this study that simply naming a problem does nothing to help one understand it. Simply looking at a diverse culture and saying, "oh, there is a student in poverty" or "oh, there is a student who does not speak English" does not give practicing teachers opportunities to examine whether their existing beliefs are faulty. In this case, the practicing teacher is simply naming the diversity, not addressing it. From this perspective, I recommend further evaluation to isolate the root cause of the problem of practice. Next, I discussed limitations in this study.

Study Limitations

The study design I included contained no qualitative measures (e.g., interviews or observations), so the survey measured belief statements using a Likert-type scale without any opportunity to examine teachers' beliefs through interviews or narratives to identify belief trends. Kyles and Olafson (2008) and Trent and Dixon (2004) underscored my present study's limitation because they argued that teachers' beliefs remained elusive or unchanged unless opportunities for reflection were provided. In other words, through quantitative analysis, I provided a surface examination of practicing teachers' beliefs regarding diversity issues at GHS.

This study has the following limitations:

1. Surveys and questionnaires may reflect teachers' self-preservation bias and superficially measure the subject matter (as cited in Gill and Hoffman, 2009). Based on this limitation, I recommend a qualitative measure for inclusion in any redesign of this study.
2. My presence during the survey was another limitation to this study. I was an employee of the organization and a colleague to the respondents, as well as the researcher. Therefore, a researcher who is unknown to the stakeholders may be viewed as unbiased.
3. Another limitation was time for respondents to complete the survey. This study was conducted during a faculty meeting, and the respondents may not have had sufficient time to complete the survey. Even more importantly, the respondents may not have examined their responses for the survey items. In the future, a survey instrument

- should be placed into the teachers' mailboxes so teachers can complete it at their convenience.
4. Although I checked every fifth scoring sheet for accuracy, there was the possibility that hand scoring may lead to inaccurate data. To address this limitation, I would create the survey instrument in an electronic format like Qualtrics to reduce the possibility of transcription errors.
 5. Another limitation to this study was that I used one source of data to measure practicing teachers' beliefs. The inclusion of interviews or other qualitative data has the potential to improve data.
 6. Since this study was conducted at one organization, the results may not be generalizable.
 7. Respondents were homogeneous in two sub-groups: subject(s) taught and racial and ethnic background. It remained unclear whether the diversity beliefs reflected beliefs of a homogeneous group or that of practicing teachers.
 8. Another limitation was the lack of stakeholder involvement during the survey. To compensate for this limitation, I would conduct periodic meetings with the staff in order to present the problem of practice, explain the survey, allay any concerns of confidentiality, and ensure more participation. While the response rate was over 50%, I wanted a higher response rate, especially since only one organization was under study. In other words, 47% of respondents did not participate, which may have influenced the results. It remains unclear whether or not only those who held more positive beliefs responded.

9. While the years in education question did not yield statistically significant differences and did not stand out any differently from the other sub-groups, the question repeated a numerical choice. I included fifteen years two times in two answer stems. I considered deleting it, but I decided to keep it and address it as a study limitation. To remedy this limitation, I would recommend using the demographic instrument Pohan and Aguilar (2001a) provided with their survey.

Considering the Stakeholders for the Extension Study

I initiated, designed, implemented, and analyzed this study specifically for one organization: Gravitas High School. Therefore, I have included the following stakeholders who would benefit from the data in this study as well as have an interest in an extension of this study.

The Superintendent of Schools. The success of the school remains vital to the ongoing success of the school district.

Professional Development Personnel at Central District County. This department continues to be responsible for the ongoing training of all teachers in the district, veteran and new. Based on data from this study or from further research, personalized professional development and training are possible, and the department would use the data to create timely and relevant professional development.

The principal at GHS. The principal remains responsible to the community, faculty and staff, and students to ensure that all students at GHS receive an education to be productive after graduation.

The faculty and staff. The faculty and staff work the closest with students from diverse populations.

Recommendation for Further Research

Based on the survey data, practicing teachers held scores at an acceptable level across the tolerance of diversity spectrum in both personal and professional beliefs. In addition, no statistically significant differences were noted for any tested teacher subgroup. Because no specific cause was isolated to determine practicing teachers' beliefs at GHS, no targeted professional development was created. A positive aspect did arise from the data in that the conversation about teachers' beliefs and their relationship to RCELD students was opened. Most importantly, this finding aligns with an opportunity to conduct further evaluation.

I recommend further research based on the data from this study. The extension of this study should include a qualitative component. According to the literature reviewed, I found that beliefs stemmed from a negative perspective and focused on what the student did not have rather than the talent he or she did have (Ladson-Billings, 2009). Therefore, an extension of this study will build upon the data acquired from the Pohan and Aguilar (2001a) Teachers' Beliefs Survey from April 8, 2015. I recommend adding a qualitative component to include interviews featuring a teacher narrative. The interviewer would begin with the sentence: "Tell me a story about one of your students." In turn, this qualitative element in the study's redesign may help isolate teachers' beliefs to determine

if an organization operates from a negative or a positive perspective regarding RCELD students.

I include in Figure 2 an extension of this study which includes a qualitative component with interviews.

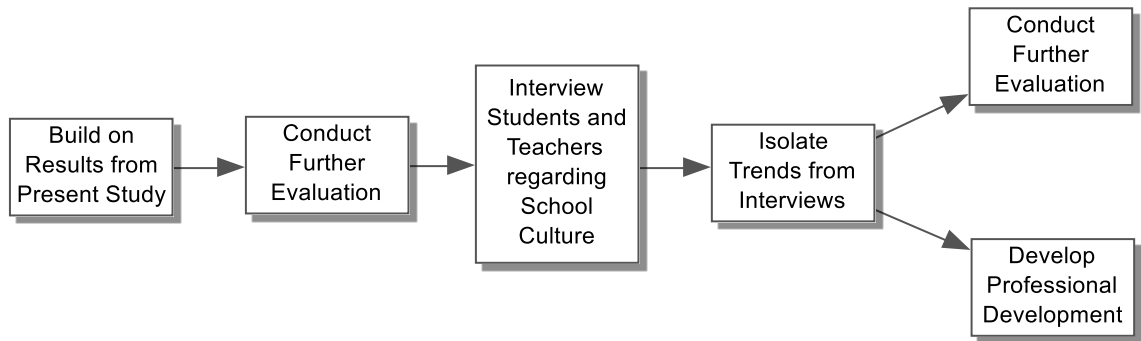


Figure 2: Proposed plan to conduct further evaluation

Table 21 below is included to outline an extension of the study.

Table 21:

Extension Study Design

Extension Study Design	Details
Study Design	Qualitative with Narrative Elements (Observations and Interviews)
Expertise Required	On-site training of observation methods and standardized open-ended interview questions and methods
Timeline	27 Weeks Total: 2 nd grading period (observations and interviews); 3 rd nine weeks (data analysis); and end of 4 th nine weeks, May 2017 (present interpretations or conclusions)
Documentation	Observation Protocols Classroom Walkthroughs (during the school day and after school) Audio-Recorded Interviews
Collaboration	Research Team meets weekly to present what they accomplished during the week and plans for the upcoming week.
Goal Setting	Weekly meetings (one hour) with accountability reports submitted Gantt Chart to monitor timeline

Conclusions

The purpose of this study was to understand practicing teachers’ beliefs regarding RCELD students in a Title I, secondary school. All of this started based on my curiosity about four-levels of school data I observed at GHS. I used disparities in discipline rates, Title I school status, teacher attrition percentages, and teacher comments as the basis to determine if student inequity was the problem of practice.

In order to understand student inequitable treatment, I reviewed literature that focused on diversity training and discovered that established teaching practices like

acculturation and color-blindness tended to perpetuate racism in school and did little to advance teachers' understanding about cultural diversity. Also, diversity training was focused mainly on pre-service or teacher preparation coursework. In some ways, once the teacher became a full-time classroom teacher, diversity issues were assumed satisfied. The diversity beliefs of practicing teachers did not receive as much attention in the scholarship. Diversity training, unlike pedagogical practice, was not an ongoing and reflective practice.

Even though legislators passed *Brown v. Board of Education* over fifty-years ago, a cultural divide in America's schools is occurring and questions are surfacing how teachers might be better prepared to teach diverse students (Delpit, 2006; Frankenberg & Orfield, 2012; Ladson-Billings, 2009). Examples of the emerging divide in student treatment include instances where more Black students are disciplined, suspended, or expelled than their White counterparts (Gregory & Weinstein, 2008; Hyland, 2005), students in lower-performing or less-affluent schools are more likely to be taught by long-term substitutes or inexperienced teachers (Ladson-Billings, 2009), and students are more likely to be taught by teachers from different cultural backgrounds (Delpit, 2006). It is possible the cultural divide between the teachers and those they are asked to teach is widening due to practicing teachers' beliefs.

In regards to my study, I tested the four hypotheses in order to understand practicing teachers' beliefs, and I discovered they were not statistically significant. While the practicing teachers did report higher to more acceptable diversity beliefs, it is possible that unexamined practicing teachers' beliefs may have had an impact on this

widening cultural divide. For example, if practicing teachers hold onto intuitive beliefs and tend to agree with what they deem to be right, then practicing teachers will maintain their beliefs because there is no indication that a repair or change is necessary (Chi & Roscoe, 2002; Vosniadou, 2007). From this standpoint, I recommend that further research be conducted in order to address the cultural divide, and this can be accomplished by understanding how unexamined practicing teachers' beliefs may be contributing to this cultural disconnect.

The positive aspect for this study was that it started a conversation about diversity at GHS. While no "smoking gun" so to speak was identified from data on The Teachers' Beliefs Survey, the data indicated that practicing teachers self-reported high or acceptable diversity beliefs. This data, while a serious limitation in this study, underscored the theoretical framework for Conceptual Change. New information is absorbed into prior knowledge if there are no opportunities to examine the new learning (Gregoire, 2003). As an example, the data from the survey indicated practicing teachers' diversity beliefs were high to acceptable, but the new information was that the four-levels of school data indicated inequality in student treatment.

Based on the survey data, I concluded that teacher beliefs did not mirror teacher actions, so further evaluation of the problem was warranted. Based on the Framework, more information and data are necessary so as not to chase rabbits through a field of conjecture. Thus, the overall conclusion for this study was that practicing teachers have acceptable diversity beliefs, yet this study did not isolate the source of the problem of practice.

While I was disappointed that my data were not significant, and I was not able to provide feedback for GHS' problem of practice, I acquired meaningful data to push the evaluation further. By building on what was accomplished in this study, the cycle of disparities in discipline, consequences of poverty, teacher attrition, and teacher bias and stereotype may be broken. Going forward using the Conceptual Change Process along with a re-designed qualitative study, data-based research will continue to inform the problem of practice (Wang & Hannafin, 2005). On the other hand, failure to build upon and assimilate what was learned in this study will not initiate a change in teachers' beliefs, but will guarantee that nothing will change.

APPENDIX A:
PERSONA CREATION AND FACT FINDING AT GHS INTERVIEW QUESTIONS

Persona Creation and Fact-Finding at GHS

Question	Interview Answer
Highest Degree Earned	
How many years have you taught? (Any School/Any District)	
Would you work on Professional Development courses on your own time?	
Think about what you learn in Professional Development: How does it or does it NOT transfer to your classroom?	
What is your preference for receiving information (i.e., professional development, data, new information)?	
What are your beliefs about gang- and/or adolescent violence?	
What is your professional goal?	
What other ways do you receive information outside of professional development?	
What word or phrase comes to mind when you hear the word "Professional Development"?	
What are your thoughts on the school culture here?	

APPENDIX B:
UNIVERSITY OF CENTRAL FLORIDA INSTITUTIONAL REVIEW BOARD
APPROVAL LETTER



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Exempt Human Research

From: UCF Institutional Review Board #1
FWA00000351, IRB00001138
To: Lisa R. Sabino
Date: March 02, 2015

Dear Researcher:

On 03/02/2015, the IRB approved the following activity as human participant research that is exempt from regulation:

Type of Review: Exempt Determination
Project Title: A CROSS-SECTIONAL SURVEY STUDY TO UNDERSTAND
TEACHER BELIEFS REGARDING CULTURALLY DIVERSE
PEDAGOGY IN A TITLE I SCHOOL
Investigator: Lisa R. Sabino
IRB Number: SBE-15-11103
Funding Agency:
Grant Title:
Research ID: N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the [Investigator Manual](#).

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Patria Davis on 03/02/2015 08:57:52 AM EST

IRB Coordinator

APPENDIX C:
LAKE COUNTY INSTITUTIONAL REVIEW BOARD APPROVAL LETTER



201 West Burleigh Boulevard · Tavares · FL 32778-2496
(352) 253-6500 · Fax: (352) 343-0198 · www.lake.k12.fl.us

Superintendent:
Susan Moxley, Ed.D.

School Board Member
District 1
Bill Mathias
District 2
Rosanne Brandebur
District 3
Marc Dodd
District 4
Debbie Stivender
District 5
Stephanie Luke

March 23, 2015

Ms. Lisa Sabino
2907 David Stewart Lane
Lady Lake, FL

Dear Ms. Sabino:

This letter serves as final approval to conduct your research study, A Cross-sectional Survey Study to Understand Teacher Beliefs Regarding Culturally Diverse Pedagogy in a Title One School. This research will be conducted to fulfill the doctoral dissertation requirements for The University of Central Florida under the direction of your chair, Dr. Michele Gregoire Gill, Associate Professor.

Per information submitted in your request, please note/adhere to the following:

- All procedures set forth in the approved research request must be followed as approved by Lake County Schools.
- The confidentiality of the district, school, administrators, teachers, non-instructional staff and students, will be maintained at all times.
- The district will be identified as "a large suburban school district in the Southeastern United States" or a similar identifier.
- The school will be identified as "a mid-size Title One high school in a large suburban school district in the Southeastern United States" or a similar identifier.
- Participation in this research is strictly voluntary on the part of the school, administrators, teachers, and non-instructional staff.
- The school principal must approve this study.
- Informed consent forms must be signed by participants and must be maintained on file. Please see the attached revised document.
- The research must not interfere with the educational process.
- Should additional data be used for this study, permission must be granted by the Department of Evaluation and Accountability.
- All Florida statutes and district policies and procedures must be followed at all times.
- A copy of the results of the research must be provided to the district upon completion.

Should you have additional questions, please do not hesitate to contact me at 352-483-9207. I wish you much success with this research project.

Yours truly,

Kathleen Farner Gingras, Ph.D.
Director of Evaluation and Accountability

C: Dr. Susan Moxley, Superintendent
Dr. David Christiansen, Chief of Academics
Dr. Marilyn Doyle, Chief of Administration
Mr. Bill Miller, Principal of Leesburg High School

"Equal Opportunity in Education and Employment"

APPENDIX D:
TEACHERS' PERSONAL AND PROFESSIONAL BELIEFS SURVEYS

Personal Beliefs About Diversity Scale

This scale measures your beliefs about diversity. Indicate the degree to which you agree or disagree with each item below by circling the number corresponding to your selection. Please answer every item, and use the following scale to select your answers:

	(1) Strongly Disagree	(2) Disagree	(3) Undecided	(4) Agree	(5) Strongly Agree		SD	D	U	A	SA
1.	There is nothing wrong with the people from different racial backgrounds having/raising children						1	2	3	4	5
2.	America's Immigrant and refugee policy has led to the deterioration of America						1	2	3	4	5
3.	Making all public facilities accessible to the disabled is simply too costly						1	2	3	4	5
4.	Accepting many different ways of life in America will strengthen us as a nation						1	2	3	4	5
5.	It is not a good idea for same-sex couples to raise children						1	2	3	4	5
6.	The reason people live in poverty is that they lack motivation to get themselves out of poverty						1	2	3	4	5
7.	People should develop meaningful friendships with others from different racial/ethnic groups						1	2	3	4	5
8.	People with physical limitations are less effective as leaders than people without physical limitations						1	2	3	4	5
9.	In general, white people place a higher value on education than do people of color						1	2	3	4	5
10.	Many women in our society continue to live in poverty because males still dominate most of the major social systems in America						1	2	3	4	5
11.	Since men are frequently the heads of the household, they deserve higher wages than females						1	2	3	4	5
12.	It is a good idea for people to develop meaningful friendships with others having a different sexual orientation						1	2	3	4	5
13.	Society should not become more accepting of gay/lesbian lifestyles						1	2	3	4	5
14.	It is more important for immigrants to learn English than to maintain their first language						1	2	3	4	5
15.	In general, men make better leaders than women						1	2	3	4	5

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Professional Beliefs About a Diversity Scale

This scale measures your beliefs about issues of diversity as they relate to policies and practices within educational settings. Indicate the degree to which you agree or disagree with each item below by circling the number corresponding to your selection. Please answer every item and use the following scale to select your answers:

(1) Strongly Disagree (2) Disagree (3) Undecided (4) Agree (5) Strongly Agree

	SD	D	U	A	SA
1. Teachers should not be expected to adjust their preferred mode of instruction to accommodate the needs of all students	1	2	3	4	5
2. The traditional classroom has been set up to support middle class lifestyle	1	2	3	4	5
3. Gays and lesbians should not be allowed to teach in public schools	1	2	3	4	5
4. Students and teachers would benefit from having basic understanding of different (diverse) religions	1	2	3	4	5
5. Money spent to educate the severely disabled would be better spent on programs for gifted students	1	2	3	4	5
6. All students should be encouraged to become fluent in a second language	1	2	3	4	5
7. Only schools serving students of color need a racially, ethnically, and culturally diverse staff and faculty	1	2	3	4	5
8. The attention girls receive in school is comparable to the attention boys receive	1	2	3	4	5
9. Tests, particularly standardized tests, have frequently been used as a basis for segregating students	1	2	3	4	5
10. People of color are adequately represented in most textbooks today	1	2	3	4	5
11. Students with physical limitations should be placed in the regular classroom whenever possible	1	2	3	4	5
12. Males are given more opportunities in math and science than females	1	2	3	4	5

13. Generally, teachers should group students by ability levels	1	2	3	4	5
14. Students living in racially isolated neighborhoods can benefit socially from participating in racially integrated classroom	1	2	3	4	5
15. Historically, education has been monocultural, reflecting only one reality and has been biased toward the dominant (European) group.	1	2	3	4	5
16. Whenever possible, second language learners should receive instruction in their first language until they are proficient enough to lean via English instruction.	1	2	3	4	5
17. Teachers often expect less from students from the lower socioeconomic class	1	2	3	4	5
18. Multicultural education is most beneficial for students of color	1	2	3	4	5
19. More women are needed in administrative positions in schools.	1	2	3	4	5
20. Large numbers of students of color are improperly placed in special education classes by school personnel	1	2	3	4	5
21. In order to be effective with all students, teachers should have experience working with students from diverse racial and ethnic backgrounds	1	2	3	4	5
22. Students from lower socioeconomic backgrounds typically have fewer educational opportunities than their middle class peers	1	2	3	4	5
23. Students should not be allowed to speak a language other than English while in school.	1	2	3	4	5
24. It is important to consider religious diversity in setting public school policy	1	2	3	4	5
25. Multicultural education is less important than reading, writing, arithmetic, and computer literacy	1	2	3	4	5

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APPENDIX E:
PERMISSION TO USE POHAN AND AGUILAR SURVEY



lisabino

To: Aguilar, Teresita E <taguilarVPAA@nmhu.edu>;



Fri 1/30/2015 5:29 PM

Dear Dr. Aguilar:

Thank you very much. I will look through it tonight. I am very excited about having the opportunity to use your instrument.

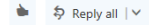
I will be in touch and am so grateful for your time and help.

Respectfully yours,
Lisa Sabino



Aguilar, Teresita E <taguilarVPAA@nmhu.edu>

To: lisabino <lisabino@knights.ucf.edu>;



Fri 1/30/2015 5:26 PM

Inbox

This message was sent with high importance.

You forwarded this message on 1/31/2015 1:39 PM

- Beliefs Guide.pdf 3 MB
- Personal Beliefs About... 219 KB
- Professional Beliefs abo... 178 KB

3 attachments (3 MB) Download all Save all to OneDrive - University of Central Florida - UCF

Ms. Sabino:

First, let me apologize for not responding earlier. I thought I had the measures on my office computer. (I do now!). I found the flash drive with the materials. After you have a chance to review the materials, let me know if you have any further questions.

I wish you the best in your research.

*Dr. Teresita E. Aguilar, Provost and
Vice President for Academic Affairs
New Mexico Highlands University
Box 9000
Las Vegas, NM 87701
(O) 505-454-3194*

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