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An investigation of cultural competence in teachers

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AN INVESTIGATION OF CULTURAL COMPETENCE IN TEACHERS

by

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DISSERTATION

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of Wayne State University,

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CHAPTER 1

“Only when culturally competent teaching is routinely available will culturally different students have a chance to reach their full potentials” (Moule, 2012, p. 6).

Demographics of the United States population are changing rapidly with dramatic increases in people of color, due to immigration and differential birthrates between ethnic groups (Moule, 2012). While Whites made up 85 percent of the United States population in 1960, that percentage decreased to 67 percent in 2005 (Passel & Cohn, 2008). Recently, history was made as more minority children were born in the United States than White children (Heavey, 2012). At the end of a 12-month period ending in July of 2011, 50.4 percent of children born were Hispanic, Black, Asian-American, or Other and 49.6 percent were White. The number of minority births was up from 49.5 percent in 2010.

Today, approximately 36.6 percent of people in the United States are considered minorities. In 2008, minorities were projected to surpass the 50 percent mark by 2050 (Passel & Cohn), but experts now suggest the tipping point could come as soon as 2040. By 2020, the states of California, Hawaii, New Mexico, and Texas, as well as Washington D.C., are likely to have a majority of people of color.

In 2000, for the first time ever, the census studied multiracial backgrounds and found that 2.4 percent of the population identify as multiracial (Moule, 2012). Of this 2.4 percent, 93 percent reported to be biracial. The actual and projected demographic changes in the United States, and the assumption that students of different cultural background may have different learning styles, point to a potential need to adapt educational practices to meet the needs of a diverse student population.

Institutions such as the American Council on Education (ACE) and the Association of International Education Administrators have expressed the need to internationalize U.S. colleges and universities in order to increase the likelihood that graduates will be successful in a global society (Sinicrope, Norris, & Watanabe, 2007). Internationalization can be defined as “the process of integrating an international and intercultural dimension into the teaching, research and service function of the institution” (Knight, 1994, p. 7). Additionally, the degree of diversity within learning institutions at all levels is assumed to have a major impact on the classroom experience. Due to the diversity of student populations in the United States, as well as the observed gaps in achievement between White students and students of color (Garcia, 2001; Taylor & Whittaker, 2009), there is a need to understand the intricacies of cultural competence in teachers. This study evaluates various components of cultural competence, including attitudes and beliefs toward cultural diversity, cultural intelligence, and ethnic identity. Understanding these constructs as well as their relationships with personality characteristics and demographics contributes to the foundation of research to improve teacher selection and development initiatives.

While many efforts have been made to recruit minority teachers into the public school system, the teacher demographic remains predominately female, White, and middle class (Burriss & Burriss, 2004). Teachers and students inherently differ based on age and role, but they also differ based on different cultural backgrounds. This cultural difference between teachers and students has increased over time due to the number of students who now live in homes with non-traditional family arrangements and lifestyles (Sleeter & Grant, 1999). As stated, research shows that culturally different

students (i.e., not White in a White majority school system) demonstrate lower achievement and higher dropout rates than majority students (Garcia, 2001; Taylor & Whittaker, 2009). The overwhelming presence of White teachers and the growing minority student population in public schools makes it necessary to consider the consequences of this teacher-student dynamic.

Research investigating the dynamics between teachers and students has focused on the interactions between student and teacher demographics. However, data supporting the conclusion that these interactions matter is lacking, often conflicting and based on small and localized samples (Dee, 2004). The literature has focused on two ways that differing demographic combinations can affect educational outcomes: passive teacher effects and active teacher effects. Passive teacher effects are merely “triggered by a teacher’s racial, ethnic, or gender identity, not by explicit teacher behaviors” (Dee, 2004, p.3). Two common examples of passive teacher effects are role model effects and stereotype threat. Role model effects occur when students of demographically similar teachers experience enhanced motivation and self-expectations. Stereotype threat (Steele, 1997) occurs when students are made aware of a relevant stereotype and this awareness leads to anxiety, reduced memory capacity, lowered performance expectations, and more, resulting in poorer performance (Moule, 2012). Interestingly, stereotype threat has been found to be more pronounced amongst those who are high performers in their field (Steele, 1997).

Contrary to passive teacher effects, active teacher effects are unintended biases that teachers have regarding their expectations for students with various demographic traits. Active teacher effects can explain the appeal of employing more minority

teachers to reduce the frequency of harmful unintended biases and reduced expectations of White teachers toward minority students.

The research on these effects, while limited, is supportive that they do occur. Small scale studies in the 1970s (see Irvine, 1990, Table 3.1) showed Black students did not receive as much assistance and positive feedback as White students from White teachers. In the 1990's, research showed race and gender stereotype threats were prevalent and affected student performance (e.g., Steele & Aronson, 1995). More recently, the Tennessee Project STAR class-size experiment showed both Black and White students randomly assigned to racially similar teachers demonstrated an improvement in test scores (Dee, 2004).

Moule (2012) provides an intriguing list of ways teachers unintentionally discriminate in the classroom:

[Unintentional discrimination] also includes being unaware of one's own prejudices and how one may inadvertently communicate them to students; being unaware of differences in cultural style, interactive patterns, and values and how these can lead to miscommunication; being unaware that many of the theories taught in many teacher education programs are culture-bound; being unaware of differences in cultural definitions of success as well as the existence of traditional cultural learning styles; and being unaware of the necessity of matching learning modalities to the cultural styles of students or of adapting teaching to the specific cultural needs of culturally diverse students (p.6).

Moule (2012) also describes ways in which culturally different students are sometimes forced into the majority culture's ways. For example, Asians who have learned to value formal relationships with authority may feel pressured to form informal relationships with their teachers. Also, Latino students may feel pressured to be more independently assertive or competitive in the classroom (p.7). Furthermore, Moule gives an example of how teachers' lack of awareness of cultural idiosyncrasies can affect their relationships with parents. She recalls a case in which a teacher corrected her students' papers in red ink, as many teachers do, and also included comments using the students' names in order to be more personable. As a result, she horrified her Korean students' parents because Koreans who are Buddhist only write someone's name in red when they die or on the anniversary of their death. While unintentional, this teacher demonstrated her lack of cultural knowledge relevant to students in her class (p. 1).

The majority of the research on teacher-student interaction has focused on how the teachers' and students' race, ethnicity, and gender influence teachers' perceptions and expectations of students. Ferguson's (1998) review of this topic concludes teacher biases are in fact sustaining or widening the achievement gap between Black and White students. He also states that using race as a criterion for matching students with teachers is too simple to fix the problem. However, other reviewers (Irvine, 1988; King, 1993) have concluded White teachers are more likely to have low expectations and negative perceptions of Black students than Black teachers.

Dee (2004) conducted a study to determine whether or not demographic similarity influenced teachers' subjective evaluations of student performance and

behavior. Using data from the National Education Longitudinal Study of 1988 (NELS:88), Dee was able to determine how two demographically different teachers evaluated the same student in the sample. His results show students are more likely to be perceived as disruptive, inattentive, and rarely completing homework by a teacher with a different racial/ethnic background. Students are also seen as more disruptive, inattentive, and rarely completing homework by teachers of a different gender. These results remained unchanged after controlling for class size, the subject in which the student was evaluated, and unobserved teacher quality (i.e., if he or she attended graduate school, if he or she majored or minored in the subject they are teaching, and years of experience). However, the effects of teachers' perceptions of students from a different racial/ethnic background were concentrated among students in the South and students with low socioeconomic status. The results of this study are especially intriguing because of the nationally representative nature of the 21,324 8th grade students (42,648 observations) from 1,052 public and private schools.

Initially, recruitment of more minority teachers was supported as a probable solution to this problem; however, according to the results of Dee's study described above, this approach still would do a disservice to students of different demography (2004). With the observed diversification in the United States population, it is clear this is an overly simplistic solution. Other recommendations have included better professional development programs for teachers and performance incentives (Ferguson, 1998), and student-focused programs to counteract stereotype threat (Steele, 1997). However, Dee (2004) notes that programs that only focus on one particular source of bias will be unsuccessful (e.g., training students ignores teacher

behaviors; training for stereotype threat ignores active teacher effects). While professional development programs and training could be helpful to reduce negative teacher-student interaction effects, it may be more proactive to select teachers who are less likely to demonstrate active teacher effects (i.e., unintentional biases regarding expectations for demographically different students).

The Multiple Dimensions of Cultural Competence

This study focuses on relationships between various components of cultural competence present in the literature. As such, it is important to explore a sample of cultural competence frameworks which have shaped the direction of this study. Integration of multicultural perspectives into the study of psychology has faced resistance due to the belief in the universality of psychological laws and theories (Miller, 1999; Sue, Carter, et al., 1998). However, it has been recognized that theories developed and research conducted in the Euro-American context may not transfer to other cultural settings (Kim & Berry, 1993; Marsella, 1998). Sue (2001) asserted the need for a conceptual framework to organize the multiple dimensions of culture, such as a universal (etic) or culturally specific (emic) conceptualization, based on a specific racial/ethnic group (African American, Asian American, Euro-American, Latino-Hispanic Americans, or Native Americans), or focused on different levels of analysis (e.g., individual, organizational).

With this in mind, Sue (2001) proposed the Multiple Dimensions of Cultural Competence (MDCC) model, which is organized around three primary dimensions: "(a) specific racial/cultural group perspectives, (b) components of cultural competence, and (c) foci of cultural competence" (p.791). Each dimension contains various sub-

dimensions, which results in a 3 x 4 x 5 design to “allow for the systematic identification of cultural competence in a number of combinations” (p.791). These sub-dimensions are specific to the United States and are described below.

While Sue recognizes there are several cultural factions (e.g., race/ethnicity, gender, sexual orientation, etc.), her first dimension is race based and is composed of five levels: African American, Asian American, Latino American, Native American, and European American. The second dimension is composed of the three components of cultural competence: Awareness of Attitudes/Beliefs, Knowledge, and Skills. Finally, the third dimension is composed of four foci of cultural competence: Societal, Organizational, Professional, and Individual; that is, the level of analysis. The second dimension, which focuses on the components of cultural competence, is particularly relevant to this study. In order to select and develop teachers who are culturally competent, we must understand the multidimensional nature of cultural competence.

Sue’s Attitudes/Beliefs component of cultural competence is defined as “an understanding of one’s own cultural conditioning that affects personal beliefs, values, and attitudes”; the Knowledge component is defined as “understanding and knowledge of the worldviews of culturally different individuals and groups”; and the Skills component is defined as the “use of culturally appropriate intervention/communication skills” (p.798). Based on these definitions, it appears teachers’ attitudes and beliefs regarding cultural issues, their cultural knowledge, and possession of the skills to function in a multicultural environment are all important components of cultural competence.

Similarly, Moule (2012) provides a definition of cultural competence in the context of teaching: "Put most simply, it is the ability to successfully teach students who come from cultures other than your own. It entails developing certain personal and interpersonal awareness and sensitivities, learning specific bodies of cultural knowledge, and mastering a set of skills that, taken together, underlie effective cross-cultural teaching" (p.5). Given the fundamental nature of attitudes and beliefs, it is likely these factors should be assessed during the teacher selection process, while training programs can be utilized to address the knowledge and skills components.

Relevant to teaching specifically, Cross, Bazron, Dennis, and Isaacs (1989) describe five skill areas that are critical for teaching in multicultural environments. While the authors do not describe any research to support these skill areas, their description helps to illustrate the multidimensional nature of cultural competence. The first area is Awareness and Acceptance of Differences, which deals with becoming aware of cultural differences and accepting that these differences affect learning. All people begin life with one cultural reality, and it is not until one is exposed and open to different cultures that he can appreciate diversity. Also, it is necessary to appreciate these cultural differences without comparing them or placing judgment. Over time, a culturally competent educator will not only appreciate these differences, but will also learn to value them.

Cross et al.'s (1989) second skill area is Self-Awareness, which refers to the importance of understanding one's own culture before it is possible to fully understand the culture of others. However, many White teachers grew up with little understanding of their cultural history, which makes it hard for them to fully identify with their specific

cultural background. Without a complete understanding of their cultural identification, it may be hard for White teachers to empathize with their students of color.

Third, Cross et al. (1989) include Dynamics of Differences as an important skill area for teachers, which refers to knowing what can go wrong with communicating across cultures as well as what to do to make it right. Miscommunication typically comes from either past experiences and political relations between groups or from differences in style, such as eye contact. Educators who understand these dynamics are better prepared to deal with potential communication problems.

Fourth is Knowledge of the Student's Culture. It is critical for teachers to understand their students' cultures so they can interpret behavior based on the students' cultural context. Of course, it may not be realistic to expect teachers to develop deep knowledge into all cultural groups. However, openness and willingness of teachers to learn about different cultures will help them to gather this information from various resources, including the students' parents.

Finally, Cross et al. (1989) identify Adaptation of Skills as the fifth skill area critical to success in multicultural environments. This area identifies the importance of adapting teaching styles based on students' cultural differences, given that teaching practices in the United States are predominately focused on the White majority culture. Delpit (2006) describes differences in how students perceive their teachers. For instance, African American students may only connect compassion with teachers who demonstrate an authoritative style while Asian students may demonstrate positive regard for all teachers regardless of their style. Furthermore, teachers may observe

differences between cultures in terms of who is expected to attend parent/teacher conferences, such as family friends and grandparents.

Moreover, Sue (2001) outlines four major obstacles that obstruct individuals' attainment of cultural competence. First, it is difficult for people to acknowledge their personal biases because they are inclined to perceive themselves as being moral and fair (Sue, 1999). Second, people are reluctant to honestly examine possible "unpleasant racial realities such as prejudice, stereotyping and discrimination" (President's Initiative on Race, 1997). Third, in order to be culturally competent, one must accept responsibility for any behavior (or lack thereof) that may lead to injustice, which may require an undesirable amount of personal accountability. Finally, abolition of biases is a difficult exercise that may involve dealing with unpleasant racial memories. While these obstacles can be addressed during teacher training seminars, trainees are responsible for internalizing and transferring what they have learned to the classroom. This may be difficult for new teachers who have been placed in a novel and complex environment because attention to the curriculum and classroom management will likely take priority over deliberate transfer of training. As it has been found in the psychological literature, people rely on, or revert to, their dispositions in stressful situations. Therefore, it should be critical to select teachers who are predisposed to work effectively in culturally diverse environments.

Teaching in Urban Environments

While this study's analysis is limited to mostly White teachers and students in a suburban environment, it is important to understand the complexities of teaching in a diverse urban environment in order to identify the competencies needed to be

successful diverse classrooms. Martin Haberman, who spent most of his career as a professor in the School of Education and University of Wisconsin, Milwaukee, is a commonly referenced researcher on the topic of selecting teachers for children in urban poverty. Haberman (1995) strongly believes selection of teachers for these settings is more important than training and accounts for about “80% of the matter” (p.777). Similar to leaders in corporate settings, Haberman discusses the importance of having a coherent vision and clear ideology in order to succeed in this environment. Haberman believes successful urban teachers know why they do things the way that they do and strongly believe in their methods.

Haberman and colleagues studied the ideologies and behaviors of “star” urban teachers versus “quitters and failures” to determine characteristics of successful teachers. Star teachers were identified using the following criteria: they work in a school district in which the majority of students are impoverished, their class achievement levels are higher than the building average, and coworkers, parents, and others identify them as superior (Haberman & Post, 1998). After interviewing these successful teachers for over 30 years, Haberman and colleagues identified several dimensions that have remained stable over time. These dimensions of effective teaching in urban settings include: persistence, protecting learners and learning, application of generalizations, approach to “at-risk” students, professional versus personal orientation to students, burnout, fallibility, organizational ability, physical/emotional stamina, teaching style, explanations of success, basis of rapport, and readiness. These dimensions are described below. It should be noted that while Haberman and colleagues deemed these dimensions critical to effective performance,

they have only been able to successfully create and validate interview questions for the first seven dimensions (i.e., persistence, protecting learners and learning, application of generalizations, approach to “at-risk” students, professional versus personal orientation to students, burnout, and fallibility).

Persistence. It is not uncommon for teachers in urban schools to believe underperforming students are “abnormal” and require help from special classes or alternative schools. They see teaching problem children of poverty as beyond their responsibilities as a teacher. Star teachers, on the other hand, see it as their responsibility to constantly engage students and provide an interesting learning environment. They are persistent to treat all students as individuals and find what works for talented, troubled, handicapped, and quiet student alike. Haberman (1995) describes star teachers with a quote from Thomas Edison: “The difference between carbon and diamonds is that diamonds stayed on the job longer” (p.779). These teachers believe their teaching can always be improved and they find it necessary to continuously search for ways to reach through to students and improve their teaching strategies.

Protecting Learners and Learning. Star teachers attempt to protect learners and learning by refusing to let bureaucracy and authority get in the way of providing students with a quality education. Haberman gives the following example of such a situation:

Consider the following episode. The teacher has succeeded in truly involving the class in a learning activity. It might be an environmental issue (What happens to our garbage?); a biological study (How does a lie detector work?); or the production of a class play dealing with violence in

the neighborhood. Imagine further that the intense student interest has generated some noise, the use of unusual equipment, or a need for extra cleaning of the classroom. The principal learns of the activity and requests that it be discontinued. The principal also instructs the teacher to stick with the approved texts and to follow the regular curriculum. At this point the lines are clearly drawn: continuing a genuine learning activity in which the students are thriving versus complying with the directive of a superior and following a school policy (p. 779).

Star teachers in this situation value the quality of their students' education and choose to stand up to authority in order to preserve an engaging learning environment. Although this behavior would most likely result in discomfort and confrontation with authorities, star teachers see enhancing student learning as their highest priority.

Application of Generalizations. Haberman and colleagues found star teachers were able to apply theories and teaching philosophies in the classroom. Also, they are able to observe discrete classroom events and determine general outcomes. This dimension is important because it allows teachers to derive meaning from tasks performed in the classroom. They can determine the appropriate steps to take in order to realize their vision and they can also analyze specific events that occur in their classroom that may work for or against their goals. Conversely, teachers who are "concretized" are unable to derive meaning from their teaching – they are simply transactional and go through the motions without understanding the difference between information and knowledge

(Haberman, 1995). Application of generalizations helps teachers to constantly develop and improve their teaching methods.

Approach to "At-Risk" Students. Haberman deems this dimension the most important predictor of success in urban schools. When asked to explain why there are so many struggling students in these schools and what can be done about it, quitters and failures usually list causes such as "poverty, violence, handicapping conditions, racism, unemployment, poor housing, lack of health care, gangs, drugs, and dysfunctional families" (p.780). Star teachers also mention these things but go one step further to list "irrelevant school curricula, poor teaching, and overly bureaucratic school systems" (p.780). As you can see, quitters and failures are blaming the students, families, and societal conditions, but do not reveal why school systems may be accountable. This reflects Star teachers' philosophy that it is their responsibility to improve student learning opportunities.

Professional versus Personal Orientation to Students. Most quitters and failures go into teaching because they desire the love they will have for their students and the love they will receive in return. Some teachers may initially want to teach children of poverty for this reason. Eventually, these teachers learn not all of their students care for them in the way they expected initially and perhaps they cannot love the children with whom they work. Ultimately, this realization disenchant teachers with a personal orientation to students. Star teachers, on the other hand, have a professional orientation to students in that they expect for there to be some students in their classroom who they do not

love, and they don't see love as a prerequisite for teaching and learning. Star teachers genuinely respect their students but love for students is not their primary reason for going into teaching. In the classroom, this attitude allows Star teachers to deal with student misbehavior without interpreting it as a personal attack.

Burnout. As it turns out, many teachers are literally beaten down by urban school systems. "The paperwork, the conflicting rules and policies, the number of meetings, the interruptions, the inadequate materials, the lack of time, large class sizes, and an obsessive concern with test scores are just some of the demands that drive quitters out of the profession" (p.780). Additionally, these quitters are also weighed down by their belief that teachers should never burn out. Star teachers recognize the problems with urban school systems and behave in a way that will not lead them to burn out. They realize all teachers will eventually burn out if they let the system get to them, so over time they figure out ways to get around the system and do just enough to get by the overly bureaucratized procedures and rules. Also, they develop a support system of other teachers they can lean on for emotional support and advice.

Fallibility. Fallibility refers to the way teachers react to student failure and mistakes in the classroom. Students need to be allowed to make mistakes in the classroom as a form of learning. Haberman assesses the extent to which teachers can admit their own mistakes in order to assume how they would react to student mistakes. He has found the "difference between stars and quitters is in the nature of the mistakes that they recognize and own up to. Stars

acknowledge serious problems and ones having to do with human relations; quitters and failures confess to spelling and arithmetic errors” (p. 780).

Additionally, Haberman lists the following dimensions for which he has not been able to create valid interview questions:

Organizational Ability: the predisposition and ability to engage in planning and gathering of materials.

Physical/Emotional Stamina: the ability to persist in situations characterized by violence, death, and other crises.

Teaching Style: the predisposition to engage in coaching rather than directive teaching.

Explanations of Success: the predisposition to emphasize students' effort rather than ability.

Basis of Rapport: the approach to student involvement. Whose classroom is it? Whose work is to be protected?

Readiness: the approach to prerequisite knowledge. Who should be in the classroom? (p. 781)

Throughout the literature published by Haberman, several different lists of dimensions are described but generally the same themes can be seen throughout. Notably, Haberman does not list many, or any, details about his research methods so it is difficult to determine the validity of these dimensions. In one paper, Haberman (1993) attempted to assess the validity of his Urban Teacher Selection Interview by computing a rank-order correlation between the participants' interview score rankings and performance rankings based on scores provided by school principals. The sample

consisted of 19 teachers in Group A (who went through the Metropolitan Multicultural Teacher Education Program) and 19 teachers in Group B (who did not go through the program). He found a Spearman rank order correlation coefficient of .87 in Group A and .79 in Group B. This is the only study available that has described an attempt to validate the Urban Teacher Selection Interview, so it is premature to draw any conclusion regarding its value.

The purpose of reviewing a selection of Haberman's urban teacher selection literature was two-fold. First, Haberman's research is one of the only consistently cited sources in the teacher selection literature that also focuses on cultural issues. Also, his focus on teachers' beliefs and ideologies that motivate them to teach the way they do and succeed in an urban environment sets the context for the most "extreme" multicultural environment a new teacher may face. As Haberman points out, the best training environment for urban teachers is the worst possible school under the poorest of conditions (Haberman, 1995; Haberman & Post, 1998). As stated, understanding the environment of urban schools is important to determine the competencies needed for effective teaching of culturally diverse students; however, this study will focus mainly on teachers' attitudes and personality related to cultural competence, not their perceptions or knowledge of urban settings. The cultural competencies investigated in this research can be seen as necessary but not sufficient for these "extreme" urban school settings.

Cultural Attitudes and Beliefs

While many models of intercultural competence and sensitivity exist in the international context (e.g., Byram, 1997; Risager, 2007), Bennett's Developmental Model of Intercultural Sensitivity (DMIS) (Bennett, 1993) has been widely explored in

the North American context. Bennett's model is composed of stages which represent a spectrum of possible responses to cultural differences. The stages help to describe how individuals' responses can evolve over time, leading them to be more interculturally sensitive. The first three stages are considered ethnocentric (denial, defense, and minimalization) and the last three stages are considered ethnorelative (acceptance, adaptation, and integration). The shift from ethnocentrism to ethnorelativism involves a major shift in one's perception of cultural difference. For the ethnorelativist to evolve, cultural difference is sought rather than feared. Moving from ethnocentric to ethnorelative requires the individual to recognize cultural difference is more important than universal values and their own values are culturally biased (Abbe, Gulick, & Herman, 2007). While ethnocentric thinking involves assessing if behavior is good or bad based on one's own culture, ethnorelative thinking upholds the belief that differences in culture are neither good nor bad, but just different (Bennett, 1993). Below are examples of each stage from the Intercultural Sensitivity Index, an assessment of Bennett's stages (ISI, Olsen and Kroeger, 2001):

Ethnocentric Stages:

1. Denial: "I do not really notice cultural differences."
2. Defense: "When I am surrounded by culturally diverse people, I feel like my cultural values are threatened."
3. Minimalization: "I understand that differences exist but believe that we should focus on similarities. We are all human."

Ethnorelative Stages:

1. Acceptance: “I believe that my worldview is one of many equally valid worldviews.”
2. Adaptation: “I have added to my own cultural skills new verbal and non-verbal communication skills that are appropriate in another culture.”
3. Integration: “I feel culturally marginal or on the periphery of two or more cultures.”

Olsen and Kroeger (2001) surveyed faculty at New Jersey City University and found 69% of the teachers Agreed or Strongly Agreed with the Acceptance stage, 44% with the Adaptation stage, 17% with the Integration stage, and 10% on the Minimalization stage. None of the respondents identified with the Denial or Defense stages. The authors suspect these favorable results can be attributed to the fact that the faculty members live and teach in a diverse metropolitan area. Furthermore, only 10% of the 500 faculty members completed the survey; therefore, teachers who see cultural issues as trivial may have self-selected out of this voluntary study. One other study, also with a small sample size, used the ISI to assess the intercultural communication skills of students studying abroad. By testing students before and after their study abroad program, Williams (2005) discovered the students' total scores on the ISI (maximum 192 points) increased an average of 11.28 points. These studies provide support for the positive impact of immersion in a multicultural environment.

Overall, Bennett's model illustrates a very important difference between teachers who may believe they are “culturally competent” versus teachers who actually demonstrate cultural competence: Cultural competence is not the ability to overlook cultural differences to see all people as “equal” (i.e., Minimalization) but rather

recognizing there are important cultural differences that must be recognized, understood, and used to develop a multicultural learning environment.

Ethnic Identity

Understanding one's own culture is fundamental to understanding and appreciating the culture of others (e.g., Hofstede, 2001). For this reason, it is important to consider the relationship between ethnic identity and cultural competence. Ethnic identity is a component of one's self-concept and social identity. Tajfel (1981) defines it as how one's understanding of belonging to a particular social group(s), as well as the emotional significance assigned to that membership, contributes to one's self-concept. Phinney (2003) expanded this definition to include that "ethnic identity is not a fixed categorization, but rather is a fluid and dynamic understanding of self and ethnic background. Ethnic identity is constructed and modified as individuals become aware of their ethnicity, with in the large (sociocultural) setting" (p. 63).

For many years, the terms race and ethnicity were used interchangeably. Then, in 1922, the German sociologist Max Weber differentiated between these terms by stating a blood relationship was a precursor for racial but not ethnic identification. This added a subjective element to the formation of ethnic identity, meaning it is possible for one with no objective relationship (i.e., blood) to identify with a particular ethnic group. Helms (2007) differentiates between the way racial and ethnic identity has been studied by noting studies of racial identity focus on how individuals respond to racism and studies of ethnic identity focus on how individuals relate to the traditions, values, and languages of their cultural heritage. Phinney and Ong (2007) explain there have been

two rather divergent streams of research on these topics, and study of the relationship between the two has been limited. This study will focus on only ethnic identity.

Research has documented the importance ethnic identity plays for the self-concept for various ethnic groups, including African Americans (e.g., Cross, 1978), Hispanics (e.g., Arce, 1981), Asians (Makabe, 1979), as well as Whites (e.g., Driedger, 1976; Rosenthal & Hrynevich, 1985). Given the rapidly changing demographics in the United States, and the shrinking White majority, the concept of ethnic identity is likely to become increasingly important for all ethnic groups, including Whites.

In the 1970s and 1980s, ethnic identity was measured within each ethnic group with group-specific measures, and the results of these studies were not compared due to the differences in the constructs measured. However, Phinney (1992) pointed out conceptual discussions had generalized ethnic identity across groups (e.g., Alba, 1985; Dashevsky, 1976; DeVos & Romanucci-Ross, 1982; Tajfel, 1981), despite cautionary efforts regarding the importance of considering cultural-specific issues as well (e.g., Jahoda, 1980; Poortinga & Malpass, 1986). Following the idea asserted by Campbell (1964) that a background of similarities must be assumed in order to interpret cultural differences, Phinney (1990) discovered three aspects of ethnic identity that are common across ethnic groups, including 1) self-identification as a group member, 2) a sense of belonging within that group, and 3) attitudes toward the group. Subsequently, Phinney (1992) developed a measure of ethnic identity, which was revised in 2007 (Phinney & Ong), for use across cultures.

Phinney and Ong (2007) provide a summary of the various components of ethnic identity found in the literature (e.g., Ashmore, Deaux, & McLaughlin-Volpe, 2004; Romero & Roberts, 2003). The following is a list of these components:

1. *Self-Categorization and Labeling*: Identifying oneself as a member of a social group. People use different self-labels, depending on the situation and how others perceive them (Portes & Rumbaut, 2001).
2. *Commitment and Attachment*: A sense of belonging, attachment, and investment in an ethnic group. While commitment strength does not explain one's attitudes toward, knowledge, or understanding of the culture (Cokley, 2005), researchers identify this as a key component of ethnic identity (e.g., Phinney & Ong, 2007; Ashmore et al., 2004).
3. *Exploration*: The act of actively looking for information and exposure to experiences pertinent to one's ethnicity. More exploration leads to more secure commitment to one's ethnic group; that is, less exploration could leave others open to change their commitment with exposure to new experiences (Phinney & Ong, 2007).
4. *Ethnic Behaviors*: In contrast with the first version of their Multigroup Ethnic Identity Measure (MEIM), Phinney and Ong (2007) determined ethnic behaviors (e.g., eating the food, speaking the language) should be measured separately from identity because "an ethnic identity is an internal structure that can exist without behavior" (p. 272). Also, behaviors have been studied as part of the acculturation process (Berry, Phinney, Sam, & Vedder, 2006), which is different than identity.

5. *Evaluation and Ingroup Attitudes:* While demonstrating a strong belonging with an ethnic group infers positive feelings about that group (Tajfel & Turner, 1986), discrimination toward some groups could lead to negative feelings by group members (Tajfel, 1978). However, Phinney (1989) found learning about and committing to one's ethnic group results in rejection of negative attitudes stemming from stereotypes.
6. *Values and Beliefs:* While there is not always group consensus regarding the values and beliefs pertinent to an ethnic group, research shows there is a strong correlation between these factors and a sense of commitment and belonging. However, because values and beliefs differ greatly between ethnic groups, such measures cannot be used across cultures. Phinney and Ong (2007) believe values and commitment should be assessed separately for more clarity because values and beliefs have different correlates than ethnic identity.
7. *Importance and Salience:* Ethnic identity has been found to be more important to those belonging to an ethnic minority group than to those in the ethnic majority (Phinney & Alipuria, 1990). Yip and Fuligni (2002) found those with stronger ethnic identity also had stronger ethnic identity salience, as well as a stronger sense of well-being, when compared to those with weaker ethnic identity.
8. *Ethnic Identity and National (or American) Identity:* Research on the relationship between ethnic identity and national identity (e.g., American, Australian) has been mixed. Berry et al. (2006) studied over 5,000 immigrants

in 12 countries and found the correlation between ethnic identity and national identity to vary widely, with many near zero. They also found many differences across individuals. In other words, the strength of one's ethnic identity does not necessarily predict one's national identity strength, and vice versa. Additionally, while some individuals see themselves as belonging to two different cultures (i.e., ethnic and national), others see these cultures as one and the same (e.g., Black American, Asian American; Phinney & Devich-Navarro, 1997).

Ethnic identity develops over time and differs from personal identity (e.g., occupational, political identification) because it is determined or assigned based on ethnic background or phenotype (Phinney & Ong, 2007, p. 275). However, people can choose how they deal with their assigned ethnic group by the attitudes and understanding they develop. Marcia (1980) outlined various ethnic identity statuses individuals are expected to move through by adulthood, including "ethnic identity diffusion (lack of clear identity) to either foreclosure (a commitment without exploration) or moratorium (a period of exploration) and to ethnic identity achievement, involving a firm commitment to one's ethnicity based on an exploration that has led to a clear understanding of ethnicity" (in Phinney & Ong, 2007, p.275).

Phinney's (1992) 14 item Multigroup Ethnic Identity Measure (MEIM) has been used as a general measure of ethnic identity across multiple cultures and had been found to consist of a single-factor structure. However, further research suggesting the MEIM actually consisted of two factors (e.g., Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999; Spencer, Icard, Harachi, Catalano, & Oxford, 2000; Yancey,

Aneshensel, & Driscoll, 2003) led to a revision of the model (Phinney & Ong, 2007). The Multigroup Ethnic Identity Measure - Revised (MEIM-R) consists of two correlated factors: Exploration (3 items) and Commitment (3 items). These subscales can be used separately to measure different aspects of ethnic identity. Alternatively, these scales can be combined to measure ethnic identity overall. As described by Phinney and Ong (2007), “exploration is unlikely without at least a certain level of commitment, and more exploration is likely to lead to a stronger commitment. Likewise, a commitment or attachment to one’s group is expected to promote interest in exploring one’s ethnicity” (p. 278).

In sum, the MEIM-R provides a general measure of the core components of ethnic identity, which can be supplemented by other group specific measures (e.g., behaviors, attitudes, values and beliefs) for more specificity. Ethnic identity is expected to be a key component of cultural competence in teachers.

Cultural Intelligence

While cognitive intelligence (IQ) has been widely accepted as a predictor of success in academic settings, it does not account for “street smarts” or other abilities needed to be successful in life (Salovey & Mayer, 1990). Many forms of intelligence have been studied since Sternberg and Detterman (1986) introduced a multidimensional perspective on intelligence. These include, but are not limited to, social intelligence (Cantor & Kihlstrom, 1985), emotional intelligence (Salovey & Mayer, 1990), practical intelligence (Sternberg et al., 2000), and cultural intelligence (Earley & Ang, 2003). Schmidt and Hunter (2000) define intelligence as “the ability to grasp and reason correctly with abstractions (concepts) and solve problems” (p.3). Similarly,

cultural intelligence (CQ) is one specific form of intelligence based on the ability to grasp and reason correctly in culturally diverse situations.

Sternberg and Detterman (1986) proposed a four-pronged approach to conceptualize intelligence, with the four prongs being complementary within an individual:

1. *Metacognitive Intelligence*: The process of controlling cognition; how one acquires and uses knowledge.
2. *Cognitive Intelligence*: One's knowledge and knowledge structures.
3. *Motivational Intelligence*: One's capacity to direct and or control energy exerted in a particular situation.
4. *Behavioral Intelligence*: One's actions and capability to demonstrate behavior.

Earley and Ang (2003) presented a four factor model of CQ based on the framework described above. These factors can be thought of as four different types of CQ which come together to form one's overall CQ. The authors conceptualize CQ as a specific and malleable individual difference, which can be categorized under ability, rather than personality or interests. Additionally, CQ can be expected to increase with more experience in international and multicultural situations (Takeuchi, Tesluk, Yun, & Lepak, 2005). The four factors of CQ are outlined below.

Metacognitive CQ refers to "an individual's level of conscious cultural awareness during cross-cultural interactions. People with strength in [this area] consciously question their own cultural assumptions, reflect during interactions, and adjust their cultural knowledge when interacting with those from other cultures" (Ang & Van Dyne, 2008, p. 5). This is an important component of CQ because it requires people to think

about culturally appropriate strategies and to revise their knowledge and understanding when presented with new information. Metacognitive CQ is relevant to teachers because it is necessary to be vigilant regarding which cultural norms to consider when interacting with multiple students with a variety of cultural backgrounds. It may be true that teachers with strong Metacognitive CQ experience successful transfer of training relevant to cultural competence because they are able to think about how the information learned in training applies in their classrooms and to specific students. For example, they may observe the students in their classroom, consider the communication style of a particular cultural group, and then determine culturally appropriate behavior before interacting with those students.

Cognitive CQ refers to “an individual’s level of cultural knowledge or knowledge of the cultural environment” (Ang & Van Dyne, 2008, p. 5). This knowledge of cultural practices and norms is typically acquired through personal experiences and education. Cognitive CQ requires one to consider cultural differences as well as universals. These similarities and differences are examined in the cultural anthropology literature (e.g., Murdock, 1987; Triandis, 1994). Cognitive and Metacognitive CQ have been linked to better cultural judgment and decision making as well as task performance in a multicultural environment (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007). Cognitive CQ is likely to be critical to teachers’ cultural competence because their knowledge of multiple cultures will help them to understand and appreciate the cultures of the students in their classrooms. This appreciation is expected to enhance teacher and student interactions.

Motivational CQ refers to an individual's "capability to direct attention and energy toward learning about and functioning in situations characterized by cultural differences" (Ang & Van Dyne, 2008, p. 6). Motivational CQ is important because it predicts one's drive to function in culturally different settings. It could be argued that Motivational CQ is fundamental to cultural competence because the degree of one's motivation to consider cultural implications or react in culturally appropriate ways is likely to be a ceiling for their expression of cultural competence. Teachers with cultural knowledge of specific cultural groups may interact well with students from those groups; however, limited drive to consider cultural differences between students and to learn more about cultures they are not familiar with is likely to impact their ability to demonstrate cultural competence consistently across students and situations. In the expatriate literature, Templer, Tay, and Chandrasekar (2006) found motivational CQ to predict the work and general adjustment of expatriate employees working in Singapore above and beyond previous international experience, time in Singapore, age, and gender. Additionally, Ang et al. (2007) found supervisor and self-report ratings of adjustment to be predicted by motivational CQ.

Behavioral CQ refers to "the extent to which an individual acts appropriately (both verbally and nonverbally) in cross-cultural situations" (Ang & Van Dyne, 2008, p. 6). Behavioral CQ is also a very important component of cultural competence because behaviors are what others experience and are salient to social interactions. As stated above, motivation to act in culturally appropriate ways is critical; however, the manifestation of this motivation can only be perceived through an individual's verbal and

nonverbal behaviors. Therefore, behavioral CQ is likely the most critical factor students use to evaluate the cultural competence of their teachers.

CQ has been found to predict important outcomes, such as performance and adjustment in international settings, above and beyond emotional intelligence (Ang, Van Dyne, Koh, & Ng, 2004; Templer et al., 2006). Imai and Gelfand (2007) reported that CQ, particularly motivational and behavioral CQ, was predictive of cooperative behavior and better joint outcomes in intercultural negotiation. CQ is expected to be an important component of cultural competence in teachers. Additionally, as discussed in the following section, several positive relationships have been found between the dimensions of CQ and the Big Five personality traits.

Big Five Personality Traits

Because the Big Five personality traits are commonly used in personnel assessments, it would be beneficial to determine if any of these traits are strongly correlated with dimensions of cultural competence. Additionally, if cultural competence is not predictive of teacher effectiveness above and beyond the Big Five, it may not be necessary to include cultural competence in teacher selection programs. Extant research on relationship between the Big Five and success in a multicultural environment has been conducted on populations other than teachers, such as expatriates.

Previous research on expatriate performance and adjustment has found the Big Five to be useful predictors of work-related outcomes. Caligiuri (2000) found conscientiousness to be the strongest predictor of supervisor-rated performance for American expatriates working overseas. Additionally, Conscientiousness and

Agreeableness has been found to predict positive performance ratings for Middle Eastern expatriates from their home country supervisors (Dalton & Wilson, 2000). However, Dalton and Wilson did not find significant correlations between any of the Big Five and ratings from host country supervisors.

Additionally, Shaffer, Harrison, Gregersen, Black, and Ferzandi (2006) identified Openness as a predictor of task and contextual performance of expatriates. Openness has also been found to be predictive of cross-cultural training performance (Lievens, Harris, Van Kerr, & Bisqueret, 2003) and lower desire to quit an expatriate assignment (Shaffer et al., 2006).

Extraversion and Agreeableness have been found to have larger correlations with self and others' ratings of job performance in expatriate samples than in domestic samples (Mol, Born, Willemsen, and Van der Molen, 2005). Additionally, these traits (as well as Openness, as mentioned above) are related to a lower desire to quit an expatriate assignment (Caligiuri, 2000).

Importantly, Ang, Van Dyne, and Koh (2006) investigated the Big Five as antecedents to the four-factor model of cultural intelligence. Their results demonstrated the value of differentiating between the five factors of personality and the four factors of CQ when measuring these constructs. Overall, the authors reported the following findings: a) Conscientiousness was positively related to Metacognitive CQ, b) Agreeableness was positively related to Behavioral CQ, c) Emotional Stability was negatively related to Behavioral CQ, d) Extraversion is positively related to Motivational, Cognitive, and Behavioral CQ, and e) Openness was related Metacognitive, Cognitive, Motivational, and Behavioral CQ, that is, all four CQ factors. In addition, Oolders,

Chernyshenko, and Stark (2008) found that CQ mediated the relationship between Openness and adaptive performance (i.e., altering behavior to meet the demands of the situation or environment). That is, people who are more open have higher CQ and also are likely to be more effective in situations which require them to adapt their behavior.

Interestingly, while Openness seems to be the most relevant personality factor to CQ, research on this trait in the personality literature has been disappointing as it relates to few performance outcomes (Barrick, Mitchell, & Stewart, 2003). The increasingly global nature of business suggests that factors such as adaptability, broad-mindedness, imagination, and curiosity are likely to be as important as, or more important than, dependability and reliability (i.e., conscientiousness; in Ang et al., 2006, p. 118). In the context of education, it is critical for teachers to adapt their behavior in order to meet the changing demands of their environment and students from multiple cultural backgrounds.

Nonetheless, an empirical review of cultural competence by the U.S. Army Research Institute for the Behavioral and Social Sciences reports, regarding the Big Five, that “somewhat inconsistent findings across studies, as well as the relatively small effect sizes, provide rationale for seeking other predictors of intercultural effectiveness” (Abbe et al., 2007). Additionally, some researchers argue that the Big Five traits are too broad to predict a narrow domain such as performance in cross-cultural settings (Van der Zee & van Oudenhoven, 2000). As stated above, there is a need for studies within the teacher population to determine if it is sufficient to measure broad personality traits in teachers or if it will add significant value to invest in cultural competence specific assessments.

Present Study

This study strives to understand the relationships between the multiple dimensions of cultural competence. Research targeting cultural competence has focused on constructs such as attitudes and beliefs toward cultural diversity, cultural intelligence, and ethnic identity. The research within each of these constructs is either mixed or lacking scientific rigor, and research investigating the interaction between these constructs is lacking, particularly in the education literature. Using a set of scales that have been developed previously, this study examines the relationships between these constructs.

Ang and Van Dyne (2008) propose a nomological network in order to understand CQ in the context of individual effectiveness (see Figure 1). This nomological network is organized by five types of relationships:

- 1) distal antecedents, which include trait-like individual differences such as the Big Five and Ethnocentrism,
- 2) the four factors of Cultural Intelligence, including meta-cognitive, cognitive, motivational, and behavioral CQ,
- 3) other types of intelligence, such as general mental ability, emotional intelligence, and practical intelligence,
- 4) intermediate constructs, such as cross-cultural communication apprehension, uncertainty, and participation in cultural activities, and finally,
- 5) situational factors, such as situational strength.

Regarding situational factors, they predict CQ will play less of a role in strong, well-structured situations and more of a role in weak, ambiguous situations. In other words, situational strength is likely to be an important moderator variable between CQ and various outcomes.

Many intercultural competency scales, including the one used in this study (i.e., Cultural Diversity Awareness Inventory, CDAI, Henry, 1995), mix ability and non-ability characteristics, such as capabilities, behaviors, personality traits, values, and attitudes. These scales often have loose theoretical foundations and questionable construct validity (Ang & Van Dyne, 2008). Using the nomological network proposed by Ang and Van Dyne, it is difficult to place the constructs measured by such scales into the theoretical structure. However, the content of these items suggest the constructs measured are consequences of personality traits, because they refer to reactions, beliefs, and attitudes toward cross-cultural situations. Therefore, they seem to fit best as consequences of personality and demography, but it is questionable where they fall in relationship to cultural intelligence and the “intermediate constructs” component of the nomological network.

Behavioral CQ will be used as the teachers’ self-report of their behavior for a portion of the analysis. This scale focuses on the verbal and non-verbal adaptations made when interacting with others in a cross-cultural context. Self-report and other-reported CQ have been found to correlate significantly at .43 (Kim, Kirkman, & Chen, 2008) and .45 (Van Dyne, Ang, & Koh, 2008).

Hypothesis 1: Teachers’ Cultural Attitudes and Beliefs are positively related to their Behavioral CQ.

Hypothesis 2: Teachers' Cultural Attitudes and Beliefs predict their Behavioral CQ above and beyond their Openness.

Similar to the evaluation of the Behavioral CQ scale, this study will also look at the Cognitive CQ scale as a self-reported measure of knowledge as it relates to Cultural Attitudes and Beliefs.

Hypothesis 3: Teachers' Cultural Attitudes and Beliefs are positively related to their Cognitive CQ.

Hypothesis 4: Teachers' Cultural Attitudes and Beliefs predict their Cognitive CQ above and beyond their Openness.

The study of cultural competence has also explored the effects of previous experience on one's ability to function effectively in multicultural environments. Previous experience in cross-cultural situations may result in easier adaptation or adjustment, less stress, and more transfer of multicultural knowledge and skills (Kealey, 1989). More experience may also lessen uncertainty in cross-cultural situations (Black, 1988) as well as one's interest in or desire to learn about different cultures (Hays, 1971; Triandis, 1995). While not a perfect measure, teacher tenure can be used as a proxy for amount of experience teaching in a multicultural environment. However, an assumption is being made that teachers with more years of experience have taught more students from diverse backgrounds.

Hypothesis 5: Tenure is positively related to teachers' Cultural Attitudes and Beliefs.

Furthermore, Tay, Westman, and Chia (2008) examined the antecedents and consequences of CQ among business travelers and found multicultural experiences

(MCEs) were positively associated with Cognitive CQ. Also, they found business travelers' need for control was positively associated with all four dimensions of CQ. In addition, they demonstrated a significant interaction between MCEs and need for control on Metacognitive, Cognitive, and Motivational CQ such that the positive relationship between MCEs and CQ was stronger for those with a lower need for control. In other words, at multiple levels of MCEs, people with high need for control had higher CQ than people with low need for control. However, "travelers with low need for control were better able to capitalize on their MCEs to gain and develop their CQ, such that they have a higher rate of CQ when MCEs increase than those with high need for control" (p.140). The authors speculate that those who have less need to control their environments may not prepare as much prior to trips, have fewer preconceived notions, and may be better able to adapt and respond to cultural cues than those who have a higher need to control their environment. Following this same logic, this study will investigate the role of Openness on the relationship between experience in the classroom and CQ.

Hypothesis 6a: Teachers' tenure is positively associated with their Metacognitive CQ.

Hypothesis 6b: Teachers' tenure is positively associated with their Cognitive CQ.

Hypothesis 6c: Teachers' tenure is positively associated with their Motivational CQ.

Hypothesis 6d: Teachers' openness to experience will moderate the relationships between tenure and CQ such that the relationship between tenure

and CQ will be stronger among teachers with higher Openness than those with lower Openness.

As mentioned above, situational strength is likely to have a strong affect on the salience of CQ. Specifically, CQ should play less of a role in strong, well-structured situations in which teachers may not have the opportunity to express culturally competent behaviors and more of a role in weak, ambiguous situations which allow teachers to demonstrate their personality. Similarly, it is logical that the subject taught may be related to teachers' CQ. Math and Science subjects may be stronger situations while Social Studies and Language Arts subjects may be weaker situations. For instance, Social Studies and Language Arts topics provide more opportunity to explore social issues such as race, ethnicity and culture, thus allowing teachers to display their cultural competence more openly and frequently. On the other hand, Math and Science classes may only occasionally, or never, cover such topics.

Additionally, Holland (1973) developed the RIASEC model based on his findings that personality is expressed in one's vocational choices. His research shows that people self-select professions based on their interests and values. While all teachers are likely to have similar interests and values which attracted them to the teaching profession, there are also likely differences between teachers based on the specific subject they teach. Ideally, the subject taught would be tested as a moderator of the relationship between CQ and teaching outcomes, but since no outcome measures are available in the current study, the CQ of teachers will be compared between subject areas.

Hypothesis 7: Social Studies and Language Arts teachers have higher Metacognitive, Cognitive, Motivational, and Behavioral CQ than teachers who teach Math and Science.

Hypotheses 8: Subject taught moderates the relationship between Openness and CQ such that the relationship between Openness and CQ will be stronger for those who teach Language Arts and Social Studies than those who teach Math and Science.

Intuitively, it seems to make sense that cultural competence could be defined as the composite score of teachers' cultural attitudes and beliefs, cultural intelligence, and ethnic identity as the combination of these dimensions appear to align with many definitions of cultural competence in the literature. As a representative example, the National Association of School Psychologists (NASP) asserts that "culturally competent educators are aware and respectful of the importance of the values, beliefs, traditions, customs, and parenting styles of the children and families they serve. They are also aware of the impact of their own culture on their interactions with others and take all of these factors into account when planning and delivering services to children and their families."

However, Earley and Mosakowski (2004) make an interesting observation which could result in a negative impact of ethnic identity on cultural competence. They assert that people who fully embody their own culture tend to have more difficulty adapting when they enter a different culture. Conversely, people who are more detached from their own culture may find it easier to adapt to different cultures. The authors state the latter are people who are familiar with being cultural observers and making an effort to

integrate. This assumption has interesting implications for the study of ethnic identity and cultural competence. Additionally, it would complicate the measurement of one's overall cultural competence using a composite which includes ethnic identity.

Moreover, the two components of ethnic identity, exploration and commitment, are likely to relate differently to the various factors of CQ. Ethnic Identity Exploration appears to be well aligned with one's inclination to enhance cultural knowledge, regarding his or her own culture or the culture of others.

Hypothesis 9a: Teachers' Ethnic Identity Exploration is positively related to their Metacognitive CQ.

Hypothesis 9b: Teachers' Ethnic Identity Exploration is positively related to their Cognitive CQ.

Additionally, Ethnic Identity Commitment appears to be most descriptive of the degree to which one "fully embodies" his or her own culture, as described above. This may also impact their willingness to adjust to other cultures.

Hypothesis 9c: Teachers' Ethnic Identity Commitment is negatively related to their Motivational CQ.

Hypothesis 9d: Teachers' Ethnic Identity Commitment is negatively related to their Behavioral CQ.

As stated, the research on the relationship between the Big Five personality traits and various manifestations of cultural competence has been mixed. Furthermore, much of this research has focused on populations other than teachers, such as expatriates. For this reason, the following hypotheses will be tested in an exploratory manner:

Hypothesis 10: Openness is positively related to Cultural Attitudes and Beliefs, CQ, and Ethnic Identity Exploration, but negatively related to Ethnic Identity Commitment.

Hypothesis 11: Conscientiousness is positively related to Cultural Attitudes and Beliefs, CQ, and Ethnic Identity.

Hypothesis 12: Extraversion is positively related to Cultural Attitudes and Beliefs, CQ, and Ethnic Identity.

Hypothesis 13: Agreeableness is positively related to Cultural Attitudes and Beliefs, CQ, and Ethnic Identity Exploration, but negatively related to Ethnic Identity Commitment.

Hypothesis 14: Teachers' Ethnic Identity moderates the relationship between Openness and CQ, such that the relationship between Openness and CQ will be stronger for those with more Ethnic Identity than those with less Ethnic Identity.

CHAPTER 2 – METHOD

Participants

Data were collected through a confidential online survey administered within a Southeast Michigan school district. High School teachers were asked to voluntarily respond to a 15-20 minute long survey composed of four scales to measure their cultural competence (i.e., Cultural Attitudes/Beliefs, CQ, and Ethnic Identity) and Big Five Personality characteristics. The survey was administered within four high schools during school hours. 92 teachers completed the survey. However, five teachers were removed from the analysis due to large amounts of missing data. Therefore, 87 teachers were included in the analysis (51 Female, 34 Male, 2 unknown). Adjustments made during the data screening process are described in full in Chapter 3. While three of these high schools had an approximately equal number of respondents, one high school was represented by only four teachers.

Most teachers in the sample taught all four high school grade levels (9th, 10th, 11th, and 12th; n=54) and only 14 teachers taught fewer than three grade levels. Subjects taught by the represented teachers are distributed evenly across Science (n=19), Social Studies (n=15), Math (n=18), Language Arts (n=14), Electives (n=22), and Other (n=18). Some teachers taught more than one of these subjects (n=11). Most teachers in the sample had been teaching for 11 to 20 years (n=36). However, all tenure ranges measured were represented in the sample, including 0 to 1 year (n=6), 2 to 5 years (n=9), 6 to 10 years (n=23), and over 20 years (n=13).

Teachers were asked to report their ethnicity and the ethnicity categories measured corresponded with the categories used by the school district. The majority of

teachers in this sample reported having a White ethnic background (n=75) and the other ethnicities were sparsely represented, including African American (n=3), Arabic (n=1), Asian Pacific Islander (n=1), Latino/Hispanic (n=2), and Other (n=5). In this school district as a whole, students are approximately 70% White, 20% Black, 5% Hispanic, 3% Asian Pacific Islander, 1% American Indian, and 1% Unclassified. While no hypotheses can be tested regarding the ethnicity of the teachers, the White majority is aligned with much of the research regarding the prominence of White teachers teaching students with diverse backgrounds (e.g., Landsman & Lewis, 2006; Howard, 2006).

Teacher Survey

Descriptions of the scales included in the teacher questionnaire are provided below. Note that several scales originally included in the study were eliminated during negotiations with the school district in order to reduce the item count. In addition, it was necessary to reduce the Cultural Diversity Awareness Inventory from five dimensions to three dimensions, as described below. Two dimensions measuring 1) attitudes and beliefs regarding family and school interactions as well as 2) alternative assessments were selected for deletion because of potential for the results to be confounded by district or high school policies and procedures. Additionally, the Big Five personality trait of Neuroticism/Emotional Stability was not included in the analysis.

Cultural Attitudes and Beliefs. The Cultural Diversity Awareness Inventory (Henry, 1995) was used to measure teachers' cultural attitudes and beliefs. This measure is composed of 28 items and is organized by five dimensions. However, as stated, it was necessary to reduce this measure to 17 items in three dimensions: Cultural Awareness (e.g., "I would prefer to work with children and parents whose

cultures are similar to mine”), Cross Cultural Communication (e.g., “I would be uncomfortable in settings with people who speak non-standard English (i.e., “slang”)”), and Creating a Multicultural Environment Using Multicultural Methods and Materials (e.g., “I believe that the teaching of ethnic customs and traditions is NOT the responsibility of public school programs or personnel”). Teachers were asked to identify the extent to which they agree or disagree with each of the 17 statements (1=Strongly Disagree, 5=Strongly Agree; revised scale Cronbach’s $\alpha = .68$). It should be noted that the deletion of two subscales likely reduced the reliability of this measure as the author of the scale found a Cronbach’s Alpha of .90 and test-retest reliability of .66. While the subscales of this measure have been used separately in previous studies, poor internal consistency of the individual scales in the present study resulted in the removal of hypotheses which required the use of an individual subscale.

Cultural Intelligence. The Cultural Intelligence Scale (CQS; Ang et al., 2007) was used to measure teachers’ CQ. The CQS is a 20 item measure and is composed of 5 factors: Metacognitive CQ (e.g., “I am conscious of the cultural knowledge I apply to cross-cultural interactions.”; Cronbach’s $\alpha = .68$), Cognitive CQ (e.g., “I know the legal and economic systems of other cultures.”; Cronbach’s $\alpha = .87$), Motivational CQ (e.g., “I enjoy interacting with people from different cultures.”; Cronbach’s $\alpha = .81$), and Behavioral CQ (e.g., “I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.”; Cronbach’s $\alpha = .79$). Teachers were asked to identify the extent to which they agreed or disagreed with each of the 20 statements (1=Strongly Disagree, 5=Strongly Agree; Cronbach’s $\alpha = .90$).

Ethnic Identity. Ethnic identity was measured using the Multigroup Ethnic Identity Measure – Revised (MEIM-R; Phinney & Ong; 2007). The MEIM-R is a 6 item scale that measures Ethnic Identity Exploration (e.g., “I have often talked to other people in order to learn more about my ethnic group”; Cronbach’s $\alpha = .77$) and Ethnic Identity Commitment (e.g., “I have a strong sense of belonging to my own ethnic group”; Cronbach’s $\alpha = .74$). Teachers were asked to identify the extent to which they agreed or disagreed with each of the 6 statements (1=Strongly Disagree, 5=Strongly Agree; Cronbach’s $\alpha = .79$). The authors clarify that scores should be calculated as the mean of items in each subscale or of the scale as a whole.

Big Five Personality Traits. Items from the International Personality Item Pool (IPIP; Goldberg, 1999) were used to measure Conscientiousness (e.g., “I am always prepared”; Cronbach’s $\alpha = .75$), Extraversion (e.g., “I start conversations”; Cronbach’s $\alpha = .70$), Agreeableness (e.g., “I take time out for others”; Cronbach’s $\alpha = .80$), and Openness (e.g., “I enjoy hearing new ideas”; Cronbach’s $\alpha = .69$). For each of these personality traits, only the positively valenced items from the 50-item set of IPIP Big-Five Factor Markers were included. Teachers were asked to identify the extent to which they agreed or disagreed with each of the 21 statements (1=Strongly Disagree, 5=Strongly Agree).

CHAPTER 3 – DATA ANALYSIS

The purpose of this study was to investigate the relationships between various components of cultural competence in teachers. These hypotheses were developed based on extant research in the fields of intercultural competence, cultural sensitivity, and education. The following section describes how hypotheses 1 through 10 were tested.

In order to test if teachers' Cultural Attitudes and Beliefs are positively related to their Behavioral CQ (H1) and Cognitive CQ (H3), correlations between these variables were tested for significance. Additionally, Behavioral CQ (H2), and then Cognitive CQ (H4), were regressed on Openness and Cultural Attitudes and Beliefs to determine if Cultural Attitudes and Beliefs predict CQ above and beyond the fundamental personality characteristic of Openness. Openness scores were entered in step 1, and Cultural Attitudes and Beliefs scores were entered in step 2.

To test if teachers with more Tenure have more positive Cultural Attitudes and Beliefs (H5), and higher Metacognitive CQ (H6a), Cognitive CQ (H6b), and Motivational CQ (H6c), independent-samples t-tests were used. Because of the small and uneven sample sizes in the Tenure categories, these five categories were collapsed into two categories: 10 years or less (n=38) and over 10 years (n=49). To test Openness as a moderator of the relationship between Tenure and CQ (H6d), regression analysis was used (Cohen & Cohen, 1983; Baron & Kenny, 1986). Openness and Tenure were entered in step 1, and Openness, Tenure, and the interaction term were entered in step 2.

To test if teachers who teach Social Studies and Language Arts subjects have higher Metacognitive, Cognitive, Motivational, and Behavioral CQ than teachers who teach Math and Science (H7), independent-samples t-tests were used. Additionally, Subject Taught was examined as a moderator variable between Openness and CQ (H8) using regression analysis to evaluate the significance of the interaction term after controlling for both Openness and Subject Taught.

To test for positive relationships between Ethnic Identity Exploration and Metacognitive and Cognitive CQ (H9a-b), and well as negative relationships between Ethnic Identity Commitment and Motivational and Behavioral CQ (H9c-d) correlations were evaluated for significance.

Finally, the relationships between the Openness (H10), Conscientiousness (H11), Extraversion (H12), and Agreeableness (H13) and Cultural Attitudes and Beliefs, CQ, and Ethnic Identity were evaluated using correlations. In addition, Ethnic Identity was tested as a moderator of the relationship between Openness and CQ using regression analysis (H14).

Prior to analyses, the data in this study were examined for accuracy, missing values, and the assumptions of multivariate analysis. Five (5) participants were removed from the analysis due to more than 5% of missing data, leaving 87 cases. Nine (9) cells with missing data were replaced with the total item mean, which impacted eight (8) participants. One (1) case was identified as a univariate outlier within the Extraversion variable due to a low z score. After this single case was deleted, kurtosis

on the Extraversion variable was also reduced. Therefore, analysis of the Extraversion variable includes only 86 participants.

CHAPTER 4 – RESULTS

In support of hypothesis 1 and hypothesis 3, teachers' Cultural Attitudes and Beliefs are positively related to their Behavioral CQ ($r=.25$, $p<.05$) and Cognitive CQ ($r=.44$, $p<.001$). Regression analysis was used to determine if Cultural Attitudes and Beliefs give predictive information about Behavioral CQ (hypothesis 2) and Cognitive CQ (hypothesis 4) above and beyond Openness. Openness was entered as step 1 and Cultural Attitudes and Beliefs was entered as step 2.

To test hypothesis 2, regression analysis was run with Behavioral CQ as the dependent variable. Results show that Openness (Model 1) is a significant predictor of Behavioral CQ ($F(86)=12.46$, $p<.01$), and Cultural Attitudes and Beliefs (Model 2) is a significant predictor of Behavioral CQ ($F(86)=6.78$, $p<.01$). However, Model 2 does not provide a significant change in R Square over Model 1 ($\Delta R^2=.011$, *NS*). Therefore, hypothesis 2 is not supported.

Next, the same analysis was run, but with Cognitive CQ as the dependent variable to test hypothesis 4. Results show that Openness (Model 1) is a significant predictor of Cognitive CQ ($F(86)=24.58$, $p<.001$), and Cultural Attitudes and Beliefs (Model 2) is a significant predictor of Cognitive CQ ($F(86)=17.42$, $p<.001$) with a significant change in R Square over Model 1 ($\Delta R^2=.069$, $p<.01$). Thus, hypothesis 4 was supported.

Additional analyses show that Openness and Cultural Attitudes and Beliefs also predict Motivational CQ, Metacognitive CQ, and overall CQ. Openness (Model 1) is a significant predictor of Motivational CQ ($F(86)=30.05$, $p<.001$), Metacognitive CQ ($F(86)=17.51$, $p<.001$), and overall CQ ($F(86)=39.25$, $p<.001$). Similarly, Cultural

Attitudes and Beliefs (Model 2) is a significant predictor of Motivational CQ ($F(86)=18.59, p<.001$), with a significant change in R Square over Model 1 ($\Delta R^2=.046, p<.05$). Cultural Attitudes and Beliefs (Model 2) is a significant predictor of Metacognitive CQ ($F(86)=19.76, p<.001$), with a significant change in R Square over Model 1 ($\Delta R^2=.149, p<.001$). Finally, Cultural Attitudes and Beliefs (Model 2) is a significant predictor of overall CQ ($F(86)=28.29, p<.001$), with a significant change in R Square over Model 1 ($\Delta R^2=.087, p<.01$). See Table 1 for all means and correlations between variables.

Hypotheses 5 through 6c state that teachers with more Tenure have more positive Cultural Attitudes and Beliefs and higher Metacognitive CQ, Cognitive CQ, and Motivational CQ. Results for Cultural Attitudes and Beliefs ($t(85)= -1.41, NS$; Cohen's $d=.31$) and Cognitive CQ ($t(85)= -1.06, NS$; Cohen's $d=.23$) do not support hypotheses 5 or 6b, respectively. However, results show support for these 6a and 6c in the opposite direction. That is, teachers with ten years of experience or less have higher Metacognitive CQ ($t(85)= -2.11, p<.05$; Cohen's $d=.46$) and Motivational CQ ($t(82.31)= -1.77, p<.05, one-tailed$; Cohen's $d=.38$) than teachers with more than ten years of experience. Similarly, additional analyses show that teachers with ten years of experience or less also have higher Behavioral CQ ($t(85)= -1.75, p<.05, one-tailed$; Cohen's $d=.18$) and overall CQ ($t(85)= -1.98, p<.05, one-tailed$; Cohen's $d=.21$) than teachers with more than ten years of experience. While there is no data on the age of the participants, it is possible this trend is based on differences between age groups, and that age is a more important predictor of cultural competence than amount of experience in the classroom. See Table 2 for descriptives by tenure.

To test Openness as a moderator of the relationship between Tenure and CQ (hypothesis 6d), regression analysis was used. While Openness ($\beta=.599$, $p<.001$) is a significant predictor of overall CQ, neither Tenure ($\beta=.193$, *NS*) nor the interaction between Tenure and Openness ($\beta= -.309$, *NS*) were significant predictors of overall CQ. Thus, hypothesis 6d was not supported.

Independent samples t-tests were used to test hypothesis 7, that teachers who teach Social Studies and Language Arts subjects ($n=27$) have higher Metacognitive, Cognitive, Motivational, and Behavioral CQ than teachers who teach Math and Science ($n=32$). Teachers who did not teach Social Studies, Language Arts, Math, or Science were left out of this analysis ($n=28$). Results for Cognitive CQ give partial support for this hypothesis. That is, Social Studies and Language Arts teachers had significantly higher Cognitive CQ than teachers who teach Math and Science ($t(57)= 2.57$, $p<.05$; Cohen's $d=.68$). However, results for Metacognitive CQ ($t(57)= 1.97$, *NS*; Cohen's $d=.42$), Motivational CQ ($t(57)= 0.34$, *NS*; Cohen's $d=.09$), and Behavioral CQ ($t(57)= 1.17$, *NS*; Cohen's $d=.30$) do not support these hypotheses. Additional analyses show that teachers who teach Social Studies and Language Arts also have more positive Cultural Attitudes and Beliefs ($t(57)= 2.09$, $p<.05$; Cohen's $d=.54$) and overall CQ ($t(57)= 1.90$, $p<.05$, one-tailed; Cohen's $d=.24$) than teachers who teach Math and Science. See Table 3 for descriptive by subject taught.

Additionally, Subject Taught was examined as a moderator variable between Openness and CQ (hypothesis 8) using regression analysis. While Openness ($\beta=.715$, $p<.001$) is a significant predictor of overall CQ, neither Subject Taught ($\beta=.705$, *NS*) nor

the interaction between Subject Taught and Openness ($\beta = -.746$, *NS*) were significant predictors of overall CQ. Therefore, hypothesis 8 was not supported.

Based on the results of hypothesis 7, this analysis was also run with Cultural Attitudes and Beliefs as the dependent variable. However, Openness ($\beta = .267$, *NS*; Cohen's), Subject Taught ($\beta = -1.06$), *NS*), and the interaction between Subject Taught and Openness ($\beta = 1.24$, *NS*) were not significant predictors of the Cultural Diversity Awareness Inventory (CDAI).

All correlations between the Ethnic Identity and CQ variables were significant and positive. Therefore, hypotheses 9a and 9b that Ethnic Identity Exploration is positively related to Metacognitive CQ ($r = .62$, $p < .001$) and Cognitive CQ ($r = .51$, $p < .001$) were supported. However, hypotheses 9c and 9d that Ethnic Identity Commitment is negatively related to Motivational CQ ($r = .33$, $p < .01$) and Behavioral CQ ($r = .24$, $p < .05$) were not supported as the relationships were positive.

Hypothesis 10 was partially supported in that Openness is positively related to Cultural Attitudes and Beliefs ($r = .43$, $p < .001$), CQ, ($r = .56$, $p < .001$), and Ethnic Identity Exploration ($r = .43$, $p < .001$). However, the hypothesis that Openness is negatively related to Ethnic Identity Commitment ($r = .29$, $p < .01$) was not supported as the relationship was positive.

Hypothesis 11 was not supported in that Conscientiousness is not positively, or significantly, related to Cultural Attitudes and Beliefs ($r = .01$, *NS*), CQ, ($r = -.02$, *NS*), or Ethnic Identity ($r = .06$, *NS*).

Hypothesis 12 was partially supported in that Extraversion is positively related to CQ ($r=.27, p<.05$) and Cultural Attitudes and Beliefs ($r=.20, p<.05$, one-tailed). However, it is not significantly related to Ethnic Identity ($r=.16, NS$).

Hypothesis 13 was partially supported in that Agreeableness is positively related to Cultural Attitudes and Beliefs ($r=.25, p<.05$), CQ ($r=.41, p<.001$), Ethnic Identity Exploration ($r=.32, p<.01$), and Ethnic Identity Commitment ($r=.19, p<.05$, one-tailed). Additional analysis shows that Agreeableness is positively related to overall Ethnic Identity ($r=.31, p<.01$).

Finally, Ethnic Identity was examined as a moderator variable between Openness and CQ (hypothesis 14) using regression analysis. The predictors were centered due to tolerance values under .10. Both Openness ($\beta=.39, p<.001$) and Ethnic Identity ($\beta=.43, p<.001$) are significant predictors of overall CQ; however, the interaction between Openness and Ethnic Identity was not significant ($\beta=.05, NS$). Thus, hypothesis 14 was not supported.

Based on the results of hypothesis 9, Ethnic Identity Exploration and Ethnic Identity Commitment were tested separately as potential moderators between Openness and CQ. The predictors were centered for these analyses due to tolerance values under .10. The first analysis was run with Ethnic Identity Commitment as the moderator. Both Openness ($\beta=.47, p<.001$) and Ethnic Identity Commitment ($\beta=.30, p<.01$) are significant predictors of overall CQ; however, the interaction between Openness and Ethnic Identity Commitment was not significant ($\beta= -.06, NS$). Openness and Ethnic Identity Commitment (Model 1) significantly predicted CQ ($F(86)=27.42, p<.001$); however, the addition of the interaction term in Model 2 did not result in a

significant change in R Square over Model 1 ($\Delta R^2=.003$, *NS*). Therefore, Ethnic Identity Commitment is not a significant moderator of this relationship.

Next, Ethnic Identity Exploration was tested as a moderator between Openness and CQ. Openness ($\beta=.36$, $p<.001$), Ethnic Identity Exploration ($\beta=.41$, $p<.001$), and the interaction between Openness and Ethnic Identity Exploration ($\beta=.20$, $p<.05$) were significant predictors of overall CQ. Openness and Ethnic Identity Exploration (Model 1) significantly predicted CQ ($F(86)=35.99$, $p<.001$), and the addition of the interaction term in Model 2 resulted in a significant change in R Square over Model 1 ($\Delta R^2=.038$, $p<.05$), which identifies Ethnic Identity Exploration as a significant moderator. In other words, teachers with higher Ethnic Identity Exploration who are also more open to experience have higher CQ than teachers with high Ethnic Identity Exploration who are less open to experience. See Figure 2 for a graphic representation of this relationship.

As stated previously, Ethnic Identity has been found to be more important to those belonging to an ethnic minority group than to those in the ethnic majority (Phinney & Alipuria, 1990). For this reason, this analysis was run again with only White teachers ($n=75$). Openness and Ethnic Identity Exploration (Model 1) significantly predicted CQ ($F(74)=29.34$, $p<.001$) and the addition of the interaction term in Model 2 resulted in a significant change in R Square over Model 1 ($\Delta R^2=.027$, $p<.05$, one-tailed). Therefore, Ethnic Identity Exploration moderates the relationship between Openness and CQ for White teachers, specifically. See Figure 3 for a graphic representation of this relationship.

Due to the small and predominately White sample, no hypotheses regarding ethnicity were proposed. However, exploratory analyses show trends in the data when

comparing White (n=75) to teachers of color (n=12). Independent-samples t-tests illustrate significantly higher scores for teachers of color on Cultural Attitudes and Beliefs ($t(85) = -2.49, p < .05$; Cohen's $d = .72$), Behavioral CQ ($t(85) = 1.88, p < .05$, one-tailed; Cohen's $d = .25$), Ethnic Identity Exploration ($t(85) = -3.70, p < .001$; Cohen's $d = 1.26$), and overall Ethnic Identity ($t(85) = -3.90, p < .001$; Cohen's $d = 1.14$). See Table 4 for descriptives by ethnicity.

CHAPTER 5 - DISCUSSION

This study has provided a valuable investigation of the relationships between various components of cultural competence, including cultural attitudes, cultural intelligence, and ethnic identity as well as fundamental personality traits and several demographic and situational categories. A discussion of these relationships, implications of the findings, and suggestions for future research will be explored in this chapter.

Positive correlations were found between teachers' Cultural Attitudes and Beliefs and overall CQ as well as all four dimensions of CQ: Metacognitive, Cognitive, Motivational, and Behavioral. The strongest of these correlations was with Metacognitive CQ and, while significant, the weakest correlation was found to be with Behavioral CQ. Furthermore, Cultural Attitudes and Beliefs were predictive of all dimensions of CQ, besides Behavioral CQ, above and beyond Openness. The predictive power of teachers' attitudes and beliefs toward cultural issues over the fundamental personality characteristic of Openness has implications for teacher selection practices. It can be assumed that relying on Openness as a test of teachers' cultural intelligence is not a sufficient indicator of their likely success in a diverse classroom environment. Additionally, the self-report nature of these measures is important to evaluate due to the inability to predict Behavioral CQ.

While this study found Cultural Attitudes and Beliefs did not predict self-reported Behavioral CQ beyond Openness, it is important to understand the relationship between these variables and teaching outcomes such as students' perception of teacher effectiveness in multicultural situations. A multitrait-multimethod study regarding the

predictability of various measures will be critical to determine the appropriate method for assessing pre-service teachers, while striving for practical and cost-effective solutions.

Tenure

It was expected that teachers with varying amounts of classroom experience would demonstrate differences in their cultural awareness, cross cultural communication, and attitudes toward creating a multicultural environment using multicultural methods and materials (i.e., CDAI, Cultural Attitudes and Beliefs). Based on previous research regarding the positive effects of immersion and exposure to other cultures on cultural competence (e.g., Williams, 2005), it was hypothesized that teachers with more tenure would have stronger Cultural Attitudes and Beliefs and higher CQ than teachers early in their tenure. However, the opposite was observed as the group of teachers with ten years of experience or less had higher scores on average on these variables than the teachers with more than ten years of experience. Specifically, statistically significant differences were found on Metacognitive CQ, Motivational CQ, Behavioral CQ, and overall CQ.

Based on the definitions of the various components of CQ provided by Ang and Van Dyne (2008), teachers with less classroom experience are more culturally aware when interacting with students from different cultures. They are more likely than teachers with long tenure to question their own cultural assumptions and adjust their cultural knowledge when presented with new information (i.e., Metacognitive CQ). Additionally, they are more likely to be driven to learn about and adjust based on cross-cultural situations (i.e., Motivational CQ), and they may do more to adapt their behaviors accordingly (i.e., Behavioral CQ).

It is possible these differences based on tenure are due to the differences in age between these two groups. Research on expatriate adjustment has show positive correlations between age and work adjustment (Templar, Tay, & Chandrasekar, 2006; Hechanova, Beehr, & Christiansen, 2003) as well as expatriate job performance (Mol, Born, Willemsen, & Van Der Molen, 2005). However, the negative relationship found in this study may be due to the rapidly changing demographics in the United States, leading to more frequent exposure to people from various cultures as well as the increased focus on cultural competence at an earlier age. It is likely that teachers early in their tenure were exposed to more training in cultural awareness and sensitivity than their older colleagues. While increased focus on teaching cultural competence skills remains controversial, training specific to cultural issues is on the rise nationally (Karp & Harris, 2011). The findings of this study support the importance of training in cultural competence for teachers at all levels of tenure on a regular basis.

Subject Taught

Next, differences in cultural competence based on the subject taught was investigated between Social Studies and Language Arts teachers versus Math and Science teachers. Social Studies and Language Arts teachers had higher Cognitive CQ, overall CQ, and Cultural Attitudes and Beliefs than Math and Science teachers. This could be due to the situational limitations prohibiting Math and Science teachers from exercising or considering their cultural competence on a regular basis. Alternatively, based on the research by Holland (1973) regarding the relationship between interests and values and vocational choices, it is possible that teachers who go into Math and Science, based on their interests and values, are not predisposed to be as culturally

aware or sensitive as teachers who go into Social Studies or Language Arts. Gay (2000) reported that Math and Science teachers expressed doubts that multicultural education was relevant to their content areas. Further investigation into the reasons for these differences as well as the effects on the quality of the student – teacher relationship will have valuable implications for teacher selection and training programs.

Ethnic Identity

Across the board, results show teachers with stronger Ethnic Identity have higher CQ. Initially, it was hypothesized that teachers with stronger Ethnic Identity Commitment would have lower Motivational CQ and Behavior CQ. Motivational CQ refers to teachers' drive to consider cultural differences between students and to learn more about cultures in which they are not familiar. However, if one is highly committed to his/her own ethnicity, it was expected he/she would not be as willing to put forth effort to learn about other cultures (i.e., Motivational CQ) or adapt his/her behavior to meet the needs of people with different cultural backgrounds (e.g., Behavioral CQ). Earley and Mosakowski (2004) explained that people who fully embody their own culture may have difficulty adapting when they enter a new culture. However, this theory was not supported by the present study.

Interestingly, while significant and positive, the correlations between Ethnic Identity Commitment and Cultural Attitudes and Beliefs as well as Behavioral CQ were the weakest of all correlations regarding Ethnic Identity. However, as described in Phinney and Ong (2007), exploration and commitment are highly correlated because more exploration of one's ethnicity is likely to result in stronger commitment and a level of commitment to one's ethnicity is likely to lead to more exploration (p. 278). It will be

necessary to evaluate additional outcome variables such as teacher effectiveness and student perceptions to understand the importance of Ethnic Identity in teachers.

Big Five Personality Traits

Due to the fact that research on the relationship between the Big Five personality traits and various manifestations of cultural competence has been mixed, as well as the focus on expatriates rather than teacher populations, relationships between these variable were tested in an exploratory manner. Similar to the findings of Ang et al. (2006), Openness was found to be positively correlated with all dimensions of CQ. Openness was also significantly and positively correlated with Cultural Attitudes and Beliefs as well as all components of Ethnic Identity. Specifically, teachers who are more open to experience and intellectually curious (e.g., “I enjoy hearing new ideas,” “I carry the conversation to a higher level,” and “I tend to vote for liberal political candidates”) have been found to be more culturally competent.

Agreeableness was also found to be positively correlated with Cultural Attitudes and Beliefs, CQ, and Ethnic Identity overall. Agreeableness was positively correlated with both Ethnic Identity Exploration and Ethnic Identity Commitment. However, there is a stronger relationship between Agreeableness and Ethnic Identity Exploration than Ethnic Identity Commitment. Ethnic Identity Commitment scale includes items such as “I have a strong sense of belonging to my own ethnic group,” and “I feel a strong attachment towards my own ethnic group.” Compared to the Ethnic Identity Exploration items (e.g., “I have often done things that will help me understand my ethnic background better”), it could be possible that those who are highly Agreeable (e.g., “I

sympathize with others' feelings" and "I have a soft heart") could perceive the Ethnic Identity Commitment items to be related to rejecting other ethnic groups and customs.

Alternatively, due to the majority White sample in this study, participants may have perceived commitment to the White race as endorsing racism. With that said, there was still a small significant relationship between Agreeableness and Ethnic Identity Commitment within the majority White sample.

Interestingly, while Agreeableness was strongly and positively correlated with overall CQ, Metacognitive CQ, Cognitive CQ, and Motivational CQ, its correlation with Behavioral CQ was not as strong. This is an important finding based on the research described at the beginning of this chapter regarding people who may be genuinely motivated to adapt their behavior to adjust to multicultural situations but do not successfully demonstrate their cultural awareness. If teachers are tested for their empathy and agreeableness, it is not likely to be a sufficient measure of their ability to adapt their culturally-relevant behaviors in the classroom. Out of the four Big Five personality traits measured, Openness is the only trait found to be strongly correlated with Behavioral CQ (i.e., $p < .01$ level).

Extraversion was found to be positively correlated with Cognitive CQ, Motivational CQ, Overall CQ, and Cultural Attitudes and Beliefs. However, it was not correlated with Metacognitive CQ, Behavioral CQ, or Ethnic Identity. Therefore, teachers who are more Extraverted (e.g., "I feel comfortable around people" and "I talk to a lot of different people at parties") are likely to be motivated to learn about cultural differences (Motivational CQ; e.g., "I enjoy interacting with people from different cultures") and to perceive themselves as knowledgeable of different cultures (Cognitive

CQ; e.g., “I know the rules for expressing non-verbal behaviors in other cultures”). However, they may not be consciously aware of cultural differences during cross-cultural interactions (Metacognitive CQ; e.g., “I check the accuracy of my cultural knowledge as I interact with people from different cultures”) or adjust their behavior to act appropriately in these situations (Behavioral CQ; e.g., “I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it”). These findings suggest that being extraverted and knowledgeable of cultures may be necessary but insufficient for being highly effective in multicultural situations. Teachers must also have the ability to monitor and adapt their cultural strategies during these interactions and over time.

Conscientiousness has been found to be the most important predictor of job performance (Hurtz & Donovan, 2000). As stated previously, Conscientiousness has also been identified as predictive of expatriate performance ratings (Caligiuri, 2000; Dalton & Wilson, 2000). However, Dalton and Wilson (2000) state that Conscientiousness predicts expatriate performance ratings from home country supervisors but not from host country supervisors. Similarly, results of this study show Conscientiousness is not related to Cultural Attitudes and Beliefs, CQ, or Ethnic Identity. As such, Conscientiousness does not seem to be a good indicator of cultural competence. Therefore, traditional methods of screening teacher candidates for being responsible, organized, methodical, and detail conscious may not be sufficient for selecting teachers who will be culturally competent and thus effective in multicultural environments.

Furthermore, Ethnic Identity Exploration was found to be a significant moderator of the relationship between Openness and CQ. As discussed, teachers with higher Ethnic Identity Exploration who are also more open to experience have higher CQ than teachers with high Ethnic Identity Exploration who are less open to experience. When teachers of color were removed from this analysis, Ethnic Identity Exploration remained a significant moderator, but to a lesser extent. While significant, this trend is aligned with Phinney and Alipuria's (1990) finding that Ethnic Identity may be more important to those belonging to an ethnic minority group than to those in the ethnic majority. However, in less than 30 years, Whites may no longer be represented as the majority ethnic group in the United States. This has serious implications for the importance of Ethnic Identity formation for all ethnic groups.

Limitations

It should be noted that Type I Error is possible in this analysis given the number of variables, number of hypotheses, and the high intercorrelations amongst variables. Additionally, investigation of the study variables using partial correlations would have been ideal; however, the sample size was too small for these analyses. The small sample size in this study, as well as the poor representation of teachers of color, was a significant limitation of this research. While based on a small and uneven sample, trends in the data based on ethnicity were observed. That is, teachers of color demonstrated stronger and more positive attitudes and beliefs toward cultural awareness, cross cultural communication, and creating a multicultural environment using multicultural methods and materials. They also had stronger overall Ethnic Identity and Ethnic Identity Exploration. While the ratio of White to teachers of color is likely to

remain uneven with a larger sample size, more analyses can be run with larger sub-groups.

Additionally, the teachers in this sample taught in a majority White school district, which may have impacted their perceptions of diversity in the classroom. Had more diverse school districts been included in this analysis, differences in the cultural competence of the teachers may have been observed. Future research to compare and contrast the cultural competence of teachers in majority White versus more diverse or majority minority school districts would be valuable.

As stated previously, behavioral and cognitive dimensions of self report measures have been found to be subject to bias (Herman, Buffardi, & Tetrick, 2006). While self-report measures are likely to be a useful method of screening teacher candidates, previous research has examined the importance of using behavioral observations as well. Ruben's (1976, Ruben & Kealey, 1979) behavioral approach was one of the earliest frameworks used to conceptualize and measure intercultural communication. While previous approaches have focused on personality and attitudes, Ruben's behavioral approach was developed to bridge the gap between knowing and doing. That is, it is possible for people to be knowledgeable about various cultures and cross-cultural theories as well as motivated to consider these factors and even to adjust accordingly but unable to effectively demonstrate this through their behavior (Ruben & Kealey, 1979). Similarly, Altshuler, Sussman, and Kachur (2003) found discrepancies between participants' actual abilities related to intercultural sensitivity and awareness and their self-perception of their ability. For these reasons, Ruben and others have

advocated behavioral observations of individuals in relevant situations in order to predict their future performance in similar situations.

Ruben's (1976) behavioral measure required observers to provide Likert ratings on seven dimensions, including Display of Respect, Empathy, Interaction Posture, Interaction Management, Orientation to Knowledge, Self-Oriented Role Behavior, and Tolerance for Ambiguity. In response to Ruben's work in behavioral measurement of intercultural competence, the Behavioral Assessment Scale for Intercultural Competence (BASIC; Koester & Olebe, 1988) was developed. Other methods for measuring cultural competence have been adopted, including situational judgment tests (e.g., Ascalon, 2005), gesture recognition (Molinsky, Krabbenhoft, Ambady, & Choi, 2005), and implicit association tests (e.g., Park, Felix, & Lee, 2007; Rowatt, Franklin, & Cotton, 2005).

Furthermore, recent research has questioned the validity of the CQS (Gabrenya, van Driel, Culhane, Turner, Pathak, & Peterson, 2012). Gabrenya et al. studied international students as well as students in their home country and found that the CQS did not mediate antecedent and criterion variables. They also showed that the CQS did not predict cultural competence, defined as sociocultural adjustment and cultural judgment, over existing measures. Additionally, the authors identified the best predictors of cultural adjustment to be self-monitoring, self-efficacy, Extraversion, and Conscientiousness. While the current study did not find any significant correlations between Conscientiousness and CQ, Gabrenya et al. found a significant positive correlation between Conscientiousness and Motivational CQ. While they did not find a significant relationship of this variable with the other CQ subscales, Conscientiousness

was an important predictor of adjustment and CQ was not. The findings of this study provide another example of the need for appropriate criterion measures to evaluate CQ and other characteristics as predictors of cultural competence in multicultural education settings.

Future Directions and Implications

Further research is needed with a larger sample of teachers from various ethnic groups, and varied experience in multicultural environments, as well as a sample of students from multiple ethnic backgrounds. This will allow researchers to explore these interactions in more detail, including dyadic relationships between teachers and students. Munroe and Pearson (2006) developed a measure for students, which could be used along with the Cultural Intelligence Scale (CQS) called the Monroe Multicultural Attitude Scale Questionnaire (MASQUE). This measure was developed for use in a multicultural education setting and measures student's cultural orientation based on Knowing, Caring, and Acting. However, these subscales appear to have low internal consistency. Development of a reliable and valid measure of student's cultural orientation would be valuable to advance research in this field.

Based on the biases found in self-report measures discussed above, the self report CQ measure used in this study could be used as a multi-rater method in order to increase accuracy (Ang & Van Dyne, 2008). Valuable research could be conducted by gathering teacher's self-report ratings, supervisor ratings, and student ratings using the Behavioral CQ measure. However, behavioral measures are not always practical because they require extensive training of raters and/or use of raters who have extensive experience with the target in order to provide ratings of previous behaviors.

Therefore, behavioral measures may not be ideal for the selection of pre-service teachers.

Furthermore, tenure was used as a proxy measure for experience teaching in a multicultural environment in this study but multicultural experience was not measured directly. A better measure is needed to determine the degree of multiculturalism to which the teachers have been exposed. For example, it would be beneficial to measure teachers from different schools with varying student demographics, teachers from different locations (e.g., urban vs. suburban), or teachers with experience teaching or living in a different country or city with a diverse population.

While this study has provided some valuable information regarding the relationships between personality traits and indicators of cultural competence, it is necessary to expand this research to include important outcome variables such as objective measures of teacher effectiveness and students' perceptions of their teachers' cultural competence. These outcome variables will make it possible to test the relative importance of the variables used to measure cultural competence in this study as well as trait-based personality characteristics. For example, the Multicultural Personality Questionnaire (MPQ; Van der Zee & van Oudenhoven, 2000) has been found to have predictive power above the contribution of the Big Five in the context of international orientation and interest in an international career (Van der Zee & van Oudenhoven, 2000; Leone, Van der Zee, van Oudenhoven, Perugini, & Ercolani, 2005), as well as adjustment in an international context (van Oudenhoven & Van der Zee, 2002).

It is necessary to test the predictive power of these measures of cultural competence beyond the general personality traits in a situation including societal

subgroups in a domestic educational setting. When professionals work as expatriates in a foreign country the cultural differences are likely to be more apparent and critical for basic functioning abroad; however, teaching in the same country in which you were raised may not result in an obvious need to adjust. For these reasons, it is necessary to assess the value of measures of cultural competence in domestic educational environments.

Importantly, it remains unclear in this study what cultural competence looks like in the classroom. More research focused on the ideal application of cultural competence in the classroom is needed as there are various ramifications of teachers' adjusting their behavior in response to their perception of cultural factors. For example, when is it appropriate to treat students differently based on their cultural norms and customs? How may differential treatment impact the students of color as well as their majority member classmates? When is it okay to adapt to cultural factors and when is it not? When should students be expected to conform to the norms of the majority culture? Future research could also gather input from students of color to determine when they feel marginalized based on their cultural preferences and how their teachers could be more culturally sensitive. Additionally, research contrasting culturally competent behaviors versus culturally competent metacognition would be valuable. Perhaps it is not appropriate to treat minority students differently in the classroom, but it may be more valuable to focus on teachers' knowledge of cultural differences and the way this impacts their perceptions of the behavior of their students, and consequently their inferences regarding these students' capabilities.

Finally, there are values inherent in this research that may not be consistent across people. It is assumed that we must understand and adapt to the cultural differences in others; however, some may not agree with the value of this approach. Some may prefer to focus on treating people as “equal” in the classroom. However, what is the benchmark for “equal”? In a majority White culture, this may mean equal to the norms and customs of Whites. With the increasing diversity in the United States, it is likely that one day there will no longer be a “majority way.” Eventually, more research regarding the interaction between national cultural and ethnic culture may be even more valuable.

This research concludes that continued research in the area of cultural competence in teachers is important to advance the quality of education received by all students. The observed gaps in minority achievement in schools, the rapidly increasing minority population in the United States, and the shrinking White majority illustrates the criticality of selecting teachers who are cultural competent and developing training programs to increase the cultural competence of our teachers.

Table 1

Overall Means, Standard Deviations, and Correlations between Variables (N=87)

Variable	M	SD	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13
1.CDAI	60.39	6.20	46	76	.68												
2.Metacognitive CQ	15.06	2.07	9	20	.53**	.68											
3.Cognitive CQ	18.77	4.47	7	29	.44**	.57**	.87										
4.Motivational CQ	20.03	2.82	12	25	.41**	.42**	.54**	.81									
5.Behavioral CQ	15.69	3.25	8	25	.25*	.52**	.47**	.32**	.79								
6.Total CQ	69.55	9.91	45	98	.51**	.76**	.89**	.72**	.74**	.90							
7.EI Exploration	3.66	.76	2	5	.48**	.62**	.51**	.42**	.33**	.58**	.77						
8.EI Commitment	3.52	.69	2	5	.26*	.51**	.34**	.33**	.24*	.43**	.46**	.74					
9.Total EI	3.59	.62	2	5	.43**	.66**	.50**	.44**	.34**	.60**	.87**	.84**	.79				
10.Openness	19.81	2.78	13	25	.43**	.41**	.48**	.51**	.39**	.56**	.43**	.29**	.42**	.69			
11.Conscientiousness	19.54	2.65	13	25	.01	-.05	.06	.06	-.15	-.02	.00	.10	.06	-.01	.75		
12.Extraversion	18.59	2.48	11	25	.20*	.08	.26*	.39**	.07	.27*	.13	.16	.16	.48**	.00	.70	
13.Agreeableness	25.39	2.75	18	30	.25*	.25*	.40**	.42**	.20*	.41**	.32**	.19 [†]	.31**	.54**	.18	.42**	.80

Note. CDAI = Cultural Diversity Awareness Inventory; CQ = Cultural Intelligence; EI = Ethnic Identity; Cronbach's Alphas are listed on the diagonal.

* $p < .05$, ** $p < .01$

Table 2

Tenure Comparison: Means and Standard Deviations of Variables (Ten Years and Under, n=38; Over Ten Years, n=49)*

Variable	Possible Scale Range		Ten Years and Under				Over Ten Years			
			M	SD	Min	Max	M	SD	Min	Max
1.CDAI	17 to	85	61.45	5.39	46	76	59.57	6.71	47	75
2.Metacognitive CQ	4 to	20	15.58	2.01	11	20	14.65	2.05	9	19
3.Cognitive CQ	6 to	30	19.35	4.17	12	29	18.33	4.68	7	29
4.Motivational CQ	5 to	25	20.61	2.07	16	25	19.59	3.24	12	25
5.Behavioral CQ	5 to	25	16.37	3.28	8	25	15.16	3.16	8	21
6.Total CQ	20 to	100	71.90	9.19	55	98	67.73	10.17	45	92
7.EI Exploration	1 to	5	3.73	.55	2	5	3.60	.89	2	5
8.EI Commitment	1 to	5	3.44	.53	2	5	3.60	.79	2	5
9.Total EI	1 to	5	3.58	.43	2	5	3.60	.74	2	5
10.Openness	5 to	25	20.34	2.44	15	25	19.40	2.98	13	25
11.Conscientiousness	5 to	25	19.26	2.67	14	25	19.76	2.64	13	25
12.Extraversion	5 to	25	18.74	2.67	15	25	18.48	2.36	11	25
13.Agreeableness	6 to	30	25.74	2.80	19	30	25.13	2.72	18	30

Note. CDAI = Cultural Diversity Awareness Inventory; CQ = Cultural Intelligence; EI = Ethnic Identity

*Extraversion, n=48; one case was deleted during the data screening process

Table 3

*Subject Taught Comparison: Means and Standard Deviations of Variables
(Social Studies or Language Arts, n=27; Math or Science, n=32*)*

Variable	Possible Scale Range		Social Studies or Language Arts				Math or Science			
			M	SD	Min	Max	M	SD	Min	Max
1.CDAI	17	85	62.78	6.40	51	76	59.69	4.96	47	72
2.Metacognitive CQ	4	20	15.59	2.69	9	20	14.59	1.90	10	18
3.Cognitive CQ	6	30	20.44	3.67	11	29	17.31	5.34	7	29
4.Motivational CQ	5	25	20.11	2.69	15	25	19.84	3.25	12	25
5.Behavioral CQ	5	25	16.52	3.60	8	25	15.50	3.08	8	21
6.Total CQ	20	100	72.67	10.58	48	98	67.25	11.21	45	92
7.EI Exploration	1	5	3.73	.78	2	5	3.66	.87	2	5
8.EI Commitment	1	5	3.65	.74	2	5	3.33	.76	2	5
9.Total EI	1	5	3.69	.63	3	5	3.49	.72	2	5
10.Openness	5	25	21.05	2.73	14	25	18.91	2.51	13	24
11.Conscientiousness	5	25	19.07	2.91	14	25	20.09	2.32	13	25
12.Extraversion	5	25	19.04	2.75	15	25	18.13	2.38	11	24
13.Agreeableness	6	30	25.89	3.19	18	30	25.09	2.66	19	30

Note. CDAI = Cultural Diversity Awareness Inventory; CQ = Cultural Intelligence; EI = Ethnic Identity
*Extraversion, n=31; one case was deleted during the data screening process

Table 4

Ethnicity Comparison: Means and Standard Deviations of Variables (White, n=75; Not White, n=12)*

Variable	Possible Scale Range		White				Not White			
			M	SD	Min	Max	M	SD	Min	Max
1.CDAI	17 to	85	59.75	5.86	46	73	64.42	7.00	54	76
2.Metacognitive CQ	4 to	20	14.92	2.08	9	19	15.92	1.88	13	20
3.Cognitive CQ	6 to	30	18.64	4.13	7	29	19.58	6.35	7	29
4.Motivational CQ	5 to	25	19.85	2.67	13	25	21.17	3.54	12	25
5.Behavioral CQ	5 to	25	15.43	3.02	8	21	17.30	4.24	8	25
6.Total CQ	20 to	100	68.84	8.95	48	90	73.97	14.35	45	98
7.EI Exploration	1 to	5	3.55	.73	2	5	4.36	.54	3	5
8.EI Commitment	1 to	5	3.45	.62	2	5	4.03	.93	2	5
9.Total EI	1 to	5	3.50	.57	2	5	4.19	.63	3	5
10.Openness	5 to	25	19.84	2.68	13	25	19.67	3.50	13	25
11.Conscientiousness	5 to	25	19.44	2.55	13	25	20.17	3.27	14	25
12.Extraversion	5 to	25	18.61	2.43	15	25	18.50	2.97	11	22
13.Agreeableness	6 to	30	25.40	2.74	18	30	25.33	2.96	21	30

Note. CDAI = Cultural Diversity Awareness Inventory; CQ = Cultural Intelligence; EI = Ethnic Identity

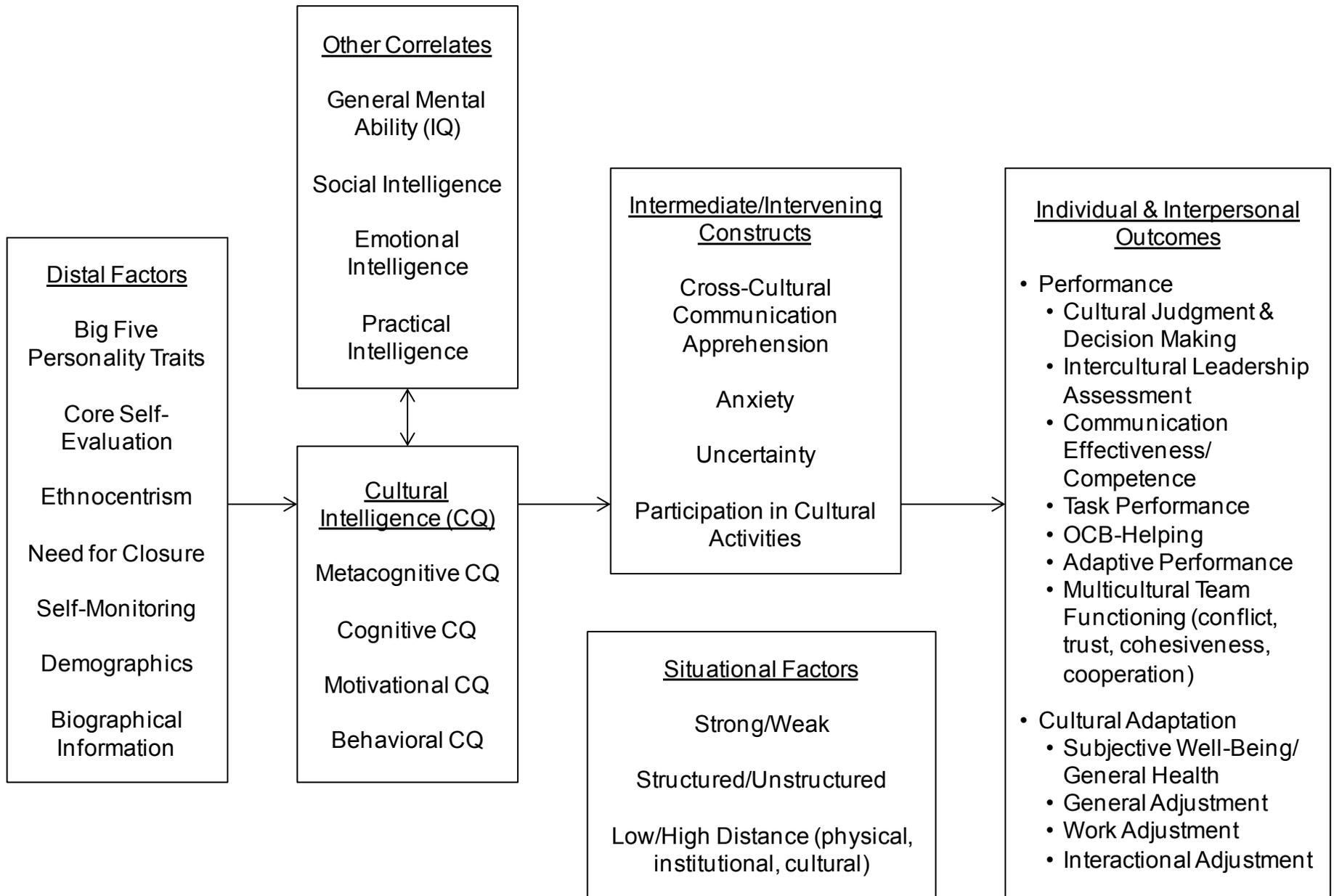
*Extraversion, n=74; one case was deleted during the data screening process

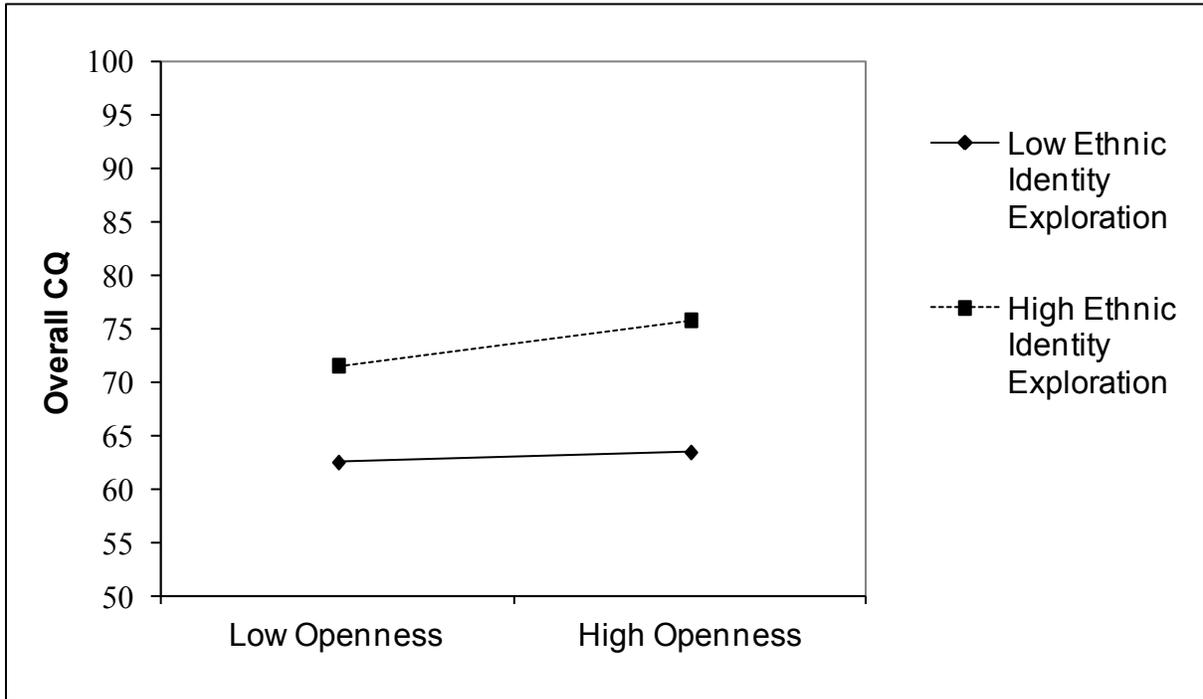
Figure Captions

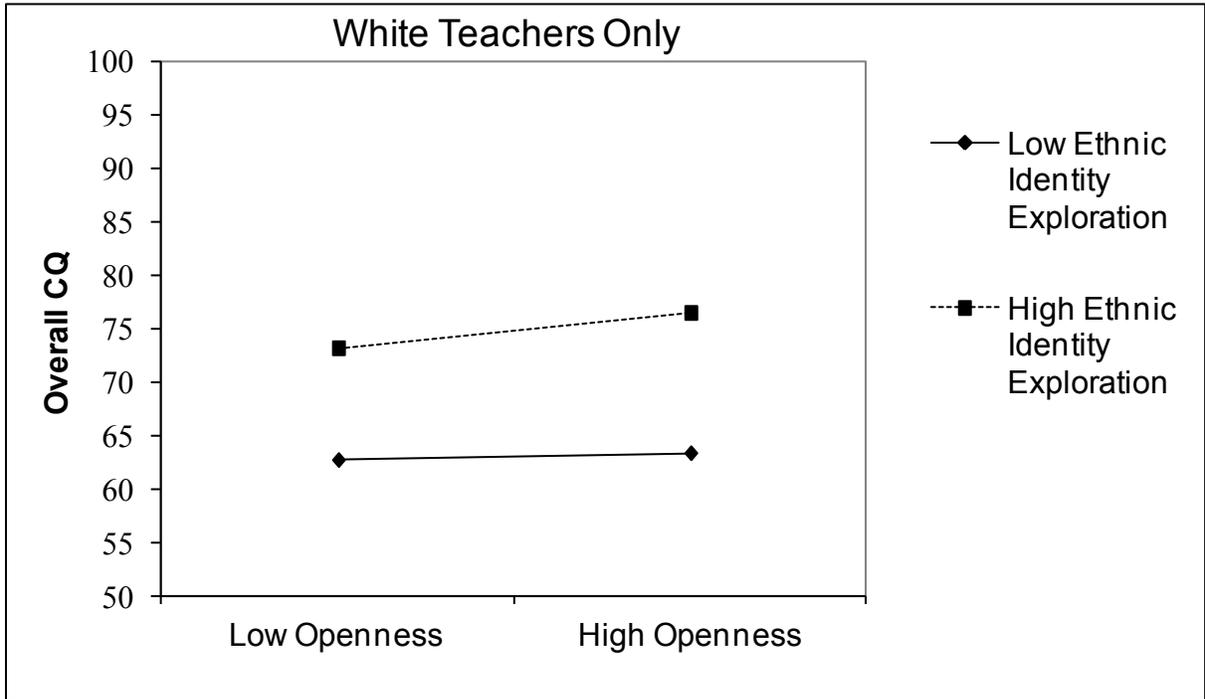
Figure 1. Cultural Intelligence Nomological Network (in Ang & Van Dyne, 2008)

Figure 2. Interaction between Openness and Ethnic Identity Exploration in the Prediction of Overall Cultural Intelligence

Figure 3. Interaction between Openness and Ethnic Identity Exploration in the Prediction of Overall Cultural Intelligence for White Teachers Only







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ABSTRACT**AN INVESTIGATION OF CULTURAL COMPETENCE IN TEACHERS**

by

LESLIE ALLISON EVOLA

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Advisor: Dr. Marcus W. Dickson**Major:** Psychology (Industrial and Organizational)**Degree:** Doctor of Philosophy

Using a set of scales to measure cultural competences which have been used in previous research, this study examined the relationships between Cultural Attitudes and Beliefs, Cultural Intelligence (CQ), and Ethnic Identity, as well as the Big Five personality traits and demographic variables, within a sample of 87 high school teachers. Cultural Attitudes and Beliefs predicted Metacognitive CQ, Cognitive CQ, Motivational CQ, and overall CQ above and beyond Openness. Teachers with ten years of experience or less were found to have higher CQ than teachers with more than ten years of experience, which may be attributed to age. Also, teachers who teach Social Studies and Language Arts had more positive Cultural Attitudes and Beliefs and higher Cognitive CQ and overall CQ than teachers who teach Math and Science, which may be attributed to personality differences and/or situational factors. Openness demonstrated the strongest relationship to cultural competence variables, and Conscientiousness showed no relationship. Finally, Ethnic Identity Exploration was found to moderate the relationship between Openness and CQ. Results also demonstrate differences between White teachers and teachers of color.

AUTOBIOGRAPHICAL STATEMENT

LESLIE EVOLA

I was born and raised in Carrollton, Texas, a suburb of North Dallas, with my parents Chris and Kathy Allison. In high school, I enjoyed playing softball and volleyball as well as participating in various academic and social activities. I attended The University of Oklahoma in Norman, Oklahoma. During my undergraduate studies, I was a research assistant in Dr. Shane Connelly's industrial and organizational research lab for a little over two years, where I gained valuable research experience. Furthermore, I was an active member of Gamma Phi Beta International Sorority, Psi Chapter, where I was Ritual Chair and Membership Vice President - Recruitment Chair. I was also the President of Psi Chi, National Psychology Honor Society and a die-hard Sooner football fan.

During my graduate studies at Wayne State University, I participated in various academic and applied research projects with the support of my advisor, Dr. Marcus Dickson. I was a Graduate Teaching Assistant for the Psychology Department and a Graduate Research Assistant for the Graduate School and the Applied Psychology and Organizational Research Group. Internships with DaimlerChrysler and Right Management further contributed to my development as an I/O psychologist. My first full time role was with Right Management as a Talent Management Consultant where I was mentored by Dr. Jeremy Borys. Currently, I am an Assessment Specialist at AlixPartners, LLC. While I will never lose my Texas roots, I still reside in Michigan with my husband Nick, who has been extremely supportive throughout my time as a graduate student.