

**DETERMINING THE VALIDITY AND RELIABILITY OF THE CULTURAL
AWARENESS AND BELIEFS INVENTORY**

A Dissertation

by

PATRICIA FAY ROBERTS-WALTER

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2007

Major Subject: Curriculum and Instruction

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ABSTRACT

Determining the Validity and Reliability of the Cultural Awareness and Beliefs

Inventory. (May 2007)

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The purpose of this study was to examine the validity and reliability of the Cultural Awareness and Beliefs Inventory (CABI). The CABI consist of forty-six items that measures urban teachers' cultural awareness and beliefs on a Likert-type four-point scale. In addition, this study also examined the extent the CABI determined statistically significant differences by demographic characteristics, such as teachers' ethnicity or years of teaching experience.

During the 2005–2006 academic year, data for this study was collected from the Cultural Awareness and Beliefs Inventory (CABI). Approximately 1873 Pre-kindergarten through Grade 12 teachers, employed by an urban public school district located in southeastern Texas, completed the survey.

Construct validity was determined by internal consistency, content validity, convergent and divergent validity. To investigate the internal structure, an exploratory factor analysis, EFA, yielded an eight-factor, 36-item inventory. The eight factors, Factor I: Teachers' Beliefs, Factor II: School Climate, Factor III: Culturally Responsive

Classroom Management, Factor IV: Home Community School, Factor V: Cultural Awareness, Factor VI: Curriculum and Instruction, Factor VII: Cultural Sensitivity, and Factor VIII: Teacher Efficacy were examined by a jury of experts to establish the content validity of the eight-factor, 36-item inventory. Convergent and divergent validity was established for six of the eight constructs by conducting a Pearson product moment correlation. Cronbach's alpha coefficient was conducted to measure the internal consistency reliability of the 36-item CABI. The reliability was established at .83. Further, the alpha for the eight factors, or scales, ranged from 46 percent for TE to 88 percent for CRCM.

Differences in the teachers' perceptions by teachers' ethnicity were determined for TB, CRCM, CS and TE. Follow-up Scheffe post hoc analyses indicated that African American teachers had significantly more positive perceptions of TB, CRCM, and CS. Hispanic American teachers had significantly more positive perceptions of TE. Differences in the teachers' perceptions by years of experience were determined for CRCM and HCS. Follow-up Scheffe post hoc analyses indicated that teachers with more years of experience had significantly more positive perceptions of CRCM than first year teachers. First year teachers had significantly more positive perceptions of HCS.

DEDICATION

This work is dedicated to my encouraging and loving husband, Lonnie. Your patience, support, and love guided me on this path of enlightenment to fulfill a dream. Thank you with all my love.

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I would like to acknowledge and thank the members of my committee for providing guidance and support when I needed it the most. Dr. Patricia Larke, your encouraging words and ever present smile of appreciation imprinted on my mind kept me motivated throughout this journey. Dr. Webb-Johnson, your words through your research has provided me a light on the path of purpose and confirmed this valuable research. Dr. Knight, your support and guidance throughout this process pushed me far beyond what I thought I could accomplish. Dr. Carter, words cannot describe the appreciation I have for your patience, knowledgeable insights, and continued support.

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CHAPTER I

INTRODUCTION

Background of the Study

Students of color make up approximately 43 percent of the nation's student population, which is an increase since 1972 (U.S. Department of Education [USDOE], 2006b). Even though the school age population has become more diverse, the teachers of these students are predominately female, middle class European-Americans (Strizek, Pittsonberger, Riordan, Lyter, & Orlofsky, 2006). Within their careers, teachers will instruct students from culturally, linguistically, ethnically, economically diverse students backgrounds (Banks, 1997). Although the numbers of students of color are increasing, only eight percent of public school teachers are African American and six percent represent Hispanic Americans (Strizek, Pittsonberger, Riordan, Lyter, & Orlofsky, 2006). Therefore, a majority of teachers are representative of different cultural backgrounds than the students they teach. Thereby, resulting in a mismatch between the students' school and home culture (Garcia, 2001; Howard, 2001).

Over the past decade, emerging research has described exemplary teaching strategies for students of color (Delpit, 1995; Foster, 1992; Garcia, 2001; Howard, 2001; Irvine, 1990). Even though teacher education programs and professional development for practicing teachers provide preparation and training to teach students representing diverse cultures, applying that knowledge in the classroom is often inconsistent and

The style and format for this dissertation follow that of *The Journal of Educational Research*.

ineffective (Gay, 1995; Sheets & Fong, 2003; Sleeter, 2001). Therefore, this critical information focusing on diversity has failed to influence the achievement of students of color (Gay, 1995; Sleeter, 2001). European American and Asian/Pacific American students on average perform higher on reading and math standardized tests when compared to African American and Hispanic American students (Perie, Grigg, & Dion, 2005a, 2005b). Additionally, of the total student enrollment in the United States, African American students represent 16 percent of public school enrollment yet comprise 12 percent of the drop-out rate (USDOE, 2006a/2006b) Further, Hispanic American students encompass 19 percent of the public school enrollment and consist of 24 percent of the drop-out rate (USDOE, 2006a/2006b). Therefore, African American and Hispanic American students make up 35 percent of the total student population enrolled in public schools in the United States and represent 36 percent of the total number of dropouts. Moreover, students of color are referred to special education programs or are served in disciplinary programs at disproportionately higher levels than European American students (Gregory & Mosely, 2004; Special Education Elementary Longitudinal Study [SEELS], 2002). Further, the No Child Left Behind Act (United States Department of Education, 2001) mandates that federally funded schools improve the academic achievement of all students.

Studies have been conducted on teacher attitudes and teacher beliefs on teaching in diverse settings (Gay, 2000; Grant & Secada, 1990; Ladson-Billings, 1994), effective teaching strategies for African American students (Foster, 1992; Irvine, 1990, Ladson-Billings, 1994), and teachers' perceptions of culturally relevant pedagogy (Phuntsog,

2001). However, studies focusing on the attitudes and perceptions of Pre-kindergarten through Grade 12 urban teachers' cultural awareness and beliefs have been omitted from the literature.

Cultural Knowledge, Culturally Responsive Pedagogy, and Social Cognitive Theory

The constructs brought forth in this study borrow from the works of, Cultural Knowledge (King, 1994), Culturally Responsive Pedagogy (Ladson-Billings, 1995; Gay 2000), and the Social Cognitive Theory (Bandura, 1977). Within Cultural Knowledge, discusses the concepts of cultural difference and culture-centered. Culturally Responsive Pedagogy discusses institutional views and culturally responsive teaching. The Social Cognitive Theory focuses on teacher efficacy.

Cultural Knowledge

According to Spradley (1972), cultural knowledge refers to the learned behaviors, beliefs, and methods people employ to relate to others and the environment. Further, cultural knowledge describes behaviors that members of cultural groups acquire through the normal process of enculturation (King, 1994). Cultural knowledge perspectives have been identified as deficit, cultural difference, and culture-centered congruent perspectives (King, 1994).

According to King (1994), cultural knowledge affects teachers' behaviors in dealing with students representing diverse cultures. The deficit perspective has prevailed since the early sixties as a reason for the achievement gap between students of color and European American students. Proponents of this perspective believe that students representing diverse cultures fail to achieve due to genetic deficiencies, inadequate

parenting, poverty or a combination of these (King, 2004; Pang & Sablan, 1998).

Utilizing the deficit perspective, teachers develop approaches to change the behaviors of students of color and their parents to better fit within the mainstream culture (King, 1994).

Teachers, who possess the perspective of cultural difference, relate the underachievement of students of color as a cultural conflict between the home and school. Language and communication patterns are seen as cultural differences. While teachers possessing this perspective include more cultural activities within the curriculum, the curriculum remains unchanged (Banks, 2001). The underlying intent of this perspective is to re-socialize students within the majority culture with minimal change to school structure changes (King, 1994).

Teachers, who possess culture-centered, or congruent, perspectives view educational approaches or processes as opportunities to transforming society and the educational process. Culture-centered educators use students' culture as a vehicle to increase achievement (King, 1994). Within the cultural knowledge theory, the goal of education is to maintain the student's culture, while empowering them to be active participants in creating a more just society (King, 1994).

Culturally Responsive Pedagogy

Culturally responsive pedagogy is a theoretical framework for education that “attempts to integrate the culture of different racial and ethnic groups into the overall academic framework” (Elementary & Middle School Technical Assistance Center, 2007). A culturally responsive pedagogy framework consists of the organization of the

school, the schools' policies and procedures, and the institution's involvement with the community (Richards, Brown, & Ford, 2004). In addition, a culturally framework consists of culturally responsive teaching which includes both a personal and instructional dimension (Gay, 2000; Ladson-Billings, 1995; Richards, Brown, & Ford, 2004).

Gay (2000) defines culturally responsive teaching as “using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them. It is culturally validating and affirming” (p. 29). According to Ladson- Billings (1994), culturally responsive pedagogy, must meet three criteria: “an ability to develop students academically, a willingness to nurture support cultural competence, and the development of a sociopolitical or critical consciousness” (p. 483).

The personal view refers to the cognitive and emotional processes that teachers must engage in to become culturally responsive (Richards et. al., 2004). Teachers examine their attitudes and beliefs towards themselves and others. Gay (2000) asserts that teachers do a “self analyses of what they believe about the relationship among culture, ethnicity, and intellectual ability; expectations they hold for students from different ethnic groups and how their beliefs expectations are manifested in instructional behavior” (p.71).

The instructional dimension of culturally responsive teaching refers to the materials, strategies, and activities that inform instruction (Richards et. al., 2004). Instruction “filters curriculum content and teaching strategies through their [students]

cultural frames of references to make the content more personally meaningful and easier to master” (Gay, 2000, p. 24).

Social Cognitive Theory

Social cognitive theory posits “cognition plays a critical role in people’s capability to construct reality, self-regulate, encode information, and perform behaviors” (Pajares, 2002, p. 1). Bandura’s (1986) social cognitive theory states that individuals make sense of their own psychological processes through reflection. Actions can influence individuals by “what people think, believe, and feel affects how they behave” (Bandura, 1986, p. 25). Economic conditions, socioeconomic status, and educational and familial structures do not “affect human behavior, but influence individual’s aspirations, self-efficacy, personal standards, emotional states, and other self-regulatory influences” (Pajares, 2002, p. 2).

Human behavior is the result of the interaction of personal, behavior, and environmental factors, which Bandura (1986) termed reciprocal determinism. The person-behavior interaction involves bi-directional influence of a person’s thoughts and actions (Bandura, 1997;1986;1989). The person and the environmental interactions involve bi-directional influence of human expectations, beliefs, and cognitive competencies (Bandura, 1997; 1986; 1989). These are developed and modified by social influences and structures within the environment. The environmental and behavioral interactions involve a person’s behavior to determine aspects of the environment (Bandura, 1997; 1986; 1989). Therefore, behavior is modified by that environment (Bandura, 1989).

According to the social cognitive theory, five unique capabilities provide humans with the ability to cognitively control behavior. These include symbolizing capability, vicarious capability, forethought capability, self-regulatory capability, and self-reflective capability (Bandura, 1989). The symbolizing capability allows one to form symbols to give meaning to their experiences; thus, enabling an individual to store information in his or her memory to guide future behaviors (Bandura, 1989). Through the vicarious capability, an individual's ability to learn, not only occurs through direct experience, but also through the observation of others. Forethought refers to an individual's capability to motivate him or herself and guide actions (Bandura, 1989), while the self-regulatory capability refers to an internal control mechanism, which allows individuals to have personal control over their own thoughts, feelings, motivations, and actions (Bandura, 1989). Self-reflective capability enables an individual to analyze their experiences, thought processes, and alter their own thinking. Self efficacy, a type of self-reflection is the perception of an individual's own ability to guide behavior by determining the goals a person attempts to achieve and the effort placed in the performance (Bandura, 1977).

Psychometric Summary

Currently, the Standards of Educational and Psychological Testing of American Educational Research Association (AERA, 1999), present validity as a unitary concept

Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests all the accumulated evidence supports the intended interpretation of test scores for the

proposed purpose... the process of validation involves accumulating evidence to provide a sound scientific basis for the proposed scores interpretations (p. 9).

Sources of validity evidence include, but are not limited to, evidence based on test content, response processes, internal structure, evidence based on relations to other variables, and the consequences of testing (AERA, 1999).

Reliability of an instrument refers “to the extent in which scores are free from measurement error” (Pett, Lackey, & Sullivan, 2003, p.174). Reliability in test construction focuses on several aspects of the instrument such as internal consistency, stability, and equivalence (Pett, et al, 2003).

Statement of the Problem

The No Child Left Behind Act (2001) provided a framework for the achievement of all students enrolled in public schools. This legislation held administrators, teachers, and parents accountable for closing the achievement gap between groups of students (Hunter & Bartee, 2003). In 1995, Texas mandated that teacher and administrator preparation programs adopt proficiencies to be added to the standards enabling them to work successfully with diverse student populations (Policy Research Report, 1994). However, 45 percent of the teaching population failed to be exposed to this mandated curriculum (Texas Education Agency [TEA], 2004). While all ethnic groups of Texas students’ scores have improved on the reading and writing portion of the state mandated tests, an achievement gap continues to exist between European American students and students of color, specifically African American and Hispanic American students (TEA, 2004). According to TEA (2004), 71 percent of the

teachers instructing in Texas public schools represent European Americans, while 46 percent of the school population attending Texas public schools are students of color.

Various researchers (Garcia, 2001; Gay 2000; Ladson-Billings, 1994; Villegas & Lucas, 2002; Zeichner, 1996) have advocated the necessity of including culturally responsive pedagogy within instructional practice to increase the achievement of African American and Hispanic American students. According to Fang (1996), classroom practices were related to teacher beliefs. Subsequently, a better understanding of teachers' beliefs and implementation of culturally responsive pedagogy appears to increase the educational achievement of students of color (Ladson-Billings, 1994).

While qualitative studies of the relationship between culturally responsive pedagogy and academic achievement of students of color have been conducted (Ladson-Billings, 1994), few quantitative studies have explored in-service teachers' perceptions of cultural awareness and their beliefs of their competencies in implementing cultural responsive pedagogy within the classroom. Given the numbers of the diverse student population in Texas, the ethnicity of the current teacher population, and the achievement gap between students of color and European American students, a valid, reliable instrument measuring the perceptions and attitudes of urban teachers' cultural awareness and beliefs needs to be created and utilized.

Purpose of the Study

The purpose of this descriptive, correlational study was to examine the validity and reliability of the Cultural Awareness and Beliefs Inventory (CABI) that measures the perceptions and attitudes of urban teachers' cultural awareness and beliefs. A valid

and reliable instrument is required to examine Pre-kindergarten through Grade 12 in-service teachers' perceptions of factors such as: a) teacher beliefs, b) school climate, c) culturally responsive classroom management, d) home and community support, e) cultural awareness, f) curriculum and instructional strategies, g) cultural sensitivity, and h) teacher efficacy. This study examined whether the CABI determined differences of the perceptions and attitudes of urban teachers' cultural awareness and beliefs of demographic variables such as teachers' ethnicity or years of teaching experience.

Significance of the Study

Understanding the educational and instructional needs of students of color has become a critical challenge for teachers. Achievement of students of color continues to lag behind that of their European American peers (Perie, Grigg, & Dion, 2005). According to many scholars, who have conducted research on culturally responsive pedagogy (Gay 2000; Howard 2001; Love, 2001; Richards, Brown, & Forde, 2004; Villegas & Lucas, 2002), teachers' knowledge and the implementation of culturally responsive pedagogy has the potential for increasing academic performance of students of color. Further, Fang (1996) suggests that teacher beliefs act as a filter through which instructional judgments and decisions are made. With national and state educational agencies focusing on closing the achievement gap, it is suggested that a valid and reliable systematic assessment be made available to assess urban Pre-Kindergarten through Grade 12 in-service teachers' perceptions and attitudes of cultural awareness and beliefs.

By understanding teachers' perceptions and attitudes toward cultural awareness and beliefs, effective and relevant curriculum can be developed. Further, such an instrument can assist educational leaders in planning effective professional development training to include the implementation of culturally responsive pedagogy, thus, encouraging teachers to become more aware of their own beliefs. Currently, a well defined set of guidelines or assessments measuring both teacher's perceptions and attitudes of urban teachers' cultural awareness and beliefs towards teacher beliefs, school climate, home and community support, culturally responsive classroom management, cultural awareness, curriculum and instruction, cultural sensitivity, and teacher efficacy fails to exist. This study explores the content and construct (both convergent and divergent) validity and reliability of the Cultural Awareness and Beliefs Inventory (CABI). Further, this study determined whether the CABI determined differences of demographic characteristics such as teachers' ethnicity or years of teaching experience. Additionally, through establishing the reliability and validity of the CABI, this instrument can assess, with some confidence, teachers' perceptions of cultural awareness and beliefs to affect student achievement.

Research Questions

The following questions will guide this descriptive, correlational study:

1. What is the construct validity of the Cultural Awareness and Beliefs Inventory that measures urban teachers' cultural awareness and beliefs?
2. What is the internal consistency reliability of the Cultural Awareness and Beliefs Inventory that measures urban teachers' cultural awareness and beliefs?
3. To what extent does the Cultural Awareness and Beliefs Inventory determine statistically significant differences by demographic characteristics? (Ethnicity or Years of Teaching Experience)

Definition of Terms

Assimilation - The process in which individuals or groups adopt the culture of another group, losing their original identity and culture.

Confirmatory Factor Analysis (CFA) – The use of factor analysis to test hypotheses about the latent traits that underlie a set of measured variables (Gall, Gall, & Borg, 2003, p. 620).

Content Validity- Expert judgment of whether an instrument measures what it is proposed to measure (Oppenheim, 1996).

Construct - “ a way of construing, or organizing, what has been observed” (Cronbach, 1984, p. 133).

Construct Validity - “The extent to which inferences from a test's scores accurately reflect the construct that the test is claimed to measure” (Gall, Gall, & Borg, 2003, p. 621).

Convergent Validity - The principle that states that theoretically similar constructs should be highly correlated (Trochim, M.K., 2002).

Cronbach's Coefficient Alpha – “A measure of the internal consistency of a test, based on the extent to which test-takers, who answer a test item one way, respond to other items” (Gall, Gall, & Borg, 2003, p. 622).

Cultural Awareness – “Becoming functionally aware of the degree to which behavior is culturally informed and influenced” (Schram, 1994, p. 63).

Cultural Awareness and Beliefs Inventory (CABI) – inventory that measures the perceptions and attitudes of urban teachers' cultural awareness and beliefs of teachers (Webb-Johnson & Carter, 2005).

Cultural Mismatch - Mismatch between teachers, school, or mainstream culture and students' home culture.

Culturally Responsive Classroom Management - culturally responsive pedagogy which is infused in classroom management “to provide all students with equitable opportunities for learning” (Weinstein, Tomlinson-Clarke, & Curran, 2004).

Culturally Responsive Pedagogy – a theoretical framework for education that “attempts to integrate the culture of different racial and ethnic groups into the overall academic framework” (Elementary & Middle School Technical Assistance Center, 2007).

Culturally Responsive Teaching -“ a theory that purposely incorporates the cultural knowledge, experience, and frames of references of ethnically diverse students to make learning more relevant for students whose cultural ethic, linguistic racial

and social class backgrounds differ from that of the majority” (Learn North Carolina, 2006).

Cultural Sensitivity – “attitudes, beliefs and behaviors towards students of other cultures” (Larke, 1990, p. 24).

Deficit Theory - Theory positing that some cultural groups are deficient in intelligence and/or achievement due to genetic inferiority, cultural deprivation, poverty or deprivation of mainstream cultural experiences (Bennett, 1970).

Divergent Validity - the principle stating that measures of theoretically different constructs should fail to highly correlate with each other (Trochim, M.K., 2002).

Eigenvalue - “the amount of variance in all of the items that can be explained by a given principal component or factor” (Pett, Lacket, & Sullivan, 2003, p. 91).

Exploratory Factor Analysis (EFA) - analysis to determine whether one or more constructs underlie an individual’s scores on a set of measures or items.

Internal Consistency - how well items making up an instrument, or one of its subscales, fit together (Pett, Lackey, & Sullivan, 2003).

Learning Styles - The cognitive, affective, and physiological characteristics that influence ways an individual learns. In this study, this term and “learning preference” are used similarly.

Pattern/Structure Coefficients – the coefficients-ranging between -1 to $+1$ in a factor analysis matrix (Thompson, 2004).

Principal Component Analysis (PCA) – a multivariate technique identifying the linear

components of a set of variables (Field, 2005).

Reliability- Consistency in obtaining the test results more than once. Types of reliability coefficients include retest, alternate forms, and split-half.

School Climate - “the set of internal characteristics that distinguish one school from another and influence the behavior of each school’s members.” (Hoy & Miskel, 2005, p. 5).

Teacher Attitude/ Beliefs – An individual’s viewpoints or disposition toward a particular object. An attitude can have three components: affective (feelings toward the object), cognitive (beliefs or knowledge about the object), and behavioral (predisposition to act toward the attitude object) (Gall, Gall, & Borg, 2003).

Teacher Efficacy - Teacher beliefs about his or her personal ability to produce a positive effect on the educational achievement of students (Bandura, 1997).

Teacher Perceptions - the lens through which teachers view and evaluate the behaviors of others (Neal, McCray, Webb-Johnson & Bridgest, 2003); a determinant to student achievement and actual performance (Bradford, Pitts, & Collins, 2002).

Validity - the degree to which evidence and theory support the interpretations of test scores (Standards of Educational and Psychological Testing, 1999).

Assumptions

The following assumptions were made:

1. The yielded inventory responses represented honest and unbiased opinions.
2. Quantitative measures can measure teacher perceptions and beliefs.

Limitations of the Study

1. The study occurred in one urban school district in Texas.
2. The results of the study can be generalized to participants teaching in an urban school district in Texas.

Summary

This chapter discussed the cultural mismatch of teachers and students in urban public schools, the ineffective implementation of professional development of culturally responsive pedagogy and the achievement gap that continues to exist between European Americans and students of color. Furthermore, although studies have focused on the tenets of culturally responsive pedagogy, few studies have used reliable and valid measurements. The purpose of this study is to present evidence of the validity and reliability of the Cultural Awareness and Beliefs Inventory. Research questions guiding the study were identified. Further, the study investigated whether the CABI can determine differences of the perceptions and attitudes of urban teachers' cultural

awareness and beliefs in relation to teachers' ethnicity and years of teaching experience.

Assumptions as well the limitations of the study were listed.

CHAPTER II

REVIEW OF THE LITERATURE

Background

The demographic data indicates an increase in the number of students of color in the nation's school's population (U.S. Department of Education [USDOE], 2006b). The teachers of these students are predominately female, middle class, European-Americans (Strizek, Pittsonberger, Riordan, Lyter, & Orlofsky, 2006). Within their careers, teachers will instruct students from culturally, linguistically, ethnically, economically diverse students backgrounds (Banks, 1997). Although the numbers of students of color are increasing, only eight percent of public school teachers are African American and six percent represent Hispanic Americans (Strizek, Pittsonberger, Riordan, Lyter, & Orlofsky, 2006). Therefore, a majority of teachers are representative of different cultural backgrounds than the students they teach. Thereby, resulting in a mismatch between the students' school and home culture (Garcia, 2001; Howard, 2001).

Moreover, educational attainment for students of color continues to rank below acceptable levels. European Americans on average perform higher on reading and math standardized tests when compared to African American and Hispanic American students (Perie, Grigg, & Dion, 2005a, 2005b). Additionally, of the total student enrollment in the United States, African American students represent 16 percent of public school enrollment yet comprise 12 percent of the dropout rate (USDOE, 2006a/2006b). Hispanic American students encompass 19 percent of the public school enrollment and consist of 24 percent of the dropout rate (USDOE, 2006a/2006b). Therefore, African

American and Hispanic American students make up 35 percent of the total student population enrolled in public schools in the United States and represent 36 percent of the total number of dropouts.

Further, students of color are referred to special education programs or are served in disciplinary programs at disproportionately higher levels than European American students (Gregory & Mosely, 2004; Special Education Elementary Longitudinal Study [SEELS], 2002). Of the students served under the Individual with Disabilities Educational Act (IDEA), 62 percent are European American, 21 percent are African American, while 15 percent are Hispanic American, two percent are Indian/Alaska American, and two percent are Asian/Pacific Islander (U.S. Department of Education [USDOE], 2006c).

Culturally Responsive Pedagogy

Culturally responsive pedagogy is a theoretical framework for education that “attempts to integrate the culture of different racial and ethnic groups into the overall academic framework” (Elementary & Middle School Technical Assistance Center, 2007). A culturally responsive framework consists of three dimensions: institutional, personal, and instructional (Richards, Brown, & Forde, 2004). The organization of the school, the schools’ policies and procedures, and the institution’s involvement with the community reflect the characteristics of the institutional dimension (Richards, et al., 2004). The personal dimension refers to the cognitive and emotional processes that teachers must engage in to become culturally responsive (Richards et. al., 2004). The materials and instructional strategies teachers use to impart knowledge are features of

the instructional dimension (Richards et al., 2004). Within these dimensions such factors are evident: culturally responsive teaching (Gay, 2000; Ladson-Billings, 1995; Richards, Brown & Ford, 2004; Villegas & Lucas, 2002), teachers' beliefs (King, 1994; Ladson-Billings, 1994), school climate (Hoy and Miskel, 2005), culturally responsive classroom management (D. Brown, 2004; Pang, 2001), Weinstein, Tomlinson-Clarke, & Curran, 2004), cultural awareness (Gay, 2000; Ladson-Billings, 1994, Monroe & Obidah, 2004), curriculum and instruction (Gay, 2000; Ladson-Billings, 1994, Zeichner, 1996), cultural sensitivity (Henry, 1986; Larke, 1990), and teacher efficacy (Gay, 2000; Pang & Sablan, 1998).

Culturally Responsive Teaching

Culturally responsive teaching can be defined as “ a theory that purposely incorporates the cultural knowledge, experience, and frames of references of ethnically diverse students to make learning more relevant for students whose cultural, ethnic, linguistic, racial, and social class backgrounds differ from that of the majority” (Learn North Carolina, 2006). According to Gay (2000), culturally responsive teaching bridges the cultures between students' homes and the school. Further, the legitimacy of students' cultural heritage is acknowledged through its incorporation within instruction. Through the use of multicultural materials and instructional strategies that address the students' learning styles, students' strengths and prior knowledge are enhanced to acquire new knowledge utilizing culturally relevant pedagogy within instructional practice Students are empowered to critically analyze society so that through the application of this knowledge, social change occurs.

Culturally responsive teaching is comprehensive (Gay, 2000). Ladson-Billing's (1994) study of teachers who were most successful with African American students prepared students to effect change in society not merely fit into it. Ladson-Billings (1994) defines culturally responsive teaching as "... a pedagogy that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes" (p. 382). Culturally responsive teaching must meet three criteria: "an ability to develop students academically, a willingness to nurture support cultural competence, and the development of a sociopolitical or critical consciousness" (Ladson-Billings, 1995, p. 483).

Gay (2000) purports that teachers committed to culturally responsive teaching are "committed to helping students maintain identity and connections with their ethnic group and community; develop a sense of community and shared success and acquire an ethic of success" (p.30). According to Ladson-Billings (1995), culturally responsive teachers demonstrate three constructs: the conceptions of self and others and the manner in which social relations are structured, and the conception of knowledge. Culturally responsive pedagogy encompasses a teacher's capacity to exhibit a conception of self and others in that the teacher demands academic success for all students regardless of their home environment, social status, or racial make-up (Ladson-Billings, 1994). Culturally responsive teachers hold beliefs of being a part of the students' community. This is accomplished through using the community as a resource to apply curricula objectives and to instill community pride (Ladson-Billings, 1994). These actions are

regarded as a teacher's approach to giving back to the community (Ladson-Billings, 1995).

Culturally responsive pedagogy encompasses a teacher's capacity to build social relations with students that are reciprocal by incorporating culturally responsive pedagogy teachers create a community of learners within their classrooms that values all students. Students are also encouraged to learn collaboratively and be responsible for the academic success of others (Ladson-Billings, 1995). Gay (2000) suggests that culturally responsive teaching is cooperation, community, and connectedness "students are expected to work together and are held accountable for one another's success" (p.36).

Further, teachers' conception of knowledge is that of being continuously constructed, recycled, and shared (Ladson-Billings, 1995). Gay (2000) asserts that culturally responsive teaching is emancipatory in that "it releases the intellect of students of color from the constraining manacles of mainstream canons of knowledge and ways of knowing (p. 35). Teachers view knowledge critically and are passionate about knowledge and learning. Knowledge is scaffold, or bridged, to facilitate learning (Gay, 2000).

Culturally responsive teaching is multidimensional in that teachers from various disciplines infuse the "curriculum content, learning context, classroom climate, student-teacher relationships, instructional techniques, and performance assessments" on a single cultural concept such as "protest" (Gay, 2000, p. 31). Culturally responsive teaching is considered to be transformative as "it recognizes the existing strengths and accomplishments of these [culturally, linguistically, ethnically, economically diverse]

students and then enhances them further in the instructional process (Gay, 2000 p. 33). In addition, culturally responsive teaching is empowering. Empowerment can be described as developing students' academic competency, self-efficacy, and motivation to learn. Moreover, culturally responsive teaching is emancipatory in that "it releases the intellect of students of color from the constraining manacles of mainstream canons of knowledge and ways of knowing (Gay, 2000, pg. 35). Authentic knowledge about different ethnic groups is accessible to students. Students are guided in understanding that no single version of truth is total and permanent (Gay, 2000). According to Phuntsog (2001), "teachers need a clear concept of what culturally responsive teaching is to identify learning conditions that help all children thrive and succeed in a culturally diverse society" (p.52).

Teacher Perceptions of Culturally Relevant Pedagogy

Researchers have determined that pre-service and in-service teachers have been exposed to or have little knowledge or awareness of culturally responsive pedagogy (Villegas & Lucas, 2002; Gay, 2001). Kea, Trent, and Davis (2002) used three instruments to examine 43 African American pre-service teachers' knowledge and their ability to teach culturally and linguistically diverse students. Further the instruments measured their beliefs about the essential skills and knowledge needed to teach students of color. The first instrument, The Multicultural Knowledge and Teaching Survey, consisted of two parts. Part I consisted of gathering demographic information, while Part II consisted of a 30-item questionnaire based on a 5-point Likert scale concerning the pre-service teachers' perceived degree of understanding, preparedness, and competence

of identified skills important for professionals, who plan to teach culturally and linguistically diverse students.

A second survey, The Proposed Knowledge and Skills Needed by All Teachers Survey, consisted of two sections each consisting of 30-items that used a 5-point Likert scale. Part I of the survey focused on teacher's knowledge of understanding cultural groups, comprehending the results of the interactions among cultural groups, self-knowledge and awareness, and classroom instructional strategies. Part II focused on the skills and knowledge teachers needed across the four areas previously listed. The third instrument, The Survey of Contributions to American Society by Various Ethnic Groups, consisted of a 30-item instrument using a 5-point Likert scale, which matched racial-ethnic groups to a contribution made by the appropriate race/ethnic group. The results of this study indicated that African American pre-service teachers felt competent to teach culturally and linguistically diverse students (Kea, Trent, and Davis, 2002). Further, they appeared to understand the culture of students who were members of their racial group. However, they stated they felt unprepared to teach any other group including culturally and linguistically diverse students and those with disabilities. The reliability and validity failed to be reported for any of the three instruments used in the study.

Rothenberg, McDermott, and Gormley (1997) used a 23-item Likert scaled questionnaire to examine 40 elementary pre-service teachers and 26 cooperating teachers' views on multicultural education. This was accomplished by asking how the needs of children representing diverse cultural backgrounds were viewed. The attitudes of pre-service teachers were analyzed after their student teaching experience.

Rothenberg, McDermott, and Gormley (1997) reported that both pre-service and in-service teachers possessed limited understanding of multicultural education. Although both groups agreed that changing teaching methods could be appropriate for use when teaching diverse students and that students possessed different learning styles, they indicated that they were uncertain as to whether or not they would change their teaching methods. Knowledge of other cultures appeared to be their greatest concern when teaching in multicultural classrooms attended by students representing diverse cultures. Frequency analysis and Mann Whitney U tests were utilized to determine significant differences. However, no discussion of reliability or construct validity of the instrument was evident.

Phuntsog's (2001) mixed research design examined 66 elementary teachers' perceptions of the importance of implementing culturally responsive teaching within classrooms in the United States. The first section of the 3-part study used a 4-point Likert scale to elicit teachers' perceptions regarding the importance of culturally responsive teaching as an instructional strategy for culturally diverse students. The second section, a 20-item survey using a Likert-scale, examined teachers' perceptions toward critical issues and characteristics of culturally responsive teaching. The study's third section consisted of the participating teachers' suggestions for improving teacher preparation to include culturally responsive teaching strategies. The study's findings suggested that teachers agreed that culturally relevant pedagogy should be implemented within their classrooms. Further, teachers agreed with the importance of addressing cultural differences between the home and school. However, "none of the respondents'

recommended a call for fundamental curricular reforms to foster alternatives to hegemonic experiences in beliefs of prospective teachers, nor did they suggest the importance of incorporating multicultural education into the entire structure, content and process of teacher education” (Phuntsog, 2001, p. 62). While the responses to the second section of the survey reported frequencies and percentages, no discussion of the instrument’s reliability and validity was evident.

Love and Kruger (2005) developed a survey that investigated teachers’ culturally relevant beliefs and student achievement. The 48-item survey was adapted from Ladson-Billing’s (1994) work reflecting culturally relevant teachers’ beliefs and practices. Twenty-five of the 48 items reflected culturally relevant beliefs and practices, which emphasized a high regard for teacher cooperation and interaction among students, community connections, a commitment to urban education, and the importance of integrating the students’ race, ethnicity, and culture within instruction. Twenty-one items reflected “assimilationist” beliefs mirroring Ladson-Billings’ (1994, p. 22) classification of teaching beliefs without regard to a student’s cultural characteristics and the teacher’s role ensuring that students fit within the predominant culture. The statements were arranged into six dimensions of related beliefs: (a) knowledge; (b) student’s race, ethnicity, and culture; (c) social relations in and beyond the classroom; (d) teaching as a profession; (d) teaching practice; and (e) students needs and strengths. In this study, teacher beliefs generally were consistent with previously documented beliefs of successful teachers of students of color. The participants endorsed items regarding communal learning environment, success for all students, teaching as giving back to the

community, and the importance of students' ethnicity correlated with higher student achievement. Although the reliability was reported at .75, the validity of the instrument failed to be reported.

Teacher Beliefs

Beliefs are defined as “any simple proposition, conscious or unconscious, inferred from what a person says or does, capable of being preceded by the phrase, ‘I believe that...’” (Rokeach, 1968, p.113). For decades, scholars have concluded that teachers' beliefs appear to be the best predictor of teacher behavior, while also influencing teacher's perceptions and practices (Bandura, 1986; D. Brown, 2004; Dewey, 1933; Pajares, 1992; Rokeach, 1968).

Rosenthal and Jacobson's (1965) landmark study, *Pygmalion in the Classroom*, affirmed this concept. In this study, several students from each of the first six grades were randomly chosen by the researchers and identified as students who were about to bloom intellectually to their teachers. By the end of the year, these students showed greater gains than the other students in their classes on achievement tests. Thus, Rosenthal and Jacobson's (1965) concluded that the expectations they had created caused teachers to treat the “bloomers” differently. Therefore, these students made unusually high achievement gains that year. Good and Brophy (2000) discussed this type of expectation as a self-fulfilling prophecy “in which an originally erroneous expectation leads to behavior that cause the expectation to become true” (p. 75). According to Gay (2000), “teachers' assumptions about students' intellect and behavior affect how they

treat students in instructional interaction,” which affects the outcomes of student learning overtime (p.57).

Since the early 1920s and later in the 1960s, educational policy makers have labeled students of color as “culturally disadvantaged” or “culturally deprived”(Erickson & Mohatt, 1982). Due to this terminology, educators assumed students of color were inadequate in skills and abilities (Knapp & Woolverton, 2001). Proponents of this perspective believe that students representing diverse cultures fail academically due to genetic deficiencies, inadequate parenting, poverty or a combination of these (King, 2004; Pang & Sablan, 1998; Neito, 2000). This belief is referred to as the deficit model. The deficit model perspective posits, “disadvantaged people have underlying deficiencies, attributable to genetic and/or social pathology, which will limit the probability of their achievement and social adjustment” (Bennett, 1970, p. 90).

Neito (1996) explained this deficit perspective as, “school failure is believed to be the fault of either of the students themselves, who are genetically inferior, or of the social communities, which suffer from economic and cultural disadvantages and thus are unable to provide their children with the necessary preparation” (p. 229). Pang and Sablan (1998) reported that pre-service and in-service teachers believed that poor discipline in the home and lack of interest in academic success are the main reason for achievement gaps between African American and European American students.

Ford, Grantham, and Harris (1998) reported, “deficit thinking exists when educators hold negative, stereotypical and counterproductive views about culturally diverse students and lower their expectations of these students accordingly” (p 217).

Irvine (1990) studied teacher-student interactions and their effects in relation to the students' race, gender, and grade level or age. Irvine asserted, "teachers form inaccurate impressions of student achievement especially with Black students" (p. 77). The findings of the Irvine's study suggested that teacher expectations of African American male achievement appear to be more influenced by stereotypes of African American males rather than their ability to achieve (1990). Ferguson (1998) reported that teachers perceive African American students as less willing to put forth effort to succeed academically. Further, teachers perceived low performing African American students as more difficult to teach, motivate, and discipline than low performing European American students, Therefore African American students receive less teacher support (Ferguson, 1998).

Deficit thinking and beliefs prevent teachers from comprehending that students, regardless of economics, culture, language and ethnicity, are capable of learning, possess knowledge of content, and bring a wealth of expertise into the context of learning (Milner, 2005). According to Moll and Gonzalez (2004), students come to school with social and intellectual resources they term as "funds of knowledge" (p. 702). While a student may be economically poor, they are culturally rich (Moll & Gonzalez, 2004).

Rather than focusing on the knowledge students of color bring to school and using it as a foundation for learning, schools have emphasized the lack of language and knowledge revered by the schools. The school's culture is primarily based on the majority group's culture and power (Moll & Gonzalez, 2004). "This emphasis on so-called disadvantages has provided justification for lowered academic expectations and

inaccurate portrayals of these students and their families” (Gonzalez, Moll, Tenery, Rivera, Rendon, Gonzales, & Amanti, 1993, p. 2).

According to Milner (2005), “teachers often think about their students of color and their diverse learners through ‘deficit’ lenses” (p.771). Pohan and Aguilar (2001) found a significant relationship between pre-service teachers’ personal beliefs and their professional beliefs. Pre-service teachers, who possessed a strong bias and negative stereotypes toward students of color, were less likely to develop professional beliefs and behaviors consistent with multicultural sensitivity and responsiveness (Pohan & Aguilar, 2001).

To embrace the culturally responsive pedagogy framework, teachers must engage in cognitive and emotional processes to become culturally responsive (Richards et al., 2004). Teachers must examine their attitudes and beliefs toward themselves and others to recognize their biases and confront those biases that have influenced their values and behaviors (Villegas & Lucas, 2002). According to Howard (2003), teachers need to engage in critical reflection, “to see how their positionality influences their students in either positive or negative ways and examine how race, culture, and social class shape students’ thinking, learning, and various understandings of the world” (p. 193).

School Climate

Definitions of school climate have been used to describe discipline problems that affect school, to depict psychological factors within a school context that affects student-teacher relationships (Kelley, Thornton & Daughtery, 2005), or describe school management issues influencing staff attitudes and effectiveness (Esposito, 1999). Hoy

and Miskel (2005) defined school climate as “the set of internal characteristics that distinguish one school from another and influence the behavior of each school’s members.” (p. 5). Others define school climate as “a reflection of physical and psychological aspects of the school that are more susceptible to change and provide the preconditions necessary for teaching and learning to take place” (Tableman, 2004, p.2).

School environment, an aspect of school climate, can be described as: physical, social, affective, and academic environment (Tableman, 2004). A physical environment consists of small student ratio, orderly and clean classrooms and buildings, students feel safe, and sufficient supplies are available (Tableman, 2004). A social environment promotes positive communication and interaction among teachers, students, and parents. Students and parents are encouraged to be a part of the decision-making process (Tableman, 2004). An affective school environment promotes a sense of belonging and self-esteem. Interactions of teachers and staff with students are caring, friendly, and supportive. Teachers, students, and parents feel respected and valued as contributors to the success of the school (Tableman, 2004). An academic environment promotes learning and self-fulfillment. Teachers are knowledgeable and confident. All types of competence and intelligence are respected. Teachers respect diverse learning styles, encourages students to succeed, and have high expectations for all students. Progress is monitored and reported to parents and students. Assessments are used to align instruction and curriculum (Tableman, 2004).

A positive school climate is one in which the school personnel share the philosophy that all students can learn, and they, the educators are responsible for the

learning environments in which diverse students can succeed (Garcia & Ortiz, 2004). A positive school climate enhances staff performance, promotes higher morale student, and improves student achievement (Freiberg, 1998). Sackney (1988) reported that “when teachers appreciate one another, where they share, and plan together” this attitude carries over to their relationship with students (pg.11).

Several instruments have been used to measure school climate; however, only three instruments will be reported as these are the major instruments in which researchers use or derive there own from them (Sackney, 1988). The Organization Climate Description Questionnaire (OCDQ) developed by Halpin and Croft (1963) was used for twenty-five years after its conception. The OCDQ consisted of 64 items that described six types of school climate: open, autonomous, controlled, familiar, paternal, closed. For example, in an open school climate, faculty and staff are able to strike a balance between their individual needs and the demands of the school, while in a closed school climate, faculty and staff are unable to reconcile social needs with the school organizational role requirement (Halpin, 1966). The validity of the OCDQ was questionable because the instrument was designed for only the elementary level. The validity studies showed that the individual scales of the questionnaire were more predictive of the school’s climate than the overall scale (Sackney, 1988).

The Pupil Control Ideology (PCI) measured teacher-principal orientation to pupil control. The PCI consisted of 22 items using a Likert-type scale focusing on student – teacher relations, rather than principal-teacher relations. An additional instrument, The Profile of Organizational Characteristics (POC), focused on eight characteristics:

leadership processes, motivational forces, communication processes, interaction-influence processes, the decision making processes, goal setting processes, control process, and performance goals (Sackney, 1988). In addition, the reliability and validity of these instruments were not reported.

Culturally Responsive Classroom Management

According to the 26th Annual Report to Congress (USDOE, 2006), African American students, 28 percent of the total student population, are more than twice as likely to be suspended or expelled than Hispanic American students, 13 percent, or European American students, 10 percent (SEELS, 2002). At secondary public schools, “African American students, particularly black males, are over represented in the ranks of disciplined students across the nation, while White and Asian students are underrepresented compared to their enrollment” (Gregory & Mosley, 2004, p. 19).

“Empirical comparisons of cultural interaction styles indicate that teachers regularly interpret African American behaviors as inappropriate when the actions are not intended to be so” (Monroe, 2005, p. 47).

Gay (2002) asserted, “some African American interjection of motion, movements and emotional energy into their self-presentations may be misdiagnosed as hyperactivity, attention deficit disorder, irritability, attention-seeking, disruption, and being quarrelsome” (p. 616). Allen and Boykin (1992) posited “certain beliefs and values have been preserved and transformed tacitly in early socialization experiences of Black people and are linked to nine dimensions of the Afro-cultural experience. The nine dimensions are spirituality, harmony, movement expressiveness, verve, communalism, expressive

individualism, orality, and social time perspective. These Afro-cultural experiences are incongruent with the mainstream ideals of the traditional classroom, which lacks outlets and vehicles for expression of Afro-cultural behaviors” (p.588).

Webb-Johnson (2002) examined African American youth in a small, urban elementary school setting and found that African American learners often displayed culturally socialized behaviors, which failed to be affirmed by classroom teachers in academically engaging manners. As a result, these students were seldom academically challenged; however, they were affirmed by working quietly. Therefore, the focus was on behavioral compliance, rather than academic achievement (Webb-Johnson, 2002).

Due to the overrepresentation of students of color in disciplinary settings, researchers (D. Brown, 2004; Weinstein, Tomlinson-Clarke, & Curran, 2004) have advocated that culturally responsive pedagogy be infused within classroom management strategies “to provide all students with equitable opportunities for learning” (Weinstein et al., 2004, p. 27). Weinstein et al. (2004) coined the term culturally responsive classroom management (CRCM). Weinstein et al. (2004) provided a framework consisting of five components evident in CRCM. These include:

- 1) recognition of one’s own ethnocentrism and biases
- 2) knowledge of students’ cultural backgrounds;
- 3) understanding of the broader social, economic, and political context of the educational system;
- 4) ability and willingness to use culturally appropriate classroom management strategies; and

5) commitment to building caring classroom communities (Weinstein et al., 2004, p. 27).

D. Brown's,(2004) qualitative study examined urban teachers' practices to determine if the classroom management strategies applied were reflected in culturally responsive teaching. The constructs measured included: 1) developing personal relationships and mutual respect through individualized instruction; 2) creating a caring environment; 3) establishing a business-like learning environment; 3) establishing a congruent communication process; and 4) teaching with assertiveness and clearly stated expectations. Brown (2004) concluded that the teachers studied learned these strategies through direct experiences in urban schools. In addition, half of the teachers examined grew up in an urban environment. No discussion of the study's reliability and validity was offered.

Because of the overrepresentation of students of color in disciplinary settings, culturally responsive classroom management strategies are necessary so that students of color are not misidentified. Qualitative studies have been conducted to assess teachers' practices to determine if their classroom management strategies reflected culturally responsive teaching constructs. However, quantitative studies that assess teachers' practices and use of culturally responsive management strategies fail to exist.

Home and Community Support

A culturally responsive teacher considers the possibility that a lack of direct parental involvement reflects differing perspectives regarding parental responsibility, rather than a lack of commitment to their children's education (Weinstein et. al., 2004).

Based on their culture, some families may fail to see direct involvement within the school as part of their role as parents (Monroe & Obidah, 2004). However, common beliefs and behaviors of parental responsibilities of their children are shared among the families of diverse students:

Families love and care for their children, value and support their children's education, draw support from extended family and community for support, guidance, and motivation in raising and educating their children, and make personal sacrifices and investments in order to have their children succeed in the mainstream U.S. Society (Hidalgo, Sau-Fong Siu, & Epstein, 2004, p. 643).

According to Banks (1993), building strong school and family partnerships improve the chances of increasing knowledge, reducing prejudice, and strengthening the school structure. Thus, educators working within a culturally responsive framework incorporate communication and collaboration with families as an integral part of effective classroom management (Hidalgo, et. al., 2004; Gay, 2000).

Epstein's (1987) model of "overlapping spheres of influence" is a theory of examining home-school relationships (Garcia, 2004). This theory proposes that, "families, schools, and communities are most effective if they have overlapping or shared goals, missions, and responsibilities for children" (Epstein & Hollifield, 1996, p. 270). Epstein's (1995) model consists of six types of family involvement practices: Type 1- assisting families to establish home environments to support children as students; Type 2 - communicating with families about school events and student progress with school-to-home and home-to-school communication; Type 3 - providing

volunteering opportunities for families to be involved with school activities that support students; Type 4 - involving families with learning activities that can be done at home and assisting their children with homework, curricular-related decision-making or goal setting; Type 5 – providing families with opportunities to be part of the decision-making process through parent-teacher organizations, school or district-based committees; and Type 6 – collaborating with the community to integrate resources to strengthen schools, students and families (Epstein, 1995, p. 716).

Cultural Awareness

Cultural Awareness is defined as “becoming functionally aware of the degree to which behavior is culturally informed and influenced”(Schram, 1994, p. 63). Gay (2002) asserted, “teachers should become critically conscious of their own cultural socialization and how it affects their attitudes and behavior toward the cultures of other ethnic groups” (p. 619). Ladson-Billings (1994) believed that culture mattered when teaching. She stated, “teachers that fail to see color in children have a color-blindness mask of ‘dysconscious racism’, an ‘uncritical habit of mind’, that justifies inequity and exploitation by accepting the existing order of things” (Ladson-Billings, 1994, p. 32). Ladson-Billings (1994) explained that when a teacher fails to identify a child’s color, then the child’s identity is discounted; therefore, the teacher fails to address it in curricular planning and classroom instruction.

It is through understanding how cultures operates within the classroom daily that allows students and teachers to cohesively work together to attain higher achievement (Gay, 2000). Gay (2000) believed “cultural self-awareness and consciousness-raising is

a critical element in culturally responsive teaching” (pg. 71). Cultural therapy, developed by Spindler and Spindler (1994), encompassed critical consciousness with pedagogical skill development. As teachers become more self-aware of how their personal cultural values, assumptions, and beliefs shape their behaviors in educational settings, they are then able to recognize the cultural elements and nuances of student behavior to enhance their teaching skills (Gay, 2000).

Curriculum and Instruction

Researchers (Garcia, 2001; Gay 2000; Ladson-Billings, 1994; Villegas & Lucas, 2002; & Zeichner, 1996) advocate the necessity of including culturally responsive pedagogy within instructional practice to increase the achievement of students of color. Culturally responsive pedagogy builds bridges between students’ home and school, while acknowledging the legitimacy of students’ cultural heritage by building on students’ own strengths and prior knowledge in acquiring new knowledge (Gay, 2000). Educators, who are culture-centered, or congruent, use students’ culture as a vehicle to increase their achievement (King, 1994). According to Moll and Gonzalez (2004), students arrive at school with social and intellectual resources termed as “funds of knowledge”. For example, Au and Kawakami (1985) describe the use of a particular event called ‘talk story’ found in Hawaiian children’s home culture (1985, p. 406).

This activity seemed pivotal in improving reading instruction;

this form of participatory storytelling begins with a single storyteller, but allows listeners to contribute their extensions to the story; thus revealing their understanding of it. The use of talk story departs from conventional school

practices in two ways: the first is “to focus reading instruction on comprehension or understanding of the text, rather than solely on word identification,” and the second is ‘to conduct lessons using a culturally compatible...style if interaction (p.13).

Thus, instead of packaged and prepared curriculum, students’ real-life experiences are legitimized and utilized as part of the official curriculum (Ladson-Billings, 1995).

In addition to curriculum, instructional strategies addressing various learning styles are incorporated (Gay, 2000). Cohen (1969) identified two styles of learning, analytical and relational, which relate to the differences in collecting and organizing information. Schools foster the analytical style for cognitive organization. Students, who have not developed this skill or function in a different learning style, are perceived by their teachers to be poor achievers (Hale, 1982).

Hilliard (1992) stated that a group’s behavioral style might explain the difference between the White and Black achievement gap in test performance. “Two groups of students with the same intellectual potential would, because of diversity in cultural socialization, develop habits and preferences that would cause them to manifest their mental powers in somewhat different ways” (Hilliard, 1992, p. 370). His work examined the learning styles of African American students and the teaching styles of the traditional school setting. He reported that African American students possess learning style characteristics that fail to match the traditional schools’ analytical form of teaching (Hilliard, 1992). Hilliard felt that teachers, with the understanding of cultural behavioral styles, could adapt their instruction to meet their students’ needs (1992). “It is not the

learning style of the child that prevents the child from learning; it is the perception by the teacher of the child's style as a sign of incapacity that causes the teacher to reduce the quality of instruction" (Hilliard, 1992, p. 373). These mismatches can lead to the underestimation of the intellectual potential of students of color. He suggests that the culture of the school be changed to accommodate the learning styles and needs of diverse students by becoming more flexible, holistic, and people-centered when implementing teaching strategies. Boykin (1978) concluded that black children are bored primarily because school is a relatively "unstimulating," "constraining," and a "monotonous" place (p.353).

Boykin, Tyler, Watkins-Lewis, and Kizzie (2006) utilized the Cultural Classroom Practices Questionnaire (CCPQ) consisting of 36 items using a 5-point Likert scale. The CCPQ assessed teachers' reported use of culture-based classroom activities, which included: individualism, competition, communalism, and verve. Boykin et al. (2006) stated the use of individualism and competition classroom behaviors were significantly used more often than those reflecting communalism and verve. Interestingly, African American teachers reported a greater incidence of competitive behavior, than did their European American counterparts (Boykin, et. al, 2006). The results of the study demonstrate that teachers expose students to classroom activities and behaviors that reinforce mainstream cultural values. Although the internal alpha coefficient was reported to range from .59 to .74 for each subscale, the reliability for the total scale was not reported. Only content validity in this study was established by a

panel of judges with formal knowledge and experience in the study of culture (Boykin, et al., 2006).

Witkin, Moore, and McDonald (1974) suggested that the students' affective learning styles are either field independent (insensitive) or field dependent (sensitive). Ramirez and Castenada (1974) applied this theory to an ethnic study. They concluded that African American, Hispanic American, and Native American students tended to be field sensitive (Ramirez and Castenada, 1974). Field-sensitive learners preferred to work in groups, were highly sensitive, attuned to social environments, and were globally perceptive (Carter & Larke, 2001; Ramirez and Castenada, 1974). For example, field-sensitive learners appeared to learn concepts more successfully when they were presented through "humanized" or "story format", while "guidance and demonstration" lessons were provided through "hands-on" activities (Carter & Larke, 2001, p. 67). While European American students tended to be field independent learners and preferred working alone and in competition with each other.

Throughout the literature, cooperative learning techniques have been shown to enhance inter-group relationships and increase student achievement especially the achievement of students of color and low performing students (Slavin, 1995; Stephan & Stephan, 2001, 2004). According to Slavin (1977) and Slavin and Oickle (1981), cooperative learning appears to increase achievement among African American students. Boykin (1994) found that "African American students consistently preferred to work cooperatively in groups without external rewards, and preferred to work for its intrinsic value and learning environments that were characterized by verve" (Lee & Slaughter-

Defoe, 2004, p. 478). The cultural norms and socialization of African Americans influenced the success of the use of these strategies with African American students (Boykin, 1999).

Scholars have studied teachers, who incorporated tenets of culturally responsive pedagogy (Ladson-Billings, 1994; Powell, 1997; Villegas & Lucas, 2002). They reported that even though the teachers possessed different teaching styles, they shared a common mind-set and teaching characteristics (Ladson-Billings, 1994; Powell, 1997; Villegas & Lucas, 2002). Three strategies used by successful teachers of culturally and linguistically diverse students included: (1) using cultural referents in verbal and nonverbal forms to communicate instructional and institutional demands; (2) organizing instruction to build on rules of discourse from the home and community cultures; and (3) modeling equal amounts of respect to the values and norms of the home and community cultures and those of the school culture.

Cultural Sensitivity

Cultural sensitivity can be characterized as “attitudes, beliefs and behaviors towards students of other cultures” (Larke, 1990, p. 24). Teachers’ attitudes toward cultural sensitivity have been examined through various studies (Henry, 1986; Larke, 1990; Milner, Flowers, Moore, Moore, & Flowers, 2003).

Henry (1986) developed the Cultural Diversity Awareness Inventory (CDAI) that measured teachers’ attitudes, beliefs, and behaviors toward elementary children representing culturally diverse backgrounds. The 5-point Likert-scaled survey consisted of 28 agree and disagree statements that addressed: (1) values and beliefs, (2)

communication, (3) social relationships, (4) basic diet and food preparation, and (5) dress or common costume. Henry (1995) determined the reliability of the CDAI by test-retest. The overall reliability coefficient was .66 while a jury of experts established the content validity (Henry, 1995). Several researchers have utilized the CDAI or modified versions of it to investigate pre-service teachers' sensitivity levels to cultural diversity (K. Brown 2004).

Larke (1990) examined 51 female pre-service elementary teachers using a modified version of the CDAI. The pre-service teachers had previously completed one multicultural education course. Larke's (1990) study indicated that pre-service teachers were culturally aware of the diverse student population they would teach. However, less than half expressed a preference to work with students representing diverse cultures. Additionally, the pre-service teachers requested parent participation in program planning; however, they felt that the parents knew little about assessing their children and were uncomfortable with involving parents representing diverse cultures in program planning. Further, the pre-service teachers perceived the usage of non-standard English in the classroom as inappropriate. Moreover, the pre-service teachers indicated they had failed to object to the use of ethnic jokes and believed that the usage of racial statements should be ignored. Finally, over half of the pre-service teachers believed that cultural knowledge failed to effect the teacher's expectations of students. However, Larke's (1990) study failed to provide data on the reliability and validity of the inventory due to the study being descriptive.

Milner et al. (2003) replicated Larke's (1990) study by using the CDAI to examine 99 pre-service teachers' cultural sensitivity toward children of culturally diverse backgrounds. Although the findings showed an overall improvement in pre-service teachers' attitudes regarding cultural diversity, the data revealed several neutral responses. Upon further data analyses, pre-service teachers appeared to be unsure of their feelings toward integrating learning environments with curricula assessments and programs supporting multicultural education within classroom instruction. Milner et. al. (2003) concluded that pre-service teachers lacked the necessary experience to implement culturally responsive strategies. This study also failed to report the reliability or the validity of the CDAI

Swartz and Bakaki (2005) examined 415 pre-service teachers utilizing the Teaching in Urban Schools Scale (TUSS). This scale measured cultural sensitivity and the teachers' willingness to teach African American students. Further, individual differences in responding desirably to items expressive of attitudes toward self and others in society and attitudes toward teaching in general were assessed. The participants were divided into the following three groups: preservice teachers educated at predominately European American universities having no course requirement for teaching students from diverse settings in the teacher education program; pre-service teachers prepared at historically African American universities; and pre-service teachers educated at predominately European American universities having course work requirements of completing multicultural education coursework. Further, they participated in student teaching in schools that served students representing diverse

student populations (Swartz and Bakaki, 2005).

Swartz and Bakaki (2005) found that both European American and African American pre-service teachers expressed a significantly lesser degree of cultural sensitivity toward African American students, than a willingness to teach them. African American pre-service teachers were more willing to teach African American students, than European American pre-service teachers. Moreover, and Bakaki (2005) reported that African American pre-service teachers were more willing to teach African American students, than toward teaching school in general.

In contrast, European American pre-service teachers preferred to teach school in general, than teach African American students. However, those European American pre-service teachers, having fewer cross-cultural experiences with African American students, were more willing to teach African American students, than pre-service teachers, who possessed a greater number of experiences with African American students.

To establish a reliability coefficient for the TUSS, test-retest method was utilized. A reliability coefficient was established at .91. According to Leech, Barrett, and Morgan (2005), “a scale with an alpha greater than .90 probably means that the items are repetitious or that there are more items in the scale that are necessary for a reliable measure of the concept” (p. 67). Validity of the scale was investigated and revealed evidence of discriminant and content validity. Correlation coefficients between of the subscales were used to establish convergent validity.

Teacher's Efficacy

Bandura's (1986) social cognitive theory expresses that individuals can make sense of their own psychological processes by examining their beliefs. Individuals can make things happen by their actions in that "what people think, believe, and feel affects how they behave" (Bandura, 1986, p. 25). Pajares (2002) posits, "Economic conditions, socioeconomic status, and educational and familial structures do not affect human behavior but influence an individual's aspirations, self-efficacy, personal standards, emotional states, and other self-regulatory influences" (p. 2). According to Bandura (1986), self-efficacy is a person's perceptions that reflect his or her ability to foster the learning and engagement of any individual or "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3).

Emerging from the Rand Corporation's research in the 1970s, teacher efficacy evolved from Bandura's (1997) Social Cognitive Learning Theory of Self-Efficacy (Hoy-Woolfolk, 2000). Teacher efficacy is defined as a teacher believing that he or she has the knowledge and skills to positively influence student achievement. This is accomplished through devoting class time to academic teaching, enlisting parents' assistance in the schooling of their children, providing students encountering difficulties with an avenue to succeed through support, guidance, and reinforcement of academic accomplishments. Highly efficacious teachers view difficult students "reachable and teachable" through extra effort and appropriate teaching methods (Bandura, 1997, p. 242). Moreover, teachers with a high sense of efficacy, "direct their efforts at resolving problems when faced with academic stressors" (Bandura, 1997, p. 242).

Two dimensions of teacher efficacy were created from the works of Gibson and Dembo (1984), Ashton and Webb (1986), and Woolfolk and Hoy (1990). Those dimensions included personal and general teaching efficacy. Personal teaching efficacy referred to a teachers' belief regarding his or her ability to influence student achievement, enlist parents' support, provide guidance and praise for students who had difficulties learning. General teaching efficacy communicated a belief regarding teaching and the power that teachers possess and, therefore, influences student learning. Ashton (1982) and Hoy-Woolfolk (2000) reported that teacher efficacy correlated highly with student performance and academic success. Ashton (1982) found that teachers with a low "sense of efficacy" tended to protect their "sense of efficacy" by "absolving themselves of responsibility" and "placing total responsibility [for failure] on the student" (p. 312). Further, teachers with low teacher efficacy tend to blame the socioeconomic situations or other factors beyond his or her control (Pang & Sablan, 1998).

Dembo and Gibson (1984) found that student improvement occurred when teachers held the belief that learning was the result of effective teaching, despite home and peer influences. Also, those teachers, who were confident in their ability to teach, persisted longer in their teaching efforts, focused on academics in the classroom, and provided different types of feedback to students (Dembo and Gibson, 1984).

Several instruments have been designed to assess teachers' personal and teaching efficacy. Gibson and Dembo (1984) developed an instrument that measured teacher efficacy, while Woolfolk and Hoy (1990) modified and validated the Teaching Efficacy

Scale when analyzing the attitudes of pre-service teachers. Pang and Sablan (1998) utilized inventories that addressed teacher efficacy previously developed by Gibson and Dembo (1984), Woolfolk and Hoy (1990), and Riggs and Enochs (1990). Pang and Sablan (1998) investigated the confidence level of pre-service and in-service teachers regarding their skills in teaching African American students through the use of a 30-item Likert scale adapted survey. A principal axis factor analysis revealed that the adapted Teacher Efficacy Survey supported a two-dimensional teacher efficacy construct of Teaching Efficacy and Personal Efficacy. The teachers' attitudes toward students representing diverse population expected. For example, pre-service teachers appeared to be more positive about their ability to teach African American students, than in-service teachers. However, 65 percent of the study's participating teachers reported that even a teacher possessing good teaching abilities might fail to reach all African American students. Pang and Sablan (1998) posited that "teacher efficacy is an important construct in student achievement and teacher educators need to seriously examine what teachers believe about their ability to teach children from various underrepresented groups" (p.16). Additionally, the study failed to report the reliability or the validity of the Teacher Efficacy Survey.

Sorrells, Schaller, and Yang (2004) examined the factor structure of a modified form of Gibson and Dembo's (1984) Teacher Efficacy Scale (TES) and a demographic form, the Teacher Education Survey (McCray, 1997). African American and European American pre-service teachers educated at a historically Black university were surveyed to establish differences between the participants regarding teacher efficacy. This was

measured using a 31-item slightly modified TES incorporated a 7-point Likert-scale rating. Three factors were included: ability, effort, and environment with alpha coefficients of .80, .77, and .70 while the total scale's alpha coefficients was established at .76. Items from the TES yielded two factors: personal teacher efficacy (PTE) and teacher efficacy (TE). African American teachers scored statistically significantly higher on the environment factor than European American teachers. In addition, African American teachers scored statistically significantly higher on Gibson and Dembo's (1984) TE. Sorrells, Schaller, and Yang (2004) concluded that African American teachers were perceived to possess an ability to facilitate change with students who received home, family, and community influences. The validity information for the scale was not reported.

Onafowora (2004) used a mixed method approach to examine issues of teacher efficacy. Twenty-five pre-service teachers who shared similar backgrounds as their African American and Hispanic American students who lived in working class or low socio-economic communities. The instrument included questions regarding challenges faced within the classroom and strategies utilized to influence students' learning. The quantitative data included two items on a 1-5 point Likert scale that purported to measure the teachers' perceptions of their reliance on judgment and their perceptions of self-empowerment. On the quantitative scales the pre-service teachers expressed confidence in their teaching efficacy while the qualitative questions conveyed the opposite. The validity and reliability for the study were not reported.

Validity

Historical Background

Since the 1920s, validity has been a concern of many researchers. Between the 1920s and the 1950s, test validity was centered on the test itself (Goodwin, 1999).

Guilford (1946) stated “in a very general sense, a test is valid for anything in which it correlates” (p. 429). Other researchers of the time emphasized that validity was the extent to which test scores correlated with some other measure (Goodwin, 1996).

During the 1950s and 1970s, the focus of test validity was largely on the use of the measure (Goodwin, 1999). The first edition of the *Standards of Educational and Psychological Testing and Manuals* (American Psychological Association [APA], American Education Research Association [AERA], & National Council on Measurement in Education [NCME], 1996) defined validity as “the degree to which the test is capable of achieving certain aims” (p.12). This edition also divided validity into three categories: content, criterion-related, and construct (Goodwin, 1999). These three types of validity became known as the “holy trinity” meaning that although three types of validity are obtainable; only one kind is necessary.

Currently, the *Standards of Educational and Psychological Testing* (AERA, 1999) presents validity as a “unitary concept”

Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests... the process of validation involves accumulating evidence to provide a sound scientific basis for the proposed scores interpretations. It is the interpretations of test scores

required by proposed uses that are evaluated, not the test itself. When test scores are used for interpretations in more than one way, which the intended interpretation must be validated (sources of validity evidence include, but are not limited to: evidence based on test content, evidence based on response processes; evidence based on internal structure, evidence based on relations to other variables, evidence based on consequences of testing (p.11).

Construct Validity

Carmines and Zellar (1979) discuss three steps to determine construct validation which consist of: a) “the theoretical relationships must be specified; b) the empirical relationships between the measures of the concepts must be examined; c) and the empirical evidence must be interpreted in terms of how it clarifies the construct validity of the particular measure being tested” (p. 23).

Assessing construct validity

To assess construct validity, several statistical, complex procedures are required. According to Cronbach (1984), a “construct is a way of constructing-organizing-what has been observed” (p.133). Further, Cronbach and Meehl (1995) outlined five processes in which construct validity can be established: a) examine group differences that are expected to differ, e.g. characteristics; b) variation in trait-like variables and state-like variables should change across time; c) strong correlations with other measures of the same construct (convergent validity) and weak correlation with measures of other constructs (discriminate validity); d) internal consistency; and e) examination and

explication of the assessment process in which all steps necessary to answer a certain item are analyzed to eliminate alternate hypothesis about observed patterns of responses.

Venkatraman and Grant (1986) further suggested five psychometric procedures to obtain construct validity: (a) internal consistency reliability, (b) content validity, (c) convergent validity, (d) divergent validity, and (e) nomological/predictive validity.

To examine internal consistency, Cronbach's alpha coefficient is conducted followed by a factor analysis. Factor analysis can be used for a variety of purposes, "...to inform evaluations of score validity, to develop theory regarding the nature of constructs, and to summarize relationships in the form of a more parsimonious set of factor scores that can be used in subsequent analyses" (Thompson, 2004, p. 5). Factor analysis consists of a number of statistical techniques reducing a large set of variables to the "smallest number of factors used to best represent the interrelations among a set of variables" (Pallant, 2005, p. 172), to determine the relationship of the variables (Kline, 1994), and "to define the substantive content or meaning of the latent variables" (DeVellis, 1991, p. 92).

Confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) are two types of factor analyses (Kim & Mueller, 1978; Thompson, 2004). CFA is theory driven. "Its aim is to test a hypothesized factor structure or model and to assess its fit to the data" (Swisher, Beckstead, & Bebeau, 2004, p. 788). The researcher hypothesizes the number of factors to be extracted and will further posit expectations regarding the variables that will load on specific factors (Kim & Mueller, 1978).

In contrast, EFA is used in the early stages of scale development to determine the “smallest number of factors used to best represent the interrelations among a set of variables” (Pallant, 2004, p.153). The primary goal of EFA is to achieve “simple structure” so that each item loads strongly only on one factor and has near zero loadings on all other factors (Swisher et al., 2004, p.787).

Principal axis factor analysis and principal component analysis (PCA) are two of several techniques of factor extraction in an EFA analysis. Principal axes factor analysis reproduces the matrix correlations between all pairs of items (Swisher et. al, 2004), while PCA extracts the maximum variance from the data set (Pallant, 2000; Tabachnick & Fidell, 2001).

A major decision in EFA is determining the number of factors to extract. Several methods should be considered (Thompson, 2004). One method is the eigenvalue rule, which represents the amount of variance explained by the items that compose the factor (Pett, Lackey, & Sullivan, 2003). Kaiser (1960) states that factors with an eigenvalue of 1.0 or greater than 1.0 should be retained. However, depending on sample size and number of variables, too many factors may be extracted (Tabachinck & Fiedell, 2001). An alternative method is to examine a scree plot. The scree plot is a graphical test for determining the number of factors to retain (Cattell, 1966). This graph plots eigenvalues along the vertical axis and the number of factors along the horizontal axis (Pett, Lackey & Sullivan, 2003; Thompson, 2004). It is suggested that “factor extraction should be stopped at the point where there is an ‘elbow’ or ‘leveling of the plot’” (Thompson, 2004, p. 33).

When the number of factors to be retained has been decided, then the factors are rotated. “Factor rotation involves moving the factor axes, while measuring the locations of the measured variables in the factor space so that the nature of the underlying construct becomes more obvious to the researchers” (Thompson, 2004, p. 38). Two rotation methods, orthogonal and oblique, are commonly used to improve the interpretability of the data (Grimm & Yarnold, 1995). In an orthogonal rotation, the factors are assumed to be uncorrelated and the variance represents only the variance associated with one factor; therefore, so that no variance is shared (Pett, Lackey, & Sullivan, 2003; Thompson, 2004). In contrast, in an oblique rotation, the factors are assumed to be correlated and share variance (Pallant, 2005; Pett, Lackey, & Sullivan, 2003; Thompson, 2004).

When a factor solution has been determined, the salience of the variables is determined using values of pattern/structure coefficients from .3 to .4 (Thompson, 2004). According to Costello and Osborne (2005), if items do not sufficiently load, then the items may not relate to the other items or the item may be written poorly. Finally, the factors are labeled with one or two word phrases that reflect “ the overall pattern of contribution of different variables to the factor’s definition” (Thompson, 2004, p. 97).

Reliability

According to Cook and Beckman (2006), “reliability refers to the reproducibility or consistency of scores from one assessment to another” (p. 166e12). There are several types of reliability: internal consistency, temporal stability, parallel forms, inter-rater and generalizability theory. Internal consistency is the most reported because it can be

calculated after a single administration (Cook & Beckman, 2006). Split-half reliability, Kuder-Richardson and Cronbach's alpha are methods to assess an instrument's internal consistency. Split-half reliability refers to correlations between scores on the first and second halves of a given instrument whereas Kuder-Richardson accounts for all of the items. Also, the Kuder-Richardson is used with dichotomous responses. Cronbach's alpha is similar to the Kuder-Richardson; however, all items are assumed to be equivalent. This measure can be used with both dichotomous and continuous data (Cook & Beckman, 2006). The temporal stability method uses test-retest reliability or administering the same instrument to the same person at different times (Cook & Beckman, 2006). The parallel forms method uses alternate forms of an instrument and is administered to the same person at different or at the same time. Both of these methods use a correlation statistic to measure the results. A researcher may use the inter-method form of reliability when the study consists of two or more persons rating the same data (Cook and Beckman, 2006). The generalizability theory method uses a generalizability coefficient to measure the amount of error in measurement as the result of each factor (Cook & Beckman, 2006).

According to Nunnally (1978), psychological test standards measure adequate reliability as .80 or above. However, within the literature additional benchmarks have been provided for instruments whose constructs are not necessarily psychological tests, such as a verbal intelligence. Landis and Koch (1977) developed a scale to serve as a benchmark to determine reliability. This scale denotes (a) 0 to .20 as "slightly reliable";

(b) .21 to .40 as “fairly reliable”; (c) .41 to .60 as “moderately reliable”; (d) .61 to .80 as “substantially reliable”; and (e) .80 to 1.0 as “almost perfect” (Landis & Koch, 1977).

Other benchmarks have also been utilized. ShROUT (1998) revised Landis and Koch’s (1977) scale of reliabilities so that researchers would continue to refine the measurements. ShROUT’s revised Landis and Koch’s (1977) scale (a) none to .10 as “virtually none”; (b) .11 to .40 as “slight”; (c) .41 to .60 as “fair” (d) .61 to .80 as “moderate”; and (e) .81 to 1.0 as “substantial” (ShROUT, 1998, p.308).

Summary

This chapter reviewed the studies that examined pre-service and in-service teachers’ attitudes and beliefs related to culturally responsive teaching, teachers’ beliefs, school climate, culturally responsive classroom management, cultural awareness, curriculum and instruction, cultural sensitivity, and teacher efficacy. Several instruments that assessed culturally responsive teaching, school climate, cultural sensitivity, and teacher efficacy were discussed regarding the reliability and validity. Further, the procedures used to establish validity and reliability were discussed as well as the psychometric techniques utilized when validating an instrument.

The review brought forth several conclusions. Most of the studies were limited to just pre-service teachers excluding other educators, principals, and superintendents. Of the 14 instruments that assessed culturally responsive teaching, school climate, cultural sensitivity, and teacher efficacy, two instruments’ total scale reliability was reported and only one other instruments subscales’ reliability was reported. Additionally, one study reported the content validity of the instrument that assessed teachers’ culture based

classroom activities in relation to curriculum and instruction. Another study reported the convergent and validity of the items with the instrument. Therefore, a valid and reliable instrument that assesses in-service teachers' perceptions and attitudes of their cultural awareness and beliefs in relation to factors such as teachers' beliefs, school climate, culturally responsive classroom management, cultural awareness, curriculum and instruction, cultural sensitivity, and teacher efficacy currently was non-existent.

CHAPTER III

METHODOLOGY

This descriptive, correlational study established the validity and reliability of the Cultural Awareness and Beliefs Inventory (CABI). The study was conducted in an urban school district located in a metropolitan area in southeastern Texas. This urban school district is found in the third most populous county in the state. Further the county is rated as the second fastest growing among the ten most populous counties in the United States with over 3 million residents. The area is composed of airports, port facilities, medical centers, refineries, universities, community colleges and sports stadiums (Fast Facts, 2006).

Demographics of the Study

The data for this study was collected in an urban school district located in 111 square miles in southeastern Texas. Sixty-six campuses in this urban school district employ 3733 teachers who serve 56,255 students.

Of the total teacher population, European American teachers totaled 1885 (or 51 percent), African American teachers totaled 1214 (or 33 percent), Hispanic American teachers numbered 563 (or 15 percent). Other ethnicities represented in the teacher population included 69 (or 2 percent) Asian/Pacific Islander American teachers and 2 Native American teachers (or .1 percent) (Texas Education Agency [TEA], 2004) (Table 3.1).

TABLE 3.1. Ethnicity of the Urban School District's Teacher Population

Ethnicity	N	Percentage
European American	1885	51
African American	1214	33
Hispanic American	563	15
Asian/Pacific Islander	69	2
Native American	2	0.1
TOTAL	3733	100

Of the total student population, Hispanic Americans numbered 33,918 (or 60 percent), African Americans totaled 17,836 (or 32 percent), and European Americans equaled 3,215 (or 6 percent). Other ethnicities represented in the student population included 1,238 (or 2 percent) Asian/Pacific Islander American and 48 Native American (or 0.1 percent) (Texas Education Agency [TEA], 2004/2005) (Table 3.2).

TABLE 3.2. Ethnicity of the Urban School District's Student Population

Ethnicity	N	Percentage
Hispanic American	33,918	60
African American	17,836	32
European American	3,215	6
Asian/Pacific Islander	1,238	2
Native American	48	.08
TOTAL	56,255	100

Population

The target population for this study was in-service teachers instructing Pre-Kindergarten through grade 12 students in an urban public school district. The teachers participating in this study were employed at an urban school district located in southeastern Texas. Fifty-four individual campuses with approximately 3733 elementary and secondary classroom teachers were asked to participate in this study.

Sample

Of the sixty-six schools in the urban school district, teachers from 32 secondary and 22 elementary schools were asked to participate in the study. The sample population included 3,733 elementary and secondary in-service teachers, who taught Pre-Kindergarten through grade 12 in an urban public school district in southeast Texas during the 2005–2006 academic year. However, 1873 (or 49 percent) teachers responded to the CABI (N. Carter, personal communication, December, 2004). The respondents'

ethnicity can be described as 584 (or 31 percent) European Americans, 407 (or 22 percent) African Americans, and 284 (or 15 percent) Hispanic Americans. Additional represented ethnicities included 117 teachers (or 6 percent denoted as Other), which included 33 (or 2 percent) Native Americans, 21 (or 1 percent) Pacific Islander Americans, 11 (or .6 percent) Bi-Racial Americans, 10 (or .1 percent) Asian Americans, and 2 (or .1 percent) Arab American. Of the total number of respondents, 404 (or 22 percent) failed to indicate their ethnicity (Table 3.3).

The sample is similar to the population from which it was drawn in that the majority of the teachers in this urban school district are European American. Further, the number of African American and Hispanic American teachers is greater than Native American, Asian/Pacific Islander Americans.

The respondent's years of teaching experience were categorized on the CABI into five groups: 1) teaching from 1 to 11 months, 2) 1 to 3 years, 3) 4 to 6 years, 4) 7 to 9 years, and 5) 10 or more years of teaching experience. In Group 1, 208 respondents (or 11 percent) indicated they had completed between 1 and 11 months of teaching. In Group 2, 282 respondents (or 15 percent) designated they had taught from 1 to 3 years, while in Group 3, 328 respondents (or 18 percent) reported they had concluded 4 to 6 years of teaching. Further, in Group 4, 229 respondents (or 12 percent) reported they had finished 7 to 9 years of teaching. Finally, in Group 5, 257 respondents (or 14 percent) stated they had accomplished 10 or more years of teaching. Of the total number of respondents, 569 (or 30 percent) failed to indicate the number of years taught (Table 3.4).

TABLE 3.3. Ethnicity of the CABI Respondents

Ethnicity of Respondents	N	Percent
European American	584	31
African American	407	22
Hispanic American	284	15
Other	117	6
Native American	33	2
Pacific Islander	21	1
Bi-Racial American	11	.6
Asian American	10	.5
Arab American	2	.1
Missing	404	22
TOTAL	1873	100

TABLE 3.4. Years of Teaching Experience of the CABI Respondents

Completed Teaching Experience	N	Percent
1-11 Months	208	11
1-3 Years	282	15
4-6 Years	328	18
7-9 Years	229	12
10 or More Years	257	14
Missing	569	30
TOTAL	1873	100

Instrument

The CABI developed by Webb-Johnson and Carter (2005) measures the perceptions and attitudes of urban teachers' cultural awareness and beliefs (N. Carter, personal communication, September, 2005). The 46-item CABI was based on seven factors: (1) school climate, (2) home and community, (3) teacher efficacy, (4) curriculum and instructional strategies, (5) teacher beliefs, (6) cultural awareness, and (7) behavior management. In addition to the forty-six survey items, 6 items established demographic characteristics concerning: 1) gender, 2) level of educational degree attained, 3) years of teaching experience, 4) current grade level taught, 5) certification route, 6) and ethnicity. Additionally, three open-ended questions were included for

qualitative purposes; however, only the 46 items were analyzed for this study (Appendix A).

Each respondent rated the forty-six items on a 1-4 point Likert scale using A as strongly agree, B as agree, C as disagree, and D as strongly disagree. According to Gall, Borg, and Gall (2003), “a Likert survey is a measure requesting individuals to indicate their level of agreement with statements regarding an attitude object” (p. 214). Further, items numbered 16, 23, 25, 31, 32, 33, 34, 35, 38, 42, 46, 47, 48, 49, 52, and 53 were reversed keyed so that higher scores indicated a more accepting perception of the cultural awareness and beliefs (Appendix B).

Validity

In this descriptive, correlational study, construct validity was determined by internal consistency, content validity, convergent and divergent validity. Cronbach’s alpha coefficient was calculated to explore the internal consistency of the CABI. A jury of experts approved the face and content validity of the inventory. A series of complex measures were conducted to measure the convergent and divergent validity. This study posited that the inventory exhibited convergent validity when measures, or variables highly correlate with those variables one would expect it to correlate. A measure has divergent or discriminant validity when measures, or variables, exhibit low correlations with those one would expect (Stuart-Hamilton, 1996).

Reliability

Further in this study, internal consistency methods were used to investigate the reliability of the CABI. Internal consistency is defined as the degree to which overall respondents' responses to items are consistent within a single administration of the inventory (Gall, Borg, & Gall, 2003). Cronbach's alpha coefficient measures how well a set of items, or variables, measures a single unidimensional latent construct.

According to Nunnally (1978), psychological test standards measured adequate reliability as .80 or above. However, within the literature additional benchmarks have been provided for instrument's constructs, which are not necessarily psychological tests, such as a verbal intelligence (Shrout, 1998). Landis and Koch's (1977) benchmarks have been employed in this study to determine reliability. This scale denotes "(a) .0-.20 as slightly reliable; (b) .21-.40 as fairly reliable; (c) .41-.60 as moderately reliable; (d) .61-.80 as substantially reliable; and (e) .80-1.0 as almost perfect" (Landis & Koch, 1977, p. 168).

Research Design

This descriptive, correlational research design (Gall, Borg, & Gall, 2003) utilized archival data collected from teachers employed by an urban school district in southeastern Texas. This inventory measured perceptions and attitudes of urban teachers' cultural awareness and beliefs. Descriptive and correlational analyses were used to determine the validity and reliability of the CABI. Multivariate analyses were conducted to examine the extent the CABI determines a statistically significant

difference of demographic variables such as teachers' ethnicity or years of teaching experience.

Data Collection

The Cultural Awareness and Beliefs Inventory (CABI) was administered to approximately 3,733 Pre-Kindergarten through grade 12 public school teachers employed by an urban school district located in southeast Texas during the fall semester of 2005. The 46-item Likert scale, self-reporting inventory was completed and returned by 1,873 teachers. The CABI measured perceptions and attitudes of urban teachers' cultural awareness and beliefs. Additionally, three open-ended questions were also completed based on the teachers' concerns regarding behavioral management, racial, ethnic, and socio-economic constructs related to their role as teachers and their concerns regarding the school district's leadership.

Permission to use the CABI data was obtained from the respondents by Webb-Johnson and Carter, authors of the inventory (N. Carter, personal communication, January 2005). Respondents answered the items on scantron forms. The administered surveys were then electronically scored. The data was converted to a Statistical Package for the Social Sciences (SPSS) file format. The data from these inventories were then used to explore the construct validity and reliability of the CABI. Further, the extent the CABI determined statistical significance of demographic characteristics was explored.

Data Analysis

Statistical Package for the Social Sciences (SPSS) computer software was used to analyze the data. Prior to an analysis, the total scale was examined for missing values,

distribution and the assumptions of univariate and multivariate analysis. Missing data was explored and discussed.

Research Question One

What is the construct validity of the Cultural Awareness and Beliefs Inventory that measures urban teachers' cultural awareness and beliefs?

To determine the construct validity of the Cultural Awareness and Beliefs Inventory (CABI) measuring the perceptions and attitudes of urban teacher's cultural awareness and beliefs, internal consistency, content validity, convergent and divergent validity were examined. Cronbach's alpha coefficient, exploratory analysis, and a Pearson-product moment correlation analyses were conducted. Cronbach's alpha coefficient was conducted for the 46-item CABI to determine the internal consistency of the instrument. An inspection of the item-total correlation was performed to examine which items may have failed to correlate well with the other items in the instrument.

To test the distribution for the 46-item instrument, the test for normality, the Kolmogorov-Smirnov Test, a histogram, and the Normal Q-Q plot was examined (Appendix C). Before the exploratory factor analysis (EFA) was conducted, the data was assessed to determine the factorability of the correlation matrix using the Kaiser Meyer Olkin (KMO) and the Bartlett's Test Sphericity (Pallant, 2005). Then, an exploratory factor analysis (EFA) based on principal component analysis (PCA) was conducted to investigate the internal structure of the CABI and determine the "smallest number of factors used to best represent the interrelations among a set of variables" (Pallant, 2005, p.172). Kaiser's eigenvalue-greater-than-one criterion, scree test, and

theoretical foundations were applied to determine the number of factors considered to “best describe the underlying relationships among variables” (Pallant, 2005, p. 172).

After the internal structure analyses, a jury of experts examined the CABI.

To examine the convergent and divergent validity of the CABI, a Pearson-product moment correlation analysis was conducted to explore the strength of the correlations of the variables within and between the factors. Further, Cronbach’s alpha coefficient was computed to assess the internal consistency of the final scale.

Research Question Two

What is the internal consistency reliability of the Cultural Awareness and Beliefs Inventory that measures urban teacher’s cultural awareness and beliefs?

Cronbach’s alpha coefficient was used to investigate the reliability of the final total scale. Further, the factors, or subscales, of the CABI were also examined using the Cronbach’s alpha coefficient.

Research Question Three

To what extent does the Cultural Awareness and Belief Inventory determine statistically significant differences by demographic characteristics? (Ethnicity or Years of Teaching Experience)

The multivariate analysis of variance (MANOVA) test was utilized since it provides univariate and multivariate statistics, controls for Type 1 errors, and compares more than one dependent variable (Pallant, 2005). The calculated mean scores of the eight factors, teacher beliefs (TB), school climate (SC), culturally responsive classroom management (CRCM), home and community support (HCS), cultural awareness (CA),

curriculum and instruction (CI), cultural sensitivity (CS) and teacher efficacy (TE) served as the dependent variables. The teachers' ethnicity and years of teaching experience were regarded as the independent variables. Due to the small number of respondents within several ethnic categories, this study used only the respondents from the ethnic categories of African American, European American, and Hispanic Americans teachers. The *N* for each ethnic category and years of teaching experience is based on MANOVA's compensation for the uneven cell sizes (Appendix D).

A Wilks' Lambda Test was conducted to report the existence of a statistically significant difference of the CABI and the demographic variables of teachers' ethnicity and years of teaching experience. Additionally, a Scheffe post hoc test was conducted as a follow-up analysis to explore the statistically significant difference of the CABI and the demographic variables of teachers' ethnicity and years of teaching experience.

Summary

This chapter described the methodology used to examine the data collected from the CABI. An overview of the target and sample populations, the research design and procedures for conducting the research were discussed. Data collection and data analysis methods procedures were provided.

CHAPTER IV

RESULTS AND ANALYSIS

In this descriptive, correlational study (Gall, Borg, & Gall, 1996), data were obtained from the Cultural Awareness and Beliefs Inventory (CABI) to determine the construct validity and the reliability of this instrument. Additionally, an investigation as to whether the CABI could determine statistically significant differences in teachers' perceptions by demographic characteristics, such as teachers' ethnicity or years of teaching experience, was conducted. These data were collected from sample of 1,873 Pre-Kindergarten through Grade 12 teachers employed in an urban school district in southeast Texas. Teachers who taught during the fall of the 2005-2006 academic school year were asked to complete the CABI. Data analysis was conducted using Statistical Package for the Social Sciences (SPSS) computer software.

Prior to analysis, the total scale was examined for missing values, distribution and the assumptions of univariate and multivariate analysis. One hundred percent of the data was missing from nine cases. Therefore, these cases were deleted from the data set (S. Knight, personal communication, 2005). Further, Item 30 failed to be answered on 101 (or 5.4 percent) of the inventories (See Table 4.1). According to Tabachnick and Fidell (2001), if 5 percent of the data are missing in a random pattern from a large data set, then the problems of missing data are less serious. However, data missing from a specific question may be an indication of the respondent's attitudes toward the subject of the question (Tabachnick & Fidell, 2001) (Table 4.1). Due to the nature of the content of the item, it was included in the analysis.

TABLE 4.1. Item 30 - I Believe African American Students Consider Performing

Well in School as "Acting White"

Level of Degree	Frequency	Percent
Strongly Disagree	96	5.1
Disagree	272	14.5
Agree	797	42.6
Strongly Agree	607	32.4
Sub-Total	1772	94.6
Missing	101	5.4
Total	1873	100.0

Research Question One

What is the construct validity of the Cultural Awareness and Beliefs Inventory that measures urban teachers' cultural awareness and beliefs?

To determine the construct validity of the CABI, internal consistency, content validity, convergent and divergent validity were examined. Cronbach's alpha coefficient was conducted for the 46-item CABI to determine the internal consistency of the instrument. Reliability was established at .80, which is within the acceptable range for a new measurement inventory (Landis & Koch, 1997; Nunnally & Bernstein, 1994). An inspection of the inter-item correlations revealed that several items had low indices ≤ 0.1 ; however, the reliability would not increase significantly with the removal of any item. However, the deletion of these two items, one with a low item correlation

of -.01 and one item with a -.25, would slightly increase the alpha, if removed (Table 4.2). Therefore, these items were part of the initial analysis.

TABLE 4.2. Item–Correlations with Low Indices

Item No.	Item	Correct Item Correlation	Alpha, if Item Deleted
18	I need more support in meeting needs of challenging students.	-.25	.81
43	I believe when correcting a child’s spoken language, one should model appropriate classroom language without further explanation.	-.01	.81
44	I believe there are times when use of “non-standard” English should be accepted at school.	.01	.80
54	I believe I address inappropriate classroom behavior when it could be easily ignored.	.03	.80

TABLE 4.2. Continued

Item No.	Item	Correct Item Correlation	Alpha, if Item Deleted
16	I believe we spend too much time focusing on standardized tests.	.09	.80
25	I believe there are factors beyond the control of teachers causing student failure.	.12	.80
45	I believe in asking families of diverse cultures how they wished to be identified.	.12	.80
33	I believe teachers engage in biased behavior in the classroom.	.14	.80
37	I believe I should identify with the racial groups I serve.	.16	.80
47	I believe there are times when "racial statements" should be ignored.	.18	.80

After establishing normality through the Kolmogorov-Smirnov Test, a histogram, and a Normal Q-Q plot (Appendix C), the data were assessed to determine the factorability of the correlation matrix using the Kaiser-Meyer-Olkin (KMO) and the Bartlett's Test of Sphericity (Pallant, 2005). The KMO measure of sampling adequacy was computed at .83, exceeding the recommended value of .6 (Kaiser, 1970,1974). Further, Bartlett's Test of Sphericity revealed a statistically significant difference

measuring of $p = 0.00$ with $p < 0.05$; thereby, supporting the factorability of the correlation matrix (Table 4.3).

TABLE 4.3. KMO and Bartlett's Test of Sphericity of the CABI

KMO Measure of Sampling Adequacy		.83
Bartlett's Test of Sphericity	Approx. Chi-Square	15863.44
	Df	1035
	Sig.	.00

An exploratory factor analysis (EFA) based on a principal component analysis (PCA) was conducted to investigate the internal structure of the CABI and to determine the “smallest number of factors used to best represent the interrelations among a set of variables” (Pallant, 2005, p. 153). An examination of the initial eigenvalues indicated that twelve factors had an eigenvalue greater than one explaining 53.28% percent of the total variance (Table 4.4).

TABLE 4.4. Total Variance after Principal Component Analysis of the 46-Item CABI

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	5.88	12.79	12.78
2	3.28	7.14	19.92
3	3.03	6.60	26.52
4	2.04	4.44	30.96
5	1.66	3.61	34.57
6	1.50	3.27	37.82
7	1.41	3.06	40.88
8	1.26	2.74	43.62
9	1.18	2.56	46.17
10	1.11	2.42	48.59
11	1.10	2.40	50.99
12	10.05	2.29	53.28

Because a 12-factor solution was excessive, a scree test of the eigenvalues plotted against the factors was examined (Cattell, 1966). Within the literature, “factors extraction should be stopped at the point where there is an ‘elbow’ or leveling of the plot” (Thompson, 2004, p. 33). Using this guideline, four factors should be retained. However, this would indicate that only 31 percent of the total variance would be utilized.

According to Stevens (2000), “One would want to account for 70 percent of the total variance” (p. 390) (Figure 4.1).

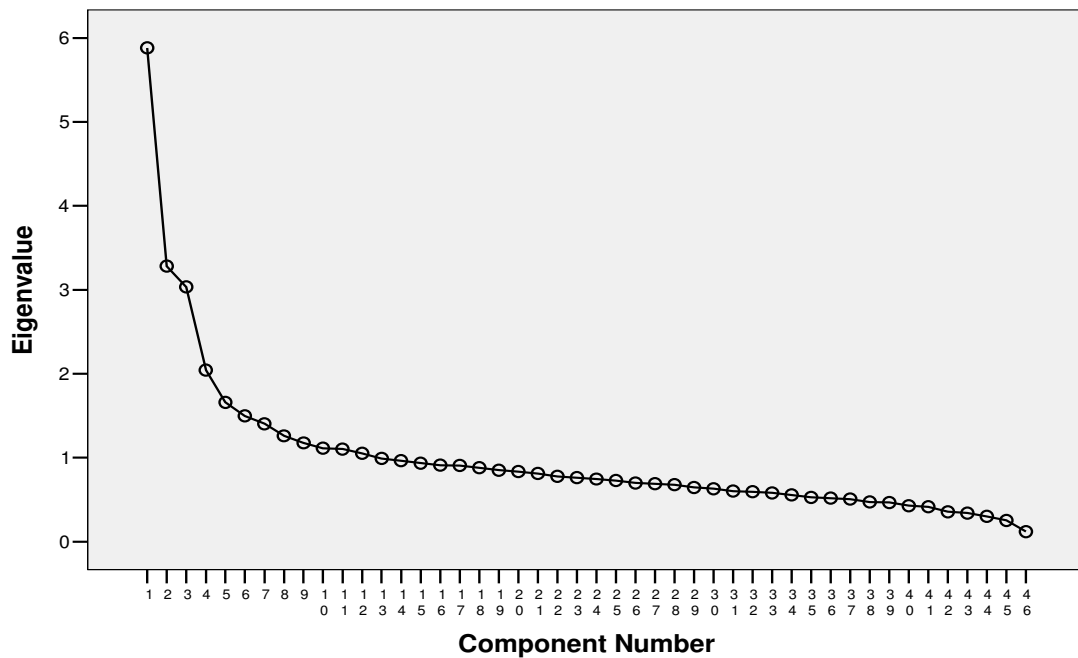


FIGURE 4.1: Scree Plot of the 46-Item CABI

Because the scree test was inconclusive, the initial factor analysis was utilized for interpretation of the factors. To aid in the interpretation of these twelve components, a Varimax rotation was performed. An examination of the rotated component matrix was conducted to distinguish which factors, if any, made theoretical sense. Comrey and Lee (1992) suggested that the pattern/structures in excess of .71 (or 50 percent) overlapping

variance were considered excellent, .63 (or 40 percent) overlapping variance as very good, .55 or 30 percent overlapping variance as good, .45 (or 20 percent) overlapping variance as fair, and .32 (or 10 percent) overlapping variance to be poor. Utilizing Comrey and Lee's (1992) criteria, only items with an absolute value greater than .4 were retained (Table 4.5).

According to the data, items 45, 29, 24, and 36 lacked sufficient factor coefficients for any of the factors at a .4 cutoff value. Also, four factors failed to have a sufficient number of items. For example, items 33 and 54 were each attributed to one factor each. In addition, items 18 and 16 were attributed to one factor while items 43 and 44 were attributed to a different factor. According to Tabachnick and Fidell (2001), "factors with a single variable can be described as poorly defined. Factors with two variables should be highly correlated with each other as in $> .70$ " (p. 622). Therefore, for this study, 10 items and four factors were deleted from further analysis, while eight of the original twelve factors were retained; thus, resulting in a 36-item inventory (Table 4.5). After the internal structure of the CABI was determined, a jury of experts established the content validity of the 36-item, eight-factor inventory (N. Carter, personal communication, July 2006).

TABLE 4.5. Continued

Item No.	Factor											
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
21				.80								
20				.78								
22				.58								
19				.48								
40					.63							
39					.61							
50					.52							
41					.52							
37					.48							
45					.38							
28						.60						
27						.56						
26						.50						
51						.42						

Each factor of the eight factors of the 36-item CABI was analyzed and interpreted for underlying descriptive themes. Factor I items dealt with teacher's beliefs, while items for Factor II described school climate. Items illustrating Factor III depicted culturally responsive classroom management. Factor IV items represented statements regarding home and community support, while cultural awareness items were aligned with Factor V. Items for Factor VI explained aspects of curriculum and instruction. Factor VII items described those dealing with cultural sensitivity, while Factor VIII items defined teacher efficacy. The following paragraphs describe each of the previously listed factors.

Factor I was comprised of eight items that appeared to represent Teacher Beliefs (TB) presented from a deficit perspective. Five items reflected teacher beliefs toward African American students, while three revealed teacher beliefs concerning students representing underserved populations. For example, CABI (2005) statements such as "I believe African American students have more behavior problems than other students" or "I believe I have experienced difficulty in getting families from African American communities involved in the education of their students" appear to be representative of a deficit perspective. The items in this scale were reversed score to represent a positive scale. The pattern/structure coefficients ranged from .44 to .81 (Table 4.6).

Factor II contained five items reflecting the teachers' perceptions of a School Climate (SC), while three items suggested the teachers' perceptions of administrative and collegial support, an element of school climate. Statements found on the CABI

(2005), such as “I feel supported by my building principal” or “I believe my contributions are appreciated by my colleagues” appear to signify statements related to an open school climate. The pattern/structure coefficients ranged from .65 to .77 (Table 4.7).

TABLE 4.6. Factor I Items and Factor Loadings

Item No.	Factor I Items: Teachers' Beliefs	Factor Loadings
32	I believe African American students are not as eager to excel in school as White students.	.81
31	I believe African American students have more behavior problems than other students.	.79
35	I believe African American students do not bring as many strengths to the classroom as their White peers.	.75
36	I believe students that are referred to special education usually qualify for special education services in our school.	.58
52	I believe students from certain ethnic groups appear lazy when it comes to academic engagement.	.56
30	I believe African American students consider performing well in school as “acting White”.	.51
42	I believe I have experienced difficulty in getting families from African American communities involved in the education of their students.	.50
38	I believe I would prefer to work with students and parents whose cultures are similar to mine.	.44

Factor III was comprised of three items indicating the teachers' perceptions of Culturally Responsive Classroom Management (CRCM). Two items revealed the teachers' perceptions of issues relating to discipline and classroom management, while one item reflected the teacher perceptions' of effectively managing students from all racial groups. Items such as "I believe I am able to effectively manage students from all racial groups" and "I believe I have a clear understanding of the issues surrounding classroom management" (CABI, 2005) seem to indicate an infusion of the teachers' perceptions of culturally responsive classroom management. The pattern/structure coefficients ranged from .78 to .91 (Table 4.8).

TABLE 4.7. Factor II Items and Factor Loadings

Item No.	Factor II Items: School Climate	Factor Loadings
13	I feel I am supported by the administrative staff.	.77
12	I feel supported by my building principal.	.71
14	I feel supported by my professional colleagues.	.70
17	I believe my contributions are appreciated by my colleagues.	.67
15	I believe I have opportunities to grow professionally as I fulfill duties at my ISD.	.65

TABLE 4.8. Factor III Items and Factor Loadings

Item No.	Factor III Items:	Factor
	Culturally Responsive Classroom Management	Loadings
56	I believe I have a clear understanding of the issues surrounding classroom management.	.91
57	I believe I have clear understanding of the issues surrounding discipline.	.90
55	I believe I am able to effectively manage students from all racial groups.	.78

Factor IV included four items that described Home and Community Support (HCS). For example, the CABI statements “I believe my ISD families of African American students are supportive of our mission to effectively teach all students” and “I believe my ISD families are supportive of our mission to effectively teach all students” seemed to demonstrate the general support of the school’s mission. One of the items reflected the teachers’ perceptions of how supportive the community was of the school’s mission of academic excellence. The final item reflected the teachers’ perceptions of the equitable treatment of students. The pattern/structure coefficients ranged from .48 to .80 (Table 4.9).

TABLE 4.9. Factor IV Items and Factor Loadings

Item No.	Factor IV Items: Home and Community Support	Factor Loadings
21	I believe my ISD families of African American students are supportive of our mission to effectively teach all students.	.80
20	I believe my ISD families are supportive of our mission to effectively teach all students.	.78
22	I believe the district has strong support for academic excellence from our surrounding community (civic, church, business).	.58
19	I believe “all” students in my ISD are treated equitably regardless of race, culture, disability, gender or social economic status.	.48

Factor V consisted of five items that revealed teachers’ perceptions of Cultural Awareness (CA). These five items promoted an understanding of cultural awareness as it related to integrating students’ culture in planning curriculum, parent communication, and identifying with racial groups different from their own. The pattern/structure coefficients ranged from .48 to .63 (Table 4.10).

TABLE 4.10. Factor V Items and Factor Loadings

Item No.	Factor V Items: Cultural Awareness	Factor Loadings
40	I believe cultural views of a diverse community should be included in the school's yearly program planning.	.63
39	I believe I am comfortable with people who exhibit values or beliefs different from my own.	.61
50	I believe Individualized Education Program meetings or planning should be scheduled for the convenience of the family.	.52
41	I believe it is necessary to include on-going family input in program planning.	.52
37	I believe it is important to identify with the racial groups of the students I serve.	.48

Factor VI was comprised of four items describing teachers' perceptions of Curriculum and Instruction (CI). The items suggested implementing culturally responsive instruction strategies and utilizing cultural materials. CABI statements such as, "I believe frequently used material within my class represents at least three different ethnic groups" and "I believe cooperative learning is an integral part of my ISD teaching and learning philosophy" appear to be representative of instructional practices and use of cultural referents as part of the curriculum. The pattern/structure coefficients ranged from .42 to .60 (Table 4.11).

TABLE 4.11. Factor VI Items and Factor Loadings

Item No.	Factor VI Items: Curriculum and Instruction	Factor Loadings
28	I believe cooperative learning is an integral part of my ISD teaching and learning philosophy	.60
27	I believe I am culturally responsive in my teaching behaviors.	.56
26	I believe the in-service training this past year assisted me in improving my teaching strategies.	.50
51	I believe frequently used material within my class represents at least three different ethnic groups.	.42

Factor VII consisted of three items that signified the teachers' perceptions of Cultural Sensitivity (CS) in relation to communication and social relations. This factor included two items concerning the accepted use of racial statements and ethnic jokes. One item reflected referring a child for testing due to cultural differences, such as "I believe a child should be referred "for testing" if learning difficulties appear to be due to cultural differences". The items in this scale were reversed score to represent a positive scale. The pattern/structure coefficients ranged from .45 to .72 (Table 4.12).

TABLE 4.12. Factor VII Items and Factor Loadings

Item No.	Factor VII Items: Cultural Sensitivity	Factor Loadings
47	I believe there are times when “racial statements” should be ignored.	.72
46	I believe that in a society with as many racial groups as the United States, I would accept the use of ethnic jokes or phrases by students.	.70
48	I believe a child should be referred “for testing” if learning difficulties appear to be due to cultural differences.	.45

Factor VIII consisted of four items representing teachers’ perceptions of Teacher Efficacy (TE). Two of the items reflected teachers’ sense of efficacy as it related to working with difficult students and dealing with situations that failed to be in the teacher’s control. Two additional items described the teachers’ perceptions of the responsibility of teaching ethnic customs and receiving professional development on multicultural issues. The items in this scale were reversed score to represent a positive scale. The pattern/structure coefficients ranged from .42 to .52 (Table 4.13).

TABLE 4.13. Factor VIII Items and Factor Loadings

Item No.	Factor VIII Items: Teacher Efficacy	Factor Loadings
49	I believe the teaching of ethnic customs and traditions is not the responsibility of public school personnel.	.52
23	I believe that some students do not want to learn.	.50
25	I believe there are factors beyond the control of teachers that cause student failure.	.49
53	I believe in-service training focuses too much on “multicultural” issues.	.42

After establishing normality through the Kolmogorov-Smirnov Test, a histogram, and a Normal Q-Q plot (Appendix E) for the 36-item CABI, a Pearson-product moment correlation analysis was conducted to explore the strength of the correlations of the variables within and between the factors. Further, the convergent and divergent validity of the CABI variables were examined. A correlation matrix was not presented due to its' large size; however, an examination of the variables within each factor and between the factors was conducted.

Teacher Beliefs (TB) measured high correlations ($p < .01$) ranging from .20 to .59 and low correlations with items being assigned to other factors. School Climate (SC) computed high correlations ($p < .01$) ranging from .29 to .72 and low correlations with items assigned to other factors. Culturally Responsive Classroom Management (CRCM) measured high correlations ($p < .01$) ranging from .63 to .88 and low

Finally, Cronbach's alpha coefficient was computed to assess the internal consistency of the final scale. The internal consistency for the eight factor 36-item scale was established at .83. According to Landis and Koch (1977), .83 was "almost perfect" (p. 168). Internal consistency for the eight separate subscales ranged from .46 to .88.

In summary, the construct validity was established by internal consistency, content, convergent and divergent validity. Initially, Cronbach's alpha was established at .80 for the 46-item CABI with no significant change in reliability if any item were to be deleted. To investigate the internal structure, an exploratory factor analysis (EFA) yielded an eight-factor, 36-item inventory. After the internal structure of the CABI was determined, a jury of experts established the content validity of the 36-item, eight-factor inventory. The eight factors were: Factor I: Teacher Beliefs (TB), Factor II: School Climate (SC), Factor III: Culturally Responsive Classroom Management (CRCM), Factor IV: Home and Community Support (HCS), Factor V: Cultural Awareness (CA), Factor VI: Curriculum and Instruction, Factor VII: Cultural Sensitivity (CS), and Factor VIII: Teacher Efficacy (TE). Convergent and divergent validity were established for six of the eight constructs by conducting a Pearson product moment correlation. Further, Cronbach's alpha coefficient was established at .83 for the 36-item final scale.

Research Question Two

What is the internal consistency reliability of the Cultural Awareness and Beliefs Inventory that measures urban teacher's cultural awareness and beliefs?

To investigate the internal consistency of the factors, Cronbach's alpha coefficient was computed. Landis and Koch's (1977) benchmarks were employed to determine reliability. As previously discussed, the benchmarks were denoted as (a) 0 to .20 as "slightly reliable"; (b) .21 to .40 as "fairly reliable"; (c) .41 to .60 as "moderately reliable"; (d) .61 to .80 as "substantially reliable"; and (e) .80 to 1.0 as "almost perfect" (Landis & Koch, 1977, p. 168).

As stated previously, Cronbach's alpha coefficient was conducted to measure the internal consistency reliability of the 36-item CABI. The reliability was computed at .83. According to Landis and Koch (1977), .83 was "almost perfect" (p.168). An examination of the items revealed that one item had a low item-correlation; however, the elimination of this item, or any other item, would not increase the reliability (Table 4.15).

TABLE 4.15. Item Analysis for the 36-Item Cultural Awareness and Beliefs Inventory

Item No.	Item	Corrected Item-Total Correlation	Cronbach's Alpha, if Item Deleted
25	I believe there are factors beyond the control of teachers that cause student failure.	.09	.83
37	I believe it is important to identify with the racial groups of the students I serve.	.15	.83
47	I believe there are times when "racial statements" should be ignored.	.20	.83
50	I believe Individualized Education Program meetings or planning should be scheduled for the convenience of the family.	.18	.83
46	I believe that in a society with as many racial groups as the United States, I would accept the use of ethnic jokes or phrases by students.	.22	.83
48	I believe a child should be referred "for testing" if learning difficulties appear to be due to cultural differences.	.20	.83
51	I believe frequently used material within my class represents at least three different ethnic groups.	.21	.83

TABLE 4.15. Continued

Item No.	Item	Corrected Item-Total Correlation	Cronbach's Alpha, if Item Deleted
14	I feel supported by my professional colleagues	.29	.83
19	I believe "all" students in my ISD are treated equitably regardless of race, culture, disability, gender, or social economic status.	.28	.83
26	I believe the in-service training this past year assisted me in improving my teaching strategies.	.29	.83
30	I believe African American students consider performing well in schools as "acting- White".	.28	.83
40	I believe cultural views of a diverse community should be included in the school's yearly program planning.	.26	.83
41	I believe it is necessary to include on-going family input in program planning.	.26	.83
49	I believe teaching of ethnic customs and traditions is not the responsibility of public school personnel.	.29	.83
12	I feel supported by building principal.	.33	.83

TABLE 4.15. Continued

Item No.	Item	Corrected Item-Total Correlation	Cronbach's Alpha, if Item Deleted
17	I believe my contributions are appreciated by my colleagues.	.33	.83
23	I believe some students do not want to learn.	.32	.83
27	I believe I am culturally responsive in my teaching behaviors.	.33	.83
53	I believe in-service training focuses too much on "multicultural" issues.	.31	.83
56	I believe I have a clear understanding of the issues surrounding classroom management.	.30	.83
57	I believe I have a clear understanding of the issues surrounding discipline.	.31	.83
15	I believe I have opportunities to grow professionally as I fulfill duties at my ISD.	.35	.82
22	I believe the district has strong support for academic excellence from our surrounding community (civic, church, business).	.36	.82
38	I believe I would prefer to work with students and parents whose cultures are similar to mine.	.36	.82
13	I feel supported by the administration staff.	.37	.82

TABLE 4.15. Continued

Item No.	Item	Corrected Item-Total Correlation	Cronbach's Alpha, if Item Deleted
20	I believe my ISD families are supportive of our mission to effectively teach all students.	.38	.82
28	I believe cooperative learning is an integral part of my ISD teaching and learning philosophy.	.41	.82
34	I believe students who live in poverty are more difficult to teach.	.37	.82
42	I believe I have experienced difficulty in getting families from the African American community involved in the education of their students.	.38	.82
55	I believe I am able to effectively manage students from all racial groups.	.39	.82
21	I believe my ISD families of African American students are supportive of our mission to effectively teach all students.	.45	.82
31	I believe African American students have more behavior problems than other students.	.43	.82

TABLE 4.15. Continued

Item No.	Item	Corrected Item-Total Correlation	Cronbach's Alpha, if Item Deleted
35	I believe African American students do not bring as many strength to the classroom as their White peers.	.48	.82
52	I believe students from certain ethnic groups appear lazy when it comes to academic engagement.	.47	.82
32	I believe African American students are not as eager to excel in school as White students.	.50	.82

Six of the eight factors' Cronbach's alpha coefficients would not increase if any item were eliminated. Cronbach's alpha coefficient for TB, SC, CA, CI, CS, and TE was computed at .80, .78, .60, .53, .53, and .46, respectively. According to Landis and Koch (1977), TB and SC alpha is "substantial", CA, CI, and CS alpha is "moderately reliable" and TE is considered "fair". The reliability of TE, or .46, was considered "acceptable" since four items formed part of this factor and a decrease in the number of items also decreased the reliability (Cortina, 1993; Landis & Koch, 1977, p. 168) (see Tables 4.16-4.21).

TABLE 4.16. Item Analysis for Teacher Beliefs

Item No.	Item	Cronhach's Alpha, if Item Deleted
42	I believe I have experienced difficulty in getting African American families involved in their children's education.	.80
38	I believe I would prefer to work with students and parents whose cultures are similar to mine.	.80
30	I believe African American students consider performing well in schools as "acting- White"	.80
34	I believe students in poverty are more difficult to teach.	.79
52	I believe students from certain ethnic groups appear lazy when it comes to academic engagement.	.78
32	I believe African American students are not eager to learn as White students.	.76
31	I believe African American students have more behavior problems than other students.	.76
35	I believe African American students do not bring as many strengths to the classrooms as their White peers.	.72

TABLE 4.17. Item Analysis for School Climate

Item No.	Item	Cronbach's Alpha, if Item Deleted
13	I feel supported by administrative staff.	.73
12	I feel supported by building principal.	.75
14	I feel supported by professional colleagues.	.77
17	I believe my contributions are appreciated by my colleagues.	.77
15	I believe I have opportunities to grow professionally as I fulfill duties at my ISD.	.77

TABLE 4.18. Item Analysis for Cultural Awareness

Item No.	Item	Corrected Alpha, if Item Deleted
50	I believe Individualized Education Program meetings or planning should be scheduled for the convenience of the family.	.59
37	I believe it is important to identify with the racial groups of the students I serve.	.58
39	I believe I am comfortable with people who exhibit values or beliefs different from my own.	.56
41	I believe it is necessary to include on-going family input in program planning.	.53
40	I believe cultural views of a diverse community should be included in the school's yearly program planning.	.48

TABLE 4.19. Item Analysis for Curriculum and Instruction

Item No.	Item	Cronbach's Alpha, if Item Deleted
51	I believe frequently used material within my class represents at least three different ethnic groups.	.50
26	I believe in-service training this past year has assisted me in improving teaching strategies.	.49
27	I believe I am culturally responsive in my teaching behaviors.	.42
28	I believe cooperative learning is an integral part of my ISD teaching and learning philosophy.	.37

TABLE 4.20. Item Analysis for Cultural Sensitivity

Item No.	Item	Cronbach's Alpha, if Item Deleted
48	I believe a child should be referred "for testing" if learning difficulties appear to be due to cultural differences.	.51
47	I believe there are times when "racial statements" should be ignored.	.42
46	I believe in a society with as many racial groups as the United States, I would accept the use of ethnic jokes or phrases by students	.35

TABLE 4.21. Item Analysis for Teacher Efficacy

Item No.	Item	Cronbach's Alpha, if Item Deleted
25	I believe there are factors beyond the control of teachers that cause student failure.	.42
53	I believe in-service training focuses too much on "multicultural" issues.	.41
49	I believe teaching of ethnic customs and traditions is not the responsibility of public school personnel.	.37
23	I believe some students do not want to learn.	.37

However, two factors' CRCM and HCS, Cronbach's alpha coefficient would increase if an item were eliminated. For example, Cronbach's alpha for CRCM was computed at .88. A review of the CRCM items indicated that the removal of Item 56 would improve the alpha to .94. This item makes theoretical senses; therefore, the item were not removed. In addition, Cronbach's alpha coefficient for HCS was computed at .74. An item analysis for HCS revealed that Item 19, if eliminated, would slightly improve the reliability of the factor to .76. Because alpha would only slightly improve and elimination would result in less information available about teachers' perceptions, this item was not eliminated(see Table 4.22- Table 4.23).

TABLE 4.22 Item Analysis for Culturally Responsive Classroom Management

Item No.	Item	Cronbach's Alpha, if Item Deleted
56	I believe I have a clear understanding of the issues surrounding discipline.	.94
57	I believe I have a clear understanding of the issues surrounding classroom management.	.77
55	I believe I am able to effectively manage students from all racial groups.	.76

TABLE 4.23. Item Analysis for Home and Community Support

Item No.	Item	Cronbach's Alpha, if Item Deleted
21	I believe my ISD families of African American students are supportive of our mission to effectively teach all students.	.61
20	I believe my ISD families are supportive of our mission to effectively teach all students.	.61
22	I believe the district has strong support for academic excellence from our surrounding community (civic, church, business).	.71
19	I believe "all" students are treated equitably regardless of race, culture, disability, gender or social economic status.	.76

In summary, Cronbach's alpha coefficient for the 36-item was established at .83, while the alpha for the eight factors, or scales, ranged from 46 percent for TE to 88 percent for CRCM. The reliability, or 46 percent, for TE was considered "acceptable" since four items formed part of this factor and a decrease in the number of items decreases the reliability.

Research Question Three

To what extent does the Cultural Awareness and Beliefs Inventory determine statistically significant differences by demographic characteristics? (Teachers' Ethnicity or Years of Teaching Experience)

To investigate the existence of statistically significant differences in teachers' perceptions of the CABI by teachers' ethnicity, using African American (N=271), European American (N=342) and Hispanic American (N=247) teachers as the independent variables, multivariate statistics were examined using a Wilks' Lambda Test. The data revealed an overall statistically significant difference in teachers' perception of the CABI by teachers' ethnicity with $p = 0.00$ at $p < 0.05$ with the partial eta squared value at .07. This denoted that 7 percent of the variance was explained by teachers' ethnicity; thus indicating a small effect size (Gall et al., 2003; Pallant, 2005).

Teachers' Ethnicity

An analysis of the dependent variables by teachers' ethnicity showed no statistically significant difference by teachers' ethnicity, for SC, HSC, CA, and CI. However, a statistically significant difference existed in the teachers' perceptions by

teachers' ethnicity for TB, CRCM, CS, and TE. The data revealed a statistically significant difference in the teachers' perceptions by teachers' ethnicity for TB with $p = 0.00$ at $p < 0.05$ and a partial eta squared value of 0.06. This represents 6 percent of the variance in teacher beliefs as explained by teachers' ethnicity; thus indicating a small effect size (Gall et al., 2003; Pallant, 2005). The data revealed a statistically significant difference in the teachers' perceptions by teacher's ethnicity for CRCM with $p = 0.00$ at $p < 0.05$ and a partial eta squared value of 0.03. This signified three percent of the variance of culturally responsive classroom management was explained by teachers' ethnicity; thus indicating a small effect size (Gall et al., 2003; Pallant, 2005). The data revealed a statistically significant difference in the teachers' perceptions by teacher's ethnicity for CS with $p = 0.00$ at $p < 0.05$ and a partial eta squared value at 0.03. Therefore, this denoted three percent of the variance in cultural sensitivity was explained by teachers' ethnicity; thus indicating a small effect size (Gall et al., 2003; Pallant, 2005). The data revealed a statistically significant difference in the teachers' perceptions by teachers' ethnicity for TE with $p = 0.00$ at $p < 0.05$ and a partial eta squared value of 0.03. This represents three percent of the variance in teacher efficacy explained by teachers' ethnicity; thus indicating a small effect size (Gall et al., 2003; Pallant, 2005) (Table 4.24).

TABLE 4.24. Tests of Between Subjects Effects of the CABI by Teachers' Ethnicity

Factor	Dependent Variable	Type III			Mean Square	F	Sig.	Partial Eta Squared
		Sum of Squares	df	Sum of Squares				
I	TB	15.82	2	7.91	28.72	.00	.06	
II	SC	.27	2	.13	.52	.60	.00	
III	CRCM	8.99	2	4.50	14.59	.00	.03	
IV	HCS	.92	2	.46	1.42	.24	.00	
V	CA	.90	2	.42	2.31	.10	.01	
VI	CI	.69	2	.35	1.83	.16	.00	
VII	CS	6.90	2	3.45	12.23	.00	.03	
VIII	TE	5.23	2	2.62	12.50	.00	.03	

a R Squared = .083 (Adjusted R Squared = .068); b R Squared = .020 (Adjusted R Squared = .004); c R Squared = .075 (Adjusted R Squared = .060); d R Squared = .046 (Adjusted R Squared = .030); e R Squared = .034 (Adjusted R Squared = .018); f R Squared = .028 (Adjusted R Squared = .012); g R Squared = .052 (Adjusted R Squared = .036); h R Squared = .045 (Adjusted R Squared = .029)

Further, an inspection of the macro mean scores in the teachers' perceptions for TB, CRCM, CS, and TE by teachers' ethnicity were examined. The mean scores in the teachers' perceptions for TB by teachers' ethnicity ranged from 2.84 to 3.17. African American teachers' mean score of 3.17 was slightly higher than that of European American teachers' mean score of 2.91. Although statistically significant, the actual

difference in the mean scores in the teachers' perceptions for TB by teachers' ethnicity was fewer than .3 scale points or very small (Table 4.25).

The mean scores in teachers' perceptions for CRCM by teachers' ethnicity ranged from 3.25 and 3.50. African American teachers' mean score of 3.50 was slightly higher than that of European American teachers' mean of 3.28. In addition, European American teachers' mean score of 3.28 was higher than Hispanic American teachers' mean of 3.25. Although statistically significant, the actual difference in the mean scores in the teachers' perceptions for CRCM by teachers' ethnicity was fewer than .2 scale points or very small (Table 4.25).

The mean scores in the teachers' perceptions for CS by teachers' ethnicity ranged from 3.16 and 3.42. African American teachers' mean score of 3.42 was slightly higher than that of European American teachers' mean score of 3.28. In addition, European American teachers' mean score of 3.28 was higher than Hispanic American teachers' mean of 3.16. Although statistically significant, the actual difference in the mean scores in the teachers' perception for CS by teachers' ethnicity was fewer than .2 scale points or very small (Table 4.25).

The mean scores in the teachers' perceptions for TE by teachers' ethnicity ranged from 2.40 and 2.58. Hispanic American teachers mean score of 2.58 was slightly higher than that of African American teachers' mean score of 2.53. In addition, African American teachers' mean score of 2.52 was higher than European American teachers' mean of 2.40. Although statistically significant, the actual difference in the mean scores

in the teachers' perceptions for TE by teachers' ethnicity was fewer than .2 scale points or very small.

TABLE 4.25. Means and Standard Deviations of the CABI by Teachers' Ethnicity

Ethnicity	African American Teachers		European American Teachers		Hispanic American Teachers	
	M	SD	M	SD	M	SD
Factors						
TB	3.17	.54	2.91	.48	2.84	.58
CRCM	3.50	.56	3.28	.56	3.25	.58
CS	3.42	.53	3.28	.50	3.16	.58
TE	2.53	.51	2.40	.44	2.58	.43

Teachers' Beliefs

Due to the statistically significant differences found in the teachers' perceptions for TB, CRCM, CS, and TE by teachers' ethnicity, further analyses were warranted. Therefore, a Scheffe post hoc analysis was first conducted of teachers' perceptions for TB by teachers' ethnicity. The resulting data revealed a statistically significant difference with $p = 0.00$ at $p < 0.05$ between African American teachers' and European and Hispanic American teachers. Hispanic American and European American teachers did not differ significantly in their mean values, but exhibited significantly lower means than African American teachers. However, the effect size was small. African American

teachers' mean value was highest followed by European American teachers' mean value and Hispanic teachers' mean values (Table 4.26).

TABLE 4.26. Scheffe Post Hoc Test for Teacher Beliefs by Teachers' Ethnicity

Ethnicity	N	Mean Values	
		1	2
Hispanic American	247	2.84	
European American	342	2.91	
African American	271		3.17

Culturally Responsive Classroom Management

Scheffe post hoc analysis was conducted of the teachers' perceptions for CRCM by teachers' ethnicity. The resulting data revealed a statistically significant difference with $p = 0.00$ at $p < 0.05$ between African American teachers' and European and Hispanic American teachers. Hispanic American and European American teachers did not differ significantly in their mean values, but exhibited significantly lower means than African American teachers. However, the effect size was small. African American teachers' mean value was highest followed by European American teachers' mean value and Hispanic teachers' mean value (Table 4.27).

TABLE 4.27. Scheffe Post Hoc Test for Culturally Responsive Classroom Management by Teachers' Ethnicity

Ethnicity	N	Mean Values	
		1	2
Hispanic American	247	3.25	
European American	342	3.28	
African American	271		3.50

Cultural Sensitivity

Scheffe post hoc analysis was conducted in the teachers' perceptions of CS by teachers' ethnicity. The resulting data revealed a statistically significant difference with $p = 0.01$ at $p < 0.05$ between African American and European American teachers. All three groups were significantly different with African American teachers' mean value highest followed by European American teachers' mean value which were significantly higher than Hispanic American teachers' mean value (Table 4.28). However, the effect size was small.

TABLE 4.28. Scheffe Post Hoc Test for Cultural Sensitivity by Teachers' Ethnicity

Ethnicity	N	Mean Values		
		1	2	3
Hispanic American	247	3.16		
European American	342		3.28	
African American	271			3.42

Teacher Efficacy

Finally, a Scheffe post hoc analysis was conducted of the teachers' perceptions for TE by teachers' ethnicity. The resulting data revealed a statistically significant difference with $p = 0.00$ at $p < 0.05$ between African American and European American teachers. A statistically significant difference with $p = 0.00$ at $p < 0.05$ between European American and Hispanic American teachers. Hispanic American and African American teachers did not differ significantly in their mean values but exhibited significantly higher means than European American teachers. However, the effect size was small. (Table 4.29).

TABLE 4.29. Scheffe Post Hoc Test for Teacher Efficacy by Teachers' Ethnicity

Ethnicity	N	Mean Values	
		1	2
European American	342	2.40	
African American	271		2.53
Hispanic American	247		2.58

Years of Teaching Experience

The respondent's years of teaching experience were categorized on the CABI into five groups: 1) teaching from 1 to 11 months (N= 159), 2) 1 to 3 years (N=189), 3) 4 to 6 years (N=213), 4) 7 to 9 years (N=142), and 5) 10 or more years of teaching experience (N=157). To investigate the existence of a statistically significant difference in the teachers' perceptions of the CABI by years of teaching experience, multivariate statistics were examined using a Wilks' Lambda Test. The data revealed an overall statistically significant differences in the teachers' perceptions of the CABI by years of teaching experience with $p = 0.00$ at $p < 0.05$ and a partial eta squared value of .03. This represented 3 percent of the variance explained; thus indicating a small effect size (Gall et al., 2003; Pallant, 2005) (Table 4.30).

An analysis of the dependent variables by years of teaching experience showed no statistically significant differences in teachers' perceptions by years of teaching experience for TB, SC, CA, CI, CS, and TE. However, statistically significant differences existed in the teachers' perceptions of the CABI by years of teaching

experience for CRCM and HSC. The data revealed statistically significant differences in the teachers' perceptions for CRCM by years of teaching experience with $p = 0.00$ at $p < 0.05$ and a partial eta squared value at .03. This denoted 3 percent of the variance of CRCM explained by years of teaching experience; thus indicating a small effect size (Gall et al., 2003; Pallant, 2005) (Table 4.30).

The data revealed statistically significant differences in the teachers' perceptions for HCS by years of experience revealed a statistically significant difference with $p = 0.00$ at $p < 0.05$ and a partial eta squared value of .03. Three percent of the variance in HCS was explained by years of teaching experience; thus indicating a small effect size (Gall et al., 2003; Pallant, 2005) However, statistically significant differences in the teachers' perceptions of the CABI by years of teaching experience failed to be found for TB, SC, CA, CI, CS, and TE (Table 4.30).

TABLE 4.30. Test of Between Subjects Effects of the CABI by Years of Teaching Experience

Factor	Dependent Variable	Type III			F	Sig.	Partial Eta Squared
		Sum of Squares	Df	Mean Square			
I	TB	2.21	4	.55	2.00	.09	.01
II	SC	2.39	4	.60	2.32	.06	.01
III	CRM	8.12	4	2.03	6.60	.00	.03
IV	HCS	7.40	4	1.85	5.72	.00	.03
V	CA	1.03	4	.26	1.33	.26	.01
VI	CI	1.20	4	.30	1.58	.18	.01
VII	CS	1.20	4	.42	1.50	.20	.01
VIII	TE	.37	4	.09	.44	.78	.00

a R Squared = .083 (Adjusted R Squared = .068); b R Squared = .020 (Adjusted R Squared = .004); c R Squared = .075 (Adjusted R Squared = .060); d R Squared = .046 (Adjusted R Squared = .030); e R Squared = .034 (Adjusted R Squared = .018); f R Squared = .028 (Adjusted R Squared = .012); g R Squared = .052 (Adjusted R Squared = .036); h R Squared = .045 (Adjusted R Squared = .029)

Further, an inspection of the macro mean scores of the teachers' perceptions of CRCM and HCS by years of teaching experience were examined. The mean scores of the teachers' perceptions of CRCM and years of teaching experience ranged from 3.16 and 3.46. The mean scores of teachers with 7-9 years and those with 10 or more years of teaching experience measured 3.46 and 3.42, respectively. These mean scores were slightly higher than teachers with 4-6 years of teaching experience, 3.37, teachers with

1-3 years of teaching experience, 3.39, and teachers with 1-11 months of years of teaching, 3.16 (Table 4.31).

The mean scores in the teachers' perceptions for HCS by years of teaching experience ranged from 2.74 and 3.00. Teachers with 1-11 months of teaching experience mean score of 3.00 was slightly higher than those teachers with 10 or more of teaching experience who had a mean score of 2.78. Teachers with 1-3 years of teaching experience mean 2.90 scored slightly higher than those with 7-9 years of teaching experience mean, 2.78. The mean score of teachers with 10 or more years of teaching experience teachers, 2.94 was slightly higher than those mean score of those teachers with 4-6 years of teaching experience mean, 2.74 (Table 4.31).

TABLE 4.31. Means and Standard Deviations of the CABI by Years of Teaching

Years of Experience	CRCM		HCS	
	M	SD	M	SD
1-11 months	3.16	.58	3.00	.54
1-3 yrs	3.29	.58	2.90	.57
4-6 yrs	3.37	.56	2.74	.61
7-9 yrs	3.46	.50	2.78	.59
10 or more	3.42	.60	2.94	.53

Culturally Responsive Classroom Management

Due to the statistically significant differences found in the teachers' perceptions for CRCM and HCS by years of teaching experience, further analyses were warranted. Therefore, an Scheffe post hoc analysis was conducted of the teachers' perceptions for CRCM by years of teaching experience. The resulting data revealed a statistically significant difference with $p = 0.00$ at $p < 0.05$ of teachers with teaching experience 1-11 months, 7-9 years and 10 or more years. In addition, the data indicated a statistically significant difference with $p = 0.01$ at $p < 0.05$ of teachers with teaching experience with 1-11 months and 4-6 years. Teachers with 1-3 years of teaching experience, 4-6 years of teaching, 7-9 years of teaching experience, and 10 or more years of teaching experience did not differ significantly in their means.

Teachers with 1-11 months of teaching experience and those with 1-3 years of teaching experience did not differ significantly in their mean values. However, teachers with 7-9 years of teaching experience, 10 or more years of teaching experience and 4-6 years of teaching experience mean values were significantly higher than teachers with 1-11 months of teaching experience. However, the effect size was small. The mean value of teachers with 7-9 years of teaching experience mean measured highest followed by teachers with 10 or more years and those with 4-6 years of teaching experience. Additionally, the mean scores of teachers with 4-6 years, 7-9 years and more than 10 or more years of teaching experience were significantly higher than teachers with 1-11 months. However, a statistically significant difference in the teachers' perceptions for

CRCM and years of teaching experience failed to be found between teachers with 1-3 years of teaching experience and any other group (Table 4.32).

TABLE 4.32. Scheffe Post Hoc Test for Culturally Responsive Classroom Management by Years of Teaching

Years of Teaching Experience	N	Mean Values	
		1	2
1-11 months	159	3.16	
1-3 yrs	189	3.29	3.29
4-6 yrs	213		3.37
10 or more yrs	142		3.42
7-9 yrs	157		3.46

Home and Community Support

Due to the statistically significant difference found in the teachers' perception for CS by years of teaching experience, further analyses appeared to be warranted.

Therefore, a Scheffe post hoc analysis was conducted. The resulting data revealed a statistically significant difference with $p = 0.00$ at $p < 0.05$ between teachers with 1-11 months of teaching experience and those with 4-6 years. In addition, the data denoted a statistical significance with $p = 0.02$ with $p < 0.05$ between teachers with 1-11 months and those with 7-9 years of teaching experience. Finally, the data indicated a statistical significance of $p = 0.03$ with $p < 0.05$ between teachers with 10 or more years and

teachers with 4-6 years of teaching experience. However, a statistically significant difference in the teachers' perceptions for HC by years of teaching experience failed to be found between teachers with 1-3 years of teaching experience and any other group.

The mean values of teachers with 1-11 months of teaching experience, 1-3 years of teaching experience, and 10 or more years did not differ significantly, but exhibited significantly higher means than teachers with 4-6 years and those with 7-9 years of teaching experience. The mean values of teachers with 1-3 years, 7-9 years, and 10 or more years of teaching experience did not differ significantly, but exhibited higher means than teachers with 4-6 years of teaching experience. The mean values of teachers with 1-3 years, 7-9 years, and 4-6 years of teaching experience mean values did not differ significantly. Further the effect size was small (Table 4.33).

TABLE 4.33. Scheffe Post Hoc Test for Home and Community Support by Years of Teaching Experience

Years of Experience	N	Mean Values		
		1	2	3
4-6 yrs	213	2.74		
7-9 yrs	157	2.78	2.78	
1-3 yrs	189	2.89	2.89	2.89
10 or more yrs	142		2.94	2.94
1-11 months	159			3.00

In conclusion, a MANOVA was conducted to establish statistically significant differences in teachers' perceptions of the CABI by demographic characteristics, such as teachers' ethnicity and years of teaching experience. An analysis of the dependent variables by teachers' ethnicity indicated statistically significant differences in teachers' perceptions for: TB, CRCM, CS, and TE. However, statistically significant differences in teachers' perceptions of the CABI by teachers' ethnicity failed to be found for SC, HCS, CA, and CI.

Additionally, an analysis of the dependent variables by years of teaching experience indicated statistically significant differences in the teachers' perceptions for CRCM and HCS. However, a statistically significant difference in the teachers' perceptions of the CABI and years of teaching experience failed to be found for TB, SC, CA, CI, CS, and TE. According to the data, the CABI determines statistically significant differences in teachers' perceptions of the CABI by demographic characteristics such as teachers' ethnicity or years of teaching experience.

Summary

This chapter reported the results of a descriptive, correlational study using data collected from the Cultural Awareness and Beliefs Inventory (CABI). Pre kindergarten through Grade 12 teachers, employed by an urban public school district located in southeastern Texas, completed the survey.

Construct validity was determined by internal consistency, content validity, convergent and divergent validity. To investigate the internal structure, an exploratory factor analysis EFA yielded an eight-factor, 36-item inventory. The eight factors, Factor

I: TB, Factor II: SC, Factor III: CRCM, Factor IV: HCS, Factor V: CA, Factor VI: CI, Factor VII: CS, and Factor VIII: TE were examined by a jury of experts to establish the content validity of the eight-factor, 36-item inventory. Convergent and divergent validity was established for six of the eight constructs by conducting a Pearson product moment correlation. Cronbach's alpha coefficient was conducted to measure the internal consistency reliability of the 36-item CABI. The reliability was established at .83. Further, the alpha for the eight factors, or scales, ranged from .46 for TE to .88 for CRCM.

A multivariate analysis of variance a MANOVA was conducted to establish statistically significant differences in teachers' perceptions of the CABI by demographic characteristics, such as teachers' ethnicity and years of teaching experience. An analysis of the dependent variables by teachers' ethnicity indicated statistically significant differences in teachers' perceptions for: TB, CRCM, CS, and TE. However, statistically significant differences in teachers' perceptions of the CABI by teachers' ethnicity failed to be found for SC, HCS, CA, and CI. Follow-up Scheffe post hoc analyses to determine the nature of the differences by ethnicity were conducted. Results indicated that African American teachers had significantly more positive perceptions for TB, CRCM, and CS. Hispanic American teachers had significantly more positive perceptions for TE.

Additionally, an analysis of the dependent variables by years of teaching experience indicated statistically significant differences in the teachers' perceptions for CRCM and HCS. However, a statistically significant difference in the teachers'

perceptions of the CABI and years of teaching experience failed to be found for TB, SC, CA, CI, CS, and TE. Follow-up Scheffe post hoc analyses to determine the nature of the differences by years of experience were conducted. Results indicated that teachers with more years of experience had significantly more positive perceptions of CRCM than first year teachers. However, first year teachers had a significantly more positive perception of HCS.

CHAPTER V

SUMMARY AND CONCLUSIONS

Discussion

Students of color make up approximately 43 percent of the nation's student population, which is an increase since 1972 (U.S. Department of Education [USDOE], 2006b). Even though the school age population has become more diverse, the teachers of these students are predominately female, middle class European-Americans (Strizek, Pittsonberger, Riordan, Lyter, & Orlofsky, 2006). Within their careers, teachers will instruct students from culturally, linguistically, ethnically, economically diverse students backgrounds (Banks, 1997). Although the numbers of students of color are increasing, only eight percent of public school teachers are African American and six percent represent Hispanic Americans (Strizek, Pittsonberger, Riordan, Lyter, & Orlofsky, 2006). Therefore, a majority of teachers are representative of different cultural backgrounds than the students they teach. Thereby, resulting in a mismatch between the students' school and home culture (Garcia, 2001; Howard, 2001).

Over the past decade, emerging research has described exemplary teaching strategies for students of color (Delpit, 1995; Foster, 1992; Garcia, 2001; Howard, 2001; Irvine, 1990). Even though teacher education programs and professional development for practicing teachers provide preparation and training to teach students representing diverse cultures, applying that knowledge in the classroom is often inconsistent and ineffective (Gay, 1995; Sheets & Fong, 2003; Sleeter, 2001). Therefore, this critical

information focusing on diversity has failed to influence the achievement of students of color (Gay, 1995; Sleeter, 2001). Moreover, educational attainment for students of color continues to rank below acceptable levels. European Americans on average perform higher on reading and math standardized tests when compared to African American and Hispanic American students (Perie, Grigg, & Dion, 2005a/2005b). Additionally, of the total student enrollment in the United States, African American students represent 16 percent of public school enrollment yet comprise 12 percent of the dropout rate (USDOE, 2006a/2006b). Hispanic American students encompass 19 percent of the public school enrollment and consist of 24 percent of the dropout rate (USDOE, 2006a/2006b). Therefore, African American and Hispanic American students make up 35 percent of the total student population enrolled in public schools in the United States and represent 36 percent of the total number of dropouts. Further, students of color are referred to special education programs or are served in disciplinary programs at disproportionately higher levels than European American students (Gregory & Mosely, 2004; Special Education Elementary Longitudinal Study [SEELS], 2002).

Various researchers (Garcia, 2001; Gay 2000; Ladson-Billings, 1994; Villegas & Lucas, 2002; Zeichner, 1996) have advocated the necessity of including culturally responsive pedagogy within instructional practice to increase the achievement of African American and Hispanic American students. A culturally responsive pedagogy framework involves such factors as culturally responsive teaching (Gay, 2000; Ladson-Billings, 1995; Richards, Brown & Ford, 2004; Villegas & Lucas, 2002), teachers' beliefs (King, 1994; Ladson- Billings, 1995), school climate (Hoy and Miskel, 2005),

culturally responsive classroom management (Brown, 2004; Pang, 2001; Weinstein, Tomlinson-Clarke, & Curran, 2004), cultural awareness (Gay, 2000; Ladson- Billings, 1994, Monroe & Obidah, 2004), curriculum and instruction (Gay, 2000; Ladson- Billings, 1994, Zeichner, 1996), cultural sensitivity (Henry, 1986; Larke, 1990), and teacher efficacy (Gay, 2000; Pang & Sablan, 1998).

The purpose of this study was to present evidence of the validity and reliability of an instrument under development that measures urban teachers' perceptions and attitudes of cultural awareness and beliefs based on data collected from the Cultural Awareness and Beliefs Inventory (CABI). In addition, this study also examined the extent the CABI determined a statistically significant difference between demographic characteristics, such as teachers' ethnicity or years of teaching experience in an urban school district in southeastern Texas.

The CABI consisted of forty-six items based on a 1- 4 point Likert scale. These items were based on seven factors that included: (1) school climate, (2) home and community support, (3) teacher efficacy, (4) curriculum and instructional strategies, (5) teacher beliefs, (6) cultural awareness, and (7) behavior management (N. Carter, personal communication, September, 2005). In addition, six items determining demographic characteristics were included as well as three open-ended questions.

Prior to an analysis, the total scale was examined for missing values. However, item 30 failed to be answered on 110 (or 5.8 percent) of the inventories. According to Tabachnick and Fidell (2001), if 5 percent of the data were missing in a random pattern from a large data set, then the problems of missing data were less serious. However, data

missing from specific questions may be an indication of the respondent's attitudes toward the subject of the question (Tabachnick & Fidell, 2001).

Research Question One

What is the construct validity of the Cultural Awareness and Beliefs Inventory that measures the perceptions and attitudes of urban teachers' cultural awareness and beliefs?

Construct validity was determined by internal consistency and content validity, convergent and divergent validity. After establishing normality through a Kolmogorov-Smirnov test, Cronbach's alpha was calculated for the entire instrument. The internal consistency for the instrument was found to be .80 with no significant change in reliability if any item were deleted. Although several items had low indices of $\leq .1$, the alpha would not significantly increase with the removal of any item.

Prior to conducting an exploratory factor analysis (EFA), the Kaiser-Meyer-Olkin (KMO) and the Bartlett's Test of Sphericity were performed. The factorability of the correlation matrix was established through the KMO measure of sampling adequacy. The factorability was established at .82; thus, exceeding the recommended value of .6 (Kaiser, 1970,1974). Further, Bartlett's Test of Sphericity revealed a statistically significance measuring of $p = 0.00$ with $p < 0.05$; also supporting the factorability of the correlation matrix.

An exploratory factor analysis (EFA) based on a principal component analysis (PCA) was conducted to investigate the internal structure of the CABI and to determine the "smallest number of factors used to best represent the interrelations among a set of

variables” (Pallant, 2005, p. 153). The number of factors retained was based on a combination of methods: eigenvalue greater than 1, scree test, and theoretical salience of the rotated factors. An examination of the initial eigenvalues indicated that twelve factors had an eigenvalue greater than one. Because a 12-factor solution was excessive, a scree test of the eigenvalues plotted against the factors was examined (Cattell, 1966). However, the scree test was inconclusive; therefore, the initial factor analysis was utilized for interpretation of the factors. To aid in the interpretation of these twelve factors, a Varimax rotation was performed.

Utilizing Comrey and Lee’s (1992) criteria, only items with an absolute value greater than .4 were retained. According to the data, items 45, 29, 24, and 36 lacked sufficient factor coefficients for any of the factors at a .4 cutoff value. Further, four factors of the original twelve failed to have a sufficient number of items. For example, items 33 and 54 were attributed to one factor each. In addition, Items 18 and 16 were attributed to one factor, while items 43 and 44 were attributed to an additional factor. According to Tabachnick and Fidell (2001), “factors with a single variable can be described as poorly defined. Factors with two variables should be highly correlated with each other as in $> .70$ ” (p. 622). According to Costello and Osborne (2005), if items do not sufficiently load, then the items may not relate to the other items or the item may be poorly written. Therefore, for this study, 10 items and four factors were deleted from further analysis, while eight of the original twelve factors were retained; thus, resulting in a 36-item inventory. Consequently, the eight factors retained accounted for 44 percent of the total variance.

Each of the eight factors of the 36-item CABI was analyzed and interpreted for underlying descriptive themes. According to Thompson (2004), when a factor solution has been determined and the salience of the variables is determined, the factors are labeled with one or two word phrases that reflect “ the overall pattern of contribution of different variables to the factor’s definition” (p. 97). Based on the analysis, the names of the scales were changed from the initial seven factors, which were used to develop the instrument. These were identified as Factor I: Teacher Beliefs (TB), Factor II: School Climate (SC), Factor III: Culturally Responsive Classroom Management (CRCM), Factor IV: Home and Community Support (HCS), Factor V: Cultural Awareness (CA), Factor VI: Curriculum and Instruction (CI), Factor VII: Cultural Sensitivity (CS), and Factor VIII: Teacher Efficacy (TE). A jury of experts established the content validity of the 36-item, eight-factor inventory. The following paragraphs describe each of the factors.

Factor I consisted of 8 items that appeared to deal with teacher’s beliefs presented from a deficit perspective. The deficit model perspective posits, “disadvantaged people have underlying deficiencies, attributable to genetic and/or social pathology, which will limit the probability of their achievement and social adjustment” (Bennett, 1970, p. 90). Five items of the CABI reflected teacher beliefs toward African American students, while three revealed teacher beliefs concerning students representing underserved populations. For example, CABI (2005) statements such as, “I believe African American students have more behavior problems than other students” or “I believe I have experienced difficulty in getting families from African American

communities involved in the education of their students,” appeared to be representative of a deficit perspective.

Factor II contained five items regarding school climate. Hoy and Miskel (2005), defined school climate as “the set of internal characteristics that distinguish one school from another and influence the behavior of each school’s members.” (p. 5). Two of these items described items reflecting the teachers’ perceptions of school climate, while three items suggested their perceptions of administrative and collegial support. Statements found on the CABI (2005), such as “I feel supported by my building principal” or “I believe my contributions are appreciated by my colleagues” appeared to represent statements related to an open school climate.

Factor III was comprised of three items that depicted teachers’ perceptions of culturally responsive classroom management. Weinstein, Tomlinson-Clarke and Curran (2004) stated that culturally responsive pedagogy can be infused in classroom management “to provide all students with equitable opportunities for learning” (p. 27). Items such as, “I believe I am able to effectively manage students from all racial groups” and “I believe I have a clear understanding of the issues surrounding classroom management,” (CABI, 2005) seemed to indicate an infusion of teachers’ perceptions of culturally responsive classroom management.

Factor IV included four-items that appeared to represent statements that described home and community support. According to Gay (2000) and Hidalgo et al. (2004), educators working within a culturally responsive framework incorporate communication and collaboration with families as an integral part of effective classroom

management. CABI (2005) statements such as, “I believe my ISD families of African American students are supportive of our mission to effectively teach all students” and “I believe my independent school district families are supportive of our mission to effectively teach all students.” seemed to demonstrate the general support of the school’s mission.

Factor V consisted of five items that appeared to reflect teachers’ perceptions of cultural awareness. Cultural Awareness is “defined as becoming functionally aware of the degree to which behavior is culturally informed and influenced” (Schram, 1994, p. 63). Ladson-Billings (1994) believed that culture mattered when teaching. CABI (2005) statements such as, “I believe it is important to identify with the racial groups of the students I serve”, “I believe I am comfortable with people who exhibit values or beliefs different from my own”, and “I believe cultural views of a diverse community should be included in the school’s yearly program planning” appeared to suggest an understanding of cultural awareness as it relates to integrating students’ culture in planning curriculum, communicating with parents, and identifying with racial groups different from their own.

Items for Factor VI were comprised of four items and seemed to explain aspects of curriculum and instruction. Educators, who are culture-centered, or congruent, use students’ culture as a vehicle through the redesign of curriculum and instructional strategies to increase their achievement (King, 1994; Ladson-Billings, 1995). CABI (2005) statements such as, “I believe frequently used material within my class represents at least three different ethnic groups” and “I believe cooperative learning is an integral

part of my ISD teaching and learning philosophy,” appeared to represent instructional practices and the use of cultural referents as part of the curriculum.

Factor VII consisted of three items that seemed to signify the teachers’ perceptions of cultural sensitivity. Cultural sensitivity can be characterized as “attitudes, beliefs and behaviors towards students of other cultures” (Larke, 1990, p. 24). CABI (2005) statements such as, “I believe there are times when ‘racial statements’ should be ignored” and “I believe that in a society with as many racial groups as the United States, I would accept the use of ethnic jokes or phrases by students,” seemed to be characteristic of attitudes and behaviors held by teachers toward students of other cultures.

Factor VIII included four items that appeared to represent teachers’ perceptions of teacher efficacy. Teacher efficacy is defined as a teacher believing that he or she has the knowledge and skills to positively influence student achievement. Teachers with a high sense of efficacy “direct their efforts at resolving problems when faced with academic stressors” (Bandura, 1997, p.242). However, Ashton (1982) found that teachers with a low “sense of efficacy” tended to protect their “sense of efficacy” by “absolving themselves of responsibility” and “placing total responsibility on the student” (p. 312). Further, teachers with low teacher efficacy tend to blame the socioeconomic situations or other factors beyond his or her control for student failure (Pang & Sablan, 1998). CABI (2005) statements such as, “I believe that some students do not want to learn” and “I believe there are factors beyond the control of teachers that cause student failure” seemed to be consistent with teachers possessing a low sense of efficacy.

Therefore, the eight factors determined in this descriptive, correlational study were: Factor I: Teacher Beliefs (TB), Factor II: School Climate (SC), Factor III: Culturally Responsive Classroom Management (CRCM), Factor IV: Home and Community Support (HCS), Factor V: Cultural Awareness (CA), Factor VI: Curriculum and Instruction (CI), Factor VII: Cultural Sensitivity (CS), and Factor VIII: Teacher Efficacy (TE).

A Pearson product moment correlation revealed that Factors I through V and VII had high convergent and divergent validities. These items had high correlations among themselves ($p < .01$) ranging from .20 to .88 and low correlations among items of other factors. However, Factors VI and Factor VIII failed to have high convergent and divergent validities due to attaining higher correlations among items from other factors rather than among themselves. This results appear to be due to these factors are more multidimensional. Further, rewording the items that measure these specific factors could provide improved construct validity.

Research Question Two

What is the internal consistency reliability of the Cultural Awareness and Beliefs Inventory that measures of urban teacher's cultural awareness and beliefs?

A Cronbach's alpha coefficient was computed for the total and individual factors. Cronbach's alpha coefficient measuring the 36-item inventory was .83, while the alpha for the eight factors, or scales, ranged from .46 for TE, which was considered "moderately reliable" (Landis & Koch, 1977, p. 168), to .88 for CRCM which was considered as "almost perfect" (Landis & Koch, 1977, p. 168). The reliability of Factor

VIII: TE, or .46, was considered “acceptable” since four items formed part of this factor and a decrease in the number of items also decreased the reliability (Cortina, 1993; Landis & Koch, 1977, p. 168). According to Landis and Koch’s reliability scale (1977), the coefficient reliability can be considered “fair” (p.168). Items can be added to improve the reliability or items can be rewritten for clarity. While the construct validity was not sufficient for all eight factors; the factors of the CABI were nonetheless reliable.

Research Question Three

To what extent does the Cultural Awareness and Beliefs Inventory determine statistically significant differences by demographic characteristics? (Teachers’ Ethnicity or Years of Teaching Experience)

To investigate whether the CABI determined statistically significant differences in the teachers’ perceptions of the CABI by teachers’ ethnicity or years of teaching experience, a multivariate analysis of variance (MANOVA) was conducted. The calculated means of the eight factors of the CABI were the dependent variables, while teachers’ ethnicity or years of teaching experience were the independent variables. Due to the small number of respondents within other ethnic categories, this study used only the data collected from respondents from teachers representing the ethnic categories of African American, European American, and Hispanic Americans teachers.

Teachers’ Ethnicity

Differences in teachers’ perceptions of the CABI by teachers’ ethnicity were determined for four of the eight factors: TB, CRCM, CS, and TE. All effect sizes were small however ranging from three percent for CS to six percent for TB. No differences

in the teachers' perceptions by ethnicity were determined for SC, CA, HCS, and CI. Follow-up Scheffe post hoc analyses to determine the nature of the differences by ethnicity were conducted. Results indicated that African American teachers had significantly more positive perceptions of TB, CRCM, and CS. Hispanic American teachers had significantly more positive perceptions of TE.

Years of Teaching Experience

Differences in teachers' perceptions of the CABI by years of experience were determined for CRCM and HCS. However, no differences by years of teaching experience failed to be found for TB, SC, CA, CI, CS, and TE. Follow-up Scheffe post hoc analyses to determine the nature of the differences by years of experience were conducted. Results indicated that teachers with more years of experience had significantly more positive perceptions of CRCM than first year teachers. This finding correlates the instrument that Milner et al. (2003) used that determined that pre-service teachers lacked the necessary experience to implement culturally responsive strategies. However, first year teachers had a significantly more positive perception of HCS.

Conclusions

Recommendations

Recommendations were based on the literature review and the results from this study. In this descriptive, correlational study, 1873 Pre-kindergarten- Grade 12 in-service teachers from an urban school district located in southeastern Texas responded to the 46-item Cultural Awareness and Beliefs Inventory (CABI).

An exploratory factor analysis (EFA) utilizing a principal component analysis with a varimax rotation resulted in a 36-item, eight-factor inventory. Of the 46 original items, 4 items failed to load sufficiently on any of the factors. According to Costello and Osborne (2005), if items do not sufficiently load, then the items may not relate to the other items or the items may be written poorly. For example, item 36, could be restated as, "I believe students, who are referred to special education, qualify for special education services in our school". In addition, item 29, "I develop my lessons based on Texas Essential Knowledge and Skills (TEKS)", appears to be location specific. Making these changes within the wording appear to clarify the meaning of the items. In addition, lowering the cutoff value of .3 could be applied to include the items within a factor. Since item 33, "I believe teachers engage in bias behavior in the classroom", loaded onto a single factor with a .70 pattern/structure coefficient, the item, if reworded, could conceptually be included with Factor I: TB in future studies.

Cronbach's alpha coefficient determined the reliability of the 36-item CABI at .83. Internal consistency for TB, SC, CRCM, HCS, CA, and CS ranged from .53 to .90. However, the reliability coefficient for TE was computed at .46. To improve Cronbach's alpha for this factor, additional items assessing teacher efficacy might be added to TE.

The population of the students of color continues to increase in our nation's schools (NCES, 2006). Achievement of students of color continues to lag behind their European American counterparts (Perie, Grigg & Dion, 2006a/2006b). With the national and state educational agencies focused on closing the achievement and discipline gaps, a valid and reliable systematic inventory appears to be needed and be made available to

assess urban in-service Pre-Kindergarten through Grade 12 teachers' perceptions and attitudes of cultural awareness and beliefs. The CABI, a valid and reliable instrument, would assist educational leaders in planning effective professional development to include the implementation of culturally responsive pedagogy and assist teachers in the determining of their own beliefs toward students of color and, subsequently, their instruction of students of representing diverse populations.

In addition, the CABI determines statistically significant difference in teachers' perceptions of the CABI by demographic variables such as teachers' ethnicity or years of teaching experience; therefore, the use of the instrument appears to assist in appropriate professional development needed to address culturally responsive teaching, which has been proven to assist students representing diverse cultures to achieve academically (Ladson-Billings, 1995).

Implications for Further Research

The findings from this study have implications that may prove interesting for further research. The suggestions for further research include:

- 1) Reword items with low indices and re-administer the CABI in an urban district
- 2) Administer the CABI in rural and suburban districts.
- 3) Conduct a confirmatory factor analysis on the factors defined from this study.
- 4) Replicate the study in relation to teachers' ethnicity or certification route.
- 5) Compare the results of the studies of similar-sized urban school districts.

- 6) Replicate the study in relation to the percentage of elementary teachers and secondary teachers'.
- 7) Replicate the study in relation to certification route and years of teaching experience.
- 8) Conduct a qualitative study addressing each factor (e.g. Factor I: Teacher Beliefs).

Summary

This chapter summarized the results of the examination of the validity and reliability of the Cultural Awareness And Beliefs Inventory (CABI) that measured the perceptions and attitudes of urban teachers' cultural awareness and beliefs. Also, the results of the examination of the statistical difference between the CABI and demographic variables such as teachers' ethnicity or years of teaching experience were discussed.

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APPENDIX A
CULTURAL AWARENESS AND BELIEFS

Cultural Awareness and Beliefs Inventory

Please give responses to the following survey using your scantron sheet. **Write only the name of your school on this sheet.** After writing the name of your school on this sheet, begin with question # 1 on the scantron sheet. Questions 1 – 11 are basic questions about yourself. Question # 12 starts the actual survey about your perceptions.

This survey will assist us in understanding your perceptions of our current challenge in meeting the needs of “all” learners in your ISD. This is a voluntary survey and it is your choice to participate. Your responses will assist in constructing staff development that will meet the unique and immediate concerns of the district. It is important that your responses be truthful. **Do not write your name, all information from individuals will be kept confidential.**

When completed, return the Survey **and** your scantron sheet to the designated person.

Write the name of your school here: _____

Basic information – write on scantron sheet:

1. Gender

- A. Female
- B. Male

2. Type of Degree

- A. Bachelor’s
- B. Master’s
- C. Doctorate

3. Years of Teaching

- A. 1-11 month
- B. 1-3 years
- C. 4-6 years
- D. 7-9 years
- E. 10 or more years

4. Current Grade Level

- A. Pre-K- 1st grade
- B. 2nd grade
- C. 3rd grade
- D. 4th grade
- E. None of the above
secondary

5. Current Grade

- A. 5th grade
- B. 6th grade
- C. 7th grade
- D. 8th grade
- E. None of the above

6. Current Grade

- A. 9th grade
- B. 10th grade
- C. 11th grade
- D. 12th grade
- E. Multiple

7. Certification

- A. Early Childhood
- B. Elementary
- C. English/LA/Reading
- D. Science
- E. None of the above

8. Certification

- A. Social Studies
- B. Mathematics
- C. Special Education
- D. Gifted/Talented
- E. None of the above

9. Certification

- A. Bilingual Education
- B. The Arts
- C. Physical/Health Ed.
- D. Technology
- E. Other – not listed

10. Ethnicity

- A. African American
- B. Arab American
- C. Asian American
- D. Bi-racial American
- E. None of the above

11. Ethnicity

- A. European American
- B. Hispanic American
- C. Native American
- D. Pacific Islander
- E. Other – not listed

Answer the questions on the scantron sheet using the following scale:

(A) = Strongly Agree (B) = Agree (C) = Disagree (D) Strongly Disagree

- | | |
|---|----------------|
| 12. I feel supported by my building principal. | A B C D |
| 13. I feel supported by the administrative staff. | A B C D |
| 14. I feel supported by my professional colleagues. | A B C D |
| 15. I believe I have opportunities to grow professionally as I fulfill duties at my ISD. | A B C D |
| 16. I believe we spend too much time focusing on standardized tests. | A B C D |
| 17. I believe my contributions are appreciated by my colleagues | A B C D |
| 18. I need more support in meeting the needs of my most challenging students. | A B C D |
| 19. I believe “all” students in my ISD are treated equitably regardless of race, culture, disability, gender or social economic status. | A B C D |
| 20. I believe my ISD families are supportive of our mission to effectively teach all students. | A B C D |

21. I believe my ISD families of African American students are supportive of our mission to effectively teach all students. **A B C D**
22. I believe the district has strong support for academic excellence from our surrounding community (civic, church, business). **A B C D**
23. I believe some students do not want to learn. **A B C D**
24. I believe teachers should be held accountable for effectively teaching students who live in adverse circumstances. **A B C D**
25. I believe there are factors beyond the control of teachers that cause student failure. **A B C D**
26. I believe the in-service training this past year assisted me in improving my teaching strategies. **A B C D**
27. I believe I am culturally responsive in my teaching behaviors. **A B C D**
28. I believe cooperative learning is an integral part of my ISD teaching and learning philosophy. **A B C D**
29. I develop my lessons based on Texas Essential Knowledge and Skills (TEKS). **A B C D**
30. I believe African American students consider performing well in school as “acting White.” **A B C D**
31. I believe African American students have more behavior problems than other students. **A B C D**
32. I believe African American students are not as eager to excel in school as White students. **A B C D**

33. I believe teachers engage in bias behavior in the classroom. **A B C D**
34. I believe students who live in poverty are more difficult to teach. **A B C D**
35. I believe African American students do not bring as many strengths to the classroom as their White peers. **A B C D**
36. I believe students that are referred to special education usually qualify for special education services in our school. **A B C D**
37. I believe it is important to identify with the racial groups of the students I serve. **A B C D**
38. I believe I would prefer to work with students and parents whose cultures are similar to mine. **A B C D**
39. I believe I am comfortable with people who exhibit values or beliefs different from my own. **A B C D**
40. I believe cultural views of a diverse community should be included in the school's yearly program planning. **A B C D**
41. I believe it is necessary to include on-going family input in program planning. **A B C D**
42. I believe I have experienced difficulty in getting families from African American communities involved in the education of their students. **A B C D**
43. I believe when correcting a child's spoken language, one should model appropriate classroom language without further explanation. **A B C D**

44. I believe there are times when the use of “non-standard” English should be accepted in school. **A B C D**
45. I believe in asking families of diverse cultures how they wish to be identified (e.g., African American, Bi-racial, Mexican). **A B C D**
46. I believe that in a society with as many racial groups as the United States, I would accept the use of ethnic jokes or phrases by students. **A B C D**
47. I believe there are times when “racial statements” should be ignored. **A B C D**
48. I believe a child should be referred “for testing” if learning difficulties appear to be due to cultural differences. **A B C D**
49. I believe the teaching of ethnic customs and traditions is not the responsibility of public school personnel. **A B C D**
50. I believe Individualized Education Program meetings or planning should be scheduled for the convenience of the family. **A B C D**
51. I believe frequently used material within my class represents at least three different ethnic groups. **A B C D**
52. I believe students from certain ethnic groups appear lazy when it comes to academic engagement. **A B C D**
53. I believe in-service training focuses too much on “multicultural” issues. **A B C D**
54. I believe I address inappropriate classroom behavior even when it could be easily be ignored. **A B C D**
55. I believe I am able to effectively manage students from all racial groups. **A B C D**
56. I believe I have a clear understanding of the issues surrounding classroom management. **A B C D**

57. I believe I have a clear understanding of the issues surrounding discipline.

A B C D

Please answer the following questions with a written response

on the back of your scantron sheet.

- Question A. What is your greatest behavioral management concern as you reflect on your professional responsibilities and the learners you serve?
- Question B. What racial, ethnic, and/or socio-economic concerns do you have as it relates to your role as a teacher?
- Question C. What leadership concerns do you have as it relates to your ISD?

APPENDIX B
REVERSED SCORED ITEMS

Reversed Scored Items

16. I believe we spend too much time focusing on standardized tests.
23. I believe some students do not want to learn.
25. I believe there are factors beyond the control of teachers that cause student failure.
31. I believe African American students have more behavior problems than other students.
32. I believe African American students are not as eager to excel in school as White students.
33. I believe teachers engage in bias behavior in the classroom.
34. I believe students who live in poverty are more difficult to teach.
35. I believe African American students do not bring as many strengths to the classroom as their White peers.
38. I believe I would prefer to work with students and parents whose cultures are similar to mine.
42. I believe I have experienced difficulty in getting families from African American communities involved in the education of their students.
46. I believe that in a society with as many racial groups as the United States, I would accept the use of ethnic jokes or phrases by students.
47. I believe there are times when “racial statements” should be ignored.
48. I believe a child should be referred “for testing” if learning difficulties appear to be due to cultural differences.

49. I believe the teaching of ethnic customs and traditions is not the responsibility of public school personnel.
52. I believe I frequently use materials within my class represents at least three different ethnic groups.
53. I believe in-service training focuses too much on multicultural issues.

APPENDIX C

TESTS OF NORMALITY FOR THE 46-ITEM CABI

The Kolmogorov-Smirnov statistics, which assesses the normality of the distribution of scores, indicated the Sig. Value is .00 which is less than $p < .05$ suggesting a violation of the assumption of normality (Table C.1).

TABLE C.1. Test of Normality for the 46 –Item Cultural Awareness and Beliefs

Kolmogorov-Smirnov ^a			
	Statistic	df	Sig.
46- Item Total Scale	.04	1873	.00

*This is a lower bound of the true significance.

^aLilliefors Significance Correction.

Inventory

While Kolmogorov-Smirnov statistics showed that a violation of the assumption of normality, the Five Percent Trimmed Mean comparisons indicated that the scores were normally distributed (Table C.2). The total score of the 46- item instrument was obtained by averaging the variables to get a mean average of the total scale. The 5% trimmed mean (2.93) and the original total score mean (2.93) were similar indicating that extreme scores did not have a strong influence on the mean (Pallant, 2004) (Table C.2).

TABLE C.2. Descriptive Statistics for 46 Item Total Scale of the Cultural Awareness and Beliefs Inventory

Statistic Label		Statistic	Std. Error
Mean		2.93	.01
95% Confidence Interval for Mean	Lower Bound	2.92	
	Upper Bound	2.94	
5% Trimmed Mean		2.93	
Median		2.91	
Variance		.06	
Std. Deviation		.24	
Minimum		2.07	
Maximum		3.67	
Range		1.61	
Interquartile Range		.33	
Skewness		.14	.06
Kurtosis		.23	.11

According to Tabachnick and Fidell, (2001), in larger samples this is quite common; therefore, both the Histogram and the Normal Q-Q Plot were inspected. The histogram appeared reasonably normally distributed (Figure C.1).

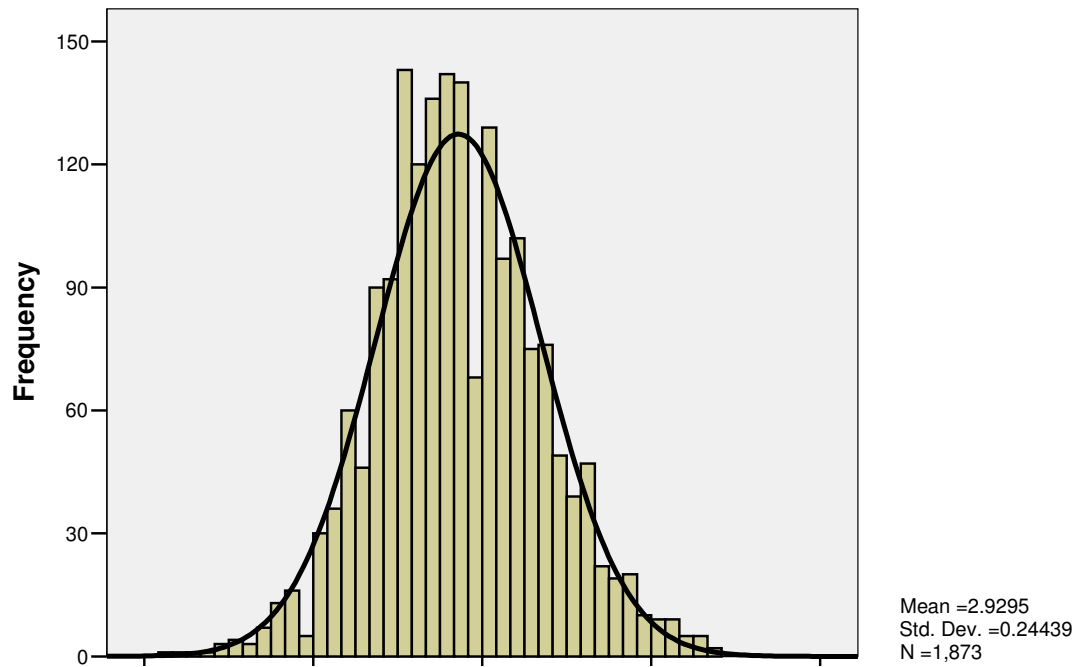


FIGURE C.1. Histogram of the 46 Item Total Scale of the CABI

The Normal Q-Q Plot displayed a reasonably straight line suggesting a normal distribution (Figure C.2).

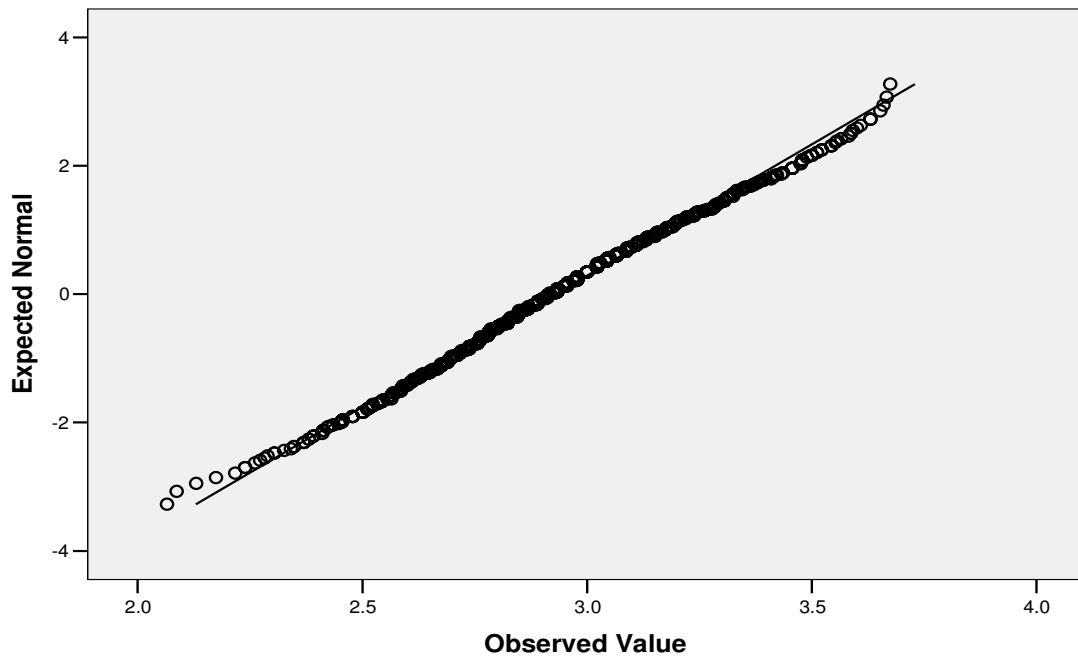


FIGURE C.2. Normal Q-Q Plot of the 46 Item Total Scale of the CABI

APPENDIX D

**COMPENSATED MEANS FOR TEACHERS' ETHNICITY AND YEARS OF
TEACHING EXPERIENCE**

The respondents' ethnicity can be described as 247 Hispanic Americans, 271 African Americans, and 342 European Americans (Table D.1).

TABLE D.1. Compensated N for Teachers' Ethnicity

Teachers' Ethnicity	N
Hispanic American	247
African American	271
European American	342
TOTAL	860

The respondent's years of teaching experience were categorized on the CABI into five groups: 1) teaching from 1 to 11 months, 2) 1 to 3 years, 3) 4 to 6 years, 4) 7 to 9 years, and 5) 10 or more years of teaching experience. In Group 1, 159 respondents indicated they had completed between 1 and 11 months of teaching. In Group 2, 189 respondents designated they had taught from 1 to 3 years, while in Group 3, 213

respondents reported they had concluded 4 to 6 years of teaching. Further, in Group 4, 157 respondents reported they had finished 7 to 9 years of teaching. Finally, in Group 5, 142 respondents stated they had accomplished 10 or more years of teaching (Table D.2).

TABLE D.2 Compensated N for Years of Teaching Experience

Years of Teaching Experience	N
1-11 months	159
1-3 yrs	189
4-6 yrs	213
7-9 yrs	157
10 or more yrs	142
TOTAL	860

APPENDIX E
TEST OF NORMALITY FOR 36-ITEM CABI

The Kolmogorov-Smirnov statistics, which assesses the normality of the distribution of scores, indicated the Sig. Value is .00 which is less than $p < .05$ suggesting a violation of the assumption of normality (Table E.1).

TABLE E.1. Tests of Normality for 36-Item CABI

	Kolmogorov-Smirnov(a)		
	Statistic	df	Sig.
36- Items	.05	1873	.00

a Lilliefors Significance Correction

While Kolmogorov-Smirnov statistics showed that a violation of the assumption of normality, the Five Percent Trimmed Mean comparisons indicated that the scores were normally distributed (Table C.2). The total score of the 36- item instrument was obtained by averaging the variables to get a mean average of the total scale. The 5% trimmed mean (3.08) and the original total score mean (3.08) were similar indicating that extreme scores did not have a strong influence on the mean (Pallant, 2005) (Table E.2).

TABLE E.2. Descriptive Statistics for 46 Item Total Scale of the Cultural Awareness and Beliefs Inventory

	Statistic Label		Statistic	Std.Error
Total 36- Item CABI	Mean		3.08	.01
	95% Confidence Interval for Mean	Lower Bound	3.07	
		Upper Bound	3.10	
	5% Trimmed Mean		3.08	
	Median		3.06	
	Variance		.09	
	Std. Deviation		.30	
	Minimum		1.84	
	Maximum		3.96	
	Range		2.11	
	Interquartile Range		.41	
	Skewness		.07	.06
	Kurtosis		.18	.11

According to Tabachnick and Fidell, (2001), in larger samples this is quite common; therefore, both the Histogram and the Normal Q-Q Plot were inspected. The histogram appeared reasonably normally distributed (Figure E.1).

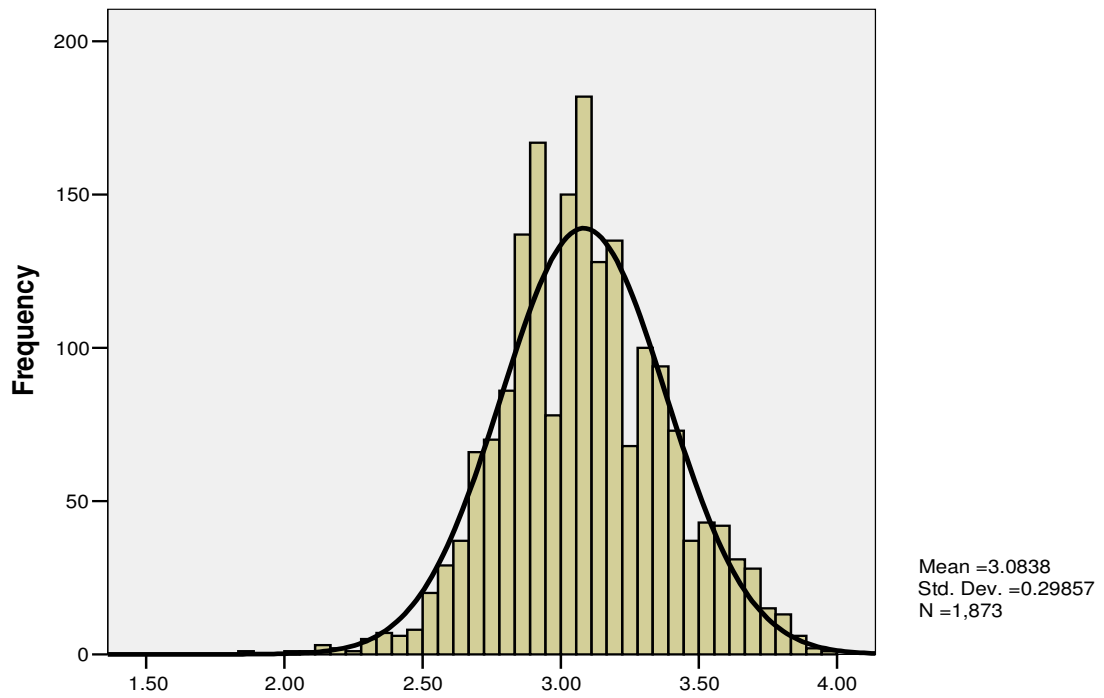


FIGURE E.1. Histogram of the 36 Item Total Scale of the CABI

The Normal Q-Q Plot displayed a reasonably straight line suggesting a normal Distribution (Figure E.2)

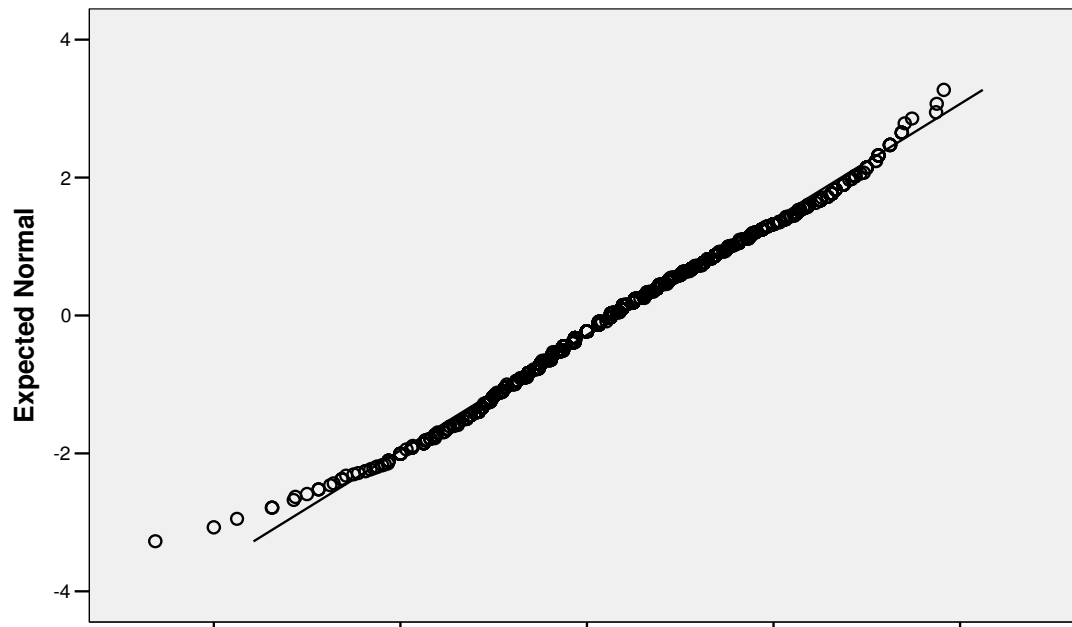


FIGURE E.2 Normal Q-Q Plot the 36 Item Total Scale of the CABI

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PUBLICATIONS

Brozo, W.G., Walter, P., & Placker, T. (2002). I know the difference between a real man and a TV man”: A critical exploration of violence and masculinity through literature in a junior high school in the ‘hood. *Journal of Adolescent & Adult Literacy*, 45, 530 – 538.

PRESENTATIONS

Walter, P. (2006). Lets give them something to talk about: Literature circles in secondary education, *April Grand Conversations*, Texas A&M University, Corpus Christi, Texas

Walter, P. (2005). Linking literacy strategies to life long learning. *Literacy, Language, Leadership & Lifelong Learning*, Texas A&M Corpus Christi, Texas.