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The purpose of this study was to examine the extent to which diverse RTI schools in North Carolina engage in culturally responsive beliefs and practices. A total of eight diverse elementary schools participated in this study. Within these schools, 200 general and special education teachers in grades k-5 completed surveys. Areas surveyed included culturally responsive teacher practices, culturally responsive school practices, level of training, and demographics. Three open-ended questions addressed successes, barriers, and needs to implementing culturally responsive practices as part of RTI.

The majority of participants had more than 10 years experience in education and had received training in culturally responsive practices. A key finding of this investigation was that a high proportion of the teachers agreed to employing all of the culturally responsive practices except for one. In addition, an equally high proportion of teachers perceived their school as employing all of the culturally responsive practices except one. Answers to open-ended questions both supported and refuted these findings. These findings of this study are discussed, including the implications for future research.

CULTURALLY RESPONSIVE BELIEFS AND PRACTICES OF GENERAL AND SPECIAL
EDUCATION TEACHERS IMPLEMENTING RESPONSE TO INTERVENTION (RTI)
IN DIVERSE ELEMENTARY SCHOOLS

by

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TABLE OF CONTENTS

	Page
LIST OF TABLES	v
LIST OF FIGURES	vi
CHAPTER	
I. INTRODUCTION	1
Background and Conceptual Framework.....	1
Statement of the Problem/Need for Research.....	5
Purpose/Research Questions	6
Overview of the Study	7
Limitations	8
Definition of Key Terms	9
Significance.....	12
II. LITERATURE REVIEW	13
Search Methodology	14
Disproportionality Defined	14
Causes of Disproportionality	16
Policies Enacted to Address Disproportionate Representation.....	23
Education-Based Solutions to Address Disproportionality	27
Response to Intervention.....	44
RTI and Disproportionality.....	50
Culturally Responsive RTI	55
Summary and Conclusion	59
III. METHOD	61
Research Design.....	61
Participants.....	62
Instrumentation	63
Survey Administration	67
Data Analyses	68
IV. RESULTS	70

Quantitative Results	72
Qualitative Results.....	80
V. DISCUSSION	89
Culturally Responsive Teacher Practices.....	90
Culturally Responsive School Practices	94
Culturally Responsive Practices Training.....	96
Limitations	97
Need for Future Research	98
Conclusion	99
REFERENCES	102
APPENDIX A. SURVEY OF SCHOOLS' AND EDUCATORS' CULTURALLY RESPONSIVE BELIEFS AND PRACTICES	130

LIST OF TABLES

	Page
Table 1. Relationship Among Variables, Research Questions, and Survey Items	66
Table 2. Cronbach’s Alpha Coefficient for Survey Scales	67
Table 3. Number and Percentage of Student Enrollment by Race/Ethnicity at Each School.....	71
Table 4. Position, Role in RTI, Years of Experience, and Team Participation for Survey Participants.....	72
Table 5. Number of Responses, Percentage Distribution, Means, and Standard Deviations for Culturally Responsive Teacher Practices Items.....	74
Table 6. Group Comparisons and Independent t-test for Culturally Responsive Teacher Practices Subscale	75
Table 7. Means, Standard Deviations, and Independent t-test for General and Special Education Teachers for Culturally Responsive Teacher Practices ...	76
Table 8. Number of Responses, Percentage Distribution, Means, and Standard Deviations for Culturally Responsive School Practice Items	78

LIST OF FIGURES

	Page
Figure 1. Traditional Approach to Special Education Decision Making.....	52
Figure 2. RTI Model	54

CHAPTER I

INTRODUCTION

Background and Conceptual Framework

Disproportionate representation is the presence of students from a specific group in an educational program being higher or lower than one would expect based on their representation in the general population of students. Disproportionate representation includes the overrepresentation and underrepresentation of students from culturally and linguistically diverse backgrounds based on (a) educational classification and placement; and (b) access to programs, resources, services, curriculum, and instruction (Salend, Duhaney, & Montgomery, 2002). The consistent existence of disproportionality has been documented repeatedly (Dunn, 1968; National Research Council, 2002) as a serious and significant problem lasting for more than 30 years (Artiles, Trent, & Palmer, 2004; Coutinho & Oswald, 2000; Zhang & Katsiyanis, 2002). National and state levels have documented a consistent pattern of overrepresentation that seems to be most severe in high-incidence disability categories (i.e. emotional/behavioral disorders (EBD), learning disabilities (LD), mild intellectual disabilities, and speech/language impairments [SLI]) and among African American and American Indian students (Skiba, Simmons, Ritter, Kohler, et al., 2006; 28th Annual Report to Congress, 2006). Published reports show that more than 14% of African American students are in special education compared with 13% American Indians, 12% whites, 11% Hispanics, and 5% Asian Americans; 2.6% of

African-American students are identified as intellectually disabled compared with 1.2% white students (National Research Council, 2002). Overrepresentation patterns differ from national, to state, and to district levels as well as between and within states (Waitoller, Artiles, & Cheney, 2010). For example, African Americans are overrepresented in the categories of mental retardation (intellectual disabilities) and EBD while in some states, Latino students are overrepresented in LD and SLI (National Center for Culturally Responsive Education [NCCRESt], n.d.). At the state and national levels, Native American students are disproportionately represented in LD and EBD (U. S. Department of Education, 2006).

The problem of disproportionality is so serious that policy makers have had to respond to it as part of the 2004 Reauthorization of the Elementary and Secondary Education Act (ESEA, 2004). ESEA (2004) revised policy to mandate states to review disproportionality with respect to race, ethnicity, and disciplinary actions. If significant disproportionality is determined, the state is required to review and revise policies, procedures, and practices and publicly report the data as well as reserve funds to provide early intervening services to those children who were significantly over-identified (ESEA, 2004).

Disproportionality is a complex phenomenon that occurs as a result of a combination of factors. The attributable factors come from within and outside of the educational system. The literature has examined causes of disproportionate representation, noting that social and environmental factors such as poverty and ethnicity (Artiles, Kozleski, Trent, Osher, & Ortiz, 2010; National Research Council, 2002), as

well as educational factors such as inequities in the referral process (Coutinho & Oswald, 2000; National Research Council, 2002) lead to disproportionate representation of minorities in special education. Other research has focused on economic inequity and race as predictors (e.g. Blanchett, 2006; Salend, et al., 2002; Skiba, Simmons, Ritter, Gibb, et al., 2008).

Education-based solutions to address disproportionality have been recommended in the literature and include teacher preparation and professional development, school leadership, and the use of culturally responsive pedagogy. Culturally responsive pedagogy is defined as the employment of instructional strategies and materials that address the different cultural, linguistic, and experiential backgrounds of students taught (Harris-Murri, King, & Rostenberg, 2006). These practices include a) establishing a positive school climate (Obiakor & Wilder, 2003; Wynn, 1992), b) differentiating instruction (Tomlinson, 2001), sometimes by c) employing a multi-tiered model of intervention (Berkeley, Bender, Peaster, & Saunders, 2009), d) explicit teaching (Fisher & Berliner, 1979; Foorman & Moats, 2004), e) including culturally responsive materials in the curriculum (Ladson-Billings, 1994; Gay, 2002), f) incorporating peer supports (Hattie, 2009), g) collaborating with teachers and families (Friend & Cook, 1990), h) employing culturally responsive behavior management practices (Noguera, 2003; Sugai & Horner, 2008), i) ongoing assessments (Fuchs, Fuchs, Safer, & McInerney, 2005), and j) implementing a problem solving approach (Fuchs, Mock, Morgan & Young, 2003). While some of these solutions have merely been recommended by experts in the field, others have been shown empirically to lead to lower rates of disproportionality, increased

academics for diverse students, and/or decreased inappropriate behavior. Nonetheless, in general, while there are some success stories here and there (Bursuck et al., 2004; Korea, Cartledge, & Musti-Rao, 2007; Kleinfield, 1975), few empirically validates strategies for reducing disproportionality have been conducted, and by and large the problem of disproportionality still exists.

Recently researchers and practitioners have looked to Response to Intervention (RTI) models as a potential way to solve the problem of disproportionality (Hosp & Madyun, 2007; Klingner & Edwards, 2006; Newell & Kratochwill, 2007; Vaughn & Fuchs, 2003; Walker-Dalhouse et al., 2009). RTI is a framework that combines assessment and intervention within a multi-tier prevention system to increase student achievement and decrease behavioral problems (NCRTI, 2010). RTI has three major components: 1) differentiation through the use of multiple tiers of intervention with increasingly intense interventions that guide implementation; 2) a problem-solving approach that provides a step-by-step process to identify and analyze problems, develop a plan, and evaluate the efficacy of interventions; and 3) an integrated data collection or assessment system to guide decision making in each tier of service delivery. RTI has the potential to solve the problem of disproportionality in a number of ways. First, RTI relies on using data to make decisions and focuses on outcomes that are defined objectively (Hosp & Madyun, 2007). Second, through the use of multiple tiers, teachers are expected to provide high-quality, scientifically-based instruction to all students in the general education setting and to differentiate instruction by providing small-group instruction using more intensive instructional strategies and other supports for those student who do

not respond positively based on curriculum-based assessments (Klingner & Edwards, 2006). Therefore, prior to referral for special education, more carefully designed, research-based options for students are employed. Third, universal screenings and continuous progress monitoring are used to evaluate a child's response to instruction which increases the likelihood that reliable instructional and placement decisions are made (Kame'enui, 2007; Vaughn & Roberts, 2007). Outcomes of RTI research show some evidence that RTI implementation can help reduce disproportionality (Bursuck et al., 2004; Marston, Muyskens, Lau, & Canter, 2003).

Researchers have suggested that for RTI to truly meet its potential, it must go further and implement what Garcia and Ortiz (2009) and others refer to as culturally responsive RTI. Culturally responsive RTI requires certain additional beliefs and practices on the part of staff implementing it such as collecting information on students' cultural, linguistic, and economic variables (Marston et al., 2003), reflecting on culturally responsive practices (Dray, Cole, & White, 2009; Fiedler et al., 2008) creating a positive school climate by believing that all students can learn, and employing a culturally responsive core curriculum (Garcia & Ortiz, in press).

Statement of the Problem/Need for Research

Disproportionality is a chronic problem. RTI has been suggested as a way to reduce the chronic problem of disproportionality. In fact, a key reason states such as North Carolina have introduced problem-solving RTI models is to reduce the problem of disproportionality (Sawyer, Holland, & Detgen, 2008). Despite the fact that RTI has

been adopted because of its ability to reduce disproportionality, the extent to which schools are implementing RTI in a culturally responsive way is unknown.

Purpose/Research Questions

The purpose of this study was to examine the extent to which diverse RTI schools in North Carolina engage in culturally responsive beliefs and practices. A survey was designed to answer the following six research questions:

1. To what extent are culturally responsive practices employed by general and special education teachers in diverse RTI elementary schools?
2. To what extent does the level of general and special education teachers' culturally responsive practices differ?
3. To what extent do teachers perceive their RTI school as engaging in culturally responsive beliefs and practices?
4. To what extent have teachers in RTI schools received training in culturally responsive practices?
5. Do the beliefs and practices of teachers who have had preparation on culturally responsive practices differ from those who have not?
6. What are teachers' perceptions of the successes, barriers, and future needs in implementing CRP within an RTI model?

The following results were expected:

1. General and special educators and their schools would employ culturally responsive beliefs and practices that are more commonly aligned with RTI such as

a multi-tiered model of intervention services, a problem-solving process, and collaboration among teachers.

2. Culturally responsive practices that may not be as commonly associated with RTI such as acknowledging and celebrating diversity, using culturally responsive materials, and culturally responsive behavior management practices would be employed at lower levels.
3. Special education teachers may employ more culturally responsive practices that are more commonly aligned with RTI than general education teachers due to their training in differentiated instruction and assessment.
4. Teachers in RTI schools have received some training in culturally responsive practices and that those that have will employ more culturally responsive practices.

Overview of the Study

This study used a mixed method design. Data were collected using a survey instrument. The survey was organized into three parts: a) statements regarding teachers' and schools culturally responsive beliefs and practices including a 4-point scale, b) open-ended questions, and c) demographic questions. The participants for the study were general and special education teachers working in diverse elementary schools in North Carolina implementing RTI.

In Chapter Two, a review of the literature provides background information about the chronic problem of disproportionality, its causes, and education-based solutions. Next, the components of RTI are explained as well as its potential to solve the problem of

disproportionality. Culturally responsive RTI is then introduced as an additional framework to consider in reducing overrepresentation of minorities in special education.

Chapter Three provides an in-depth description of the design of the study, the participants, instrumentation used, administration, and data analyses. In Chapter Four the results are presented for both quantitative and qualitative data collected. Finally, the results are discussed and the need for future research provided.

Limitations

There were several limitations to this study. First, survey research relies on self-reports from participants. Respondents may report only information that is socially desirable. With respect to this study, the majority of participants reported implementing most of the culturally responsive practices described. While the qualitative data provided some additional evidence for the types of practices that were implemented successfully and those for which there were barriers, no direct observation was carried out to verify the types of practices reported. Second, this survey was administered during regularly scheduled staff meetings by the researcher, and collected on the same day. While this procedure increased the overall response rate, the researcher's presence may have influenced the way the participants responded to the survey. Third, participants in this study were selected using a purposive sampling procedure. The ability to generalize the results of this study, conducted in diverse elementary schools implementing RTI in North Carolina, to a national population, is limited. Finally, the extent to which schools implementing RTI in a culturally responsive way reduces the disproportionality of minorities in special education remains largely unknown. In addition, not all of the

culturally responsive practices surveyed have been thoroughly validated in the literature as having a positive impact on academics and the behavior of diverse learners. Thus, it is unclear whether the model as defined in this study, and the resulting survey, would reduce disproportionality even if implemented.

Definition of Key Terms

Terms directly related to the current research are defined in this section and will be used throughout this study. Disproportionate representation, response to intervention (RTI), and culturally responsive practices have been defined in previous sections. The terms here are organized based into five categories.

Positive School Climate

Support and celebrate diversity. Images, sounds, and symbols of students' ethnic and cultural diversity are displayed in the physical environment, students are recognized and honored for their work, and educational materials are translated for non-English speaking families (Gay, 2002, Fiedler et al., 2008).

Teacher expectations. Teachers refrain from a deficit model, believing that a problem resides solely in the student, and believe in their students' ability to make progress, and create environments characterized by care (Brown, 2003; Gay, 2000, Ladson-Billings, 1994).

Administrative support. Support received from administration in the form of providing professional development, enforcing the use of multidisciplinary teams, mandating family involvement, providing additional resources, and being aware of cultural factors that influence learning (Obiakor & Wilder, 2003; Fiedler et al., 2008).

Academic Instruction

Multi-tier instruction. Instruction is provided through a tiered system, most commonly 3 tiers, where students are given the level of support needed based on universal screening and progress monitoring assessments (Mellard, Mcknight, & Woods, 2009).

Differentiated instruction. A theory of teaching based on the principle that instructional methods should differ and be adapted relative to individual and diverse need. Differentiation is guided by content (what the student needs to learn), process (how students are going to learn), product (how students are going to demonstrate learning), and the learning environment (where students are learning) (Hall, Strangman & Meyer, 2009; Technical Assistance Center on Disproportionality, n.d.; Tomlinson, 2001).

Explicit instruction. The clear, direct teaching of skills and strategies that include unambiguous instructional outcomes, a clear purpose for learning, directions and explanations that are understandable, sufficient demonstration, guided and independent practice included in the teaching process, and consistent corrective feedback on student success and errors (Bursuck & Damer, 2011, Foorman & Moats, 2004).

Culturally responsive materials. The inclusion of information and materials about the histories, cultures, contributions, and experiences of different ethnic groups in all content areas (Ladson-Billings, 1994; Gay, 2002).

Peer supports. A highly structured instructional system that teaches students to self-regulate and control their own learning and behavior, and move from being students to teaching both themselves and others (Hattie, 2009).

Behavior Management

Culturally responsive behavior management practices. Approaches that focus on keeping students in the classroom by teaching them important behavioral skills and keeping them academically engaged (Cartledge & Kourea, 2006).

Positive behavior support system. A proactive whole school approach designed to create effective systemic positive classroom and school settings. Individualized behavior interventions are implemented where each student can be involved in the social and learning process while preventing inappropriate behaviors (Cartledge & Kourea, 2006; Sugai & Horner, 2008).

Positive classroom environment. The classroom environment reflects the diverse learning and behavioral needs of students (Fiedler et al., 2008).

Collaboration

Collaboration practices. Instructionally focused collaboration that includes co-teaching which is two or more teachers working together to design and provide differentiated instruction to diverse groups of students in a shared space (Friend, 2005).

Collaboration with families. Schools and classrooms exemplify shared parental/family, student, and teacher involvement. Teachers make an effort to get to know students and their families through school activities, home visits, and interviews (Cartledge & Lo, 2006).

Collaboration beliefs. Support for collaboration is exhibited through scheduling and shared planning. Positive and numerous examples of regular collaboration between general and special education teachers are exhibited (Fiedler et al., 2008).

Assessment

Informal/authentic assessment. Monitoring student performance and conducting error analyses on a continuous basis using brief, technically adequate assessments, that allow teachers to get a comprehensive and reliable synopsis of their students' strengths and weaknesses and to change instruction accordingly (Fuchs, Fuchs et al., 2005).

Environmental assessment. Comprehensive assessments that not only monitor academic expectations and curricular and educational materials, but teacher and peer relationships, behavioral expectations, and spontaneous interactions that occur during the school day that may be cause for academic and/or behavioral difficulty (Overton, 2004).

Problem-solving approach. A four-stage inductive process used to plan and implement interventions based on students' behavior or academic responsiveness that includes problem identification, problem analysis, implementation of a plan, and problem evaluation. (Carney & Stiefel, 2008; Fuchs, Mock, Morgan, & Young, 2003).

Significance

The purpose of this study was to examine the extent to which diverse RTI schools engage in culturally responsive beliefs and practices. Despite the fact that RTI has been adopted because of its ability to reduce disproportionality, the extent to which schools are implementing RTI in a culturally responsive way is unknown. Information gained from this study provides insight into the types of culturally-responsive practices being implemented within RTI schools, information useful to teachers, administrators and policy makers as they continue to look for ways to reduce the problem of disproportionality in our schools.

CHAPTER II

LITERATURE REVIEW

Disproportionate representation of minority students has been a significant issue in the field of special education for more than 30 years (Artiles, et al., 2010; Artiles, Trent, & Palmer, 2004). Minorities are overrepresented in high-incidence disabilities (i.e., mental retardation, emotional/behavioral disorders, learning disabilities) and underrepresented in programs for gifted and talented students (Artiles, Rueda, Salsazar, & Higareda, 2005). IDEA regulations have added a provision requiring states to review ethnicity data as well as race data to determine the presence of disproportionality. If significant disproportionality is determined to exist, local education agencies (LEA) are required to reserve funds to provide early intervening services to children from ethnic groups significantly over-identified (IDEA, 2004). Developing, reviewing, and revising policies and practices for referring, evaluating, identifying, placing, and serving students from culturally and linguistically diverse (CLD) backgrounds is an issue for researchers to address if we are to ever prevent disproportionate representation (Salend, Duhaney, & Montgomery, 2002). Prevention-based systems, such as Response to Intervention (RTI), are being implemented across the country and have the potential to address this national concern with disproportionality. The purpose of this literature review is to discuss the causes of disproportionate representation of minority students in special education,

describe old and current policy and law regarding disproportionality, and examine efforts to address this issue with particular attention to RTI models.

Search Methodology

To locate articles to include in this review on disproportionality, the library catalog and electronic databases in special education and education subject guides (i.e. ERIC, Education Index) were searched as well as websites for policy and law using the following key terms: disproportionate representation, disproportionality, overrepresentation/minorities/special education, and over-identification/special education. Empirical studies and conceptual articles were used.

To locate articles to include in this review on RTI, the library catalog and electronic databases in special education and education subject guides (i.e. ERIC, Education Index, PsychLit.) were searched using the following key terms: early identification, learning disabilities/difficulties, responsiveness/response-to-instruction/intervention/treatment, early intervention, and multitier instruction. The following journals were also hard searched for relevant articles: *Learning Disabilities Research and Practice*, 2003-2010; *Learning Disabilities Quarterly*, 2005-2010; *Journal of Learning Disabilities*, 2005-2010; and *Teaching Exceptional Children*, 2007-2010. Both empirical studies and conceptual articles were used; however, only the articles from 2000 to the present were included in the research synthesis.

Disproportionality Defined

Disproportionate representation is the presence of students from a specific group in an educational program being higher or lower than one would expect based on their

representation in the general population of students. Disproportionate representation includes the overrepresentation and underrepresentation of students from culturally and linguistically diverse backgrounds based on (a) educational classification and placement; (b) access to programs, resources, services, curriculum, instruction; and (c) classroom management techniques (Salend et al. 2002). As it is defined, the consistent existence of disproportionality has been documented repeatedly as a serious and significant problem for more than 30 years (Artiles & Bal, 2008; Artiles et al., 2010; Artiles, Trent, & Palmer, 2004; Coutinho & Oswald, 2000; Dunn, 1968; National Research Council, 2002; Waitoller, Artiles, & Cheney, 2010; Zhang & Katsiyanis, 2002). National and state levels have documented a consistent pattern of overrepresentation that seems to be most severe in high-incidence disability categories (i.e. emotional/behavioral disorders (EBD), learning disabilities (LD), mild intellectual disabilities, and speech/language impairments [SLI]) and among African American and American Indian students (Skiba, Simmons, Ritter et al., 2006; 28th Annual Report to Congress, 2006). Published reports show that more than 14% of African American students are in special education compared with 13% American Indians, 12% whites, 11% Hispanics, and 5% Asian Americans; 2.6% of African-American students are identified as intellectually disabled compared with 1.2% white students (National Research Council, 2002). Overrepresentation patterns differ from national, to state, and to district levels as well as between and within states (Waitoller et al., 2010). For example, African Americans are overrepresented in the categories of mental retardation (intellectual disabilities) and EBD while in some states, Latino students are overrepresented in LD and SLI (National Center for Culturally

Responsive Education [NCCRESt], n.d.). At the state and national levels, Native American students are disproportionately represented in LD and EBD (U. S. Department of Education, 2006).

Both overrepresentation and underrepresentation can adversely affect students and their school performance. Placing students from culturally and linguistically diverse backgrounds in special education on a separate but unequal track that denies them access to the general education curriculum can have a negative effect on academic performance, self-esteem, classroom behavior and interactions, educational and career goals, and motivation (Salend et al., 2002). Comparably, the underrepresentation of students has a negative impact on students' educational outcomes by denying the degree of access required to meet their individual educational needs (Poon-McBrayer & Garcia, 2000).

Causes of Disproportionality

While disproportionality has existed for many years and negatively affected minorities, opinions vary as to its causes. For example, Coutinho & Oswald (2000) noted two important factors that tend to contribute to disproportionality: sociodemographic factors and educational factors. The National Research Council (2002) explored three sources as causes: (a) social and environmental factors that may disproportionately affect the school readiness of minority students, (b) contributions of general education, and (c) contributions of the special education referral process. In the next section of the paper, factors accounting for disproportionality will be discussed including social and environmental factors, and educational factors. Theoretical frameworks of inequity and race and their relationship to disproportionality will also be discussed.

Social and Environmental Factors

The impact of poverty, as a social and environmental factor, has been widely documented as a justification for disproportionality (Artiles et al., 2010; National Research Council, 2002). Respondents in a study by Skiba and his colleagues (2006) were consistent with findings on the issue of poverty. In a qualitative study, the authors interviewed 66 educators to discover the processes that may contribute to the overrepresentation of culturally and linguistically diverse students placed in special education. The educators stated that a poverty stricken culture creates a disjuncture between what schools expect of students and families and what students and families from poverty backgrounds bring with them. The needs of students from a background of poverty outpace the resources available for meeting needs and overrepresentation is a result of this mismatch (Skiba, Simmons, et al., 2006).

Some of the perceived effects of poverty may be attributable to the difficulties that disadvantaged students have in negotiating the unfamiliar culture of schools (Skiba, Simmons, et al., 2006). Bourdieu (1990) refers to this negotiation as social and cultural capital. Students with more valuable social and cultural capital have better outcomes in school than do their peers with less valuable social and cultural capital. Success in school is determined by cognitive and academic skills, as well as the ability to learn and respond to the implicit expectations and communication patterns of school settings. Schools are not successful in helping students living in poverty learn those skills to become successful in school (Stanton-Salazar, 1997).

The impact of poverty on special education referrals varies by disability category and shows factors other than poverty are playing a significant role in referrals. These factors include having teachers who use ineffective teaching methods, having negative experiences with teachers, losing instructional time because of behavioral problems, and experiencing reading difficulties due to cultural differences (Espinosa & Laffey, 2003; Stormont, 2007). Although the impact of poverty on educational readiness is powerful, how or to what extent the relationship of poverty and achievement affects minority placement in special education and how these relationships may be mediated by local networks and human resources is not clear.

As just indicated, poverty alone does not account for disproportional placement. Oswald, Coutinho, Best, and Singh (1999) analyzed the relationship between ethnicity and various economic, demographic, and economic factors for students identified with mild mental retardation and serious emotional disturbance. The authors used data from the Elementary and Secondary School Civil Rights Compliance Report, obtaining a sample of 4,692 school districts. Results indicated that African American students who attended schools in the wealthiest communities were more likely to be identified as being emotionally disturbed than African American students who resided in poor communities (Oswald, Coutinho, Best, & Singh, 1999). School districts with similar rates of impoverished students show a significant variation in their special education placement rates, that seem to be related to race or ethnicity (Skiba, Simmons et al., 2006).

Coutino & Oswald (2000) suggest that ethnic groups are differentially vulnerable to educational disability. Rates of referral and identification as disabled are influenced by

an array of factors that vary across ethnic groups. For example, the environment, demographics, health, economics, and education may differentially affect the vulnerability of ethnic groups to educational disability. Any or all of these factors can account for individual student differences in achievement or insufficient options in general education.

Educational Factors

Educational factors perceived as causing overrepresentation originate in the context of the general education system (National Research Council, 2002). The referral of children for special education happens based on a child's performance and only after he/she has failed to achieve in general education. Contributors to the school context such as inequitable distribution of financial resources, teachers who are not prepared for academic and behavioral problems in the classroom, and class sizes that make it difficult for teachers to devote more time on instruction can affect the placement rates of minorities in special education.

Inequities in the referral, assessment and eligibility determination process, and the subjectivity of high-incidence disability categories also contribute to disproportionate placement in special education (Coutinho & Oswald, 2000; National Research Council, 2002). Special education referral, assessment, and eligibility rely on processes and instruments that may be culturally and linguistically biased and that may measure and interpret the ability, achievement, and behavior of students differently across ethnic groups. For example, special education practices can include invalid assessment measures that provide inaccurate educational information. An example of assessment bias

was evident in a study conducted by Nagliery and Rojahn (2001). A very popular intelligence scale, *The Wechsler Intelligence Scale for Children-Third Edition* (WISC-III), was compared to the *Cognitive Assessment System* (CAS) on a sample of 78 African American Students and white students identified with mild mental retardation. The authors found that unlike the CAS, the WISC-III disproportionately identified more African American students for the mild mental retardation category than white students as a result of the differences in test content.

Racial/ethnic bias on the part of the referring teacher or multidisciplinary team members and the use of biased decision making criteria can also cause student information, including behavior and achievement, to be interpreted differently when the student is from a minority ethnic group (Coutinho & Oswald, 2000). For example, Tobias, Cole, Zibrin, and Bodlakova (1982) examined the effects of race in the referral decisions of 199 teachers of different ethnic backgrounds (black, Hispanic, and white) who taught at the elementary, secondary, and higher education level recruited from graduate school classes and faculty meetings. Study participants were presented with a fabricated case study and were asked to reply to a set of questions regarding EBD placement. All of the case studies were the same except the student was described as either black, Hispanic, white, or no ethnic identification was given. Findings suggested teacher placement bias. Despite their own ethnicity, teachers referred students from ethnic backgrounds other than their own for special education services more often than they referred students identified from their own ethnic group. For example, white

teachers were less likely to refer the student for special education services when he was identified as being white than when he was described as being black or Hispanic.

Inequity and Race

Economic inequity and race are continued themes in discussions of disproportionate representation. Different theories support data on economic inequities and race and arrive at different conclusions. These theories include critical race theory, cultural reproduction theory, and psychometric theory.

Critical race theory focuses on the concept of race as a social construct and on the ways that construct has been used to continue the relative privilege and power of the dominant group. Blanchette (2006) defines white privilege and racism and how it contributes to disproportionality. “White privilege” is defined as any phenomena, whether individual, structural, political, economic, or social, that serves to privilege Whites while oppressing people of color and promoting White supremacy. “Racism” is defined as individual, structural, political, economic, and social forces that serve to discriminate against and disadvantage people of color on the basis of their race for the purpose of maintaining White dominance and power. White privilege and racism contribute to and maintain disproportionality in special education by insufficiently funding schools attended primarily by African American and poor children. Limited access to high quality prereferral and ancillary services due to inequitable funding increases the extent to which students are referred for special education services (Salend, et al., 2002). According to critical race theory, disproportionality can also be maintained by employing culturally inappropriate and unresponsive curricula, and inadequately

preparing educators to effectively teach African American learners and other students of color. Further, students from culturally and linguistically diverse backgrounds are more likely than their White counterparts to attend schools that do not have the resources to provide them with access to appropriately licensed professionals; preschool; related, supportive, and transitional services; extracurricular activities; appropriate class sizes; testing accommodations; and state-of-the-art physical facilities including instructional and assistive technology (Kemp & Parette, 2000; Kozol, 1991; Lewin, 2000).

Professional views and practices that do not call attention to the importance of family involvement and the failure of school districts to collect data to identify, track, and examine disproportionality also increase the likelihood that disproportionate representation of minorities will occur (Skiba, Poloni-Staudinger, et al., 2006).

Cultural reproduction theory provides another framework for examining inequities. This theory explains how everyday actions by institutions and individuals support and reproduce both racial and socioeconomic inequity in schools and society (Mehan, 1992; Oakes, 1982). These actions or processes may be perpetuated by individual or institutional habit patterns that are carried out by those who participate in institutional actions without realizing it. For example, routine interactions between teachers and their students, and evaluative techniques used by teachers may not be appropriate to reliably identify the intellectual resources and talents of low-status children, therefore identifying them as poor performers. These unchallenged patterns, albeit unintentional, perpetuate existing inequities in school processes. In this way, ignoring the existence of separate and distinct cultures results in a lack of sensitivity to

the nuances of language, attitudes towards teachers and education and roles of family members within cultures, subsequently leading to disproportionate representation (Arnold & Lassman, 2003).

Psychometric theory supports fixed genetic explanations over environmental explanations of the Black-White test score gap and uses as evidence the fact that social programs have not closed the gap in measured performance on standardized tests. However, research indicates that norm-referenced standardized tests may be culturally and socially biased and do not give accurate measures of some students' abilities and potential, contributing to students from culturally and linguistically diverse backgrounds being misclassified as having some type of disability (Grossman, 1995; Rueda, 1997). In addition, as explained earlier, there are many other explanations for the achievement gap other than genetics, and it is not at all a certainty that "social programs" have directly and adequately addressed these problems.

Policies Enacted to Address Disproportionate Representation

Efforts to address disproportionate placement in special education depend on local need. Important changes in federal law now require individual states to pay close attention to the issue of disproportionality and develop a plan to address this issue. Before recent changes, states were required simply to determine if significant disproportionality based on race was occurring in the state or in school districts. IDEA 2004 requires states to carefully review disproportionality with respect to race, ethnicity, and disciplinary actions. If significant disproportionality is determined to exist, the state is required to review and revise policies, procedures, and practices and publicly report the

data (IDEA, 2004). However, disproportionality was a major issue long before policy and laws were in place to address it.

Before there was disproportionate representation, there was segregation. *Brown v. Board of Education* was a landmark decision in 1954 that overturned earlier rulings by declaring that state laws which started separate public schools for black and white students denied black children equal educational opportunities. The Warren Court's decision declared that "separate educational facilities are inherently unequal," and was ruled as a violation of the Equal Protection Clause of the Fourteenth Amendment. This eventually led to the integration of public schools and the Civil Rights Movement.

In order to give equal rights to all Americans in public facilities, the Civil Rights Act of 1964 was established. This legislation outlawed segregation in the schools in the United States as well as public places. One of the major features of the Civil Rights Act is in Title IV, which "encouraged the desegregation of public schools and authorized the U.S. attorney General to file suits to enforce said act." Even though this act was put into place, all schools were not desegregated at that time.

Since the late 1960's, the overrepresentation of African-American students in special education has been a serious concern among policymakers and the public (Education Commission of States, 2007). Despite legislative efforts to integrate public schools, African-American children and other minorities were being disproportionately identified as having disabilities and being placed in special education classes. Section 504 of the 1973 Rehabilitation Act protected students with disabilities from being

discriminated against; however, this act did not protect discrimination of children based on race.

In 1975, Public Law 94-142, later renamed the Individuals with Disabilities Education Act (IDEA), was enacted to assure that all children with disabilities have available a free appropriate public education. While this law protected children with disabilities and required a pre-referral intervention for documentation that a problem could not be solved without Special Education (Shores, 2004), it did not address eligibility requirements related to the issue of over-identification of African-American students in specific categories of special education.

The reauthorization of IDEA in 1997 addressed the disproportionate enrollment of students in specific racial groups in special education and mandated new state minority enrollment reporting requirements. The law addressed disproportionality based on race as it applied to the identification of children with disabilities as well as their placement in particular educational settings. If a significantly disproportionate number of minorities was identified and placed in special education, then states were mandated to review and revise their policies, procedures and practices for identifying and placing students. Changes to the provisions regarding disproportionality and over-identification were added in the reauthorization of IDEA 2004. Ethnicity, as well as race, became the basis for disproportionality. In addition, disproportionality was now also being examined as it related to the incidence, duration, and type of disciplinary actions, including suspensions and expulsions. Also according to IDEA 2004, states must (a) reserve the maximum amount of funds to provide comprehensive coordinated early intervening services to

serve children in the local educational agency (LEA), particularly children in those groups that were significantly over-identified; and (b) require the LEA to publicly report the revision of policies, practices, and procedures.

The 2004 reauthorization of IDEA also gave states the flexibility and responsibility to define significant disproportionality as it applies to identification, placement, and disciplinary actions. While states have this flexibility, neither laws nor the regulations specify what criteria should be used to determine significant disproportionality (Markowitz, 2002). The annual determination used is based on the analysis of numerical information that varies among states. In a study by Burdette (2007), states reported data using formulas including the following: (a) risk ratio formula, (b) LEA written policies and procedures, (c) data analysis, (d) monitoring process of each LEA, (e) disaggregating data, and (f) analysis of means. Some states identify LEAs based only on one or two of the three areas considered (i.e., identification, placement and disciplinary actions) and some for only specified racial or ethnic groups or disability categories.

The policy based on IDEA 2004 gives recommendations on how states should address disproportionality but does not give clear instructions or a plan to follow. The reason given is that policies that work for one state may not be appropriate for another (Education Commission of the States, 2003). In the next section, education-based solutions to address disproportionality will be addressed. Remedies for correcting disproportionate numbers of minorities or English language learners in special education include teacher preparation, culturally responsive pedagogy, and school leadership.

Education-Based Solutions to Address Disproportionality

While policy and laws make states accountable for the issue of disproportionality, solutions to address the problems are left up to administrators, educators and teachers who work closely with culturally and linguistically diverse students. Solutions have been generated to combat the problem of minority overrepresentation.

Teacher Preparation

Patton (1998) noted that leaders, those who produce the knowledge base in the field of special education and who are also experts on culture and interculture, are needed to bring resolution to this continuing challenge. Effective instruction in general education has been endorsed as a critical element in combating underachievement and subsequent potential eligibility for special education services (Zhang & Katsiyannis, 2002). The use of experimentally validated practices such as early detection, early interventions, prereferral procedures, and interventions designed to foster academic and social competence, resiliency and self-determination have also been proposed (Zhang & Katsiyannis, 2002). These interventions have been shown to be effective across cultures in addressing the issue of disproportionate representation (Zhang & Katsiyannis, 2002).

Voltz, Brazil, and Scott (2003) implemented a 3 month teacher-directed professional development program designed to increase the awareness of learning and behavior differences that are influenced by culture for 33 general and special education teachers. The authors' focus was to address overrepresentation by improving the knowledge and skills of teachers through professional development. The professional development was based on Banks' (2001) model of multicultural education which

encompasses 5 major themes: the integration of content regarding diverse populations in the curriculum, the construction of knowledge based on students' culture, reducing prejudice by examining and reducing bias in attitudes, empowering the culture of the school by addressing factors such as the negative effects of tracking and grouping and inequity in achievement, and the use of teaching strategies that encourage the learning characteristics of diverse populations. Pre- and post- questionnaires, interviews, and lesson plan analyses were conducted to measure the effects of the professional development. Voltz et al. (2003) found that teachers' awareness changed as a result of the professional development. For example, teachers noted that they would need to gather information from a variety of sources before making referral decisions, could articulate the influence of culture on behavior, and integrated multicultural content into their lesson plans. While teacher outcomes were gathered, no observable changes in the classroom were noted nor data collected on whether or not the professional development had a direct impact on overrepresentation of minority students in their respective schools.

Preparing teachers and educators to address the needs of ethnically and culturally diverse students (Blanchett, 2006; Salend et al., 2002; Voltz et al., 2003) is paramount. Educators must make sure that students' sociocultural, linguistic, racial/ethnic, and other relevant background characteristics are addressed at all stages (Garcia & Ortiz, 2006). Activities in which educators must engage include reviewing student performance, considering reasons for student difficulty, designing alternative interventions and interpreting assessment results (Ortiz, 2002). Without such a careful examination of each

student's circumstance, disproportionate representation in special education may continue (Garcia & Ortiz, 2006).

Professional organizations such as the National Council for the Accreditation of Teacher Education (NCATE), the Interstate New Teacher Assessment Support Consortium (INTASC), and the Council for Exceptional Children (CEC), have integrated multicultural issues all through their accreditation requirements, standards, and teacher performance indicators (CEC, 2001; INTASC, 2001; NCATE, 2001) and have strongly promoted colleges of education to address cultural and linguistic diversity in all preservice and inservice programs. In her policy analysis of national and state initiatives related to multicultural education, Gollnick (1995) found that in 1993, sixteen of the seventeen national curriculum guidelines approved by NCATE integrated multicultural guidelines. Thirty five states referred to ethnicity and the importance of understanding cultural influences on learning in policies referring to teacher candidates. Forty states required teacher education programs to include ethnic groups, cultural diversity, human relations, or multicultural and bilingual education in their studies (Gollnick, 1995). The 2004 Reauthorization of the Elementary and Secondary Education Act (ESEA, 2004) also holds educators accountable for guaranteeing that all students make adequate yearly progress toward meeting state standards, including English language learners (ELL), students with disabilities, and students from economically disadvantaged, and/or diverse racial and ethnic groups. Identified competencies for teachers of culturally and linguistically diverse learners comprise the following categories: a) sensitivity and knowledge about the influence of culture, b) providing a supportive learning

environment, c) appropriate instruction and assessment measures, as well as d) facilitating parent involvement (Daunic, Correa, & Reyes-Blanes, 2004). While teacher preparation in culturally responsive teaching has been highly endorsed, efforts to which college of education programs are preparing and incorporating multicultural education for preservice and inservice teachers depends on experiences and commitment of faculty (Asher, 2007; Trent, Kea, & Oh, 2008). More accountability measures are needed (Grant & Secada, 1990).

Culturally Responsive Pedagogy

One way of ensuring that teachers have the necessary knowledge and skills to prevent disproportionality is through training and professional development in culturally responsive pedagogy and culturally appropriate behavior management strategies (Salend et al., 2002; Voltz et al., 2003). Cultural responsive pedagogy refers to employing multicultural instructional strategies and materials that address the different cultural, linguistic and experiential backgrounds of the students taught. Culturally appropriate behavior management strategies involve determining what social, cultural, linguistic, affective, environmental, and contextual variables predict and maintain behaviors and developing intervention plans that consist of peer-mediation, self-management, and social skills instruction. These important knowledge bases place culture and the ways in which culture mediates behavior and learning at the forefront of intervention design, implementation, and eligibility determination (Harris-Murri et al., 2006).

Culturally responsive practices recommended for culturally diverse students at risk for and with disabilities supported in the literature (Cartledge & Kourea, 2008;

Fiedler et al., 2008; Gay, 2000, 2002; Ladson-Billings, 1995) are included in the following sections.

Positive School Climate. A positive school climate celebrates and supports diversity and has high teacher expectations for students (Obiakor & Wilder, 2003; Wynn, 1992). One way of valuing diversity is having self-awareness of one's own culture as well as that of others (Gay, 2002). It is recommended that teachers recognize their own ethnocentrism and understand how their beliefs and biases affect their teaching (Gay, 2002; Weinstein, Tomlinson-Clarke, & Curran, 2004). This promotes self-understanding as well as a clear view of their students' social skills and behaviors. As a result, teachers are able to prepare for and respond to culturally different behaviors and allow or redirect behaviors of students when appropriate (Cartledge & Kourea, 2008).

Teachers' high expectations of all students lead them to provide the needed experiences that allow students to meet those high expectations (Larke, Elbert, Webb-Johnson, Larke, & Briscoe, 2006). High expectations play a key role in creating positive and affirming environments essential for establishing a culturally responsive classroom. In positive classrooms for diverse students, teachers refrain from a deficit model, believing that a problem resides solely in the student, believe in their students' ability to make progress, and create environments characterized by care (Brown, 2003; Gay, 2000, 2002, Ladson-Billings, 1994). For example, teachers exhibit concern for their students' emotional, physical, social, and economic well being by respecting, listening to, and encouraging them both in and outside of the classroom. Evidence suggests that students

of color exhibit improved performance in classroom climates that are emotionally warm, supportive and caring (Gay, 2001; Kleinfeld, 1974, 1975).

Kleinfeld (1974) provided evidence of how providing a caring environment increased academic achievement for ethnic minority students. The author examined how nonverbally warm versus nonverbally neutral impersonal teaching styles affected the learning, and question asking and answering of 20 Eskimo and 20 White students enrolled in ninth grade at an urban high school. Nonverbal warm behavior was defined as smiling, close body distance, and touch which are prominent cues of warmth in Eskimo culture. Each participant attended a warm and a neutral college guidance session. While results indicated that a display of warmth resulted in increased learning for both groups and higher question answering for females in both groups, warmth affected the questions asked by Eskimo students significantly.

Not only is care exhibited in positive school climates, but it is recommended that images, sounds, and symbols of students' ethnic and cultural diversity be displayed in the physical environment as well (Gay, 2002). Images of different ethnically diverse individuals representing a diverse range of accomplishments as well as evidence of the students' accomplishments portrayed on a continuous basis communicates positive messages about themselves as well as the ethnic diversity in their lives. Gay (2002) suggests this positive message, in turn, unleashes self-confidence and higher academic competence (Gay, 2002).

Differentiated Instruction. In addition to creating culturally responsive school climates, instruction is also a key component of culturally responsive pedagogy. Research

suggests “cookie cutter” or one size fits all approaches are not practical choices for improving the achievement of students of cultural and linguistic diversity (Love & Kruger, 2005). Instead, differentiated instruction in content areas is needed (Ladson-Billings, 1994; McCollin & O’shea, 2005). Differentiation is guided by the variation of several key elements which include content (what the student needs to learn), process (how students are going to learn), product (how students are going to demonstrate learning) (Tomlinson, 2001) and the learning environment (where students are learning) (TACD, n.d.). Differentiated instruction is a theory of teaching based on the principle that instructional methods should differ and be adapted relative to individual and diverse student need (Hall et al., 2009). Students’ varying background knowledge, readiness levels, language, and interests are recognized in the teaching and learning process. With this approach, teachers react responsively by being flexible in teaching and adjusting the curriculum and presentation of information while students have multiple options for receiving information and making sense of ideas. For example, differentiating in the area of reading includes using varying levels of reading material, using literacy centers with different tasks created to match students’ readiness and interests, and meeting in small groups or one-on-one to re-teach a skill or idea (Tobin & McInnes, 2008; Tomlinson, 2003). Differentiated instruction has been used to serve gifted learners (e.g. Berger, 1991; Van Tassel-Baska, 1989), provide support for children with high-incidence disabilities (e.g. Lawrence-Brown, 2004; Waldron & McLeskey, 1998), and has been endorsed for instructing learners of culturally and linguistically diverse backgrounds in the general education setting (Santamaria, 2009; Walker-Dalhouse et al., 2009).

Multi-tiered Model of Intervention. Multi-tiered models of intervention services are employed as a means of differentiating instruction (Walker-Dalhouse et al., 2009). Differentiated instruction is provided through a tiered system, most commonly 3 tiers (Berkeley et al., 2009), where students are given the level of support needed based on universal screening and progress monitoring assessments (Mellard et al., 2009). Differentiated instruction is initiated as needed for all students in the general education classroom at tier 1, with additional systematic, explicit, and intensive instruction provided at tiers 2 and 3 if academic problems continue. This model of intervention allows teachers to intervene as early as possible with diverse learners to address skill gaps that exist and prevent further academic loss (Cartledge & Korea, 2008). In a research project conducted by Bursuck et al. (2004), a multi-tiered model of intervention was implemented with explicit code-based instruction in three-ethnically diverse high-poverty schools over a 4 year period. A school with the same demographics was used as a comparison. After a two year period of implementing a multi-tiered model of reading instruction to at-risk kindergarten students, the authors found that only 5.9% of students were at risk on decoding measures, compared with 24.7% in the comparison school at the end of first grade. At the end of second grade, 35.6% of targeted students continued to be at risk as compared to 63% in the comparison school. This evidence suggests that implementing a multi-tiered model of intervention increases the academic skills of diverse students.

Explicit teaching. Explicit teaching is one the most effective ways to teach essential academic skills to children who are diverse (Cartledge, & Korea, 2008; Bursuck

& Damer, 2011; Fisher & Berliner, 1979; Foorman & Moats, 2004; Rosenshine, 1987; Simmons & Kame'enui, 2003). Explicit teaching is defined as the clear, direct teaching of skills and strategies that include unambiguous instructional outcomes, a clear purpose for learning, directions and explanations that are understandable, sufficient demonstration, guided and independent practice included in the teaching process, and consistent corrective feedback on student success and errors (Bursuck, & Damer, 2011). Explicit teaching works for a variety of ability, age, and skill levels with similar effects for regular and special education students with low abilities, more effects for reading than math, more for low-level word attack and high-level comprehension, and the same for elementary and high school students (Adams & Engelmann, 1996; Hattie, 2009). Explicit instruction has also proven to benefit ethnically diverse learners in high poverty schools (Bursuck, et al., 2004; Borman et al., 2005; Hurley, Chamberlain, Slavin & Madden, 2001) as well as English language learners (Lesaux & Siegel, 2003; Chambers et al., 2005).

Culturally Responsive Materials. The inclusion of information and materials about the histories, cultures, contributions, and experiences of different ethnic groups in all content areas is often recommended for ethnically diverse students (Ladson-Billings, 1994; Gay, 2002). For example, samples of reading materials written by and about a child's own and other ethnic groups used to identify, teach, practice, and model mastery of reading skills can be included in reading instruction. Social studies instruction on war could include information regarding cultural collisions and conflicts of power in various parts of the world and time periods, not just conventional teaching practices (Gay, 2002).

In culturally responsive classrooms, individual cultures are not excluded but are brought into the classroom as a way of matching how the child uses his/her culture to understand new concepts (Larke, et al. 2006).

Peer supports. Culturally responsive classrooms are positive environments where a community of learners help each other (Boykin, Tyler, & Miller, 2005; Boykin, Tyler, Watkins-Lewis, & Kizzie, 2006; Ladson-Billings, 1994). An effective communal learning strategy is peer-mediated learning, a widely-known highly structured instructional system that teaches students to self-regulate and control their own learning and behavior, and move from being students to teaching both themselves and others (Hattie, 2009). This type of collaborative instruction allows students to pair into groups of two, take on the role of either tutor or tutee to teach each other academic material, provide corrective feedback for incorrect responses, and give positive reinforcement for correct responses. Peer mediated instruction has positively affected students with disabilities (e.g. Cook, Scruggs, Mastropieri, & Casto, 1985; Elbaum, Vaughn, Hughes, and Moody, 2000; Kunsch, Jitendra, & Sood, 2007; Phillips, 1983) and the academic and social development of culturally and linguistically diverse students (e.g., Cochran, Feng, Cartledge, & Hamilton, 1993; Kourea, Cartledge, & Musti-Rao, 2007). Benefits of using peer supports in the classroom with diverse learners include greater academic skills (Greenwood, Arreaga-Mayer, Utey, Gavin, & Terry, 2001), developing social behaviors and classroom discipline (Maheady, 1998; Lo & Cartledge, 2004; Mastropieri & Scruggs, 2000) and improving peer relationships (Scruggs & Mastropieri, 1988).

For example, Kourea, Cartledge, & Musti-Rao (2007) studied the effects of total class peer tutoring on six African-American students at risk for reading failure in an urban elementary school. The study focused on students' sight-word acquisition, reading fluency, comprehension, and reading skill maintenance. Students received peer tutoring training prior to the intervention and were paired based on comparable performances on subtests and assessments during the baseline condition. Peer tutoring sessions were conducted three times per week for 30 minutes. The intervention lasted between 17 and 20 weeks for each pair. The results indicated that five of the six students significantly increased their acquisition of sight words, and all participants' reading fluency and comprehension scores as measured by the *Diagnostic Indicators of Basic Early Literacy Skills* (DIBELS) Oral Reading Fluency passages (DORF) increased during intervention.

Collaboration. A collaborative framework for students in the learning environment, such as peer supports, should coexist with strong beliefs and practices of collaboration among professionals and family (Cartledge & Lo, 2006). Collaboration is an interaction between parties with perceived equal value, who are engaged voluntarily to share in decision making while working toward a common goal. The definition includes conditions such as voluntariness, parity among participants, shared responsibility and mutual goals (Friend & Cook 1990). Instructionally focused collaboration among teachers is an essential element for forming effective educational programs for diverse learners, including students with disabilities and students who are culturally and linguistically diverse (York-Barr, Ghore, & Sommerness, 2007). Instructionally focused collaboration includes co-teaching which is when two or more teachers work together to

design and provide instruction to diverse groups of students in a shared space (Friend, 2005). Co-teaching allows for diverse teachers to use their areas of expertise to differentiate and provide smaller group instruction. While collaboration has been endorsed in the literature as a reflective practice amid teachers (e.g. Friend, 2005; Knight & Wiseman, 2005; McClesky & Waldron, 2000), little research has provided evidence of the effect of collaborative instructional models on student achievement and learning, including diverse learners.

One example of a study that provides qualitative evidence of collaboration and student outcomes is a study by York-Barr et al. (2007). The authors conducted a 3 year study where English language learner (ELL) and general education teachers collaborated during planning, teaching, and reflecting in grades 1 and 2 of an urban elementary school with a high population of ELL students. Student achievement results were analyzed from both qualitative and quantitative data. The results indicated that the continuous implementation of inclusive and collaborative instructional models positively affected the social and academic outcomes of students from culturally and linguistically diverse backgrounds. For example, students were more highly engaged in instructional and social contexts and increased their math and reading scores as measured by normal curve equivalents (NCE). Although gains were found, no comparative analysis was implemented using other schools.

Collaboration among all stakeholders includes families. Culturally responsive classrooms exemplify shared parental/family, student, and teacher involvement (Larke, et al., 2006). Teachers make an effort to get to know students and their families through

home visits and interviews. Because parents have a big stake in the decisions made regarding their children, they are included in every aspect of their child's learning. The teachers and administration make every effort to host events for parents and families on a regular basis, provide opportunities for parents and families to participate in regularly scheduled meetings outside of the school setting, and offer to meet parents outside of the school setting if necessary (Cartledge & Lo, 2006). Through these positive actions, positive relationships develop which include trust, respect, and a sense of community (Friend & Cook, 1990; Friend, 2005; Larke, et al., 2006). Teachers become more knowledgeable about students' cultures and background.

Ditrano & Silverstein (2006) showed how parents of children with emotional disabilities were empowered when their roles and responsibilities were extended as integral parts of the collaborative team. In their qualitative study, the authors implemented a participatory action research (PAR) project with 9 parents from ethnically diverse backgrounds, whose families qualified for free and reduced lunch. Each family had at least one child who was classified as having emotional disabilities. The parents as well as the school psychologist and two paraprofessionals met for seven sessions over five months in an effort to increase the parents' school involvement. PAR involved three phases: 1) a research phase where participants discussed their experiences of having a child with an emotional disability, 2) an education phase that involved reviewing their children's transcripts and learning about special education, and 3) an action phase where parents discussed and participated in action activities such as getting more information from school personnel and becoming advocates for their children. Results indicated that

by attending PAR, parents were optimistic and empowered. They became more confident in their relationship with the school system, advocated for their children, and worked collaboratively to develop a school improvement plan suggesting ways for schools to be more inviting to parents.

Culturally Responsive Behavior Management Practices. Culturally responsive behavior management practices include a positive behavior intervention support system (PBIS) (Noguera, 2003; Skiba, Michael, Nardo, & Peterson, 2002). PBIS is a proactive whole school approach designed to create effective systemic positive classroom and school settings. Individualized behavior interventions are implemented where each student can be involved in the social and learning process while preventing inappropriate behaviors (Cartledge, & Kourea, 2006; Sugai & Horner, 2008). Culturally and linguistically diverse learners often experience punitive actions such as suspensions or expulsions. Contrary to being punitive, this approach focuses on keeping students in the classroom by teaching them important behavioral skills and keeping them academically engaged.

Interventions of PBIS are organized in a three-tiered prevention model. The first tier includes the identity of proactive practices that prevent new cases of problem behaviors for the school or classroom. In the second tier, more specific behavior supports are included for students whose behavior did not respond to interventions at the first tier. The third tier includes behavior supports that are highly specific and individualized for those students whose behavior did not respond to the first and second tiers (Crone & Horner, 2003; Sugai & Horner, 2008). Some examples of PBIS include establishing

procedures that stress positive behaviors, recognizing students for displaying appropriate behavior on a regular basis, and continuously implementing incentives for positive behavior. Functional behavior assessments (FBAs) along with behavior intervention plans (BIPs) have been successfully used with PBIS to address individual students as a way of teaching alternative behaviors to replace more disruptive behavior (Burke, Hagan-Burke, & Sugai, 2003; Lo & Cartledge, 2006). PBIS has been effective with various populations, including urban school settings, in reducing discipline referrals and improving successful participation of students in school (e.g., Duda & Utley, 2005; Lassen, Steele, & Sailor, 2006; Sadler & Sugai, 2009). Despite its effectiveness in reducing discipline referrals, studies on PBIS have not specifically investigated its impact on disproportionality.

Assessments. In culturally responsive classrooms, teachers link their explicit instruction with student performance through ongoing informal/authentic and environmental assessments necessary for student achievement (Cartledge & Kourea, 2008; Fiedler et al., 2008). Monitoring student performance and conducting error analyses on a continuous basis using brief, technically adequate assessments, allows teachers to get a comprehensive and reliable synopsis of their students' strengths and weaknesses and change instruction accordingly (Fuchs, Fuchs et al., 2005). Curriculum based measures (CBMs) have been well researched (Deno, 1992; Fuchs, Fuchs, & Speece, 2002) and successfully used to increase the academic achievement of culturally and linguistically diverse students (Demie, 2005; McMaster, Wayman, & Cao, 2006). For example, in her case study of the achievement of Black Caribbean students in thirteen

primary and secondary schools, Demie (2005) found that the use of progress-monitoring data to monitor Black Caribbean students' performance and evaluate school practices was a key feature in contributing to the students' academic achievement. The schools placed enormous emphasis on monitoring and tracking individual students and providing individual supports.

Environmental assessments are comprehensive and monitor not only academic expectations and curricular and educational materials, but teacher and peer relationships, behavioral expectations, and spontaneous interactions that occur during the school day that may be cause for academic and/or behavioral difficulty (Overton, 2004). By looking at the relationship between the classroom environment and diverse student need, environmental assessments allow all students to gain access to the general education curriculum (IDEA, 2004; Friend & Bursuck, 2009). Assessing the physical environment and the teaching and behavioral instruction of the environment helps teachers to determine needed interventions in the environment to promote positive behavioral interventions and to promote academic success through culturally responsive practices previously mentioned.

Problem Solving Approach. A problem solving model is a four-stage inductive process used to plan and implement interventions based on students' behavior or academic responsiveness (Carney, & Stiefel, 2008; Fuchs, Mock, Morgan, & Young, 2003). The problem solving process is implemented by collaborative multidisciplinary teams made up of specialists and teachers who are trained in problem identification, problem analysis, implementation of a plan, and problem evaluation (Burns, Wiley &

Viglietta, 2008; Fuchs, et al., 2003). Analyses along with data collection on students' academic performance are carried out using curriculum-based measures providing the foundation for planning a systematic set of interventions that are then implemented, followed by a collection of feedback of the effectiveness of the intervention, and modification of the intervention program. Problem-solving models have been used successfully in multi-tier models of intervention (Carney, & Stiefel, 2008; Fuchs, et al. 2003; Kovalski, 2003) and to address disproportionate placement of culturally and linguistically diverse learners (Marston et al., 2003). More will be described about Marston, Muyskens, Lau, and Canter (2003), in a later section.

School Leadership

School administrators play a major role in setting and enforcing school policies and practices. It has been suggested that administrators should modify school practices by enforcing the use of diverse multidisciplinary teams in the pre-referral process (Obiakor & Wilder, 2003; Salend et al., 2002), mandating the inclusion of parents and family involvement in the entire IEP process, requiring assessing students in their dominant language (Jiminez, 2004), and, in general, being aware of cultural factors that influence learning. Other administrative remedies involve state-level administrators developing and implementing equitable school funding systems. Making substantial increases in the resources available in general education to meet the needs of disadvantaged students should also be carried out (Blanchett, Mumford, & Beachum, 2005; Skiba et al., 2006). Ultimately quality education is everybody's problem. All

educational stakeholders have a responsibility in ensuring the success and equitable education of all students (Blanchett et al., 2005).

To summarize what has been covered so far, disproportionality has been a documented problem since the desegregation of public schools in the United States. There are a number of different theoretical as well as societal, environmental, and educational reasons for its continued presence in our society. While serious efforts to address disproportionality such as implementing culturally relevant pedagogy, teacher preparation, and school leadership have been suggested and applied (i.e. Blanchett, 2006; Cartledge & Kourea, 2008; Fiedler et al., 2008; Gay, 2000, 2002; Ladson-Billings, 1995; Salend et al., 2002; Voltz et al., 2003), putting theory into practice has been a challenge because the issue still exists. In the next section the potential of response to intervention (RTI) to solve this chronic problem of disproportionality will be discussed.

Response to Intervention

States are now required to reserve funds to provide intervening services to children in their LEA who are significantly over-identified. With respect to identification of children with specific learning disabilities (SLD), states also can permit the use of an identification process based on the child's response to scientific, research-based interventions called response to intervention or RTI. States can use a response to intervention (RTI) model rather than a discrepancy model to determine if a child is suspected of having a specific learning disability (SLD; IDEA, 2004). RTI allows for early and intensive interventions, designed to meet student needs before they fail. RTI also encourages a collaborative approach to delivering supports and services (McKenzie,

2009; Vaughn & Fuchs, 2003; Fuchs, 2003). The major principle of RTI is that early intervening services can prevent academic problems for students who are at risk as well as determine which students truly have learning disabilities as opposed to those whose underachievement can be attributed to other factors such as inadequate instruction. RTI includes an emphasis on the quality of the general education curriculum and instruction to ensure that potential benefits are offered to every student and not just to those who experience some type of learning difficulty. All of these qualities are part of the policies and procedures designed to reduce disproportionality just discussed.

RTI is based on three components: 1) the use of multiple tiers of intervention with increasingly intensive interventions that guide implementation; 2) a problem-solving approach that provides a step-by-step process to identify and analyze problems, develop a plan, and evaluate the efficacy of interventions; and 3) an integrated data collection or assessment system to guide decision making in each tier of service delivery. An alternative to the problem solving approach, the standard protocol, has emerged as an additional RTI practice (Coleman, Buysse, & Nietzel, 2006). The standard treatment protocol approach involves the use of a particular research-based intervention for a small group of children with similar problems in a given area (Fuchs et al., 2003; Coleman et al., 2006). In the next section, background information on key elements of RTI will be provided followed by a discussion of the ways in which RTI may be helpful in helping school districts solve problems of disproportionality.

Research on RTI: Key Features

A review of the literature published to date on RTI has revealed the following key features of RTI: subject matter areas, school/grade levels, number of tiers, data decision rules for tiers, and special education tiers. Each of these features of RTI is discussed next.

Subject Matter Areas. RTI model has been used for reading and math instruction, and behavior. Out of twenty-six studies reviewed, seventeen articles dealt with reading (Burns & Senesac, 2005; Case, Speece, & Malloy, 2003; Fuchs, Fuchs, & Compton, 2004; Fuchs, Fuchs, Compton et al., 2007; Kamps et al., 2008; McMaster, Fuchs, Fuchs, & Compton, 2005; Moore-Brown, Montgomery, Beilinski, & Shubin, 2005; O'Connor, 2000; O'Connor, Harty, & Fulmer, 2005; O'Connor, Fulmer, Harty, & Bell, 2005; Simmons et al., 2008; Speece & Case, 2001; Torgesen et al., 1999; Vaughn, Linan-Thompson, & Hickman, 2003; Vaughn et al., 2009; Wanzek & Vaughn, 2008; 2009). Two studies examined classroom behavior and emotional difficulties (Fairbanks, Sugai, Guardino, and Lanthrop, 2007; Pearce, 2009). The remaining seven articles researched identification of and interventions for math (Axtell, McCallum, Bell, & Poncy, 2009; Barton & Stepanek, 2009; Duhon, Mesmer, Atkins, Greguson, & Olinger, 2009; Fuchs, Compton, Fuchs, Paulsen, et al., 2005; Fuchs, Fuchs, Compton, Bryant, et al., 2007; Fuchs, Fuchs, Hollenbeck, 2007; Fuchs, Fuchs, Prentice, 2004). Clearly, most work done so far in RTI has been done in the area of reading.

School/Grade Levels. Most of the research in RTI has been done in elementary schools in the early grades. Although gaining popularity, few studies are available on the use of RTI in middle and high school (Axtell et al., 2009; Barton & Stepanek, 2009;

Brozo, 2009). Primary grade levels varied among the studies. All of the studies conducted research with students who were either in kindergarten, first, second or third grade.

Several studies' research population included fourth and fifth grade students (Moore-Brown et al, 2005; Pearce, 2009). Thus, to date, RTI has primarily been a primary grades endeavor.

The Tiers. The multi-levels of intervention in RTI are referred to as tiers (Gersten et al., 2009). The purpose of a tiered approach in RTI is for prevention, early identification, and intervention (Reschly, 2005) and to determine a student's responsiveness or nonresponsiveness to implemented interventions (McKenzie, 2009; Fuchs & Fuchs, 2007). Most RTI models use three tiers (Berkeley et al., 2009; Hoover & Patton, 2008) while others use four-tier models (e.g. Reschly, 2005). The first tier is characterized by explicit and systematic instruction that is provided to all children in their general education class (Burns & Senesac, 2005; Fairbanks, Sugai, Guardino, Lathrop, 2007; Fuchs, Fuchs, Compton et al., 2007; McMaster et al., 2005; Moore-Brown et al., 2005; O'Connor, 2000; O'Connor, Harty, & Fulmer, 2005). This universal core program (Council for Exceptional Children [CEC], 2008) incorporates whole group instruction with universal screenings to identify students who are at-risk and the beginning of progress monitoring.

Interventions in tier 2, also known as secondary intervention (Berkeley et al., 2009), are given only to students who exhibit difficulty in academics based on weak progress from regular classroom instruction (Case et al., 2003; Fairbanks et al., 2007; Fuchs et al 2005; Fuchs et al., 2004; Fuchs et al., 2007; Fuchs, Fuchs, & Hollenbeck,

2007; Fuchs, Fuchs, & Prentice, 2004; Gersten et al., 2008; McMaster et al., 2005; Moore-Brown et al., 2005; O'Connor, 2000; O'Connor, Fulmer, Harty, & Bell, 2005; O'Connor, Harty, & Fulmer, 2005; Speece & Case, 2001; Vaughn, Linan-Thompson, & Hickman, 2003). As a result, small group instruction is provided that focuses on building foundational skills. Gersten et al. (2008) recommends that students in tier 2 receive small group instruction in homogeneous groups for 20 to 40 minutes, three to five times a day. Tier 2 instruction may occur in the general education classroom or in a pull-out model (Hoover & Patton, 2008).

For those students who do not progress after receiving tier 2 interventions, tier 3 instructional interventions are provided which often include smaller group sizes, more instructional time in the area of need, and instruction that is more highly scaffolded (Gersten, 2008; Fairbanks et al., 2007; McMaster et al., 2005; Moore-Brown et al., 2005; O'Connor, 2000; O'Connor, Harty, & Fulmer, 2005; Torgesen et al., 1999). In tier 3, the results of ongoing progress monitoring data are used to make decisions as to whether or not students are responsive or nonresponsive. In some cases, this is the final tier and is considered as special education (Fuchs & Fuchs, 2007; Reschley, 2005) while others consider this the most intensive level of intervention before the fourth tier, which is special education (Berkely et al, 2009, CEC, 2008; Kavale et al, 2008).

Data-based Decision Making. The use of assessment data is important in identifying students who are in need of more intensive instruction in the areas of reading, math, and/or behavior at each tier. Assessment data are used to inform and help teachers determine which students require additional instruction, regroup students, inform tier

placement, and determine whether students may need special education (Gersten, 2008; Mellard et al., 2009).

Measurement of academic skills, behavior, or performance during intervention is ongoing. At tier one, universal screening, a short assessment for all students, is conducted at the beginning, middle, and end of the school year. A cut point is used to determine whether to provide additional instruction or intervention. If a student falls below the cut point on the universal screener, more in depth short-term progress monitoring is conducted to identify students who are at risk and need more intensive instruction at tier 2 or tier 3. Cut points at this stage are used to determine whether the student has shown an adequate response, whether to make a change in instruction, and whether to move a student to a different tier with more or less instruction (NCRTI, 2010).

Many measures are used in the implementation of RTI in order to generate data for decision-making. Data are taken from technically adequate standardized and norm-referenced assessments (Fuchs, Fuchs, & Prentice, 2004; Kamps et al., 2008; Moore-Brown et al., 2005; O'Connor, 2000; O'Connor, Harty, & Fulmer, 2005; O'Connor, Fulmer, Harty & Bell, 2005; Simmons et al., 2008; Torgesen et al., 1999; Vaughn, Linan-Thompson, & Hickman, 2003; Vaughn et al., 2009; Wanzek & Vaughn, 2008; 2009), as well as curriculum based measures (CBM; Barton & Stepanek, 2009; Case et al., 2003; Duhon et al., 2009; Fuchs, Fuchs, Compton et al., 2007; Fuchs, Fuchs, Compton, Bryant et al., 2007; Fuchs, Fuchs, & Hollenbeck, 2007; Fuchs, Compton, Fuchs, Paulsen, et al., 2005; McMaster et al., 2005; Speece & Case, 2001). Functional behavior assessments (FBAs) that include review of past behavior, analysis of routines, interviews, and direct

observation (Sugai, Horner, Dunlap, Hieneman, Lewis, et al. 2000), have been used to make decisions to correct inappropriate behavior (Fairbanks et al., 2007; Pearce, 2009). To date, it is clear that multiple measures have been used to determine tier placement as well as movement in and out of tiers.

RTI and Disproportionality

RTI is considered a promising preventative approach for reducing minority disproportionate representation (Hosp & Madyun, 2007; Klingner & Edwards, 2006; Newell & Kratochwill, 2007; Vaughn & Fuchs, 2003). With the recent reauthorization of the Individuals with Disabilities Education Act (IDEA 2004), RTI models are being implemented to promote equity by ensuring that all students receive intensive, systematic, and evidence-based interventions before the need for special education services is considered (Cummings, Atkins, Allison & Cole, 2008).

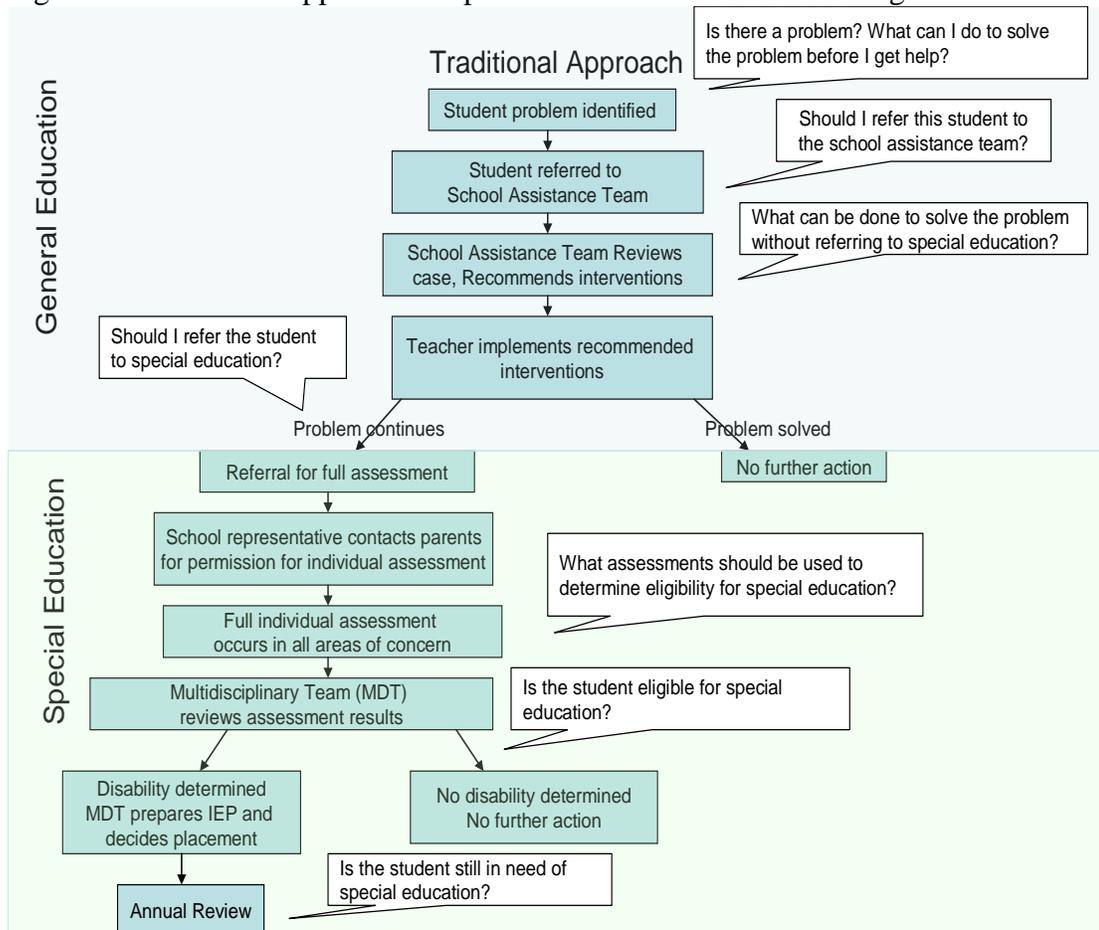
Research has shown that in traditional models of identifying students with disabilities, a system of evidence-based practices is may not be in place (Bursuck & Smallwood, 2009), nor is the provision of differentiated instruction for students with diverse learning needs (Voltz, Brazil, & Scott, 2003). In addition, traditional methods of identifying students with disabilities often lack appropriate data decision-making apparatus including technically adequate measures and empirically-based decision rules for universal screening and progress monitoring (Bursuck, Damer & Smallwood, 2008). Instead, much criticized, highly unreliable discrepancy formulas are used (Gresham, 2005; Grossman, 1995; Wesson, King, Deno, 1984). Finally, teachers often work in isolation without learning and sharing with colleagues (Hindin, Morocco, Mott, &

Aguilar, 2007). Under conditions such as these, the process of referring students for placement in special education can be subject to teacher bias (Knotek, 2003) and effective solutions based on data are often not sought.

Note the graphic of the traditional approach to special education decision making illustrated in Figure 1 (adapted from Friend & Bursuck, 2009), including the specific decisions that need to be made at each juncture. It is not hard to imagine how the decision-making process can be undermined when effective interventions, valid data, and data-based problem solving are lacking. For example, before a student is referred to the school assistance team decisions related to whether or not a problem exists or what can be done to solve the problem before getting help are determined. It would be nearly impossible to make an objective unbiased decision here in the absence of evidence-based instruction as well as technically valid universal screening methods. Once the problem is identified, a decision of whether or not the student is referred to the student assistance team is made. The problem is then presented to the school assistance team who has to make the decision regarding what can be done to solve the problem without making a referral to special education. After the teacher implements recommendations made by the school assistance team and the problem continues, the decision of whether or not to refer the student to special education is considered. Again, in the absence of an empirically-based system of progress monitoring and evidence-based practices suggested by the student assistance team, as well as limited or no parental input, an unbiased decision as to whether to refer to special education is unlikely. Once a referral is made, decisions are made regarding the assessments to be used to determine eligibility for

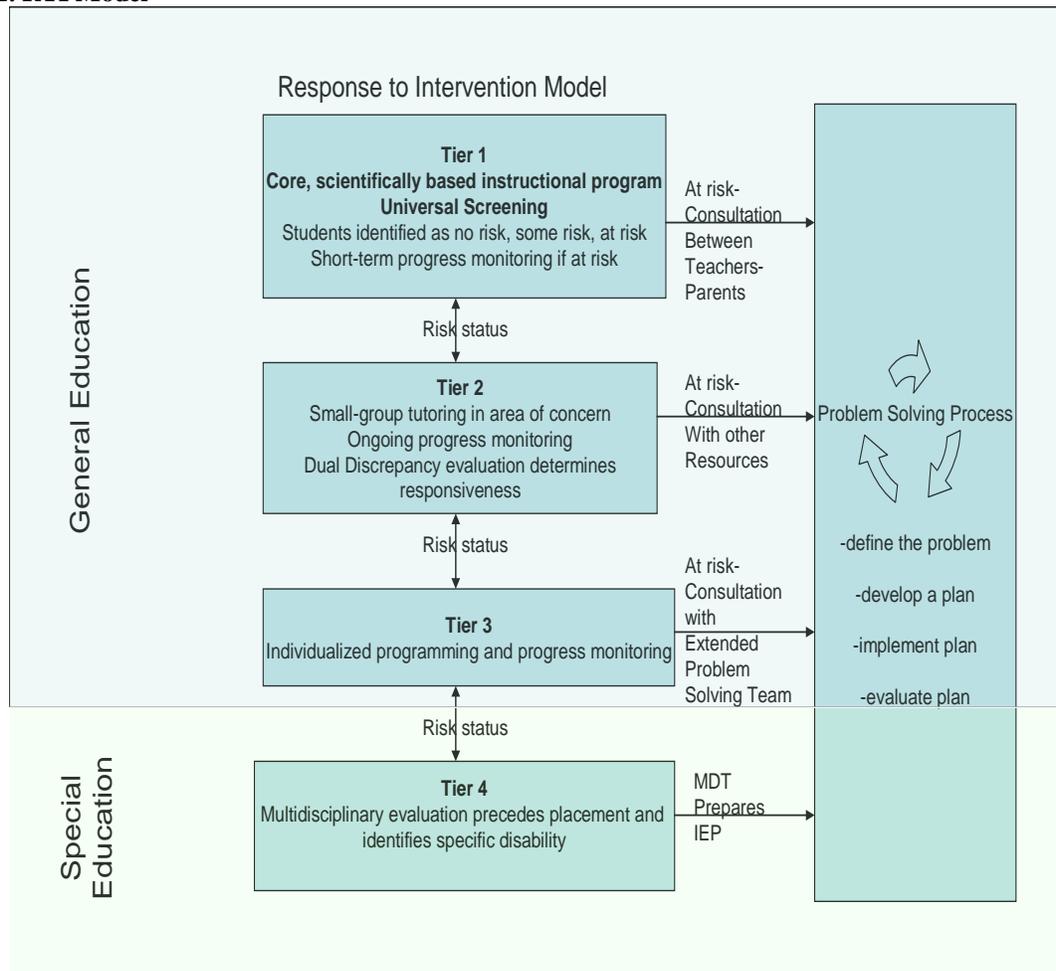
special education. Both the measures selected and the ways they are interpreted can bias the ultimate decision in favor of eligibility. Finally, if the student is declared eligible, future decisions are made as to whether the student continues to need special education. Again, in the absence of evidence-based practice and valid progress monitoring, a student who may not have belonged in special education in the first place is unlikely to ever get out.

Figure 1. Traditional Approach to Special Education Decision Making



In contrast to the traditional model just described, the RTI model shown in Figure 2 (adapted from Fuchs & Fuchs, 2007; North Carolina Department of Public Instruction, n.d.) shows promise in preventing bias in a number of ways. First, RTI relies on using data to make decisions and focuses on outcomes that are more objectively defined (Hosp & Madyun, 2007). Second, by employing a multi-tiered system, teachers are expected to provide high-quality, scientifically-based instruction to all students in the general education setting as well as to differentiate instruction by providing small-group instruction using more intensive instructional strategies and other supports for those students who do not respond positively based on curriculum-based assessments (Klingner & Edwards, 2006). Thus, there are more carefully designed, research-based options for students prior to referral to special education. Third, universal screenings and progress-monitoring with technically adequate assessments are used to continuously evaluate how a child responds to instruction, thus increasing the probability that more reliable instructional and placement decisions will be made. (Kame'enui, 2007; Vaughn & Roberts, 2007). In all these ways, identification bias may be reduced because there is less emphasis on teacher judgment and individual teacher referral (Vaughn & Fuchs, 2003). Finally, as part of the RTI problem-solving process, general education teachers collaborate with parents and other professionals to design individually-tailored preventative interventions that vary in form and function across students. Ultimately, this should lead to more appropriate decisions on whether a student has a disability and is eligible to receive special education services (Fuchs & Fuchs, 2007; Friend, 2008).

Figure 2. RTI Model



Given chronic problems with misidentification of students for placement in special education, research on the number of students in tiered systems who eventually require special education is instructive. Of the five studies that conducted research in all three tiers, four studies used performance in tier 3 to determine eligibility for special education. Instruction in tier 3 included more intensive individualized interventions and small group tutoring. Moore-Brown, Montgomery, Bielinski and Shubin (2005) discovered that only 8 of the 123 original students in their study required special

education services two years later. In a study conducted by O'Connor (2000), out of 34 of the participants who received interventions over the two years of the study, only 8 continued to have reading problems in the most intensive layer of interventions. O'Connor, Harty and Fulmer (2005) found that the incidence of placement in special education averaged fifteen percent before the implementation of increasing levels of intervention in reading. After four years of intervention, the rate of placement in special education dropped to eight percent. Bursuck and colleagues (2004) found that the number of students entering special education decreased from 45 in the first year of implementing a prevention-based reading model to 27 in the fourth and final year. Thus, to date, outcomes of RTI research indicate a decrease in the number of children in special education as compared to historical levels. The impact of RTI on disproportionality is lesser known and is the topic of this next section.

Culturally Responsive RTI

Although a framework for the implementation of RTI exists, the success of RTI in reducing disproportionality of minorities in special education is not guaranteed. Indeed, much research and hard work remains to be done. First, steps must be taken to ensure that the RTI model is implemented with fidelity (Klingner & Edwards, 2006). High fidelity RTI will require an extensive professional development effort, the likes of which have yet to be reported in the literature (Bursuck & Smallwood, 2009; Orosco & Klingner, 2010; Walker-Dalhouse et al., 2009). Second, while there are precious few data to guide practice in this area, many researchers are suggesting that in order for RTI to be successful for culturally-diverse students, the process must be culturally responsive

(Garcia & Ortiz, in press; Harris-Murri et al., 2006; Hosp, 2008; Klingner & Edwards, 2006). In the only empirical study of culturally responsive RTI, Marston et al. (2003) designed a four-step problem-solving model specifically designed to address the issue of disproportionate placement of African-American and Native American students in special education. The four-step problem solving process was repeated at each intervention stage. At stage 1, a district-wide screening process for academics and behavior was implemented to develop early interventions. At stage 2, a multidisciplinary team was formed to gather background and cultural data, review existing data, develop specific interventions, and monitor progress with the purpose of reducing the probability of individual bias in the referral process. Stage 3 included reviewing the results of stages 1 and 2 and planning an evaluation based on those results. Information regarding cultural and economic variables that may have influenced the performance of a student was collected at each stage. Before determining eligibility at stage 3, the team further considered the effect of cultural, linguistic and economic factors. Results showed that the screening and problem-solving model had a positive impact on the disproportion for African-American students during the four years of their study. For example data were collected on the percent of African-American students referred, evaluated, and identified for special education. Approximately 44 % of the students in 41 of the participating schools were African-American. In 1997 the percent of African-American students referred to special education was 64 %. In 2001, that percent was 59%. In 1997, the percent of African-American students evaluated was 69%. In 2007, it was 57.7 %. Last, in 1997 the percent of students placed in special education who were African-American

was 69.9% as opposed to 55% in 2001. While some disproportionality was still evident, the level of disproportionality in 2001 decreased. Due to a small sample size for Native American students, the same trends were not evident.

Dray, Cole, & White (2009) have proposed a five step process for implementing culturally responsive RTI that includes the following steps:

1. Analyze disaggregated data in the areas of achievement scores, dropout rates, discipline referrals, SPED placement, attendance, and transience,
2. As a team, examine these patterns within subsets (race/ethnicity, LEP, etc.)
3. As a team, use tools to reflect on the level of implementation of culturally RTI practices such as *Culturally Responsive Practices in Schools: The Checklist to Address Disproportionality (CADSE)*, which addresses the team's beliefs and practices,
4. Reflect as a team on findings that may need to be improved in step three, and
5. Re-cycle through the process to analyze the effects of the plan to improve implementation.

Unfortunately, Dray et al. (2009) have yet to collect data on the impact of their RTI model on disproportionate representation.

Garcia & Ortiz (in press) have stressed that in order for RTI to be successful for culturally diverse students, a framework inclusive of the socio-political, cultural and linguistic contexts that influence educational processes must be employed to guide

research and development efforts. Garcia & Ortiz (in press) proposed a comprehensive service delivery model for culturally and linguistically diverse (CLD) students in general and special education that sufficiently addresses prevention at the school level and the role of school climate. This three-phase model encompasses prevention, early intervention or RTI, and modification of special education procedures.

In the prevention phase, a school climate is created that promotes a belief system that all students can be successful and that educators are responsible for students' success. Within a school climate characterized by strong administrative leadership and shared decision-making, a shared-knowledge base that relates to the education of CLD students is emphasized. According to the Garcia & Ortiz model, professionals should be knowledgeable about language acquisition, linguistically and culturally responsive assessments, effective instructional practices, and factors that influence student learning such as culture and socioeconomic status. A core curriculum must also be in place in the prevention phase that is culturally relevant and allows for direct and explicit skill instruction.

The early intervention phase of the model incorporates the components of RTI. This phase is characterized by ongoing progress monitoring, informal assessments, and differentiated instruction. One of the important aspects of this phase is that the problem solving team consists of members who are experts in the education of CLD students to help guide the development, implementation, and evaluation of intervention plans.

In the modification of special education procedures phase, referral committees as

well as multidisciplinary teams make sure that appropriate requests for full, individual evaluations take place and that appropriate eligibility decisions are made. The problem solving process is continued in this phase with data-based decision making being the main focus. A variety of assessments and procedures are used that take students' background and characteristics into account and are appropriate for assessing academic performance. The multidisciplinary team includes those persons who are experts on the education of CLD students, can interpret assessment data, can make recommendations to supplemental programs, and represent programs and services in early intervention. To date there has been no research examining the efficacy of Ortiz's model of culturally responsive RTI including whether or not such a model is more effective than regular RTI.

Summary and Conclusion

Addressing the longstanding documented problem of disproportionate representation of minorities in special education has been a challenge. Different theoretical as well as societal, environmental, and educational reasons for its continued presence in our society have been examined. Although serious efforts to address disproportionality such as implementing culturally relevant pedagogy, teacher preparation, and school leadership have been suggested and applied (i.e. Blanchett, 2006; Cartledge & Kourea, 2008; Fiedler et al., 2008; Gay, 2000, 2002; Ladson-Billings, 1995; Salend et al., 2002; Voltz et al., 2003), putting theory into practice has been a challenge because the problem of disproportionality still exists. In response to changes in federal law, RTI is being implemented as an alternative method of identifying children for special education services. RTI is also being touted as a model that can lessen the

problem of the overrepresentation of minorities in special education, largely due to its emphasis on data-based decision making and evidence based practices. Some researchers are advocating that RTI also be culturally responsive, and there is preliminary evidence that culturally responsive RTI can reduce disproportionality (Marston et al., 2003). Despite the potential of culturally responsive RTI, it is unclear whether schools and diverse populations are implementing RTI in a culturally responsive way. This is particularly important in states such as North Carolina for whom reducing disproportionality is a major objective of their RTI programs.

CHAPTER III

METHOD

Research Design

This study employed survey research. The purpose of using survey research was to generalize from a sample of general and special education teachers in diverse elementary schools implementing RTI models in North Carolina to a larger population so that inferences could be made regarding their culturally responsive beliefs and practices (Babbie, 1990; Creswell, 2009). The survey was the preferred type of data collection procedure for this study because it can provide information about participants' beliefs and practices (Johnson & Christensen, 2008). The survey is also inexpensive and provides a quick turnaround time of responses for data collection. Additionally, a survey is advantageous in that the sampling allows the researcher to identify attributes of a large population from a small group of individuals, a procedure that is cost effective and efficient (Johnson & Christensen, 2008; Creswell, 2009).

The survey was cross-sectional, with the data collected at one point in time. The form of data collection was a self-administered questionnaire. Of course, survey research is not without limitations. With questionnaires, reactive effects may occur (e.g. respondents may try to portray only what is socially desirable), and participants may be nonresponsive to selective items; however, questionnaires can provide exact information

needed by the researcher and detailed information in the words of the respondent (Johnson & Christensen, 2008).

The research questions were:

- 1) To what extent are CRP employed by general and special education teachers in diverse RTI elementary schools?
- 2) To what extent does the level of CRP for special education teachers differ from that of general education teachers?
- 3) To what extent do teachers perceive their RTI school as reflecting culturally responsive beliefs and practices?
- 4) To what extent have teachers in RTI schools received training in CRP?
- 5) Do teachers who have had preparation on CRP differ from those who have not?
- 6) What are teachers' perceptions of the successes, barriers, and future needs in implementing CRP within an RTI model?

Participants

A multi-stage sampling procedure was used for participation in this study (Creswell, 2009). A combined purposive sample of general and special education teachers in diverse elementary schools implementing RTI in North Carolina was selected. Criteria for the sample were as follows: general and special education teachers employed in schools that were diverse, who were involved in the RTI implementation process at their school, and who had implemented tier 1, tier 2, and/or tier 3 instruction/interventions. A list of the elementary schools implementing RTI in North

Carolina was generated from the North Carolina Department of Public Instruction (NCDPI) exceptional children division. From the list of 87 schools, all schools that were diverse (defined as having at least 25% minority students), and that were classified by NCDPI as Title I and receiving Title I funding for the 2009-2010 school year were identified and rank ordered by distance from Greensboro, with the closest schools listed first. Starting at the top of the list, schools were contacted by telephone. If a school indicated an interest to participate, clearance from the LEA's institutional review board (IRB) was sought, and a letter of support from the principal of the school was obtained for IRB at UNCG. In all, a total of 8 schools agreed to participate. Demographics for the schools are shown in Table 2. Within these schools 200 teachers completed surveys. Demographic data for the teachers are in Table 3.

Instrumentation

The Survey of Schools' and Educators' Culturally Responsive Beliefs and Practices used to collect data in this research study is an instrument based on section I of *The Checklist to Address Disproportionality in Special Education (CADSE)*, an observation checklist of culturally responsive practices in schools developed by Fiedler et al. (2008). The CADSE checklist was developed based on a literature review on disproportionality; individualized education plan (IEP) records review of elementary, middle, and high school students (white, African-American, and Native American) evaluated for specific learning disabilities and/or emotional disturbance; a series of focus groups with principals, general and special education teachers, school psychologists, and central administrators to develop checklist questions; an online survey using a Delphi

method to distinguish important from unnecessary checklist items; and a pilot of the checklist in 10 elementary schools. The purpose of their checklist was to consider relevant external and internal factors that contribute to a disproportionate number of students of racial, cultural, ethnic, and linguistic diversity being placed in special education programs. The checklist was designed to help school staff identify and discuss both external and internal factors. One component of the internal factors was teachers' beliefs and practices, the focus of this proposed study. Checklist items included on the survey represented culturally responsive beliefs and practices that had some basis or support in the literature. A review of the literature indicated that these practices had either led to lower rates of disproportionality, increased academics or decreased inappropriate behavior for diverse students, and/or were highly recommended as best practices by leaders in the field of special education. Permission to modify and use the CADSE survey was requested from the second and third authors and received through personal communication (personal communication, July 21, 2009; January 8, 2010).

The survey is organized into three parts. The first part is divided into the following sections: (a) school climate, (b) academic instruction, (c) behavior management, (d) collaboration, and (e) assessment (see Appendix A for a copy of the full survey). At the beginning of each section there are bolded terms related to the education of students of racial, cultural, ethnic, and linguistic diversity (RCELD). Each term is followed by quality indicators that define the term. The purpose of the bolded terms and definitions was to explicitly label and define each culturally responsive practice for the respondents in order to increase the reliability of their responses. The definitions were

then followed by a series of items obtained from the CADSE checklist. Noteworthy modifications included the addition of negative statements about educating students of RCELD designed to correspond to positive statements taken from the original rubric relating to each topic in the 5 sections. The purpose of these negative statements was to increase internal consistency reliability by preventing a social desirability response set and encouraging participants to read each item of the questionnaire carefully (Johnson & Christensen, 2008). A place to comment or elaborate about beliefs and practices, as well as the inclusion of a 4-point scale (strongly disagree to strongly agree) with a neutral option (no basis to respond) were also added. A total of 38 items comprised part 1 of the survey. Part 2 of the survey asked three open-ended questions regarding teachers' perceptions of the successes, barriers, and future needs in implementing CRP within an RTI model. Part 3 of the survey sought demographic information about participants. It included 8 questions related to the following: a) current position; b) role in RTI; c) grade level taught; d) the number of years in education, in current grade level, and in current school; e) service on school level teams; and f) sources of knowledge of culturally-relevant practices. Table 3 shows a matrix that outlines the relationships among the major study variables, research questions, and survey items.

Table 1

Relationships Among Variables, Research Questions, and Survey Items

Independent Variable	Research Question	Dependent Variable(Items on Survey)
Teachers in RTI schools	Research question 1: To what extent are CRP employed by general and special education teachers in diverse RTI elementary schools?	See questions 9, 10, 11, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 25, 26
Type of Teacher (General or Special Educator)	Research Question 2: To what extent does the level of CRP of general and special education teachers differ?	See questions 9, 10, 11, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 25, 26
Teachers in RTI schools	Research question 3: To what extent do teachers perceive their RTI school as reflecting culturally responsive beliefs and practices?	See questions 1, 2, 3, 4, 5, 6, 7, 8, 12, 19, 24, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38
Teachers in RTI schools	Research question 4: To what extent have teachers in RTI schools received training in CRP?	See question 8 part 3
Teacher preparation	Research Question 5: Do teachers who have had preparation on CRP differ from those who have not?	See questions 9, 10, 11, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 25, 26
Teachers in RTI schools	Research Question 6: What are teachers' perceptions of the successes, barriers, and future needs in implementing CRP within an RTI model?	See Part 2, open-ended questions

Following initial development, the survey was administered in October, 2009 to a pilot sample of 25 general and special education teachers at a local elementary school. Surveys were distributed and collected at the school on the same day. Suggestions were made from participants regarding length of questions, vocabulary used, and formatting.

The appropriate changes and modifications were made to the survey instrument. A preliminary analysis of the frequency of responses across items was also conducted to evaluate for response bias. This analysis revealed diverse responses across questions and a high completion rate among responders.

Cronbach’s coefficient alpha was used to calculate reliability for scaled items in part 1 of the survey. The alpha coefficients for the survey sample for survey items regarding teacher practices (n = 194) and teachers’ perceptions of their school’s beliefs and practices (n = 195) are reported in Table 2. The alpha coefficients were high, exhibiting high reliability for the survey results.

Table 2
Cronbach’s Alpha Coefficient for Survey Scales

Survey Scale	Cronbach’s Alpha Coefficient
Teacher Practices	.68
School Beliefs and Practices	.82

Survey Administration

The researcher administered all of the surveys during a regular scheduled staff or grade level meeting. First, the purpose of the questionnaire was explained to participants and written permission to participate was sought according to pre-approved IRB guidelines. Teachers then completed the survey, which took about 20 minutes. Surveys were disseminated and collected on the same day. Completed surveys were handed directly to the researcher upon completion.

Data Analyses

All data were entered into Microsoft Excel. Forty-two percent of the returned surveys were randomly selected for an additional data entry audit. Discrepancies were corrected prior to analyses. Quantitative data were imported to SPSS Version 17.0 for analyses. Qualitative data were analyzed using topical and descriptive codes.

Information regarding the number of members of the sample who did complete answers to the survey are reported in each corresponding results table. The potential for response bias was investigated (Fowler, 2002). This analysis revealed diverse responses across questions and high completion rates among participants.

Quantitative. Descriptive data (percentages, means, and standard deviations) for all sampled teachers (general and special education) were calculated for each of the individual survey items reflecting teacher practices to answer question research question 1. For research question 2, descriptive data (means and standard deviations) for each group of teachers separately (general and special education) on each of the individual items reflecting culturally responsive practices were calculated. Group comparisons on the individual item means were conducted using a series of independent *t* tests. Descriptive data (means and standard deviations) for each group of teachers on the overall subscale of teacher practices were also calculated. A group comparison was conducted using an independent *t* test. Descriptive statistics (percentages, means and standard deviations) for all items reflecting culturally responsive beliefs and practices related to the overall school environment were calculated to answer research question 3. In regard to research question 4, descriptive statistics were computed that include the

percentage of teachers who had received training in the area of culturally responsive practices. To answer research question 5, teachers were divided into two groups: those who had received any of the possible training options in culturally responsive practices included on item 8 of part 2 of the survey and those who have not received any. The culturally responsive teaching practices of these groups were compared using a series of independent t-tests.

Qualitative. Answers to open-ended questions regarding successes, barriers, and future needs were analyzed using a multi-step process (Miles & Huberman, 1994). First, a set of topical codes was developed based on the reading of a subset of answers. These descriptive codes were created based on broad constructs or topics related to the literature on CRP and RTI as well as the research questions. The remainder of the answers was then coded by two individuals independently. After all the answers were coded, differences in coding categories were discussed and reconciled for each question. The codes were then displayed graphically in matrices in order to identify issues or themes within the topical areas identified (Miles & Huberman, 1994). Quotes from the answers were used to provide more concrete evidence to support the issues and themes identified.

CHAPTER IV

RESULTS

The purpose of this study was to examine the extent to which diverse RTI schools engage in culturally responsive beliefs and practices. Despite the fact that RTI has been adopted because of its ability to reduce disproportionality, the extent to which schools are implementing RTI in a culturally responsive way is unknown. Information gained from this study provides insight into the types of practices implemented within RTI schools, enhances the understanding of the practices needed to meet the needs of diverse classrooms and students, and provides meaningful information for local RTI projects and the field of special education.

A total of 8 schools participated in this study. All of the schools were diverse (at least 25% minority; range 26.3 % - 74.1%) and received Title 1 funding. Demographics for the schools are shown in Table 3. Within these schools, 200 general and special education teachers in grades k-5 completed surveys. The surveys were administered during a regular scheduled staff or grade level meeting. One hundred percent of the teachers recruited completed surveys. The majority of teachers was general educators (82.5%), had a direct role in RTI (82.5%), and had more than 10 years in education (57.5%). Additional demographic data for the teachers are shown in Table 4.

Table 3

Number and Percentage of Student Enrollment by Race/Ethnicity at Each School

Sch	AI/AN <i>N</i> (%)	A/PI <i>N</i> (%)	Hisp <i>N</i> (%)	Bl, n-H <i>N</i> (%)	W, n-H <i>N</i> (%)	Total <i>N</i> (%)	Total M <i>N</i> (%)
A	1 (.2)	5 (1)	99 (19.8)	126 (25.2)	269(53.8)	500 (100)	231 (46.2)
B	0 (0)	30 (8.9)	130 (38.6)	89 (26.4)	87 (25.8)	336 (100)	249 (74.1)
C	0 (0)	6 (1.7)	115 (32.8)	119 (34)	110 (31.4)	350 (100)	240 (68.5)
D	3 (.76)	8 (2)	60 (15.2)	123 (31.2)	200 (50.7)	394 (100)	194 (49.2)
E	5 (.75)	15 (2.2)	19 (2.8)	135 (20.4)	486 (73.6)	660 (100)	174 (26.3)
F	0 (0)	6 (1.2)	16 (3.2)	166 (34.2)	297 (61.2)	485 (100)	188 (38.7)
G	6 (.97)	7 (1.1)	51 (8.3)	246 (40)	304 (49.5)	614 (100)	310 (50.4)
H	2 (.28)	9 (1.2)	14 (1.9)	184 (25.9)	501 (70.5)	710 (100)	209 (29.4)

Note. Sch=School, AI/AN=American Indian/Alaskan Native, A/PI=Asian/Pacific Islander, Hisp=Hispanic, Bl, n-H=Black, non-Hispanic, W, n-H=White, non-Hispanic, M=Minority. Information taken from the “Common Core of Data (CCD) Public School Data.” (2007-2008). Institute of Educational Sciences National Center of Educational Statistics. Retrieved from <http://nces.ed.gov/globallocator>

Table 4
Position, Role in RTI, Years of Experience, and Team Participation for Survey
Participants

Teacher Survey (N=200)		
Position	N*	%
General Education Teacher	165	82.5%
Special Education Teacher	30	15%
Role in RTI		
Yes	165	82.5%
No	21	10.5%
Years at Grade Level		
Less than 5	79	40%
5 to 10	45	22.5%
More than 10	74	37%
Years at School		
Less than 5	84	42%
5 to 10	53	26.5%
More than 10	61	30.5%
Years in Education		
Less than 5	33	16.5%
5 to 10	50	25%
More than 10	115	57.5%
Serve on Team		
Yes	161	80.5%
No	29	14.5%

*The sum of categories not equal to 200 indicate missing data

Quantitative Results

Research Question 1

To what extent are CRP employed by general and special education teachers in diverse RTI elementary schools? To examine this question the percentage distributions, means, and standard deviations for all sampled teachers (general and special education) were computed for each of the individual survey items reflecting teacher practices. Culturally responsive practices employed by the participants are summarized in Table 5. More than 80% of the participant's indicated that they agreed

(responded by marking agree or strongly agree) to employing culturally responsive practices such as differentiating instruction (93.5%), using culturally responsive materials (90%), and engaging in self-assessments of their own cultural expectations and practices (86%). However, 75 % of participants did not agree (responded by marking either disagree or strongly disagree) to systematically analyzing and discussing the impact of culture on RCELD students' school performance (mean=2.75).

Table 5. Number of Responses, Percentage Distribution, Means, and Standard Deviations for Culturally Responsive Teacher Practices Items

Survey Items	N	Percentage					Mean	SD
		SD	D	A	SA	NB		
11. I regularly provide differentiated instruction by making adaptations in the following areas as needed: (a) content =what is taught, (b) process=how content is taught, (c) product=how students demonstrate content mastery, (d) affect=how student connect their thinking and feelings, and (e) learning environment=how the classroom is designed and students are grouped.	200	3.5	2.0	36.5	57.0	1.0	3.45	.787
14. I regularly and explicitly teach learning strategies and thinking skills to students of RCELD in my classroom.	198	.5	4.5	43.5	49.0	1.5	3.39	.737
15. I regularly use culturally responsive materials, content, and teaching practices in my classroom.	199	0	7.5	63.0	27.0	2.0	3.13	.715
16. I regularly use peer supports in my classroom to empower students to take responsibility for their learning and to support each other.	199	.5	2.5	57.5	36.5	2.5	3.25	.758
17. I take individual student differences into account when establishing rules and behavioral expectations in my classroom.	198	2.5	6.0	54.5	35.5	.5	3.23	.717
23. The impact of culture on school performance of a student with RCELD in my classroom is systematically analyzed and discussed.	197	1.5	18.0	62.0	12.0	5.0	2.75	.875
25. I engage in self-assessments of my own cultural expectations and practices	199	1.0	11.5	65.5	20.5	1.0	3.04	.672

Note. SD=strongly disagree, D=disagree, A=agree, SA=strongly agree, NB=no basis to respond, SD=standard deviation

Research Question 2

To what extent does the level of CRP of general and special education teachers differ? Means and standard deviations for each group of teachers on the overall subscale of teacher practices were calculated. A group comparison on the subscale was conducted using an independent t test and the results are shown in Table 6. There was no significant difference found between general and special education teachers on the overall subscale of teacher practices, $t(193) = 1.76, p = .73$.

Means and standard deviations for each group of teachers separately (general and special education) on each of the individual items reflecting teachers' culturally responsive practices are shown in Table 7. Group comparisons on each of the individual item means were conducted using a series of independent t tests. A significant difference was found between general and special education teachers on one item: systematically analyzing and discussing the impact of culture on students' performance, $t(191) = 3.02, p = .00$, with general education teachers taking culture into account more often.

Table 6
Group Comparisons and Independent t-test for Culturally Responsive Teacher Practices Subscale

Subscale	Teacher	N	Mean	SD	t	p
TeachP	GE	165	22.3	3.00	1.76	.734
	SE	30	21.3	3.51		

Note. TeachP=Teaching Practices. $p < .05$

Table 7. Means , Standard Deviations, and Independent t-test for General and Special Education Teachers for Culturally Responsive Teacher Practices

Survey item	Teacher	N	Mean	SD	<i>t</i>	<i>p</i>
11. I regularly provide differentiated instruction by making adaptations in the following areas as needed: (a) content =what is taught, (b) process=how content is taught, (c) product=how students demonstrate content mastery, (d) affect=how student connect their thinking and feelings, and (e) learning environment=how the classroom is designed and students are grouped.	GE	165	3.45	.744	.557	.109
	SE	30	3.36	1.033		
14. I regularly and explicitly teach learning strategies and thinking skills to students of RCELD in my classroom.	GE	163	3.41	.673	.318	.468
	SE	30	3.36	.850		
15. I regularly use culturally responsive materials, content, and teaching practices in my classroom.	GE	164	3.15	.673	.677	.326
	SE	30	3.06	.739		
16. I regularly use peer supports in my classroom to empower students to take responsibility for their learning and to support each other.	GE	164	3.33	.609	2.22	.425
	SE	30	3.03	.999		
21. I take individual student differences into account when establishing rules and behavioral expectations in my classroom.	GE	164	3.20	.695	-.649	.420
	SE	30	3.30	.836		
23. The impact of culture on school performance of a student with RCELD in my classroom is systematically analyzed and discussed.	GE	163	2.87	.743	3.02	.000
	SE	30	2.20	1.186		
25. I engage in self-assessments of my own cultural expectations and practices.	GE	165	3.07	.658	.840	.110
	SE	30	2.96	.490		

Note. GE=General Education Teacher, SE=Special Education Teacher. $p < .05$

Research Question 3

To what extent do teachers perceive their RTI school as reflecting culturally responsive beliefs and practices? The percentage distributions, means and standard deviations for all items reflecting culturally responsive beliefs and practices related to the overall school environment were calculated and are shown in Table 8. Over 80% of

respondents agreed (responded by marking agree or strongly agree) that their school employed each of the culturally responsive practices included on the survey except one. Seventy-seven percent of participants indicated that they actively sought involvement and decision making input from parents.

Table 8
 Number of Responses, Percentage Distribution, Means, and Standard Deviations for Culturally Responsive School Practices Items

Survey Items	N	Percentage					Mean	SD
		SD	D	A	SA	NB		
3. Frequent and varied examples acknowledging and celebrating diversity are evident throughout my school.	199	3.5	10.1	53.0	31.0	2.0	3.08	.854
5. There is effective administrative support/advocacy including additional resources and promotion of problem solving to address the needs of students of RCELD on a regular basis.	199	2.0	11.5	52.0	31.0	3.0	3.06	.882
6. High expectations for the achievement of students of RCELD are regularly maintained.	200	1.5	7.0	47.5	42.0	2.0	3.26	.815
8. Consultation and direct services from special education teachers, reading teachers, or other specialists are provided on a regular basis to assist in carrying out differentiated reading interventions for students of RCELD.	200	1.5	5.0	49.0	43.5	1.0	3.32	.729
12. My school has implemented a multi-tiered model of intervention services and the extent of differentiated interventions for students is significant.	200	2.0	3.5	52.0	40.5	2.0	3.27	.793
19. My school has implemented a positive behavioral support system for all students; staff have been trained in its use; and school staff regularly discuss the effectiveness of school-wide positive behavioral support interventions.	199	3.0	11.5	41.5	43.0	.5	3.24	.811
27. There is extensive and effective collaboration between general education, special education teachers, and other support staff.	200	1.5	17	42.5	39.0	0	3.19	.766

Cont. Table 8 Number of Responses, Percentage Distribution, Means, and Standard Deviations for Culturally Responsive School Practice Items

Survey Items	N	Percentage					Mean	SD
		SD	D	A	SA	NB		
31. My school actively seeks involvement and decision making input from families of students of RCELD and is committed to learning about the culture of those families empowering them.	199	2.5	16.5	55.5	21.5	3.5	2.89	.889
29. The prevailing attitude of school staff fosters extensive and effective collaborative interaction between general education teachers, special education teachers, and other support staff.	198	2.5	13.0	50.5	33.0	0	3.15	.738
35. School teams believe that general education classroom performance problems of students with RCELD may stem from multiple factors and that other options should be tried before making a referral to special education.	198	1.5	3.5	56.0	34.5	3.5	3.17	.857
37. My school has implemented a problem solving process to review the academic performance of students of RCELD which consists of systematic implementation and monitoring of recommended interventions.	198	.5	4.5	59.5	33.5	1.0	3.25	.658
38. Classroom performance data are routinely gathered and analyzed to identify the source(s) of behavior, learning, or other difficulties for students of RCELD.	198	.5	4.0	57.0	36.0	1.5	3.26	.701

Note. SD=strongly disagree, D=disagree, A=agree, SA=strongly agree, NB=no basis to respond, SD=standard deviation

Research Question 4

To what extent have teachers in RTI schools received training in CRP? Out of 193 responses (seven were reported missing or 3.5 %), 186 (93%) reported that they had received some training in culturally-responsive practices. One-hundred and eight participants (54%) reported they had learned through university coursework. Seventy-eight participants (39%) reported learning about culturally responsive practices by other means. Options ranged from professional development to mentoring. Seven participants (3.5%) reported that they had not learned about culturally responsive practices.

Research Question 5

Are there differences in culturally responsive practices between teachers who had received culturally responsive practices training and those who had not received training? Because only 7 participants (3.5%) reported that they had not learned about culturally responsive practices, the answer to this question was not pursued.

Qualitative Results

Answers to open-ended questions were analyzed using a multi-step process (Miles & Huberman, 1994). First, a set of topical codes was developed by the researcher based on the reading of a subset of answers. Codes were displayed graphically in matrices in order to identify issues or themes within the topical areas identified (Miles & Huberman, 1994). From the set of topical codes, 14 broad themes were created by the researcher: 5 themes for question one, 5 themes for question two, and 4 themes for question three. Themes were based on broad constructs or topics related to the literature on CRP and RTI as well as the research questions. The answers to the three main

questions were then coded independently, based on the 14 themes, by the researcher and another individual who was familiar with the literature on CRP and RTI. Responses were not coded if they did not pertain to the question asked. A total of 374 comments were coded with 85% agreement. Differences in coding categories were discussed and reconciled for each question. Of the 200 participants who responded to the survey, 145 participants provided comments for question one, 138 participants provided comments for question two, and 134 participants provided comments for question three. Quotes from the answers are included to provide more concrete evidence to support the issues and themes identified.

Question 1

What do you see as your greatest successes in working with students of RCELD as part of RTI? The responses for question 1 were grouped into five broad themes: student outcomes (24 comments), data-based decision making (25 comments), differentiated instruction (59 comments), collaboration (16 comments), and cultural understanding (15 comments).

Student outcomes. Many respondents referred to seeing the progress and growth of students with RCELD as being the greatest success as part of RTI. A general education teacher wrote, “That they are able to make minimal growth during a years time. Thus, indicating that they have the ability to learn.” Another general education teacher responded, “One of my students this year who is RCELD was started in Tier 1 of RTI and ended up progressing WELL w/ the teacher classroom interventions.”

Data-based decision making. Another great success was being able to determine students' needs, measure student progress, and measure interventions through assessment. This was evident from this general education teacher's response, "I am able to determine along with my peers and parents the true reason the student is behind. I get to see if the interventions work or if testing is needed."

Differentiated instruction. Most teachers commented on being able to provide both preventative and remedial help to students without having to label as the greatest success. They also referred to the success of small group instruction, flexible grouping, and having more information to assist students. A special education teacher wrote, "I think the RTI process forces us to look at every aspect of a child's ability to learn- including learning style, deficits, environment, family, behaviors, etc. and all of these are considered as we begin interventions." A general education teacher responded, "They are not labeled, [they] get the additional help within the classroom and small guided groups." Another general education teacher wrote:

Students who used to just "not qualify" for EC services now get interventions to bring them to where they need to be. Children used to be swept aside when they did not qualify and got little to no 'extra help'-were just considered 'slow learners.' Now, they get to have direct, explicit instruction in their areas of need.

Collaboration. Teachers referred to collaboration with parents as well as professionals as successes for working with students of RCELD as part of RTI. In regard to collaborating with professionals, one special education commented, "Collaborating with ESL teachers has helped evaluate LD problems, homework issues, and second language concerns." Another general education teacher wrote about the

success of being on a team and stated, “You get to work with a team and address all aspects of a student. Through this you can as a team meet that child’s individual needs on many levels.” A general education teacher viewed success with parents as, “Informing parents of various strategies to help their students.”

Cultural understanding. Understanding cultural diversity in addition to having high expectations for students were viewed as successes for teachers. A general education teacher commented, “Cultural understanding, being able to view things from ‘their shoes.’ Being able to have a variety of ways to help them.” Another general education teacher noted a success as “Gaining a true understanding of poverty and its impact on our students.” With respect to culture and high expectations, one general education teacher wrote:

I create a classroom environment where all students are held to high expectations and given multiple opportunities to learn, achieve, and succeed. We celebrate cultural, racial, linguistic and ability based similarities and differences. I have learned to look at my students as capable, and reflect upon how the culture of my classroom could be altered to support/reflect their culture-versus as looking at students with a "deficit model" mindset.

Question 2

What do you see as barriers to implementation of culturally responsive practices as part of RTI in your school? The responses to question 2 were grouped into five categories: collaboration with families (57 comments), support (53 comments), data-based decision making (18 comments), cultural understanding (6 comments), and students (8 comments).

Collaboration with families. Respondents viewed the lack of parental involvement and support, lack of parents' understanding of RTI, and lack of communication from parents as barriers to implementation of culturally responsive practices as part of RTI. Language barriers and not having enough background knowledge of families were also noted. Not identified as general or special education, one teacher wrote, "Language barriers: some of my parents speak very little English, which limits communication and parental involvement." A general education teacher responded, "Parent collaboration is difficult. Much of the remediation must be achieved at school due to the inability of parents to do supportive work at home." Another general education teacher stated, "I think that parents of these students are not as willing to come in and meet [about] RTI. This is a handicap because students can be more successful when the home/school connection is present."

Support. Teachers reported that a lack of support was also a barrier. They referred to a lack of support from administration, their staff, and the community. As a result of the lack of support, teachers experienced a lack of guidance, planning time, professional development, time to do paperwork, funding, and a lack of needed personnel to implement culturally responsive practices as part of RTI. With regard to time and training, one general education teacher wrote, "Not enough time and trained personnel. People are great but if they lack the knowledge of working with students that have deficits then they are ineffective." Another general education teacher stated, "The barriers would be 'not enough hours in the day'. Teaching in a highly diverse school makes it difficult to meet all cultural and academic needs." Another commented, "A lack

of planning time-Much of the small amount of planning we have at the elementary level is taken up with meetings. I need some time for personal reflection and planning.” A special education teacher responded to barriers as, “Close mindedness of teachers who are not open to new information/ideas. Lack of funding for professional development.” In regard to guidance, another special education teacher simply stated, “Lack of guidance-procedural guide; clear practices.”

Data-based decision making. Another reported barrier was the length of the RTI process. Teachers stated that the process took too long and that they lacked appropriate probes and curriculum based measures to meet the needs of students. A general education teacher responded, “It takes too long to get the students that need special services served.” In regard to assessments, a special education teacher reported, “It seems that one method of collecting information seems to be preferred and even though various data should be collected, many subconsciously go with one.” Another general education teacher stated, “Very little probes to choose from.”

Cultural understanding. Teachers stated that not understanding, accepting, and knowing more about the cultures of their students were barriers to implementation. A special education teacher wrote, “Probably lack of knowledge about certain cultures and/or lifestyles and/or situations and how best to teach children who are struggling academically in spite of all these challenges.” A general education teacher responded, “Sometimes cultural differences, but primarily a lack of willingness of some educators to open their classroom to diversity.”

Students. A lack of effort and motivation from students was seen as a barrier. Teachers reported compliance issues, negative attitudes, and language barriers. A general education teacher wrote, “Children with language barriers are more difficult to address.”

Question 3

What would help you and your school to better implement culturally responsive practices within RTI? Several themes emerged from the responses to question 3. The themes were as follows: support (91 comments), collaboration (28 comments), data-based decision making (8 comments), and differentiated instruction (8 comments).

Support. Teachers stated that they needed support to help them and their school better implement culturally responsive practices within RTI. They referred to a need for staff development geared toward both understanding cultural diversity as well as the RTI process. They also stated a need for more funding, time-resources, and language classes for non-English speaking students. A general education teacher stated the need as, “Continuous training of current and new staff, and one on one mentors to assist with the process and paperwork throughout the year.” Another general education teacher responded, “More funding for support personnel as well as programs and materials to use in meeting the diverse needs of students.” In regard to professional development, a general education teacher commented, “Education. Education that imparts comfort to being open to learning about cultural differences and a willingness to accept and assimilate.”

Collaboration. Collaboration was also seen as a need. Teachers wanted more collaboration with families such as knowing more information about family backgrounds/history, and wanting parents to be involved. A general education teacher commented that she needs, “Better parent involvement- creating a team working atmosphere-so parents will know we are all on the child's team and we want success for all.” Teachers also cited more collaboration with staff. Collaboration with staff included collaboration and communication between special education teachers and English as a second language (ESL) teachers as well as among grade levels, general education, and special education teachers.

Data-based decision making. Teachers commented that they wanted to start implementation of RTI sooner, and wanted to continue to meet the needs of students who did not qualify. A general education teacher responded, “Better meeting the needs of student that don’t qualify for EC program but are still experiencing major problems in the classroom.” Another general education teacher commented, “To spend less time on the paperworks, deliberation, and "hoop jumping" that makes up RTI and more time on meeting students needs.” Better implementation also referred to the need for progress monitoring materials and capabilities. In regards to assessments, a general education teacher stated, “...Progress monitoring needs to be consistent and communicated. We need more progress monitoring capabilities.”

Differentiated instruction. Teachers referred to needing a list of interventions, strategies, and programs to use at the tier 2 and tier 3. A general education teacher stated needing, “A ‘library’ of examples.” Another general education teacher replied, “More

remediation assistance. Better system to access intervention materials [such as]

'AIMSWEB.' ”

CHAPTER V

DISCUSSION

The purpose of this study was to examine the extent to which diverse RTI schools engaged in culturally responsive beliefs and practices. Employing both quantitative and qualitative methods, the *Survey of Schools' and Educators' Culturally Responsive Beliefs and Practices* was used to explore the types of culturally responsive beliefs and practices employed in diverse elementary schools implementing RTI in North Carolina. The following questions were investigated:

- 1) To what extent are CRP employed by general and special education teachers in diverse RTI elementary schools?
- 2) To what extent does the level of CRP for special education teachers differ from that of general education teachers?
- 3) To what extent do teachers perceive their RTI school as reflecting culturally responsive beliefs and practices?
- 4) To what extent have teachers in RTI schools received training in CRP?
- 5) Do teachers who have had preparation on CRP differ from those who have not?
- 6) What are teachers' perceptions of the successes, barriers, and future needs in implementing CRP within an RTI model?

This chapter will first discuss the culturally responsive practices employed by teachers, culturally responsive practices employed by their schools, and the type of culturally responsive practices training received by participants. Teachers' perceptions of successes, barriers and future needs in implementing culturally responsive practices within an RTI model will be provided. Finally, limitations of this study and areas for future research will be explained.

Culturally Responsive Teacher Practices

In the beginning of this study, it was expected that general and special education teachers would employ culturally responsive beliefs and practices that were more commonly aligned with RTI, such as employing a multi-tiered model of intervention services, a problem-solving process, and collaboration among teachers, and might be less likely to employ culturally responsive practices not as commonly associated with RTI, such as acknowledging and celebrating diversity, using culturally responsive materials, and culturally responsive behavior management practices, at lower levels. A key finding of this investigation was that a high proportion of the teachers agreed to employing all of the culturally responsive practices except for one that will be explained later. At face value at least, it would appear that the students of RCELD in these schools are receiving instruction that addresses their different cultural, linguistic, and experiential backgrounds (Harris-Murri et al., 2006). These positive results could be explained by a number of factors. First, the participants in this study were a relatively experienced group. Over half of the teachers surveyed reported having more than 5 years experience teaching at their current grade level and more than 10 years of experience in education. Second,

most of the teachers had received some training in culturally responsive practices. Voltz et al., (2003) found that professional development designed to bring awareness of learning and behavior differences influenced by culture improves teachers' awareness, skill set, and practices. In this study, teachers commented that they reflected "upon how the culture of [the] classroom could be altered to support/reflect [students'] culture, - versus looking at students with a 'deficit model' mindset," further evidence of how training can affect cultural understanding. Third, as participating schools were RTI pilot schools, they received some training in RTI. Many of the practices surveyed were RTI practices. Also possible is that basic RTI training with its emphasis on using data to meet individual needs may leave teachers more receptive to meeting individual needs through culturally responsive practices. Finally, the positive responses could be due to the teachers blindly giving everything a positive response; however, the use of corresponding negatively stated items for each of the positive items refutes that possibility.

Some of the positive findings were validated by the open-ended responses of teachers' reports of their greatest successes in working with students of RCELD as part of RTI. Teachers reported being able to provide both preventative and remedial help to students through differentiated instruction, without having to label, a strategy that has been endorsed for instructing learners of culturally and linguistically diverse backgrounds in the general education setting (Santamaria, 2009; Walker-Dalhouse et al., 2009). Data-based decision making was also seen as a success. Teachers reported being able to determine students' needs, measure student progress, and measure interventions through assessment. The use of assessment data to identify students who are in need of more

intensive instruction is an essential part of the RTI problem solving process (Fuchs et al., 2003) and has successfully been used to address disproportionate placement of culturally and linguistically diverse learners (Marston et al., 2003). Successes also noted were collaboration with teachers and parents. One of the concerns of the traditional model of identifying students with disabilities is that teachers often work in isolation without learning and sharing with colleagues and families (Hindin et al., 2007). RTI is encouraging a collaborative approach to delivering supports and services (McKenzie, 2009; Vaughn & Fuchs, 2003; Fuchs, 2003) as evidenced by teachers' comments of "informing parents of various strategies" and "work[ing] with a team... [to] meet that child's individual needs on many levels."

Fewer teachers agreed to systematically analyzing and discussing the impact of culture on RCELD students' school performance, with general education teachers agreeing with this item significantly more often, though still at a lower rate than their response to other items, a finding that refuted initial expectations. This finding may be a chance occurrence due to multiple comparisons of individual items being made. However, it may also be the case that general education teachers are receiving more training in culturally responsive practices in colleges of education (Asher, 2007; Trent et al., 2008). Fewer teachers also strongly agreed that they took individual student differences into account when establishing rules and behavioral expectations in their classrooms; for this item there were no differences between general and special education teachers. Failing to employ these proactive behavioral practices could lead to inappropriate referrals, and even suspensions, and expulsions of RCELD students

(Cartledge & Kourea, 2006; Coutinho & Oswald, 2000; Sugai & Horner, 2008) Still, teachers' responses may not necessarily be driven by bias. The response of the teachers may be due to the fact that considering student differences is contrary to what most teachers believe. Many teachers pride themselves as being color-blind (Hosp & Madyun, 2007). That is, they believe in being fair to all students by treating them all the same. To many teachers, acknowledging individual student differences would promote prejudice and discrimination by others (Keyes, Burns, and Kusimo, 2006). But actually the opposite may be true. Because students bring varied background knowledge and experiences to school with them, exploring individual differences may in fact improve student motivation and behavior while also making connections between their background and academic knowledge (Hosp & Madyun, 2007). Equity may be a better course than equality. This is a question in need of further study.

It is important to note that at times the open-ended responses painted a different picture of teacher practices. While data-based decision making was considered a success, teachers also saw it as a barrier to implementing culturally responsive practices as part of RTI. Teachers complained about the length of the process and a shortage of valid assessments available. The lack of probes and curriculum-based measures required to make decisions and ultimately meet students' needs can undermine the success of data-based decision making and can lead one to question the fidelity in which the culturally responsive RTI process is being implemented (Klingner & Edwards, 2006). Notwithstanding the self reports of training received in culturally responses practices, barriers to implementation mentioned by the teachers included not understanding,

accepting, and knowing more about the cultures of their students. Without cultural understanding, behavior and achievement of students from ethnic minority groups can be interpreted differently and result in a biased decision-making process (Coutinho & Oswald, 2000; Tobias et al., 1982) as well as a lack of sensitivity to cultural and linguistic nuances, which may subsequently lead to disproportionate representation (Arnold & Lassman, 2003).

Culturally Responsive School Practices

The fact that an overwhelming majority of teachers perceived their school as employing all of the culturally responsive practices except one was another positive finding of this study. Not only did teachers see themselves as employing culturally responsive practices, but they perceived their peers and administrators as employing the practices as well. Teacher perceptions of their school vis-a-vis culturally relevant practices were overwhelmingly positive. Indeed, the same factors that were just discussed as contributing to the teachers adopting culturally responsive practices could explain the school-level results as well i.e. teacher experience in education, teacher training in culturally responsive practices, as well as teacher training in RTI. Therefore, again, one could conclude that in these diverse RTI schools collaboration among professionals exists (Friend & Cook, 1990), culturally responsive policies and practices are supported by their school administration (Obiakor & Wilder, 2003), and the overall RTI process is culturally responsive (Garcia & Ortiz, in press; Klingner & Edwards, 2006).

There was one item related to school practices with which teachers tended to agree less. That was the item about seeking input from families when making decisions

including learning about families' culture. As stakeholders in the education process, parents of culturally diverse students should be included in every part of their child's learning and teachers should make the effort to provide opportunities for parents and families to participate on a regular basis (Cartledge & Lo, 2006). However, on this item, as well as in the open-ended portion of the survey, collaboration with families was reported more as a barrier. Teachers commented on how they expected parents to "do supportive work at home," and "to come in and meet [about] RTI." The implication of course was that the teachers felt the parents weren't doing this. Certainly working with the school may be difficult for parents of students living in poverty who may not possess the social and cultural capital needed to negotiate the culture of the school (Bourdieu, 1990). As noted in the literature, in high-poverty areas, there may be a gap between what schools expect of families from high-poverty backgrounds and what they can deliver (Skiba et al., 2006). Overrepresentation can result from this mismatch. Fortunately, the open-ended responses revealed that teachers did see collaboration with families as something they wanted and needed to improve upon.

From the open-ended responses one can see that teacher's notions of their schools being culturally responsive are more ambiguous than they would first appear. For example, while teachers responded that collaboration, enforcement of culturally responsive policies, and culturally responsive RTI in general existed at their schools, a majority of open-ended comments referred to a lack of support as a barrier to implementation of culturally responsive practices as part of RTI. Teachers also reported a lack of guidance, planning time, professional development, time to do paperwork,

funding, and a lack of needed personnel. One teacher's comment referring to "lack of ...[a] procedural guide; clear practices" leads to a different conclusion: that policies and practices are not enforced nor supported in these RTI schools. This possible lack of support is of concern, as it can affect the fidelity of the overall implementation of RTI (Fuchs & Deshler, 2007) and with it the cultural responsiveness needed to reduce the problem of disproportionality. Indeed, the components of RTI cannot be effectively and efficiently implemented without support from administration, adequate time for planning and paperwork, continued professional development, and staff buy-in (Fuchs & Deshler, 2007).

Culturally Responsive Practices Training

Teacher preparation in culturally responsive practices has been highly endorsed and culturally responsive practices have been integrated into professional organization standards, and in preservice and inservice programs in colleges of education (CEC, 2001; Gollnick, 1995; INTASC, 2001; NCATE, 2001). While the amount of multicultural education received by participants is unknown, the finding that most of the participants reported receiving training in culturally responsive practices through university coursework validates somewhat the commitment of faculty in colleges of education in this area (Asher, 2007; Trent, Kea, & Oh, 2008) and the overall findings of this study. On the other hand, the open-ended responses painted a different picture. Teachers cited a need for additional professional development geared toward both understanding cultural diversity as well as the RTI process. Teachers will need continued support from administration to provide integral components of culturally responsive RTI such as

adequate funding for materials, staff, and training to better understand the diverse needs of RCELD students enrolled in these schools.

Limitations

There were several limitations to this study. First, survey research relies on self-reports from participants. Respondents may report only information that is socially desirable. With respect to this study, the majority of participants reported implementing most of the culturally responsive practices described. While the qualitative data gave some indication of the types of practices that were implemented successfully and those that were barriers, no direct observation was carried out to verify the types of practices reported. Second, this survey was administered during regularly scheduled staff meetings by the researcher, and collected on the same day. While this procedure increased the overall response rate, the researcher's presence may have influenced the way the participants responded to the survey. Third, participants in this study were selected using a purposive sampling procedure. The ability to generalize the results of this study that was conducted in diverse elementary schools implementing RTI in North Carolina, to a national population, is limited. Finally, the extent to which schools implementing RTI in a culturally responsive way reduces the disproportionality of minorities in special education remains largely unknown. In addition, not all of the culturally responsive practices surveyed have been validated in the literature as having a positive impact on academics and behavior of diverse learners.

Need for Future Research

This dissertation study points to the need for future research. For example, this research relied on participants' self report of their culturally responsive practices. The results were very positive, yet the open-ended responses presented a more mixed picture. Future studies need to employ direct observations to provide a clearer picture of the extent to which culturally responsive practices are being implemented as well as their impact.

While culturally responsive practices have in some cases led to lower rates of disproportionality, increased academics, and/or decreased inappropriate behavior for diverse students, not all culturally responsive practices have been validated. In addition, the extent to which single or combinations of these strategies contribute to successful student outcomes remains unclear and is in need of research. For example, often recommended culturally responsive practices such as including culturally responsive materials in the curriculum, have yet to be validated experimentally (Cartledge & Kourea, 2008).

Although RTI is promising in reducing the number of diverse students placed in special education (e.g. Bursuck et al., 2004), more research is needed on RTI with non-native speakers of English and minority populations to produce results similar to those when RTI is used with native English speakers. Furthermore, continued research is needed to determine the length of interventions and the amount of intensity to address its effectiveness with minority populations (Vanderwood & Nam, 2007).

To ensure that the combination of culturally responsive practices and RTI indeed reduce the overrepresentation of minorities in special education, culturally responsive RTI models that have provided evidence (Marston et al., 2003) need to be replicated, and those that have been recommended (i.e. Dray et al., 2009; Garcia & Ortiz, in press, Klingner & Edwards, 2006) are in need of empirical validation.

Conclusion

Addressing the longstanding documented problem of disproportionate representation of minorities in special education has been challenging. Various theoretical as well as societal, environmental, and educational reasons for its continued presence in our society have been examined. Although serious efforts to address disproportionality such as implementing culturally relevant pedagogy, teacher preparation, and school leadership have been suggested and applied (i.e. Blanchett, 2006; Cartledge & Kourea, 2008; Fiedler et al., 2008; Gay, 2000, 2002; Ladson-Billings, 1995; Salend et al., 2002; Voltz et al., 2003), putting theory into practice remains a challenge because the problem of disproportionality still exists. In response to changes in federal law, RTI is being implemented as an alternative method of identifying children for special education services. RTI is also being endorsed as a model that can lessen the problem of the overrepresentation of minorities in special education, largely due to its emphasis on data-based decision making and evidence based practices. A number of researchers are advocating that RTI also be culturally responsive, and there is preliminary evidence that culturally responsive RTI can reduce disproportionality (Marston et al., 2003). Despite the potential of culturally responsive RTI, whether schools and diverse

populations are implementing RTI in a culturally responsive way is unclear. This is particularly important in states such as North Carolina, where the problem of overrepresentation of minorities in special education exists, and for whom reducing disproportionality is a major objective of their RTI programs. Based on North Carolina's criteria for significant disproportionality, there are two disability categories where students of a particular racial/ethnic group are of major concern. Those disability categories are educable mental disabilities (EMD) and behavioral-emotional disabilities (BED; NCDPI, 2003).

The purpose of this study was to examine the extent to which diverse RTI schools in North Carolina engage in culturally responsive beliefs and practices. Employing mixed-methods research, a survey was designed to answer six research questions. General and special education teachers employed in diverse schools implementing RTI were recruited for the study. A high proportion of the teachers agreed to employing a majority of culturally responsive practices with no significance difference found overall between general and special education teachers. The results also suggest that diverse elementary schools in North Carolina are implementing RTI in a culturally responsive way. A major factor considered to attribute to these positive findings is reported training in culturally responsive practices along with training received in RTI, and teacher experience. Positive reports were extended through open-ended responses that suggested that the successes of employing these practices with students of RCELD as part of RTI were in the form of positive student outcomes, data-based decision making, differentiated instruction, collaboration and cultural understanding. However, the documented issue of

disproportionate representation of minorities in special education in the LEAs of participating schools in this study leads one to believe that these reports are not entirely true. Reported barriers to implementation of culturally responsive practices as part of RTI, such as a lack of cultural understanding and support from administration, suggests the latter. The onus may need to be put on colleges of education as well as LEA's to increase their commitment of providing appropriate training and ongoing professional development in cultural responsive pedagogy and RTI with specific preparation in categories in which minorities have been overidentified, such as BED and EMD. For example, North Carolina's ongoing training in RTI should include an emphasis on not only the prevention and early intervention components of RTI, but also on the problem that the state has with overrepresentation of minorities in special education, and include pedagogical strategies that have proven to work or been recommended to address academics and behaviors of diverse students. Despite the fact that teachers reported implementation of culturally responsive practices, the findings are in need of replication using direct observation. It also appears that continued support for teachers and the implementation of culturally responsive RTI, such as appropriate funding, support from administration, and instructional and assessment materials, are needed to meet the needs of diverse classrooms and students. Finally, continued research in this area, such as replicating studies that have decreased disproportionality and empirically validating recommended practices, can provide meaningful information for both local RTI projects and the field of special education.

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APPENDIX A

SURVEY OF SCHOOLS' AND EDUCATORS' CULTURALLY RESPONSIVE BELIEFS AND PRACTICES

PURPOSE

We are interested in studying how students of **racial, cultural, ethnic, and linguistic diversity (RCELD)** are taught in schools. To gather information for this purpose, we are surveying elementary school general and special education teachers about their culturally responsive beliefs and practices related to school climate, academic instruction, behavior management, collaboration, and assessment. Thank you for participating in this project!

PART I: INSTRUCTIONS

On the top half of sections A-F of this survey are bolded terms related to the education of students of **RCELD**. Each term is followed by quality indicators that define the term. On the bottom half of sections A-F are statements about educating students of RCELD at your school or in your classroom and a place to comment or elaborate about your beliefs and practices. Using the quality indicators as a guide, please rate your degree of agreement or disagreement with each statement.

*Note: To be as inclusive as possible, references to families in this survey may refer to biological parents, step-parents, adoptive or foster parents, legal guardians, other family members such as grandparents, aunts, uncles, etc. and to "social family members." Social family members are not biologically related members of the student's family, but play an important part in the student's family life and upbringing.

A. School Climate/Support

Support and Celebrate Diversity	Teacher Expectations for Students	Administrative Support
<ul style="list-style-type: none"> ▪ The school environment contains evidence of contributions/work from individuals with diverse backgrounds on a regular basis, not just during a special week or month. ▪ Classrooms contain evidence of contributions/work from individuals with diverse backgrounds. ▪ Students of racial, cultural, ethnic, & linguistic diversity (RCELD) are regularly recognized and honored for their work. ▪ Bilingual education is provided. ▪ Materials are translated for non-English speaking families. 	<ul style="list-style-type: none"> ▪ General education teachers' expectations for achievement for students of RCELD are based on student performance. ▪ General education teachers set high expectations for students of RCELD. ▪ A curriculum with clear, measurable standards is in place for all students. 	<ul style="list-style-type: none"> ▪ Principal regularly commits additional resources to address the needs of students of RCELD. ▪ Problem-solving teams regularly share concerns with the administration about issues/resources impacting students of RCELD. ▪ Professional development support is provided to assist general education teachers in meeting the needs of students of RCELD. ▪ Principal regularly commits additional resources to support school/home connection activities.

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Basis to Respond
1. My school makes little or no attempt to acknowledge and celebrate diversity.	1	2	3	4	NB
2. There is little or no administrative support or additional resources provided to address the needs of students of RCELD.	1	2	3	4	NB
3. Frequent and varied examples acknowledging and celebrating diversity are evident throughout my school and in my classroom.	1	2	3	4	NB
4. High expectations for the achievement of students of RCELD are <u>not</u> maintained.	1	2	3	4	NB
5. There is effective administrative support/advocacy including additional resources and the promotion of problem solving to address the needs of students of RCELD on a regular basis.	1	2	3	4	NB
6. High expectations for the achievement of students of RCELD are regularly maintained.	1	2	3	4	NB

Comments:

B. Academic Instruction (I)

Multi-tiered Model of Intervention Services	Differentiated Reading Interventions	Differentiated Instruction
<ul style="list-style-type: none"> ▪ School-wide services are available to all students (e.g., school-wide positive behavioral support system, instructional strategies in reading and math, differentiated curriculum). ▪ Time limited specialized services are available for students of racial, cultural, ethnic, & linguistic diversity (RCELD) (e.g., extra support in the classroom, small group or 1:1 instruction, home support, tutors, after school programs). ▪ Long- term intensive specialized support services are available for students of RCELD (e.g., collaboration with community programs, crisis response plan). ▪ Clear guidelines and criteria have been established to move students from one tier of services to another. 	<ul style="list-style-type: none"> ▪ Special education teachers, reading teachers, or specialists provide services to students of RCELD in inclusive environments. ▪ Special education teachers, reading teachers, or specialists regularly consult with general education teachers on reading interventions and the effects of the interventions. ▪ Multiple reading levels and instructional groupings are used by general education teachers. ▪ ESL, Special Ed. and General Ed. staff receive common professional development. ▪ When necessary, small-group or 1-to-1 reading support is provided daily. 	<ul style="list-style-type: none"> ▪ General education teachers employ a variety of teaching methods and materials. ▪ Students of RCELD receive additional review and practice in areas of difficulty in the general education classroom. ▪ General education classroom teachers engage in direct, frequent, and continuous monitoring of student progress. ▪ General education teachers use individualized behavioral supports to address the needs of students of RCELD. ▪ Instruction builds upon student background knowledge and experiences.

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Basis to Respond
7. My school has <u>not</u> implemented a multi-tiered (e.g., prevention, intervention, and specialized support) model of intervention services.	1	2	3	4	NB
8. Consultation and direct services from special education teachers, reading teachers, or other specialists are provided on a regular and consistent basis to assist in carrying out differentiated reading interventions for students of RCELD.	1	2	3	4	NB
9. There are <u>no</u> differentiated reading interventions provided to students of RCELD in my classroom. All students in general education receive the same type and intensity of reading instruction.	1	2	3	4	NB
10. There is little or no differentiated instruction for students of RCELD in my classroom.	1	2	3	4	NB
11. I regularly provide differentiated instruction by making adaptations in the following areas as needed: (a) content = what is taught, (b) process = how content is taught,(c) product = how students demonstrate content mastery,(d) affect = how students connect their thinking and feelings, and(e) learning environment = how the classroom is designed and students are grouped.	1	2	3	4	NB
12. My school has implemented a multi-tiered model of intervention services and the extent of differentiated interventions for students is significant.	1	2	3	4	NB

Comments:

C. Academic Instruction (II)

Explicit Teaching of Learning Strategies	Culturally Responsive Materials/Practice	Peer Supports
<ul style="list-style-type: none"> ▪ Thinking skills, specific learning strategies, and cognitive behavioral skills (e.g., stop-and-think) are specifically taught and modeled by teachers. ▪ All teachers regularly explain how/why students' responses are correct and incorrect. ▪ Students are carefully guided as they acquire learning strategies. 	<ul style="list-style-type: none"> ▪ General education classroom materials include stories and perspectives from diverse cultures. ▪ General education classroom instruction is varied (e.g., small group, cooperative learning, high teacher-student interaction). ▪ High energy and animation are evident in the classroom, along with authentic learning activities, and a high level of teacher-student interaction. ▪ Culturally responsive instruction is evident and regularly includes: acknowledging students' differences as well as their commonalities; validating students' cultural identities in classroom practices; educating students about diversity, promoting equity and mutual respect among students; assessing students' ability and achievement using valid measures; motivating students to become active participants in their learning; encouraging students to think critically; challenging students to strive for excellence; and assisting students in becoming socially and politically conscious. 	<ul style="list-style-type: none"> ▪ General education classroom instructional groupings promote heterogeneous groups of students working together. ▪ Flexible groupings of students are implemented for different instructional purposes. ▪ Reading buddies, cooperative learning groups, and cross-age peer tutoring are frequently used.

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Basis to Respond
13. I do <u>not</u> use peer supports in my classrooms.	1	2	3	4	NB
14. I regularly and explicitly teach learning strategies and thinking skills to students of racial, cultural, ethnic, & linguistic diversity (RCELD) in my classroom.	1	2	3	4	NB
15. I regularly use culturally responsive materials, content, and teaching practices in my classroom.	1	2	3	4	NB
16. I regularly use peer supports in my classroom to empower my students to take responsibility for their learning and to support each other.	1	2	3	4	NB
17. I rarely use culturally responsive materials, content, and teaching practices in my classroom.	1	2	3	4	NB
18. I rarely, if ever, provide a carefully planned system of instruction in learning strategies to students of RCELD in my classroom.	1	2	3	4	NB

Comments:

D. Behavior Management

Positive Behavior Support System	Culturally Responsive Behavior Management Practices	Positive Classroom Environment
<ul style="list-style-type: none"> ▪ The school has established procedures that emphasize positive behaviors and regularly recognizes students for displaying appropriate behaviors. ▪ School staff have been trained in the implementation of a positive behavioral support system. ▪ Classroom incentive plans for positive behavior are implemented regularly 	<ul style="list-style-type: none"> ▪ Teachers respect behavioral differences of students of racial, cultural, ethnic, & linguistic diversity (RCELD) (e.g., expressed preference for working individually or in groups, listening and responding style, peer interaction patterns, responses to authority, verbal and nonverbal communication, turn taking behaviors). ▪ General education classroom rules and procedures accommodate individual cultural differences. ▪ Staff confer with families about home expectations and behavior management practices. ▪ Staff engage in self-assessments of their own cultural expectations and practices. 	<ul style="list-style-type: none"> ▪ Classroom environment reflects the diverse learning and behavioral needs of students of RCELD. ▪ General education classroom procedures and routines are actively taught to students with periodic reminders provided. ▪ General education classroom transitions are short and smooth. ▪ General education teacher-student interactions are positive.

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Basis to Respond
19. My school has implemented a positive behavioral support system for all students; staff have been trained in its use; and school staff regularly discuss the effectiveness of school-wide positive behavioral support interventions.	1	2	3	4	NB
20. I do <u>not</u> consider the impact of culture on school performance of a student of RCELD in my classroom.	1	2	3	4	NB
21. I take individual student differences into account when establishing the rules and behavioral expectations in my classroom.	1	2	3	4	NB
22. I do <u>not</u> engage in self-assessments of my own cultural expectations and practices.	1	2	3	4	NB
23. The impact of culture on school performance of a student of RCELD in my classroom is systematically analyzed and discussed.	1	2	3	4	NB
24. My school does <u>not</u> have a positive behavioral support system in place.	1	2	3	4	NB
25. I engage in self-assessments of my own cultural expectations and practices.	1	2	3	4	NB
26. Classroom environments accepting of student differences are <u>not</u> established in my classroom.	1	2	3	4	NB

Comments:

E. Collaboration

Collaborative Practices	Collaboration with Families	Collaboration Beliefs
<ul style="list-style-type: none"> ▪ Classroom time in general education settings is devoted to teaching social skills and problem solving skills. ▪ When necessary, students of RCELD in general education classrooms have individualized behavioral management programs that address individual cultural differences. ▪ Peer support mentors are provided. ▪ Co-teaching is observed among general education, ESL, and special education teachers. ▪ Co-planning is observed among general education, ESL, and special education teachers. 	<ul style="list-style-type: none"> ▪ The school hosts events for parents/families of students of racial, cultural, ethnic, & linguistic diversity (RCELD) on a regular basis (e.g., potluck meals, parent groups). ▪ The school provides opportunities for parents/family members of students of RCELD to participate in regularly scheduled meetings outside the school setting (e.g. at community centers). ▪ School administration promotes staff knowledge of diverse cultures. ▪ Problem-solving teams include parents/family members of students of RCELD in meetings/discussions to formulate instructional and behavioral recommendations. ▪ Staff members offer to meet with parents outside the school setting (e.g., home visits or community sites). 	<ul style="list-style-type: none"> ▪ There are numerous examples of regular collaboration between general and special education teachers. ▪ IEPs of students of RCELD in inclusive classes are regularly shared with general education teachers and include numerous examples of classroom accommodations/modifications. ▪ Master schedules allow maximum time for shared planning and teaching.

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Basis to Respond
27. There is extensive and effective collaboration between general education teachers, special education teachers, and other support staff.	1	2	3	4	NB
28. My school has made little or no effort to collaborate with families of students of RCELD.	1	2	3	4	NB
29. The prevailing attitude of school staff fosters extensive and effective collaborative interaction between general education teachers, special education teachers, and other support staff.	1	2	3	4	NB
30. There is little or no collaboration between general education teachers, special education teachers, and other support staff (e.g., related services, ESL).	1	2	3	4	NB
31. My school actively seeks involvement and decision making input from families of students of RCELD and is committed to learning about the culture of those families and empowering them.	1	2	3	4	NB
32. The prevailing attitude of school staff fosters isolation and little or no collaborative interaction between general education teachers, special education teachers, and other support staff (e.g., related services, ESL).	1	2	3	4	NB

Comments:

F. Assessment

Informal/Authentic Assessments	Environmental Assessment	Problem-Solving Approach
<ul style="list-style-type: none"> ▪ Analyses of problem behaviors are regularly conducted to assess students of racial, cultural, ethnic, & linguistic diversity (RCELD). ▪ Informal, curriculum-based, and authentic assessments are routinely conducted to assess the academic performance of students of RCELD. ▪ Error analyses are routinely conducted on the academic work of students of RCELD. ▪ Parents are consulted to gain a better understanding of parent expectations for students. 	<ul style="list-style-type: none"> ▪ School and classroom environmental assessments are conducted to determine possible explanations for the problems experienced by students of RCELD. ▪ There is systematic use of curriculum-based assessment and error analysis data. ▪ Problem-solving teams' recommendations focus on positive behavioral interventions & student strengths. ▪ There is a carefully delineated and comprehensive referral process. 	<ul style="list-style-type: none"> ▪ Problem-solving teams are active and engaged in problem solving discussions. ▪ Interventions for students of RCELD are implemented for a reasonable amount of time with data on targeted behavior(s) routinely collected. ▪ Problem-solving teams provide follow-up support and monitoring of planned interventions. ▪ Families are encouraged to participate in problem solving discussions. ▪ Data from general education classroom interventions are used to provide academic and/or behavioral support to students of RCELD.

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Basis to Respond
33. Classroom performance data are <u>not</u> systematically gathered and analyzed to identify the reasons for behavior, learning or other difficulties of students of RCELD.	1	2	3	4	NB
34. My school has <u>not</u> implemented a problem solving process to review the classroom performance of students of RCELD.	1	2	3	4	NB
35. School teams believe that general education classroom performance problems of students with RCELD may stem from multiple factors and that other options should be tried before making a referral to special education.	1	2	3	4	NB
36. School teams believe that general education classroom performance problems of students of RCELD primarily stem from student deficits and that special education referral is the preferred option.	1	2	3	4	NB
37. My school has implemented a problem solving process to review the academic performance of students of RCELD which consists of systematic implementation and monitoring of recommended interventions.	1	2	3	4	NB
38. Classroom performance data are routinely gathered and analyzed to identify the source(s) of behavior, learning, or other difficulties for students of RCELD.	1	2	3	4	NB

Comments:

PART II: OPINIONS

Please respond to the following questions about culturally responsive practices.

39. What do you see as your greatest successes in working with students of RCELD as part of RTI?

40. What do you see as barriers to implementation of culturally responsive practices as part of RTI in your school?

41. What would help you and your school to better implement culturally responsive practices within RTI?

PART III: TEACHER INFORMATION

Please complete the demographic questions. This information will be used for classification purposes only. All information will be kept confidential.

1. What is your current position?
 - General Education Teacher
 - Special Education Teacher
2. What is your Role in Responsiveness to Instruction (RTI)? (check all that apply)
 - Tier 1 instruction
 - Tier 2 instruction
 - Tier 3 instruction
 - Consultation
 - Other_____
 - No role in RTI
3. What grade level(s) do you teach? (check all that apply)
 - Kindergarten
 - Grade 1
 - Grade 2
 - Grade 3
 - Grade 4
 - Grade 5
4. How many years have you taught in your current grade level?
 - Less than 5 years
 - 5 years to 10 years
 - More than 10 years
5. How many years have you taught at your current school?
 - Less than 5 years
 - 5 years to 10 years
 - More than 10 years
6. How many years have you been in the education profession?
 - Less than 5 years
 - 5 years to 10 years
 - More than 10 years

7. I serve on the following instructional/intervention team(s): (check all that apply)
- Grade Level Team
 - Problem-Solving Team
 - Other_____
 - I do not serve on an instructional/intervention team.
8. I have learned about culturally-relevant practices through: (check all that apply)
- University coursework
 - Professional development in general
 - Professional development as part of RTI training
 - Mentoring
 - Web sites, blogs, wikis, etc.
 - Other_____
 - I have not learned about culturally relevant practices.

THANK YOU FOR YOUR PARTICIPATION!!