Teachers' Awareness of Cultural Diversity and Academic Achievement in Ninth Grade Academies and Senior High Schools

Jamellah Whipps-Johnson

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TEACHERS’ AWARENESS OF CULTURAL DIVERSITY AND ACADEMIC ACHIEVEMENT IN NINTH GRADE ACADEMIES AND SENIOR HIGH SCHOOLS

by

Jamellah Renee Whipps-Johnson

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

May 2016
ABSTRACT

TEACHERS’ AWARENESS OF CULTURAL DIVERSITY AND ACADEMIC ACHIEVEMENT IN NINTH GRADE ACADEMIES AND SENIOR HIGH SCHOOLS

by Jamellah Whipps-Johnson

May 2016

High school graduation rates are higher than they have ever been in 40 years, but disparities continue to exist for students of color and students from poverty when compared to their counterparts. High school reform efforts like creating small learning communities are promising, but small schools alone do not improve student outcomes. Personalization and responsive learning environments are essential to improving academic achievement in high schools, and particularly for ninth graders.

A monocultural teaching force paired with a racially and culturally diverse student population necessitates an examination of teachers’ awareness of cultural diversity particularly in the high school setting where inequities exist. This non-experimental, quantitative study of teachers’ awareness of cultural diversity and academic achievement in ninth grade academies and senior high schools included 154 high school teachers from eight high schools in Mississippi. Descriptive statistics indicated that ninth grade academy teachers and senior high school teachers had similar levels of cultural diversity awareness. Both groups of teachers perceived that academic achievement growth remained the same over two years, and ninth grade academy teachers reported the dropout rate had decreased over two years.

An analysis of archival SATP data revealed that the Black/White achievement gap was more prevalent in the participating ninth grade academies compared to ninth
graders statewide. However, the gap between poor and affluent students was more prevalent among ninth graders statewide compared to students in the participating ninth grade academies. The results indicated that there was no significant relationship between teachers’ awareness of cultural diversity and perceived academic achievement growth or perceived persistence in school as measured by perceived dropout rates. No statistically significant differences were found between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity.
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2016
DEDICATION

This dissertation is dedicated to my loving and supportive family. To my three beautiful children Justin, Jerohn, and Jorie, you are the reason why I stayed the course on this journey. I encourage each of you to never give up on your dreams. Thank you for understanding that we must occasionally make temporary sacrifices in order to achieve a goal. I have modeled for you that persistence pays off.

To my husband John, thank you for expecting me to do all things through Christ who strengthens me. You ensured that I balanced every aspect of our life as I chased my dream. After we worked all day, you took the time to drive me 90 miles to class in Hattiesburg when I was carrying our twins. I am forever grateful to you.

To my parents Scarlett and James, it brings tears to my eyes just thinking of how much faith you have in me as your daughter. You never doubted that I could achieve my dream of earning a Ph.D. You encouraged me every step of the way, and never ceased to ask when I would finish. My dear mother provided financial support and devoted countless hours of her time caring for my children, cleaning my home, and cooking meals. She took time away from her job and drove two hours to my home to support me.

During this process, I had several cheerleaders who encouraged me to keep working during different stages of my journey. Special thanks to my Uncle Kimble, Grandma Rose, Brother James and my friends Felicia, Howard, Shari, Eloise, and Josie.

Finally, this paper is dedicated to the memory of my Great Uncle Melvin Greene, a visionary who valued excellence in academic achievement. Uncle Melvin passed away in April of 2015, but I know he is in heaven rejoicing over this achievement.
ACKNOWLEDGMENTS

I have fought the good fight, I have finished the race, I have kept the faith. (2 Timothy 4:7, English Standard Version)

I give all honor and glory to God for allowing me to persist through this journey and surrounding me with unwavering support from my committee, family, friends, and colleagues. I express my sincerest gratitude to Dr. David Lee, chair of my committee, for his steadfast support and encouraging feedback. I am wholeheartedly grateful for my advisor, Dr. Mike Ward, for his commitment to my work and faith in me. Dr. Ward pushed me to produce quality work and spent countless hours reading and assisting me with meeting or exceeding the expectations for this work.

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improve my initial rough draft of Chapter II through her boot camp and literature review classes where she provided timely, precise and straightforward feedback.
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CHAPTER I
INTRODUCTION

Kindergarten-12th grade educational leaders struggle to improve educational outcomes for all students regardless of race, socioeconomic status, gender, or disability. Reform efforts like accountability systems, standardized tests, and common standards have been major areas of focus (Achinstein & Ogawa, 2012; Kibler, Valdés, & Walqui, 2014; Proefriedt, 2008; RAND Education, 2012b; Shenkman, 2008; Sunderman, 2008; White & Rosenbaum, 2008). However, research has shown that teacher quality is the number one predictor of student achievement (Armstrong, 2006; Baker et al., 2010; Gagne, 2011; Goe & Stickler, 2008; Marzano, 2007; McCann, Jones, & Aronoff, 2012; Pollock, 2007; RAND Education, 2012a; Schmoker, 2006; Talbert & Mclaughlin, 2008).

Thus, reforms related to improving the impact of teachers would seem to be among the most important and impactful. Goe (2007) as cited in Goe and Stickler (2008) identified the following four categories to describe teacher quality: teacher qualifications, teacher characteristics, teacher practices, and teacher effectiveness.

It is important to study teachers’ awareness of cultural diversity as a teacher characteristic which is related to teacher quality (Achinstein & Ogawa, 2012; Gay, 2013; Ogletree, 2012; Roberts, 2013). Improving educational outcomes like graduation rates for historically marginalized students will require a teaching force that has a strong awareness of cultural diversity (Carter, 2011; Goldenberg, 2014). Thus, the purpose of this study was to quantify high school teachers’ awareness of cultural diversity and determine if a relationship exists between high school teachers’ awareness of cultural diversity, perceived academic achievement growth, and perceived student persistence in
school. This study also aimed to determine if differences exist between teachers’ awareness of cultural diversity in ninth grade academies and the senior high schools (grades 10-12) to which their students matriculate.

Teachers’ awareness of cultural diversity is a teacher quality that influences teacher practices and teacher effectiveness (Achinstein & Ogawa 2012; Gay, 2013; Ogletree, 2012; Roberts, 2013). However, awareness of cultural diversity is a precursor to cultural proficiency and the use of culturally responsive teaching methods. Unfortunately, many teachers lack an awareness of cultural diversity and do not understand that an awareness of cultural diversity is one of the foundations for creating equitable learning opportunities for all students. Where a monocultural teaching force is coupled with a racially and culturally diverse student population, it necessitates an examination of teachers’ awareness of cultural diversity. The high school setting was of particular interest for a study of cultural diversity awareness as a construct because there is a gap in the literature about the construct at this level.

This chapter provides a conceptual framework for understanding the aims of this study. The intent of this chapter is to introduce the study by describing the background, stating the problem, identifying the goals, listing research questions and hypotheses, and defining key terms. Furthermore, this chapter discusses delimitations, assumptions, and the potential value of the study.

**Background**

High school graduation rates in the United States are higher than they have ever been in four decades (Balfanz, Bridgeland, Fox, DePaoli, Ingram, & Maushard, 2014; Lyndsey, 2013; U.S. Department of Education, 2013). According to Stetser and Stillwell
(2014), the national graduation rate was 80% for the 2011-2012 school year. A 10% increase in the graduation rate from 2002 to 2012 is a promising improvement; particularly since gains by students of color contributed to the increased graduation rate (Balfanz et al., 2014). Unfortunately, disparities continue to exist because students of color and students from poverty do not graduate from high school at the same rate as their counterparts (Balfanz et al., 2014; Layton 2013; U.S. Department of Education, 2013).

Reforming the United States education system is often a top priority on political, social, and economic agendas. Nevertheless, the U.S. education system has failed to graduate far too many students. High schools with a graduation rate of 60% or less are described as dropout factories (Balfanz et al., 2014). There are 1.4 million students enrolled in such schools collectively across the United States (Balfanz et al., 2014). These statistics have improved since 2002, when there were 2.6 million students enrolled in 2,007 schools with high dropout rates (Balfanz et al., 2014). However, there are still more students of color attending these schools with high dropout rates than White students (Balfanz et al., 2014). In 2012, the student population in the nation’s schools with high dropout rates was 23% African American, 15% Hispanic, and 5% White (Balfanz et al., 2014). The process of dropping out of high school impacts all students, but Blacks, Hispanics, and impoverished students suffer far more than any other group of students (Balfanz & Legters, 2004; Balfanz et al., 2014; Lyndsey, 2013; Stetser & Stillwell, 2014).

Democracy ideally upholds social justice and equal opportunity, but there are widespread concerns that the U.S. education system does not justly serve all students. For many decades, the achievement gap has been a major problem. Numerous researchers
have studied this phenomenon, and yet the gap persists (Barton & Coley, 2010; Haycock, 2001; Timar & Maxwell-Jolly, 2012; Williams, 2003). Most teachers in the U.S. are middle class, White women (Muhammad & Hollie, 2012). Yet, some researchers argue that all teachers should learn how to be culturally proficient teachers who address the diverse needs of students (Achinstein & Ogawa, 2012; Banks et al., 2001b; Gay, 2013; Milner, 2006; Roberts, 2013; Robinson, 2012). Culturally proficient educators confront and challenge conventional beliefs and practices about teaching racially and culturally diverse students and effectively narrow achievement gaps between these students and their counterparts (Banks, Cookson, & Gay, 2001a; Gay, 2013).

During the early twentieth century, researchers observed grave disparities in academic achievement between students of color and economically disadvantaged students and White students. Since World War II, social scientists have known about test score gaps from military recruit test scores in which the variance was explained by better educational conditions (Tuddenham, 1948). The Supreme Court outlawed separate but equal schools in the 1954 landmark case, *Brown vs. Board of Education*, but desegregated schools did not close the achievement gap. The National Commission on Education Excellence (1983) described the United States as “A Nation at Risk.” The landmark report concluded that the nation failed to provide an adequate public education for all children and particularly poor and minority children. Although some progress has been made toward closing the achievement gap, the achievement gap persists.

Understanding and closing the achievement gap is a pressing challenge in the U.S. educational system. During the 1970s and late 1980s the gap began to close, but around 1988 that progress halted, and the gap widened during the 1990s (Haycock, 2001).
Although data indicated that strides toward closing the achievement gap were made, far too many students of color and economically disadvantaged students are not exposed to high expectations, rigorous curriculum, and high quality teachers (Reeves, 2003). Without a high quality education, children will be ill-equipped to pursue higher education or attain high-income jobs. Closing the achievement gap has the potential to improve the quality of life for students, and an educated citizenry is an important tenet of American democracy (Dewey, 1936; Pak, 2001). Culturally proficient educators are needed for culturally and racially diverse schools. These educators’ pedagogic practices incorporate progressive strategies such as having high expectations of all students, extending learning blocks for reading/language arts and math, creating flexible schedules, integrating reading and writing across the curriculum, and developing fluid assessment practices that allow students to retake assessments/tests until mastery is demonstrated (Reeves, 2003). These strategies are common in schools that have narrowed or closed the achievement gap (Reeves, 2003).

A number of researchers argue that large, impersonal high schools cause many students to drop out, and that this is particularly the case among ninth grade students (Black, 2004; Cook, Fowler, & Harris, 2008; Shannon & Bylsma, 2006; Thornton, 2009; Warren, Fazekas, Rennie-Hill, Fancsali, & Jaffe-Walters, 2011). The ninth grade represents a significant time of transition for most students in their schooling. Reforms to improve high school transition include smaller learning communities. The U. S. Department of Education’s Smaller Learning Communities Program offered grants to districts to create ninth grade academies and other specialized school structures to improve student achievement for high school students (U.S. Department of Education,
According to the U. S. Department of Education (2012), “up to 40% of students in cities with the highest dropout rates repeat the ninth grade, but only 10% to 15% of repeaters go on to graduate” (p. 26). Furthermore, students of color are vastly impacted by ninth grade underachievement and dropout rates compared to other populations (Balfanz et al., 2014; National Center for Education Statistics, 2014). Although these statistics are grim, schools with transition programs have a dropout rate that is three times less than schools without transition programs (U. S. Department of Education, 2012). Furthermore, the literature clearly supports the effectiveness of ninth grade academies, but few empirical studies examine high school teachers’ awareness of cultural diversity and particularly those who teach at ninth grade academies.

Statement of the Problem

Few studies gather data from teachers in high schools that enable evaluation or quantification of their awareness of cultural diversity. Teachers have personal experiences and beliefs about those who are different from them; this makes it challenging for them to embrace culturally diverse practices that are inconsistent with their experiences, morals, values, and beliefs (Gay, 2013). According to (2005), it is important for educators with little to no awareness of cultural diversity to have an in-depth understanding about the cultural groups they meet in their classrooms. A superficial understanding or no understanding perpetuates stereotypes and imprecise judgments about students’ cultural uniqueness because those cultural characteristics are unlike the majority cultural group (Lindsey et al., 2005).

As evidenced by the disproportionately large number of students in ninth grade, more students are retained in ninth grade than any other grade (U. S. Department of
Education, 2012). Ninth graders have unique cognitive, social, and emotional needs. A ninth grade academy should meet those needs and create an environment that supports learning (Barbour, 2010; Clinton, 2012; Cook et al., 2008; Ellerbrock & Kiefer, 2010; Mottet et al., 2008; Warren et al., 2011). Research indicates that teachers selected to serve ninth grade students, particularly in an academy setting, should embrace the goals of a ninth grade academy (Allensworth & Easton, 2007; Reents, 2002). Styron and Peasant (2010) studied ninth grade academies in Mississippi and found that Black students performed as well as Whites on the Biology I exam of the Subject Area Testing Program (SATP). This finding provided evidence that the achievement gap is not as wide in a ninth grade academy as it is in traditional high schools. It appears from the literature that the level of teachers’ awareness of cultural diversity can either support learning or impede learning (Carter, 2009; Gay, 2013). Teachers with an awareness of cultural diversity are better equipped to adopt culturally responsive teaching practices to meet the needs of diverse students. Furthermore, culturally responsive teachers support learning for all students regardless of race, socioeconomic status, disability, or gender.

Purpose of the Study

Ninth grade academies, cultural diversity awareness, and academic achievement are three constructs that do not appear to have been studied collectively in the scholarly research. Therefore, this study investigated whether there was a relationship between high schools teachers’ awareness of cultural diversity, perceived academic achievement growth, and perceived persistence in school in ninth academies and their feeder senior high schools. Studying these constructs collectively adds to the existing body of research.
Every child, whether impoverished or affluent, Black or White, low-achieving or high-achieving, deserves a quality education that will bring opportunities. Ameliorating the achievement gap is necessary to provide equal education opportunity. Not long ago, researchers questioned the impact of schools on student achievement. A major study suggested that there was little schools could do to change the confounding effects of student level factors like background and socioeconomic status have on academic achievement (Coleman, 1966).

The Mid-Continent Research for Education and Learning (McREL) conducted meta-analyses of quantitative research that identified the factors accounting for variance in student achievement (Miller, 2003). Student factors such as home life and drive account for 80% of the variance in student achievement (Miller, 2003). This finding seemingly aligns with conclusions drawn from the Coleman report. Nevertheless, effective schools research indicates that teacher quality is the strongest predictor of student achievement (Edmonds, 1979; Haycock, 2001; Marzano, 2007; McCann et al., 2012; Payne, 2010; Pollock, 2007). Teacher level variables and school level variables account for 13% and 7% of the difference in student achievement respectfully. Teacher factors included teacher preparation, ongoing professional development, and the ability to use research-based instructional practices. School level factors include effective leadership, culturally proficient curriculum, and positive school climate. Shifting the research on the achievement gap from student-level factors to teacher-level and school-level factors should provide educators the empirical evidence needed to influence their policies, practices, and programming and thereby narrowing the gap. Educating youth is the responsibility of a democratic society (Dewey 1938). When children are educated,
their futures are brighter, and they are better equipped to contribute meaningfully to society.

To reiterate, the Coleman report (1966) alleged that student factors such as family background, socioeconomic status, and race contributed to nearly all the variance in student achievement. On the other hand, researchers have consistently found that the strongest factor influencing student achievement is teacher quality (Marzano, 2007; McCann et al., 2012; Pollock, 2007). This study aims to quantify high school teachers’ awareness of cultural diversity. The evidence is clear that culturally proficient educators positively influence academic achievement (Banks et al., 2001a; Gay, 2013; Lindsey et al., 2005), but what is not clear is the interplay between these constructs in the high school setting. A review of the literature did not reveal any studies that examined the three constructs for this study.

School accountability is a major concern for educators and policymakers. Before and since the No Child Left Behind Act of 2001 (NCLB), school systems have been subject to state and federal accountability standards and have developed related accountability plans. These plans emphasize improving practices to increase student achievement. Weiner and Hall (2004) asserted that NCLB is what schools needed to improve because it requires schools to demonstrate that all groups of students score proficient on high-stakes tests. NCLB also requires schools to make adequate yearly progress for all students collectively and for subgroups of students (e.g. Black, White, learning disabled, low socioeconomic states, English Language Learners). Therefore, educators are compelled to relinquish long-established beliefs and practices that limit the opportunity for all children to learn.
While NCLB mandated school reform and 100% student proficiency by 2014, the Department of Education granted NCLB waivers to most states that requested flexibility in 2011. The Obama administration moved forward with offering flexibility when Congress did not reauthorize the Elementary and Secondary Education Act (ESEA). States have an opportunity to renew NCLB waivers through the 2018-2019 school year. Conversely, NCLB waivers did not free states from accountability. In fact, “rigorous and comprehensive state-developed plans designed to close achievement gaps, increase equity, improve the quality of instruction, and increase outcomes for all students” were required to receive flexibility (U.S. Department of Education, 2015, NCLB and Accountability section, para. 4). NCLB mandates reform, but the Race to the Top (RTTT) initiative offers incentives and awards for school reform efforts. President Barack Obama introduced the RTTT grant program in 2009, and it allows states or school districts to receive monetary incentives if reform efforts meet specific requirements. These requirements include adopting standards that are common among multiple states and enacting meaningful teacher and principal evaluation systems that include multiple measures of effectiveness.

The purpose of this study was to quantify high school teachers’ awareness of cultural diversity and determine if it related to perceived academic achievement growth and perceived persistence in school. The setting for the research was ninth grade academies and the senior high schools (grades 10-12) that their students subsequently attend. Ninth grade academies are small learning communities for ninth graders that may operate autonomously or as a small school within a larger high school (Legters, Parise, & Rappaport, 2013; Peasant, 2006). These small learning communities provide a
personalized, responsive learning environment to promote academic success and meaningful relationships between teachers and students (Cook et al., 2008; Darling-Hammond, Alexander, & Price, 2002). Research suggests that small learning communities play a critical role in ninth grade students’ matriculation through high school particularly for students of color (Darling-Hammond et al., 2002; Peasant, 2006). In fact, Peasant (2006) found that Black ninth grade students in ninth grade academies performed similarly to White students at the same type of school and outperformed Black students at traditional ninth through twelfth grade high schools. These findings suggest that establishing small learning communities has a significant impact on student achievement particularly for students of color. While this may be true, “it is important to recognize that small is not enough” and “[t]here are key design features that have been observed in successful small schools that are conspicuously absent in those that have failed” (Darling-Hammond et al., 2002, p. 3).

Personalization, continuous relationships and knowledgeable and skilled teachers are three design features from the 2002 Darling-Hammond, Alexander, and Price study that are pertinent to this study. Successful small learning communities like ninth grade academies attribute improvements in academic achievement to personalization (Cook, 2013; Darling-Hammond et al., 2002). Education is personalized when staffing allocations and scheduling allow teachers and students to develop meaningful relationships. Having the same teacher instruct a group of students for more than one year (looping), facilitating formal, planned sessions for teachers to help students develop behaviors needed for academic success (advisories), and making connections with students’ families are ways that small schools sustain continuous relationships over time.
between teachers, students, and their families (Darling-Hammond et al., 2002; McAndrews & Anderson, 2002). Skilled and knowledgeable teachers have content knowledge and understand how students’ culture, experiences, and languages shape learning. This study further investigated small learning communities by examining the cultural diversity awareness of high school teachers in ninth grade academies and the senior high schools that their students subsequently attend. Small schools alone do not improve academic achievement.

Research Questions

The following research questions guided the implementation of this study:

1. Is there a relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of academic achievement growth?
2. Is there a relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth?
3. Is there a relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of changes in dropout rates?
4. Is there a relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth after accounting for teachers’ race, gender, age, and years of experience?
5. Is there a difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity?
6. Is there a difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural
diversity after accounting for teachers’ race, gender, age, and years of experience?

7. What is the level of ninth grade academy teachers’ awareness of cultural diversity?

8. What is the level of senior high school teachers’ awareness of cultural diversity?

9. What is the level of academic achievement growth, as perceived by teachers, of students in ninth grade academies?

10. What is the level of academic achievement growth, as perceived by teachers, of students in the senior high schools to which ninth grade academy students matriculate?

11. What is the degree to which the dropout rate, as perceived by teachers, in ninth grade academies has changed?

12. Is the academic achievement gap by race and SES of ninth grade academy students different from the academic achievement gap by race and SES of ninth graders statewide?

Definition of Terms

The terms below are used frequently in this study and are defined as follows:

*Achievement gap*: the disparity in measures of achievement between different groups of students such as students from traditionally marginalized groups (i.e. Blacks, Hispanics) and Whites or Asians. Students in poverty, students with disabilities, English language learners and their counterparts also have disparities in measures of academic achievement (Timar & Maxwell-Jolly, 2012).
Cultural diversity awareness: recognition of the unique customs, beliefs, values, traditions, and practices that exist between people from different cultures, races, and ethnicities (Henry, 1995).

Cultural proficiency: the ability to work toward common goals with people from many different cultural backgrounds (Lindsey et al., 2005).

Ninth grade academy/school (freshman academy): a school that addresses the academic, social, and emotional needs of ninth grade students only. The rationale is to provide a smooth transition for a critical year of high school (Reents, 2002).

Perceived academic achievement growth: a measure of academic achievement that is, for purposes of this study, operationalized as teachers’ perceptions of the degree to which standardized test scores have changed during a specified period of time.

Perceived student persistence: a measure of persistence toward graduation that is, for purposes of this study, operationalized as teachers’ perceptions of the degree to which the student dropout rates have changed during a specified period of time.

Race: a group of people with the same place of origin or ethnic origin. The following categories are used to identify race/ethnicity: Hispanic or Latino, American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Island and/or White (National Center for Education Statistics, 2015).

School climate: the social and emotional environment of a school as described by most people within the school (Tableman, 2004).

Small learning community: a personalized school environment created by subdividing a large school into a small school within-a-school or stand-alone school.
This allows small groups of students and teachers to share a schedule (Felner, Seitsinger, Brand, Burns, & Bolton, 2007; U. S. Department of Education, 2014).

Delimitations

The delimitations of this study were as follows:

1. This study utilized 2012-2013 archival data to analyze students’ academic achievement as mediated by race and socioeconomic status on the Algebra I and Biology I assessments of the Subject Area Testing Program.

2. Ninth grade academies, the senior high schools to which their students matriculate, and teachers in this study were delimited to public academies, senior high schools, and teachers in Mississippi. The study included only those academies and their related senior high schools that have been in operation for two or more years. This limited the number of participants and constrained some of the metrics for variables to what could be measured through the perceptions of respondents.

3. This study was delimited to using 2012-2013 archival data for the Algebra I and Biology I Subject Area Tests in Mississippi public ninth grade academies, since these data are the most recent for which disaggregated results are available.

4. For some research questions and the related analyses, achievement on tests, along with persistence, as operationalized via dropout rates, was defined as teachers’ perceptions of change in student performance and not on actual performance data.
5. Participants may have been inclined to choose answers they presume are socially acceptable rather than answers that reflect their actual perceptions.

Assumptions

This study was guided by the following assumptions:

1. The researcher assumed that participants responded to survey items honestly and without fear of retaliation for their responses.

2. The research assumed further that participants responded without undue influence of perceptions of what constitutes socially acceptable responses.

3. The researcher assumed that the archival data set contained accurate data for ninth graders enrolled in Algebra I and Biology I during the 2012-2013 school year.

Justification

High school reform efforts that address the underachievement and dropout rates of ninth grade students have the propensity to improve the trajectory of high school graduation rates and narrow the achievement gap. A preponderance of research describes the achievement gap, but the research is not clear about how to close the achievement gap. The graduation rate disparity that exists between traditionally marginalized students and their counterparts is one of many achievement gaps.

A product of the Civil Rights Act of 1964 was the (1966) report, which described the achievement gap. Since the Coleman report, numerous empirical research studies have been completed to explain achievement gaps further (Jencks & Phillips, 1998; Noguera & Yonemura, 2006; Smith, 2005; Southwest Comprehensive Center at WestEd, 2006). These studies identify variables that predict achievement gaps, but few ask
teachers to assess their awareness of cultural diversity. This study addressed a gap in the research by examining whether relationships exist between teachers’ awareness of cultural diversity, perceived academic achievement growth, and perceived persistence through school in ninth grade academies and the feeder senior high schools. The study was necessary to expand the current body of knowledge and potentially serve as an impetus for developing policies, programs, and practices with the aim of improving high school student achievement. More importantly, research reveals that more students drop out in ninth grade than any other grade and improvement at this level is essential to improving high schools overall. To illustrate, Timar and Maxwell-Jolly (2012) made the following argument:

High schools play a critical role in preparing students for careers, college, and citizenship. Thus, disparities in outcomes from high school may contribute to long-term disparities in economic and social outcomes throughout adulthood. At the same time, reducing these inequities in high school outcomes may play a critical role in reducing disparities in adult outcomes and improving the lives of the state’s most disadvantaged student populations. (as cited in Timar & Maxwell-Jolly, 2012, p. 6)

Timar and Maxwell-Jolly (2012) clearly highlights the role high schools play in ensuring equitable outcomes for all students during high school and beyond. Reforming high schools is the antecedent to improved educational outcomes and ultimately social and economic outcomes like employment rates, crime rates, life expectancy, and volunteerism (Rumberger, 2012, as cited in Timar & Maxwell-Jolly, 2012).
Summary

From 1990 to 2012, the high school dropout rate has declined from 12% to 7% and more students of color are graduating than ever before (National Center for Education Statistics, 2014). Although these outcomes are promising, grave disparities continue to exist between students from different races, ethnicities, and socioeconomic statuses (Balfanz et al., 2014). Efforts such as NCLB were designed to reform the U.S. education system. NCLB mandated that schools close achievement gaps, but the achievement gap is a complex phenomenon. Legislation alone has not closed the gap, but aligning legislation with practice seems to help. A teaching force that embraces cultural diversity as a means to educate all students successfully is needed to close the achievement gap (Gay, 2013). Furthermore, organizing high schools into small learning communities such as ninth grade academies is a promising practice that is beneficial to many students and particularly to impoverished students and students of color. For these reasons, this study was designed to offer understanding about high school teachers’ awareness of cultural diversity and perceived academic achievement in ninth grade academies and feeder senior high schools.
CHAPTER II

REVIEW OF THE LITERATURE

Chapter II examines the literature related to the constructs that were investigated in this quantitative study. The chapter begins with a brief review of the background and context of this study as introduced in Chapter I. This review is followed by the study’s theoretical framework. Chapter II continues by contrasting traditional high schools and ninth grade academies and describing how high school configurations have evolved over time. It describes the development and expansion of ninth grade academies as a reform effort to improve student outcomes. Next, the chapter defines the achievement gap, emphasizes the importance of closing the achievement gap, and identifies ways to close the achievement gap. The chapter concludes with an examination of cultural diversity awareness. It describes how teacher demographics are constant, but student demographics are changing. Culturally responsive teaching and factors mediating teachers’ awareness of cultural diversity are also discussed.

Background

Increasing the U.S. graduation rate to 90% by 2020 is a seemingly plausible goal as graduation rates have steadily increased since 2002 (Balfanz et al., 2014). The national graduation rate for 2012 was 80% (Stetser & Stillwell, 2014), but over 1.2 million students drop out every year in the United States (Miller, 2011). Ensuring that all students graduate at the same rate regardless of race, socioeconomic status, English proficiency, or disability is a national priority. The underachievement of historically marginalized students may result from schools that do not employ culturally responsive pedagogic practices (Banks, 2006; Carter, 2003; Smith, 2005). Small learning
communities create a context for teachers to embrace cultural diversity as a means to personalize the learning environment and improve academic achievement for high school students.

Theoretical Framework

The achievement gap is a persistent problem in the U.S. education system. Whether the educational outcomes are graduation rates, dropout rates, state-mandated tests, or national tests, broad disparities exist between the performance of traditionally marginalized students and White students. In fact, the average African American student who defies the odds and matriculates through 12th grade has the academic performance level of a White eighth grader (Paige & Witty, 2010).

With the development of the Common Core State Standards and an increasing need to produce students who are college-ready and career-ready, a renewed commitment to closing the achievement gap is pertinent. Furthermore, evolving student demographics make it more pressing to ameliorate the achievement gap because traditionally marginalized students are the new majority. Data from the National Center of Education Statistics (2013) indicate 50.8% of U.S. students are non-White. A majority-minority student population is no longer a forecast, but a reality that educators face. Therefore, “[e]ducators of all racial and cultural groups need to develop new competencies and pedagogies to successfully engage our changing populations” (Howard, 2007, p. 19). Otherwise, Rousseau cautions “the nation’s well-being is severely threatened by a majority population that is poor and uneducated” (as cited in Lindsey et al., 2005, p. ix).

Many assert that teachers who have an awareness of cultural diversity have the competencies and pedagogies described by Howard (2007) to narrow and eventually
close achievement gaps. Learning occurs when teachers use their awareness of cultural
diversity to activate students’ prior knowledge and experiences, build cultural capital for
traditionally marginalized students, and confront barriers to learning caused by
stereotypes (Delpit, 2006; Gay, 2013; Goldenberg, 2014). Accordingly, progressivism,
cultural capital, and stereotype threat theories guided this study. These theories provide a
foundation for understanding the complexities of teaching and learning and a conceptual
model of school reform that supports equal educational opportunity for all students.

This theoretical framework focuses on three factors contributing to student
achievement. These components are Dewey’s hypotheses about students’ experiences
influencing their knowledge acquisition, Bourdieu’s views about cultural capital
contributing to educational attainment, and Steele and Aronson’s findings about
stereotype threat impacting academic performance. This study sought to determine if
student achievement is influenced by the interplay between these three components.

Dewey (1938) criticized traditional education for its lack of attention to students’
prior knowledge and experiences. Traditional instruction focused on delivering a
curriculum, which typically is rigidly outlined and “consists of bodies of information and
of skills that have been worked out in the past” (Dewey, 1938, p. 17). Dewey (1938)
envisioned qualities of education that were not widely accepted during his time, but his
work serves as the foundation of many contemporary trends in education.

Instructional strategies that have contributed to reducing achievement gaps are
often linked to progressive education theory. For instance, some researchers have found
that “progressive pedagogic practices can work for all children, not just the children of
the affluent” (Semel & Sadovnik, 2007, p. 81). Many schools have narrowed the
achievement gap by incorporating the beliefs of progressive theorists like William Kilpatrick, Frances Parker, and John Dewey (Friedlaender, Burns, Lewis-Charp, Cook-Harvey, & Darling-Hammond, 2014; Haycock, 2001; Reeves, 2000; Reeves, 2003; Timar & Maxwell-Jolly, 2012). For example, 87% of 2011-2012 graduates successfully completed college preparatory coursework at the Life Academy of Health and Bioscience High School in Oakland, California (Friedlaender et al., 2014). The completion rates for the Oakland Unified School District and the state were 51% and 38% respectively (Friedlaender et al., 2014). At Life Academy, 99% of students receive free/reduced lunch, and 98% of students are students of color (Friedlaender et al., 2014). The Life Academy adopted a student-centered approach to instruction, and emphasized learning by doing which are qualities of progressive education (Friedlaender et al., 2014). Seniors are required to demonstrate problem solving skills and critical thinking skills by developing a research question based on an internship experience, conducting research, and publicly defending the results as a highly personalized culminating learning experience (Friedlaender et al., 2014).

Bourdieu’s (1977) cultural capital theory is of importance to this study because it explains how cultural factors such as parental roles, language, family size, and educational values influence academic achievement. Cultural capital is different from monetary wealth or capital as it means “non-economic resources that enable social mobility” (Bourdieu, 1977, as cited in Raskoff, 2014, para. 3). Examples of cultural capital include but are not limited to: education, knowledge, skills, style of speech, language, physical appearance, and dress (Bigelow, n.d.; Bourdieu, 1977; Carter, 2003; Raskoff, 2014).
Teachers can leverage students’ cultural capital to create equitable learning environments, but teachers need to first embrace cultural diversity and learn who their students are individually, culturally, socially, and emotionally (Carter, 2003; DiMaggio, 1982; Gay, 2013; Ladson-Billings, 1994; Villegas & Lucas, 2007). U.S. classrooms typically consist of a demographically diverse student population coupled with a predominately White, female teaching force (Goldenberg, 2014; National Center for Education Statistics, 2013; Southern Education Foundation, 2010). Consequently, teachers and students coming from different backgrounds may have different frames of reference about teaching and learning (Carter, 2011; DiMaggio, 1982; Maylor, 2014).

DiMaggio (1982) contended that affluent students have more cultural capital than do economically disadvantaged students. Teachers tend to connect more easily with students whose backgrounds are similar to their backgrounds and students who have more cultural capital than that of economically disadvantaged students (DiMaggio, 1982).

Since education is a form of cultural capital, teachers invest in students’ cultural capital or reproduce it when they pay more attention to certain students’ academic needs or perceive some groups of students as more intelligent than others (Bigelow, n.d.; Carter, 2003; DiMaggio, 1982; Raskoff, 2014). Teachers’ attitudes, beliefs, and preferences affect how they teach. These perspectives also affect how they influence students’ opportunities to learn. As cited in Carter (2003), Bourdieu (1977) asserted that the “school’s help reproduce a stratified class system by bolstering the dominant social group’s cultural capital” (p. 137).

According to Carter (2003), conventional use of the cultural capital theory is linked to the dominant social class (upper and middle class Whites). On the other hand,
Carter (2003) argues that there are variations of cultural capital; and African American students leverage dominant and non-dominant forms of cultural capital depending on the situation. The differential values educators place on variations of cultural capital can either help or hinder the learning environment and instruction. Carter (2003) interviewed poor, high school students in Yonkers, New York over 10 months, and found that students were aware of the way teachers and administrators viewed their cultural attributes. Furthermore, students perceived how those views influenced the educational opportunities made available to them. Therefore, students used dominant cultural capital to help them acquire academic and socioeconomic mobility, and they used non-dominant cultural capital to fit in with their peers (Carter, 2003).

U.S. schools were designed to educate the dominant culture (Goldin & Katz, 1999), and therefore, dominant cultural capital is recognized, accepted, and rewarded (Gaddis, 2013; Tramonte & Williams, 2010). Parents pass down cultural capital to their children (Bigelow, n.d.; Carter, 2003) and children cannot control their family’s background. However, educators have the power to teach students with non-dominant cultural capital effectively (Gaddis, 2013; Goldenberg, 2014; Tramonte & Williams, 2010). Successful teaching occurs when teachers see value in non-dominant cultural capital and purposefully use their students’ culture to bridge the gap between home and school and help children achieve at high levels (Goldenberg, 2014; Ladson-Billings, 1994).

Stereotype threat is another theory guiding this study. Students of color and students of poverty realize that others may have negative thoughts or beliefs about them. Sometimes these students are fearful of what could happen because of these negative
beliefs and inadvertently substantiate the negative stereotypes (Steele & Aronson, 1995). The achievement gap reinforces stereotypes about racial inferiority (Paige & Witty, 2010). Contrarily, when researchers analyze achievement data and control for socioeconomic status, results indicate the achievement gap is mediated by class rather than race (Fryer & Levitt, 2004, as cited in The Education Trust, 2006).

Researchers like Paige and Witty (2010) and Steele and Aronson (1995) assert that stereotypes contribute to the achievement gap. However, Steele and Aronson (1995) further argue that it is not race, but rather the subordinate status of African American children in American social hierarchy that puts African American children at a disadvantage. Furthermore, as subordinates receive differential treatments based on negative stereotypes, ultimately differential outcomes persist between poor students and students of color and their counterparts.

In classrooms, the stereotype threat theory may manifest itself in practice when educators do not have an awareness of cultural diversity. Educators may perceive the underachievement of traditionally marginalized students as a by-product of their race, disability, or socioeconomic status. However, empirical evidence suggests that negative expectancy undermines student performance (Achinstein et al., 2012; Bell, 2003; P. L. Carter, 2003; Gay, 2013; Goldenberg, 2014). When stereotype threats are eliminated, achievement gaps may narrow or close. Therefore, ensuring that all educators have a strong awareness of cultural diversity and utilize cultural diversity as a means to employ culturally responsive teaching practices will allow all children to gain equal access to educational opportunities.
The theories described in the theoretical framework are the foundation for this research study. Teachers with an awareness of cultural diversity may contribute to academic achievement in three ways. Culturally aware teachers embrace Dewey’s theory of activating students’ prior knowledge and experiences as a mechanism for learning (Dewey, 1938; Gay, 2013). These teachers understand the theory of building cultural capital for traditionally marginalized by paying special attention to them, expecting more of them, and minimizing the barriers that children from the non-dominant culture face (Goldenberg, 2014). One of these barriers is social labeling which means students who lack cultural capital are viewed as subordinate and ill equipped with the knowledge and skills to navigate the dominant class structure (Bigelow, n.d.). Lastly, culturally aware teachers confront these barriers to learning and understand how they perpetuate stereotypes, which disables academic achievement (Gay, 2013). The theories guiding this research study provide a foundation for understanding high school teachers’ awareness of cultural diversity and an explanation of how putting these theories into action could have a profound effect on academic achievement for all groups of students.

Small learning communities like ninth grade academies are typically very different from large, impersonal high schools. Ninth grade academies by design are smaller schools that allow teachers to have smaller classes (Legters et al., 2013). It is more feasible for teachers to learn the diverse needs of their students when they have 100 students instead of 300 students (Darling-Hammond et al., 2002). Common planning, interdisciplinary teams, and advisory/mentoring activities allow teachers to collaborate and strategically plan how to personalize learning and build sustained relationships with diverse groups of students (Darling-Hammond et al., 2002; Legters et al., 2013).
Large, impersonal high schools may inadvertently create barriers to learning caused by stereotype threat and place differential values on cultural capital that alienates students with non-dominant cultural capital (Bigelow, n.d.). Darling-Hammond et al. (2002) argued that we dare children to learn in large, bureaucratic high schools where: students have little chance of being well known by their teachers, counselors have case loads of 500 or more students, lecturing is the sole instructional strategy, and building community is second to maintaining control. These researchers also stressed that large high schools, may have worked for the purposes they were asked to serve 50 years ago – when fewer than 50 percent of students were expected to graduate and only a handful were expected to learn to think – they do not meet most of our children’s needs today. (p. 2)

Small learning communities like ninth grade academies have helped to reform high schools because they provide skilled and knowledgeable teachers, personalization, and sustained relationships for teachers and students alike. These features allow teachers to get to know their students academically, culturally, socially, and emotionally. In turn, teachers use this awareness of their students to build cultural capital for historically marginalized students. Instead of seeing these students as underachievers, teachers see them as underserved and take full responsibility for meeting their diverse needs (Payne, 2010). Furthermore, these teachers understand the negative consequences of stereotype threat. Low expectations have no place in their classrooms, and they create learning opportunities for all students to experience a level of success. Small schools without these key features would operate like large schools with fewer students. On the other hand,
small learning communities are designed to address the unique needs of students by instituting personalization and sustained relationships. A learning environment such as this is conducive to cultural proficiency.

High School Configuration

The freshman year of high school is often a tumultuous time for students. During the first year of high school, students may face problems such as low self-confidence, failure to follow school rules, suspension, truancy, and failed classes. Reform efforts to overcome these problems are essential for successful matriculation through high school (Cooper & Liou, 2007; Felner et al., 2007; Hertzog & Morgan, 1999). Modification of the traditional high school configuration is a prevalent reform effort, but the research yields mixed results (Cook et al., 2008; Cook, 2013; Daniel, 2011; Jordan, 2009; Peasant, 2006; Somers, Owens, & Piliawsky, 2009). For example, Jordan (2009) conducted a study to determine if a relationship existed between the presence of a ninth grade academy and student achievement in South Carolina’s public high schools. The sample consisted of 42 ninth grade academies and 42 non-academy schools. The results indicated that there was no statistically significant difference in achievement on state tests by the two groups (Jordan, 2009).

Like Jordan (2009), Peasant (2006) compared student achievement in three ninth grade schools to three traditional high schools in Mississippi, but Jordan (2009) studied a sample size 14 times greater than Peasant (2006). Nevertheless, Peasant (2006) found significant differences between the two groups. Students enrolled in ninth grade schools outperformed ninth grade students enrolled in traditional high schools on the state Algebra I test and the state Biology I test (Peasant, 2006). In fact, the mean scores on the
state Biology I test for Black students in ninth grade schools was greater than the mean scores for Black and White students in traditional high schools (Peasant, 2006).

Moreover, the Peasant study revealed that there was not a large achievement gap on the state Biology I test between White and Black students enrolled in ninth grade schools. The mean score for White students was .03 greater than the mean score for Black students (Peasant, 2006).

Researchers for the State Board of Education in North Carolina also studied ninth grade academies. Unlike the methods employed in the studies by Jordan (2009) and Peasant (2006), these researchers’ methodologies did not compare ninth grade schools and non-ninth grade schools for all variables identified in the study. Instead, Cook et al. (2008) gathered data on ninth grade academies in North Carolina and analyzed that data to determine the effectiveness of ninth grade academies on reducing student retention, reducing dropout rates, and increasing student proficiency growth levels. Cook et al. (2008) defined proficiency growth as the difference between students’ eighth grade reading test scores and ninth grade English test scores. The findings revealed that ninth grade academies had a 15% retention rate compared to the state average of 22% (Cook et al., 2008). Cook et al. also found a positive difference in the dropout rate. The state dropout rate was 12.5% compared to 6.6% for ninth grade academies. For the proficiency growth variable (the difference between two proficiency scores), the researchers compared schools with ninth grade academies and schools without ninth grade academies, and there was not a statistically significant relationship between these variables (Cook et al., 2008). In the aforementioned example, the results indicated that further study of the configuration of high schools, particularly ninth grade academies, is
warranted to gain a clearer understanding of its effectiveness as a high school reform effort.

*How High Schools Have Evolved*

High schools were originally established for the elite, but the goals of the traditional high school movement from 1910 to 1940 were to provide a basic education for all students and offer electives and advanced coursework to high performing students (Goldin & Katz, 1999; Loveless & Hess, 2007; Shannon & Bylsma, 2006). Large traditional high schools also provided teacher expertise in varied content areas, access to more resources, electives, and extracurricular activities (Shannon & Bylsma, 2006). Although these schools were designed to educate the youth of a democratic society; Angus and Mirel (1999) argued that traditional high schools “were deeply undemocratic, providing only a small percentage of students with the opportunity to master the knowledge and skills that might lead to power and success in American society” (as cited in Shannon & Bylsma, 2006, p. 41).

During the high school movement, a quality education for all students was an unfulfilled democratic vision and that promise has yet to be realized (Angus & Mirel, 1999, as cited in Shannon & Bylsma, 2006; Daugherty & Lord, 2005; Lyndsey, 2013). The achievement gap is still prevalent in the United States, and fulfilling the promise of an equal education for all children is becoming more urgent (Timar & Maxwell-Jolly, 2012; Williams, 2011). As the demographics of students change, historically underserved students need to graduate at the same rate as their counterparts (Lyndsey, 2013; Maylor, 2014; Williams, 2011). Every student should have the opportunity to learn and successfully matriculate through high school as our economic well-being depends on it.
(Rothstein, 2004; Shannon & Bylsma, 2006). To address this pressing need, high school reform has often consisted of structural changes like the configuration of high schools (Barbour, 2010; Kennelly & Monrad, 2011).

The configuration of high schools has evolved through the years to address a number of perceived needs. One of the most essential is to ensure that schools are developmentally appropriate for students (Cohen & Smerdon, 2009; Felner et al., 2007). Initially, researchers and theorists argued that large traditional high schools effectively served students (Cook et al., 2008; Kerr, 2002; Nield, 2009; Thornton, 2009). Conversely, evidence suggests small learning communities are becoming more prevalent and are better equipped to serve the diverse needs of students (Shannon & Bylsma, 2006).

During recent decades, traditional high schools typically have had a ninth through twelfth grade configuration. In some districts, high schools may consist of grades ten through twelve. Ninth graders in these districts may attend a junior high school that serves through the ninth grade population, a separate school strictly for freshmen, a school within a traditional high school designed specifically with a freshmen focus (Ellerbrock & Kiefer, 2010; Kerr, 2002; McAndrews & Anderson, 2002; Peasant, 2006; Sewell, 2010). A high school configuration such as this is known as a school-within-a-school. Stand-alone schools or schools within schools designed to meet the needs of ninth graders are identified by names such as ninth grade academies (NGAs), ninth grade schools, or freshman academies (Clinton, 2012; Cook, 2013; McAndrews & Anderson, 2002; Styron & Peasant, 2010; Thornton, 2009). These terms are used synonymously in the literature. Nevertheless, this study used the term ninth grade academies to reference schools specifically designed to meet the unique needs of freshmen.
Without a systematic approach to ease the transition to high school, many ninth graders disengage, fail courses, and eventually drop out of high school. School configuration impacts students’ transition from middle school to high school (Black, 2004; Mizelle, 2005; Mizelle & Irvin, 2000). The middle school movement of the 1960s made way for the rise of small learning communities in the 1970s (Cook et al., 2008; Peasant, 2006). During the middle school movement, the most common grade span for a middle school was grades six through eight (Hertzog & Morgan, 1999). According to Cook et al. (2008), the middle school movement also prompted the emergence of ninth grade academies in the 1990s as a reform effort to address ninth grade retention (Kennelly & Monrad, 2011; Peasant, 2006). During high school, more students are retained in ninth grade than any other grade; this explains why this phenomenon is sometimes called the ninth grade bulge (Kennelly & Monrad, 2011). Instead of being promoted to 10th grade, many ninth graders are retained especially in schools with inordinately high dropout rates (Balfanz & Legters, 2004; Cook et al., 2008; Cook, 2013; Kennelly & Monrad, 2011). As was noted previously, Balfanz and Legters (2004) have identified high schools that graduate 60% or less of their students as dropout factories. About 40% of ninth graders enrolled in schools with high dropout rates are retained in the ninth grade (Balfanz & Legters, 2004; Kennelly & Monrad, 2011).

Although the process of dropping out typically begins before high school, ninth grade is a pivotal year as evidenced by the disproportionately large number of students in the ninth grade (Kennelly & Monrad, 2011). By analyzing pre- and post-NCLB data at the national, state, and local levels, Haney (2004) found trends in the rate at which students progress through each grade level. The researcher examined ninth grade
retention rates and attrition rates between grades nine and ten. Consequently, ninth grade retention rates contribute to low graduation rates. Being overaged in ninth grade impacts the likelihood of dropping out; 65% to 90% of those students will not graduate (Haney, 2004).

Like Balfanz and Legters (2004), Haney (2004) studied ninth to tenth grade attrition, and the following observations show how historically underserved students (students of color, first-generation students, and low-income students) have higher attrition rates than their counterparts:

Analyses make it clear that attrition between grades nine and ten is far worse for Black and Hispanic students than for White students. For the majority of states for which grade-enrollment data are available by race, results show that grade nine to ten attrition for Blacks and Hispanics is on the order of 20 percent whereas for Whites it is less than 7 percent. These findings indicate that the grade nine to ten attrition rate for minorities students are roughly triple that for White students. (Haney, 2004, p. 99)

Development and Expansion of Ninth Grade Academies

Much of the research on ninth grade academies has yielded mixed results with regard to student outcomes (Jordan, 2009; Peasant, 2006). However, studies that compare traditional high schools to ninth grade schools tend to show that students in ninth grade schools perform better academically than traditional high school students (Cook et al., 2006; Peasant, 2006). This may be a function of the smaller student body in such academies. Small learning communities are beneficial to students because they ease the transition from middle school to high school (Hertzog & Morgan, 1999).
Although ninth grade academies can be physically configured differently (i.e. school within-a-school or separate building), the common goals of ninth grade academies include offering a special program that addresses the unique needs of ninth grade students (Styron & Peasant, 2010). These schools typically provide small interdisciplinary teams of teachers, block scheduling, and developmentally appropriate curriculum and instructional practices to help make the transition from middle to high school (Cook et al., 2008; Ellerbrock & Kiefer, 2010; Sewell, 2010; Warren et al., 2011).

Some approaches to easing the transition from middle school to high school include ninth grade house, transition teams, and advisory/mentoring programs (Hertzog & Morgan, 1999). Ideally, a ninth grade house is a type of school within-a-school where freshmen are assigned to an interdisciplinary team of teachers who only teach ninth graders (Hertzog & Morgan, 1999). There is a dedicated space for ninth grade classes, and those classes may be held in a wing of the building or in a separate building. Transition teams consisted of students, parents, teachers from grades eight and ten, one administrator, and one guidance counselor (Hertzog & Morgan, 1999). Teams begin meeting in the fall of the eighth grade year and continue to provide support on the high school experience throughout the freshman year. An education plan for the high school years and beyond is drafted to help students explore options for post secondary education and the workforce (Hertzog & Morgan, 1999). Easing high school transition and personalizing the experience is ameliorated by facilitating formal, planned mentoring sessions for students to develop behaviors needed for academic success (Hertzog & Morgan, 1999; McAndrews & Anderson, 2002; McIntosh & White, 2006). Caring,
devoted teachers provide the programming and facilitate these advisory/mentoring
sessions for ninth grade students (Hertzog & Morgan, 1999).

Traditional high school schedules often require teachers to teach a myriad of
classes for different grade levels. In the Hertzog and Morgan (1999) study, teachers
within a group were assigned one subject each and a cohort of students to instruct. These
teachers built better relationships with students because they saw them throughout the
day in class and during class changes (Hertzog & Morgan, 1999). Furthermore, “[t]he
schools with a ninth grade house identified it as a key element to the success of their
transition program” (Hertzog & Morgan, 1999, p. 27).

Although this study did not examine student perceptions, studies that have
examined student perceptions may help explain why ninth grade is a pivotal year and
how educators can make ninth grade better from the students’ perspective. For example,
497 ninth graders participated in a study that found there is a relationship between student
perceptions of teacher instructional communication behaviors and their desire or aversion
to study math and science (Mottet et al., 2008). Unfortunately, some confirm that NCLB
changed the culture of teaching and learning. Teachers are more apt to focus on teaching
content and test preparation strategies more so than learning how to communicate
effectively with students to influence their ability to excel at math and science and choose
math or science related careers (Mottet et al., 2008).

The U.S. graduation rate is higher than it has ever been before, but high school
reform efforts should continue. About 7,000 students drop out of high school daily, and
most of these students are students of color and/or students who are economically
disadvantaged (Balfanz et al., 2014; Miller, 2011). Evidence suggests that small learning
communities such as ninth grade academies have had a positive impact on student outcomes and particularly for students of color (Cook, 2013; Darling-Hammond et al., 2002; Peasant, 2006). From 2000 to 2009, the U.S. Department of Education appropriated $45 million to over $173 million in grant awards for school districts that created small learning communities as a high school reform effort (U. S. Department of Education, 2014). During those years, the number of ninth grade academies increased. For example, the National Center for Education Statistics (NCES) identified 128 ninth grade schools in 2004 and 185 in 2006 (Peasant, 2006). The evidence also indicates that between 2002 and 2012, the U.S. graduation increased by 10 points and hit a record high of 80% (Stetser & Stillwell, 2014). Until all students successfully matriculate through high school, there is certainly a need for more high schools that promote a culture of personalization and sustained relationships between teachers and students.

Historically marginalized students have about a 50% chance to matriculate successfully through high school in the United States (Alliance for Excellent Education, 2008 as cited in Jensen, 2013). Researchers, politicians, and educators agree that this needs to change (Balfanz et al., 2014; Jensen, 2009; Obama, 2009). Large, bureaucratic high schools make it difficult for teachers and students to build relationships that improve academic achievement and narrow the achievement gap (Hertzog & Morgan, 1999). Small learning communities such as ninth grade academies are designed to provide a personalized learning experience between teacher and students as well as student-to-student (Darling-Hammond et al., 2002). Structural changes like this allow teachers to get to know their students well, and address the diverse needs of students thereby increasing
the chances of students’ persistence in school through graduation (Balfanz et al., 2014; Felner et al., 2007; Kennelly & Monrad, 2011).

The attitudes, beliefs and dispositions of teachers can support or impede learning and persistence in school (Gay, 2013; Goldenberg, 2014; Love & Kruger, 2005; Maylor, 2014). Teachers who have low expectations of students perpetuate stereotypes and make it challenging for students to persist in school (Steele & Aronson, 1995). On the other hand, teachers with an awareness of cultural diversity are more apt to challenge the dominant cultural and educational norms that limit equitable opportunities to learn (Gay, 2013; Smith, 2005; Tramonte & Williams, 2010). In a setting such as a small learning community, culturally conscious teachers capitalize on the opportunity to incorporate students’ backgrounds, cultures, and languages in a more personalized environment (Williams, 2003; Williams, 2011). The interplay of these constructs has the potential to positively influence persistence in school and reduce dropout rates.

This section of the literature review explored high school configuration and its relationship to student achievement. Secondly, it outlined the history of high schools. Then traditional high schools were discussed, and lastly literature describing the structural features of ninth grade academies and persistence in school were discussed.

Closing the Achievement Gap

The United States education system does not justly serve all students (Cooper & Liou, 2007; Paige & Witty, 2010; Timar & Maxwell-Jolly, 2012; Williams, 2011). For many decades researchers, educators, and policymakers have been trying to understand a phenomenon called the achievement gap. The achievement gap is described as differences in student achievement between different subgroups of students as measured
Achievement gaps exist between varied groups of students, but the gaps between economically disadvantaged students and affluent students or students of color and White or Asian students are pervasive (Paige & Witty, 2010; Lyndsey, 2013; Timar & Maxwell-Jolly, 2012). For example, Lyndsey (2013) reported "[g]raduation rates improved for every race and ethnicity in 2010, but gaps among racial groups persist" (para. 9). Of all the groups, African Americans had the lowest graduation rate, with 66.1% graduating in four years. The gap between African American and Asian students was 26.9%, with 93% of Asian students graduating in four years. The graduation rates for the other groups were as follows: White, 83%; Hispanic, 71.4%; and American Indians and Alaska Natives, 69.1% (Lyndsey, 2013).

Defining the Achievement Gap

The achievement gap can be defined in a number of ways. Some look at the Black/White achievement gap or the poor/rich achievement gap, but there are other ways to describe the gap. These include gaps among students based on characteristics such as limited English proficiency, disabilities, and ethnicities such as Hispanic, Asian, and Native American. However, for this study, differences by race and socioeconomic status were the variables for examining the achievement gap.

Social scientists have been trying to understand the test score gap since World War I when it was first discovered from military test recruit scores (Jencks & Phillips, 1998). The achievement gap continues to be a problem in spite of pertinent U. S. Supreme Court decisions and federal mandates. In the landmark case, Brown v. Board of
Education, 347 U.S. 483 (1954), the Supreme Court found segregated or “separate but equal” schools unconstitutional.

Many professed that the Brown decision would help close the achievement gap. As a result, school districts began desegregation bussing. Bussing children was a means to comply with desegregation laws. Schools were more racially diverse, but over the years as the demographics of neighborhoods changed, schools became re-segregated. In fact, evidence suggests that the achievement of African American students in desegregated schools was worse than the achievement of African American students in segregated schools (McNeal, 2009).

Why the Achievement Gap is Persistent

Progress toward closing the achievement gap has been made, but the problem has persisted. The Coleman Report (1966) was a product of the Civil Rights Act of 1964. The report described many factors that contribute to the achievement gap, but offered little hope for schools having the ability to close the gap (Coleman, 1966). However, some research suggests that schools can do a lot to improve the quality of education for all students (Love & Kruger, 2005; Marzano, 2003; Williams, 2003). For example, Marzano (2003) has identified school-level, teacher-level, and student-level factors that relate to student achievement through meta-analysis of over 30 years of research. School and teacher factors account for 20% of the variance in student achievement, while student factors account for 80%. Unlike Coleman (1966), Marzano (2003) argued that school reform should not be focused on student factors, but on the school and teacher factors. Although these factors only account for 20% of the variance, these factors still have a significant impact on academic achievement. To illustrate, in an effective school 84% of
students would be proficient, but only 50% of those same students regardless of race or social economic status would be proficient in an ineffective school (Miller, 2003). Likewise, Reeves (2000) and Haycock (2001) have identified schools that have been successful in closing and narrowing the achievement gap. These schools have been described as 90/90/90 schools (90% minority, 90% economically disadvantaged, and 90% proficient) and high poverty, high performing schools.

These case studies demonstrate the significance of effective schools and teachers and offer some hope for eliminating the achievement gap. Yet, there are skeptics who question the validity of this body of research. Rothstein (2004) argued that these researchers do not use empirically sound methods of interpreting test score results. Rothstein (2004) maintains schools can close the gap, but his research is different from studies that focus on academic outcomes. Rothstein (2004) focused on affective factors such as behaviors and attitudes and argued that there is a financial cost to the achievement gap.

The awareness of cultural diversity by school administrators and teachers is a construct that may be related to the achievement gap, but little research has been done to provide evidence that this is so (Lindsey et al., 2005). Lindsey et al. (2005) found that teachers whose cultural characteristics are different from their students perpetuate stereotypes. This finding is similar to the theory called stereotype threat (Steele & Aronson, 1995). Steele and Aronson (1995) theorized that some students do not excel because they know their teachers do not expect them to excel because of the student’s race or class.
Efforts to Close the Achievement Gap

The alternative to the achievement gap is all students regardless of race, ethnicity, or socioeconomic status achieving at high levels. Educators are charged with this task, but overall, they have been unsuccessful. However, there is hope because of a growing body of evidence that demonstrates that economically disadvantaged students and students of color can achieve at high levels (Haycock, 2001; Reeves, 2000; Reeves, 2003).

A federal funding source has been instrumental in helping high-poverty schools secure staff, subsidize salaries, and acquire supplementary instructional resources, equipment, and programs. Title I of the Elementary and Secondary Education Act of 1965 is a federal funding program, which aims to ensure that traditionally underserved students have access to a high quality education. Typically, schools with high percentages of Blacks, Hispanics, and economically disadvantaged students receive these funds. In fact, the purpose of these funds is to close the achievement gap between students of color and White or Asian students, low performing and high performing students, and economically disadvantaged and economically advantaged students.

The National Assessment of Educational Progress (NAEP), also referred to as the Nation’s Report Card, is the only national, longitudinal study that sheds light on how public education is working in America (Haney, 2004; Lee, 2004). Since 1969, the U. S. Department of Education has used NAEP to inform the public about elementary and secondary academic achievement (National Center for Education Statistics, 2012).
According to the NCES Web site,

NAEP has two major goals: to compare student achievement in states and other jurisdictions and to track changes in achievement of fourth-, eighth-, and twelfth-graders over time in mathematics, reading, writing, science, and other content domains. To meet these dual goals, NAEP selects nationally representative samples of students who participate in either the main NAEP assessments or the long-term trend NAEP assessments. (National Center for Education Statistics, 2012)

Participation in the assessments is voluntary. However, districts or schools that receive Title I funding are required to participate (National Center for Education Statistics, 2012). NAEP disaggregates student data by race, ethnicity, socioeconomic status, English language learner status, and disability status to reveal differences in achievement between different subgroups of students (National Center for Education Statistics, 2012). More often than not, these analyses reveal disparities (Bohrnstedt, 2013). The Nation’s Report Card is widely used to determine the condition of public education in the United States (National Center for Education Statistics, 2012).

Many years after Title I funding began, the 1983 Nation at Risk report described the U.S education system as mediocre. The report indicated that many students were not exposed to high expectations and rigorous curricula. Numerous recommendations were made, and efforts to close the gap have failed because some reform efforts have been random acts of improvement (Bohrnstedt, 2013). To facilitate organizational change, a system of quality improvements should be in place (Smith, 2008). School leaders can positively affect school climate and student achievement by the role they play as
instructional leaders (Waters & Marzano, 2006). Researchers like Lindsey et al. (2005) and Kelley (1980) maintain that leaders have to assess their specific situation and the skill, competence, and motivation of their followers to effectively lead and make informed decisions.

Closing achievement gaps has numerous implications for individuals, families, and society (Mattison & Aber, 2007; Sadovnik et al., 2008; Timar & Maxwell-Jolly, 2012). Although education is not mentioned in the U.S. Constitution, ancestors declared an educated citizenry was essential to democracy. Therefore, if living in a democratic society was important then, providing a high quality education to all children is equally important now. To illustrate, former U.S. President George W. Bush demonstrated the significance of equitable education opportunities with the passage of the NCLB legislation in 2001. The legislation mandated universal proficiency by 2014, but that standard was not met. The Obama administration approved waivers for most states that requested flexibility in 2011. However, these waivers did not free schools and districts of accountability. Educational agencies are still mandated to provide highly qualified teachers, make adequate yearly progress for all subgroups, engage parents, increase graduation rates, and decrease dropout rates. If schools do not make improvements consistently over time, a series of sanctions result. These sanctions may range from school transfer options for students enrolled in under performing schools to restructuring the worst performing schools.

The main goals of NCLB are to improve educational outcomes and ensure equity in education. Graduation rates have definitely improved since the existence of NCLB (Stetser & Stillwell, 2014). However, some researchers argue that NCLB has failed
students. In regard to accountability and graduation rates, Swanson (2008) argued “accountability for graduation must go hand-in-hand with high standards for academic achievement. A diploma without knowledge and skills to back it up is little more than an empty scrap of paper” (p. 75). Academic achievement is typically measured by proficiency on standardized assessments. Each state determines the metrics for proficiency, and variations like these make it challenging to compare the results of state tests (Lee, 2004). Another unintended consequence of NCLB was discovered during a quantitative study in a Chicago school serving children from poverty. White and Rosenbaum (2008) identified underlying processes that occur as a result of schools trying to meet accountability mandates. From weekly observations, the researchers learned that students identified as “bubble kids” were targeted for intervention because they were close to being proficient (White & Rosenbaum, 2008). Struggling learners and advanced learners were not provided intervention or enrichment (White & Rosenbaum, 2008). Instead, the lowest performing students were labeled learning disabled and placed in special education programs. Science and history were not taught so that more instructional time could be devoted to tested subjects like reading and math (White & Rosenbaum, 2008). The school’s culture changed as teachers and administrators made decisions and took actions that were against their professional judgment, but were required in order to meet accountability standards (White & Rosenbaum, 2008).

School accountability is a major concern of educators across the nation. The mandates of NCLB caused schools to set goals and develop action plans. These plans emphasized improving practices to increase achievement for all students.
Weiner and Hall (2004) asserted the following:

By requiring states to set achievement goals for all groups of students and holding schools and systems accountable for their progress toward meeting those goals, NCLB prompts educators across the country to challenge long-held beliefs and practices and to do what is necessary to ensure that all children achieve at high levels. (p. 17)

Reform efforts designed to close achievement gaps offer models that can and should be replicated. Major reforms have consisted of federal legislation, policies, and administering NAEP to monitor the progress of academic achievement. The educators responsible for executing these major reforms understand the complexities of putting policy into practice. Schools cannot choose to ignore achievement gaps because of state and federal accountability measures that have become more and more prevalent during and since the twentieth century. The achievement gap should be closed because every child whether impoverished or affluent, Black or White, or low-achieving or high achieving deserves a high quality education (Brayboy, Castagno, & Maughan, 2007). A quality education brings opportunities not available to children who do not get a quality education. Educating youth is the role of a democratic society. When children are educated, their futures are brighter and they are better equipped to contribute meaningfully to society.

Some educators and policymakers conclude that there is not much that schools can do to close achievement gaps (Rothstein, 2004; Singleton & Linton, 2006). This view is supported because there is evidence that suggests that factors contributing to the achievement gap are outside schools’ control. These factors include socioeconomic
status, race, and family background/environment (Marzano, 2003). There are numerous empirical studies that address the achievement gap by race and socioeconomic status; these studies do not conclude that the gap is impossible to close because of these factors. Instead, they propose that other factors such as teacher quality, professional development, and school climate and culture can be manipulated to improve student outcomes (Haycock, 2001; Marzano, 2003; Reeves, 2002). There are districts and schools all across the nation that are challenging the myth that poor, children of color cannot perform as well academically as other students. The Education Trust has found hundreds of schools throughout the U.S. that are dispelling the myth about the achievement gap and proving that poverty and race alone do not predict student achievement (The Education Trust, 2006). Instead of focusing on factors outside of schools’ control, these schools choose to look at pedagogy and practice. Examples of such schools are provided in the sub-section that follows.

*How Some Schools are Closing the Achievement Gap*

The achievement gap is a complex phenomenon, and closing the gap requires a systemic, multi-prong approach (Timar & Maxwell-Jolly, 2012). Schools that have successfully narrowed achievement gaps embrace this approach whether they are elementary or secondary schools. For instance, concluded that school culture was the most influential factor on student achievement in a study of high performing, high poverty elementary schools in Kentucky. Additionally, a commitment to excellence and equity and embracing diversity were characteristics that school personnel shared at all of the different schools in the study. The tenets of excellence, equity, and embracing diversity support the theoretical framework for this study. If put into practice, teachers
have the power to ensure excellence for all students by having high expectations and adopting practices that foster learning such communicating directly with students about how capable they are (Maylor, 2014; Steele & Aronson, 1995). This practice helps to curtail stereotype threat because teachers communicate to students that they believe in them. Students respond by focusing on the task at hand instead of feeling fear or anxiety of failure (Steele & Aronson, 1995). Consistent, frequent interactions like these between teacher and students lead to increased academic achievement (Rodriguez & Bellanca, 2007). Lastly, equitable teaching practices counteract instructional practices that prevent historically marginalized students from accessing cultural capital (Edgerton & Roberts, 2014; Goldenberg, 2014).

Like in the study of elementary schools, teacher beliefs and practices influenced school culture and thereby student achievement in the Ferguson (2002) that assessed secondary students perceptions’ about school culture. surveyed middle and high school students in grades 7 through 11 using the Ed-Excel Assessment of Secondary School Student Culture. Participants consisted of 17,562 Caucasians, 7,120 African Americans, 2,491 Hispanics, 2,488 Asians, and 4,507 mixed race students. Disparities in self-reported achievement and skills were not evident for Caucasian and Asian students when compared to African American, Hispanics, and mixed race students. In addition, African American and Hispanic students were more apt to report a lack of understanding of teachers’ instruction and little comprehension of reading materials at school. Caucasian and Asian students were at greater advantage with regard to socioeconomic status and home learning environment when compared to African and Hispanic students. Little difference was found in the amount of time students from different races spent doing
homework when the course levels were the same. This finding provides evidence that
contradicts the perception that the achievement gap exists because one group works
harder than the other does, and supports the author’s argument that different students
simply have real skill gaps. Regardless of race, most students reported they worked hard
to get good grades for college (Ferguson, 2002).

African American and Hispanic students perceived encouragement and the
demand from their teachers as an important source of motivation (Ferguson, 2002). The
finding in this research suggested that “teacher-student relationships may be quite
important resources for raising achievement and narrowing gaps” (Ferguson, 2002, p.
22). The theoretical underpinnings for this study are analogous to Ferguson’s (2002)
findings about teachers being a source of motivation for students of color by encouraging
them and demanding high levels of performance. Effective teachers know how to build
meaningful relationships with students that foster learning. These teachers assert all
children can learn. They personalize learning based on the needs of students and their
beliefs become successful practices. Furthermore, positive teacher beliefs about culturally
and racially diverse students build cultural capital for these students and eliminates
stereotype threat.

The achievement gap is prevalent in all states, but inequities in student
achievement as measured by the National Assessment of Education Progress (NAEP) are
more pervasive in southern states (Southern Education Foundation, 2010).

In all southern states, African Americans, Hispanics, and American Indian
students as well as low-income students of all races and ethnicities, including
Whites, score below average on virtually every state required test in every subject.
These lower scoring students also graduate at lower rates than White students in the South (Southern Education Foundation, 2010, pp.15-16).

Historically, White students mostly populated U. S. schools. In the 15 states of the South, this is no longer true and children of color account for 51% of all public schoolchildren in the South (Southern Education Foundation, 2010). Another trend is that children from low-income families are the new majority in the South. According to Southern Education Foundation (2010), “the South is the first and only region in the nation ever to have both a majority of low income students and a majority of students of color enrolled in public schools” (p. 5).

The future of the South will be dreary if trends such as below average test scores and high dropout rates continue. In the South, there is a new, diverse majority of poor students and students of color, and the projects disenfranchisement in the global economy because the new majority will not be well educated. For instance, 15% of eighth grade students scored proficient or above on NAEP’s 2009 math examination in Mississippi. Compared to all states, Mississippi has the lowest percentage of student scoring proficient or above on this part of the exam. Poor students and students of color represent 66% and 53.7% respectively of the student population in Mississippi.

Children from poverty often attend schools that have inadequate funding, less qualified teachers, a climate of low expectations and little parental involvement or support from the community. found a positive relationship between family income and student achievement. For example, a $1000 income increase was parallel to a 3.6% increase of the standard deviation for reading test scores and a 2.1% increase of a standard deviation in math test scores. Some researchers would argue that the
generalization from Dahl and Lochner (2005) study is misleading (Haycock, 2001; Marzano, 2007; Miller, 2003; Reeves, 2002). Unlike children of poverty, children of affluence often attend schools that have adequate funding, highly qualified teachers, a climate of high expectations, and meaningful parental support as well as community engagement and partnerships. Based on the effective schools research, high student achievement would be evident in such schools for all children (Levine & Lezotte, 1990). Unfortunately, children of poverty do not have the opportunity to learn at ineffective schools (Jensen, 2009; Levine & Lezotte, 1990). The good news is if children of poverty had the opportunity to attend effective schools, student achievement for students of poverty would be comparable to their counterparts.

Research alone will not narrow the achievement gap, but the interpretation and application of empirically sound research may shed light on how to narrow the achievement gap. For instance, the Minority Student Achievement Network’s (MSAN) purpose is to disprove the assumption that educators do not appreciate how research can guide their practice and improve student learning. MSAN uses research to improve achievement for all students but especially poor students and students of color. MSAN has thoroughly analyzed conflicting, research based arguments regarding the achievement gap, established its own guiding principles, and worked to apply research in meaningful ways (Cooper, 2007). For example, the Algebra/Academic Youth Development (AYD) Initiative focuses on social and psychological factors that impact learning to design Algebra Allies for ninth grade students who struggled with math (Cooper, 2007). As a result of participating in the program, “students identified more highly with math, their
sense of belonging to the math community increased, and their feelings of race-based stereotype threat decreased.”

In summary, positive school climate, shared decision making, a commitment to academic excellence, data driven decision making, safety nets to prevent students from failing, and high expectations are common in high performing, high poverty schools (Haycock, 2001). These schools have significantly narrowed the achievement gap.

Cultural Diversity Awareness

Activating prior knowledge is the key to learning new content, and cognitive research indicates that this principle is essential to teaching and learning (Marzano, 2007; Pak, 2001; Payne, 2009; Reeves, 2000). In fact, Lindsey et al. (2005) argue that there is “[a] deeply rooted disrespect for the cultures of African American, Native American, and Latino peoples created by our American history frequently prevents teachers from applying this principle when teaching the children of these cultures” (p. ix.). Educators should respect and appreciate cultural diversity to meet the needs of a diverse student population who is traditionally underserved. Unfortunately, U.S. history is plagued with historical events that demonstrate little regard for people of color. To ensure history does not repeat itself, an educated citizenry is paramount in a democratic society (Dewey, 1938).

Current Demographics of Teachers and Students in U.S. Schools

Closing the racial achievement gap continues to be a major reform effort in the United States (DuFour, DuFour, Eaker, & Karhanek, 2010; Haney, 2004; Paige & Witty, 2010; Timar & Maxwell-Jolly, 2012; Williams, 2011). As efforts to close the racial achievement gap become more prevalent, the demographics of U.S. students have
changed. While student demographics have rapidly changed in the United States, teacher demographics in the United States remain constant (Boser, 2014; Muhammad & Hollie, 2012; Southern Education Foundation, 2010; Williams, 2003). Boser (2014) in collaboration with the Center for American Progress analyzed student and teacher demographic data from the 2010-2011 Common Core of Data and the 2011-2012 Schools and Staffing Survey respectively to determine each state’s diversity index. The diversity index is the “percentage-point difference between the percentages of non-White teachers and non-White students” (p. 4).

The national teacher diversity index score is 30 (Boser, 2014). In other words, there is a 30 point gap between the percentage of non-White teachers and the percentage of non-White students. Boser (2014) defined non-White populations as “all populations that are non-White, including the African American, Hispanic, Asian American and Pacific Islander, and Native American populations” (p. 4). In Mississippi, there is a 27 point gap between the proportion of non-White teachers and the proportion of nonwhite students (Boser, 2014). Twenty-seven percent of Mississippi teachers are non-White, while 54% of the students are non-White (Boser, 2014).

*Culturally Responsive Teaching*

In U.S. public schools, 84.3% of teachers are White. (Muhammad & Hollie, 2012). Most come from middle class families, attended predominately White schools with English speaking students, and gained their teaching credentials from institutions of higher learning that were also mostly populated by Whites (Gay, Dingus, & Jackson, 2003). Thus, these teachers’ background experiences and education do not reflect the diversity seen in U.S. schools. Although there is a cultural divide between the teaching
force and their students, teachers should “see color.” Seeing color means teachers understand how their own unconscious biases influence their expectations, beliefs, attitudes, and practice; this is important in order to enable teachers to address and prevent stereotypes and bias in the classroom (Banks et al., 2001a; Gay, 2010; Gay, 2013).

People who see color are conscientious about racial diversity, and they do not ignore racial or ethnic differences (Atwater & Castro, 2008; McIntosh, 1990). Proponents of seeing color insist an appreciation for diversity demonstrates an understanding of racial differences and particularly the plight of traditionally marginalized groups (Atwater, 2007; McIntosh, 2012). Teachers who see color are more likely to use differentiated instructional strategies to meet the needs of culturally and linguistically diverse students (Atwater, 2007; Gay, 2013). On the other hand, some teachers are colorblind. Within the context of this study, this term means teachers who are colorblind typically do not acknowledge that racial or ethnic differences exist (Atwater & Castro, 2008; Delpit, 1992; Palmieri, 2012). Atwater (2007) examined the colorblind attitudes of elementary teachers and found that teachers who participated in diversity training had low colorblind scores that indicated the teachers were color conscious. In other words, the “teachers recognize personal biases and become aware of the effects of White privilege and institution discrimination” (Atwater, 2007, p. 11). Teachers who have an awareness of cultural diversity, their own biases, and their own expectations of students realize how these beliefs influence their practices in the classroom and ultimately influence student learning (Atwater, 2007; Singleton & Linton, 2006).
Race is clearly a factor in education, and colorblind attitudes affect White children and children of color negatively (Atwater, 2007; Singleton & Linton, 2006). The negative effects of colorblind attitudes include conflicts between White students and students of color based on misinterpretations of one another and the disengagement of Black students that results when their values, practices, and beliefs are not represented in the curriculum (Atwater, 2007). To improve student achievement for students, race should be addressed directly (Atwater, 2007; Atwater & Castro, 2008; Gay, 2013; Singleton & Linton, 2006; Smith, 2005). Moreover, Singleton and Linton (2006) stressed:

> It is our belief that the most devastating factor contributing to the lowered achievement of students of color is institutionalized racism, which we recognize as the unexamined and unchallenged system of racial biases and residual White advantage that persist in our institutions of learning. (p. 33)

Bol and Berry (2005) concluded that teacher expectations and bias are functions of the explanation teachers frequently give for the achievement gap and the instructional practices they use to close the achievement gap. More specifically, they found that middle and secondary math teachers perceived student factors (i.e. level of motivation and family support) as major contributors to the achievement gap. From an analysis of qualitative data, these researchers also found that “teachers seemed to view socioeconomic status and culture opposed to achievement as connected” (p. 38). Although teachers identified student characteristics as contributors to the achievement gap, supervisors and university faculty identified curriculum and instruction (Bol & Berry, 2005). This discrepancy provides evidence that studying teachers’ awareness of
cultural diversity as a construct has merit because it could potentially shed additional insights about the racial achievement gap and about how to close this gap.

In 2005, Love and Kruger asserted that “[s]uccessful teachers of African American children create a relational and personal environment. Yet no known study has developed a measure of teachers culturally relevant beliefs nor systematically examined how they vary with student achievement” (p. 87). An exhaustive review of literature for this study did not reveal a study of this sort in the years since.

Villegas and Lucas (2007) described cultural diversity awareness as being socioculturally conscious and holding affirming views about diversity. Sociocultural consciousness is defined as “the awareness that a person’s world-view is not universal but is profoundly influenced by life experiences as mediated by a variety of factors, including race, ethnicity, gender, and social class” (Villegas & Lucas, 2007, p. 31).

Barnes (2006) argued that teacher preparation programs are responsible for equipping preservice teachers with culturally responsive teaching skills. These programs need to provide experiences that help teachers hone skills to bridge the cultural divide.

Ladson-Billings (1994) identified the following key areas to help teachers and administrators learn how to educate children of color effectively:

The research shows that five areas matter a great deal in the education of a multicultural population: teachers’ beliefs about students, curriculum content and materials, instructional approaches, educational settings, and teacher education. One other area…whether the race and ethnicity of teachers affects student learning… remains unclear. (Ladson-Billings, 1994, p. 22)
Like Ladson-Billings (1994), Ehrenberg, Goldhaber, and Brewer (1995) argued that their findings about whether race matters were unclear. Ehrenberg et al. (1995) found that the teachers’ race, gender, and ethnicity did not affect how much students learned. Yet, the study revealed that teachers’ race, gender, and ethnicity did affect teachers’ subjective beliefs about different groups of students. The scholarship about whether teachers’ race influences student learning is conflicting. Contrarily, the scholarship clearly substantiates that teachers’ awareness of cultural diversity is an essential, relevant construct related to student achievement (Delpit, 1996; Gay, 2013; Ladson-Billings, 1994; Ogletree, 2012; Roberts, 2013).

Factors Mediating Teachers’ Awareness of Cultural Diversity

School administrators critically influence the climate and culture of schools (Burns, 2002; Hines & Kritsonsi, 2008; McKenzie & Locke, 2014). Teachers, students, and parents alike form perceptions about a school based on leadership behavior. An effort to promote teachers’ awareness of cultural diversity would also require culturally proficient schools and leadership.

The research of Hines and Kritsonsi (2008) confirmed that racial differences existed between inservice teachers’ perceptions of White principals’ application of culturally proficient leadership practices. Hines and Kritsonis (2008) identified six constructs to categorize and describe a myriad of culturally proficient leadership practices. These constructs are: valuing diversity, managing the dynamics of difference, inclusiveness, assessing the culture, adapting to diversity, and institutionalizing cultural knowledge and resources (Hines & Kritsonis, 2008). Statistically significant differences by teachers’ race (African American, Caucasian, and Hispanic) were found for all
constructs (Hines & Kritsonis, 2008). Furthermore, compared to the African American and Hispanic teachers surveyed, Caucasian teachers gave the highest ratings for Caucasian principals on culturally proficient leadership practices (Hines & Kritsonis, 2008).

The findings of Hines and Kritsonis (2008) are similar to other research (e.g., Gay, 2010; Gay, 2013; Gay & Kirkland, 2003) that concluded that people from the same cultural background have common beliefs, values, and norms. Goodwin (2000) studied the achievement gap and explained why it is necessary to assess teachers’ awareness of cultural diversity and provide professional development designed to help teachers build an appreciation for cultural diversity. The findings of Goodwin (2000) include:

- A traditional curriculum is not culturally relevant.
- Teachers need to learn and understand their students’ cultural background and frame of reference and align instruction to meet diverse student needs.
- Inequitable classroom management practices (i.e. calling on White students more than students of color or making uninformed assumptions about a student’s ability that could be explained by cultural patterns) contribute to the achievement gap.
- Students do not believe they can achieve if they try, and teachers do not encourage students to try.

Like Goodwin (2000), Villegas and Lucas (2007) found that teachers have inequitable classroom practices because they lack sociocultural consciousness. These teachers “will inevitably rely on their own personal experiences to make sense of students’ lives” (Villegas & Lucas, 2007, p. 31). Teachers who are more reflective would
see that there is a mismatch between their own personal lives and those of their students from diverse cultural backgrounds. In fact, Castro (2010) found that current literature indicated “a shift toward more positive attitudes about teaching culturally diverse students, while persistent issues plague preservice teachers’ understanding of cultural diversity” (p. 198).

A generation of culturally competent teachers could change the trajectory among measures of student achievement and student outcomes. Competent teachers have high expectations of all students, employ equitable classroom practices, and have color-conscious attitudes (Atwater & Castro, 2008; Carter, 2009; Maylor, 2014). They also adopt a culturally relevant curriculum, bring multiple perspectives to the classroom, and use varied, research-based instructional strategies (Banks et al., 2001a; Gay, 2013; Payne, 2010).

Teachers’ frame of thinking influences the decisions they make about children. Teachers determine if a student’s behavior warrants a referral to the principal’s office that could result in suspension. Teachers determine if a student should be considered for special education or gifted education. The literature indicates that underserved students are suspended more often than their counterparts are (Balfanz & Legters, 2006; Ferguson, 2002). They are also over represented in special education and underrepresented in gifted education (Mattai, Wagle, & Williams, 2010; Maynard, 2012; Shannon & Bylsma, 2006). According to Mattai, Wagle, and Williams (2010), culturally and linguistically different (CLD) students, particularly African American students are underrepresented in gifted and talented programs. Development programs do not prepare teachers to understand “cultural characteristics that affect the way a student learns” (Mattai et al., 2010, p. 27).
Since teachers have the authority and power to influence student outcomes, it is imperative that teachers understand how cultural differences affect how students learn.

Programs designed to develop cultural diversity awareness are essential in any field. If the teacher/student relationship is similar to the healthcare provider/patient relationship, investing in a sophisticated cultural awareness program will help both types of professionals better serve their constituents. For example, Larzaro and Umphred (2007) studied how to improve cultural diversity awareness of physical therapist educators by utilizing a development program. Although the participants in this study were physical therapist educators instead of schoolteachers, this study demonstrates the value in investing in a cultural competence program. Like healthcare professionals, these programs could help teachers learn to work competently with culturally diverse student populations and improve cultural diversity awareness. Larzaro and Umphred (2007) asserted, “[c]ultural awareness enables educators to gain information regarding people who are different from themselves. It also allows them to recognize their own values, beliefs, and behaviors as well as to understand how these impact others” (p. 122).

The factors mediating teachers’ awareness of cultural diversity include: teachers’ personal attitudes, beliefs, and values, access to sophisticated professional development programs for preservice teachers and practicing teachers, and culturally proficient leadership. Further, teachers’ personal beliefs and values directly impact how well traditionally marginalized students will learn. To illustrate, Ferguson (2002) argued that teacher beliefs and expectations sustain and expand the Black-White test score gap. Additionally, Mattai et al. (2010) argued that teachers should change to address the under representation of CLD students in gifted programs. Equally important, Gilbert (1995)
asserted our perceptions or beliefs about others are either situational or dispositional (as cited in Mattai et al., 2010). Situational behavior is based on circumstances of the situation (Gilbert, 1995 as cited in Mattai et al., 2010). Dispositional behavior is based on our own beliefs instead of the situation (Gilbert, 1995, as cited in Mattai et al., 2010). Dispositional behavior can lead to stereotyping (Steele & Aronson, 1995).

Efforts to improve cultural diversity awareness include professional development, reflective journaling (logs and discussion), and candid talks, free of judgment (Mattai et al., 2010). Mattai et al. (2010) cited studies that suggest the need to modify instruction to accommodate cultural differences. Teachers need theoretical background, but they also need experience in meeting the learning needs of CLD students. Unfortunately, professional development for prospective teachers does not provide this type of balance (Mattai et al., 2010). The authors asserted further that “teacher preparation [p]rograms fail to address the relationships between teacher beliefs and student academic performance in the classroom” (Mattai et al., 2010, p. 30).

Institutions of higher learning prepare teachers to educate children. Mattai et al. (2010) highlighted the fact that teacher preparation programs do not adequately prepare teachers to address the needs of culturally and linguistically diverse students. Similarly, Brown (2004) acknowledged the problem as follows:

Teacher educators concur that cross-cultural perceptions, beliefs and behaviors of classroom teachers affect the academic and social development of their students. In the context of education, the “self concepts” of classroom teachers direct their perceptions of and behaviors toward students and form the basis of their ability to
integrate multicultural tenets into the classroom environment, instruction, and assessment. (p. 119)

In fact, pre-service teachers enter the profession with little to no authentic cross-cultural knowledge. Therefore, teacher education programs should address this issue by preparing prospective teachers to meet diverse student needs (Brown, 2004).

According to Williams (2003), “[p]oor and minority students bring culturally distinct values and beliefs to the classroom that are often incompatible with the biasness inherent in the curriculum, assessment measures, and teachers themselves” (back cover of book, para. 1). Although teacher characteristics mediate teachers’ awareness of cultural diversity, cultural diversity alone does not explain the achievement gap. There was a period of progress when the achievement gap narrowed. The progress was not attributed to teacher characteristics or any specific education reform effort. Educators had some success during the 1970s and late 1980s narrowing the achievement gap (Haycock, 2001; Paige & Witty, 2010; Timar & Maxwell-Jolly, 2012). Although the achievement gap is a complex, multi-faceted phenomenon, narrowing the gap was attributed to family demographics according to Grissmer, Kirby, Berends, and Williamson (as cited in Barton & Coley, 2010). Changing family demographics included: “the education of the mother and father, family income, whether the mother was working, [and] the mother’s age at birth of the child…” (Grissmer et al., as cited in Barton & Coley, 2010, p. 8).

Unfortunately, these factors only accounted for a third of the gap narrowing. If two-thirds of the gap narrowing were not explained, current reforms should address the cultural divide between schools and more specifically teachers who serve impoverished students of color. These students are the “new majority” in public schools, and it is
imperative that the U.S. education system educates all students (Southern Education Foundation, 2010, p. 3). School enrollment trends indicate that student populations are much more diverse now than they have ever been. A culturally diverse student population requires a culturally responsive teaching force to educate all children effectively.

The scholarly research clearly substantiates that a relationship exists between student achievement and teachers’ awareness of cultural diversity (Banks et al., 2001b; Gay, 2013; Ogletree, 2012; Roberts, 2013; Singleton & Linton, 2006). However, teachers rarely engage in deep discussion about the implications of diversity or race as a factor in education (Atwater, 2007; Beatty, 2012; McKenzie & Scheurich, 2008; Warikoo & Carter, 2009). Furthermore, many teachers have a colorblind attitude that inhibits them from addressing the diverse needs of traditionally marginalized students (Atwater & Castro, 2008; Chambers & Tabron, 2013; Singleton & Linton, 2006). Dewey (1938) emphasized teaching and learning need to be connected to students’ experience. This review of the literature suggests that it is necessary to change teacher preparation programs in addition to curriculum, instruction, and assessment to provide a culturally responsive education to a diverse student population.

Summary

Chapter II reviews the literature relevant to the purposes of this study. The chapter opens with a succinct recap of the background and context of this study as introduced in Chapter I. A theoretical framework for understanding the complexities of the achievement gap and adopting beliefs and practices to ensure equitable learning opportunities follows the background. The chapter reviews high school reform literature that is pertinent to this study. Research describing the achievement gap, major reforms to
close the achievement gap, and schools that have narrowed the achievement gap are discussed. The remainder of the chapter is devoted to research about cultural diversity awareness and culturally responsive teaching.
CHAPTER III

METHODOLOGY

The purpose of this study was to determine if relationships exist between high school teachers’ awareness of cultural diversity, perceived academic achievement growth, and perceived student persistence in school. The methods for determining if a relationship exists between high school teachers’ awareness of cultural diversity, perceived academic achievement growth, and perceived persistence are outlined in this chapter. As shown in Appendix A, the instrument entitled Teachers’ Awareness of Cultural Diversity and Academic Achievement in Ninth Grade Academies and Senior High Schools was employed for this study (Appendix A). Embedded in the larger instrument was the Cultural Diversity Awareness Index (CDAI), which measured teachers’ awareness of cultural diversity. Approval to use and adapt the CDAI was provided by the author (Appendix B). In this chapter, the research design, research questions, and hypotheses are outlined. The participants, variables, and instrumentation are described. Lastly, procedures for data collection and data analyses are explained in Chapter III.

Research Design

The research design was non-experimental and quantitative. The CDAI was used to quantify high school teachers’ awareness of cultural diversity. Correlations determined if a relationship exists between high school teachers’ awareness of cultural diversity and perceived academic achievement growth. The study determined if a relationship exists between high school teachers’ awareness of cultural diversity and perceived persistence in school (changes in dropout rates). In addition to determining if relationships exist
between the constructs, the study determined if differences exist between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity. Lastly, inferential statistical tests determined if there was a difference between the academic achievement gap of ninth grade academy students and ninth graders statewide by race and socioeconomic status.

Academic achievement and perceived academic achievement growth are two different achievement metrics that were used in this study. The academic achievement of ninth grade students was measured by the 2012-2013 Algebra I and Biology I tests of the SATPs. SATP archival data were used to compare the academic achievement of ninth grade students attending ninth grade academies that participated in this study and ninth graders statewide. Cross tabulation was used to compare and contrast the archival SATP data. In contrast, the perceived academic achievement growth metric was based on teachers’ perceptions of changes in academic achievement over two years. The data were gathered and summarized using descriptive and inferential statistics. The researcher used quantitative methods to determine if there was a relationship between teachers’ awareness of cultural diversity, perceived academic achievement growth, and persistence in school as measured by teachers’ perceptions of changes in dropout rates.

Research Questions and Hypotheses

The following research questions and hypotheses guided this study:

1. Is there a relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of academic achievement growth?
2. Is there a relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth?
3. Is there a relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of changes in dropout rates?

4. Is there a relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth after accounting for teachers’ race, gender, age, and years of experience?

5. Is there a difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity?

6. Is there a difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity after accounting for teachers’ race, gender, age, and years of experience?

7. What is the level of ninth grade academy teachers’ awareness of cultural diversity?

8. What is the level of senior high school teachers’ awareness of cultural diversity?

9. What is the level of academic achievement growth, as perceived by teachers, of students in ninth grade academies?

10. What is the level of academic achievement growth, as perceived by teachers, of students in the senior high schools to which ninth grade academy students matriculate?

11. What is the degree to which the dropout rate, as perceived by teachers, in ninth grade academies has changed?
12. Is the academic achievement gap by race and SES of ninth grade academy students different from the academic achievement gap by race and SES of ninth graders statewide?

Research Questions 1 through 6 are research questions for which it was appropriate to develop hypotheses. The following hypotheses, which are associated with Research Questions 1-6 in order, were examined in this study:

H1: There is a relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of academic achievement growth.

H2: There is a relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth.

H3: There is a relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of changes in dropout rates.

H4: There is a relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth after accounting for teachers’ race, gender, age, and years of experience.

H5: There is a difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity.

H6: There is a difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity after accounting for teachers’ race, gender, age, and years of experience.
Participants

The target population for this study was Mississippi teachers at 12 ninth grade academies and the 12 senior high schools to which their students matriculate. Schools were selected from the northern, central, and southern regions of Mississippi. The number of participating schools was limited because only ninth grade academies that have been in operation for a minimum of two years were selected to participate in this study. Establishing effective ninth grade academies take time, and schools that have been operating for at least two years are more likely to have well established procedures and features like dedicated space, dedicated teaching staff, and administrative leadership (Legters, Parise, & Rappaport, 2013; Peasant, 2006). Written permission from the superintendent of each school district selected for this study was secured before participants were asked to take part in this study (Appendix C). As a result, the principals at eight high schools consented to participate in this study. A total of 154 high school teachers completed the survey instrument; 51 were ninth grade academy teachers (33.1%), and 103 were senior high school teachers (66.9%).

Of the 154 participants, 32.5% were male and 67.5% were female. The majority of the participants were 39 or more years old (51.9%), followed by 20.1% who were 27 to 32 years old, and 16.2% who were 33 to 38 years old. Of all participants, 11.7% reported an age range of 21 to 26 years old. The participants also indicated their race, and the largest proportion of the participants were White (64.9%). 31.8% were Black, 1.9% Hispanic, .6% Native American, and .6% did not indicate race. The teacher experience data indicated that 26.6% of the participants had 1 to 5 years of teaching experience, followed by participants with 6 to 10 years of experience (25.3%). 20.1% had 21 or more
years of teaching experience, 14.9% had 11 to 15 years of teaching experience, and 13% had 16 to 20 years of teaching experience.

High school teachers were asked to complete the Cultural Diversity and Awareness Index (CDAI) as well as the academic achievement growth subscale. Participation in this study was voluntary. Participants received information that explained the study, requested their participation in the study, and explained that a signed letter of consent was required to participate. The information further explained that participation was voluntary and neither employers, the researcher, nor any other person would know the participants’ identities. The documents for participants are attached as a cover letter (Appendix D) and an informed consent document (Appendix E).

Students were not recruited for participation in this study. Archival SATP achievement data for the ninth grade academies selected for this study were downloaded from the Mississippi Assessment and Accountability Reporting System (MAARS). These scores are available to the public and to researchers. MAARS is an online database that houses statewide Mississippi Curriculum Test II (MCT2) and Mississippi Subject Area Testing Program II (SATP2) data. Only aggregate scores were used in this study; no scores were attributable to individual students.

Variables

This study utilized multiple variables that were examined at the teacher level and school level. A key variable throughout the research protocol was teacher awareness of cultural diversity. For questions that examine relationships, the independent variable was cultural diversity awareness. The dependent variables were teachers’ perceptions of academic achievement growth, teachers’ perceptions of student persistence (as
operationalized through changes in dropout rates), and academic achievement as measured by the percent scoring proficient or above on the SATPs. The measures of academic achievement for ninth graders were the Algebra I and Biology I subject area tests. Senior high school students take the English II and U.S. History subject area tests; therefore, these tests served as measures of academic achievement for senior high school students.

Demographic variables describing teachers included race, gender, age, and years of experience. Aggregate data for the race and socioeconomic status of students were collected in the archival data set. These are the demographic variables for students who participated in the administration of the Algebra I and Biology I subject area tests. All demographic variables for teachers served as independent variables for selected research questions in this study. For example, if a relationship exists between senior high school teachers’ awareness of cultural diversity and perceived academic achievement growth, that relationship was analyzed further to determine if the relationship was changed or affected by one or more of the following variables: teachers’ race, gender, age, and years of experience.

Since the Algebra I, Biology I, English II, and U.S History test scores served as variables in this study, a specific description of each variable was provided. The Mississippi Department of Education (MDE) describes the Algebra I SATP assessment as follows:

The Algebra I Subject Area Test measures a student’s knowledge of and skill level in applied algebra. The test consists of 65 multiple choice items. Many multiple-choice items contain charts, graphs, or diagrams that the student will use
to determine the correct answer. Questions from the following five competencies are distributed throughout the test: Number and Operations, Algebra, Geometry, Measurement, and Data Analysis and Probability. (Mississippi Department of Education, 2013, p. 7)

The MDE describes the Biology I SATP assessment as follows:

The Biology I Subject Area Test measures a student’s knowledge of basic biological concepts, the use of science skills (questioning, observing, measuring), and the application of biology to real-world problem solving and decision making. Students will interpret data, apply concepts, and draw conclusions in answering the questions. The test consists of 70 multiple-choice items, which may include charts, diagrams, or graphs. Questions from the following competencies are distributed throughout the test: Inquiry, Biochemical Basis of Life, Living Organisms and Their Environment, Biological Organization, Heredity, and Diversity and Biological Change. (Mississippi Department of Education, 2013, p. 12)

The MDE describes the English II SAT as follows:

The English II Subject Area Test measures knowledge of language arts, reading comprehension, and effective writing skills according to competencies found in the 2006 Mississippi Language Arts Framework, Revised for Tenth Grade. The English II Writing Assessment was required until the year 2011-2012. Students who were required to take this assessment are continuing to retest until they earn a passing score. The multiple-choice component of the English II Subject Area Test contains items that measure four competencies addressing vocabulary, reading
comprehension, writing, and grammar. (Mississippi Department of Education, 2013, p. 17)

The MDE describes the U.S. History SAT as follows:

The U.S. History Subject Area Test measures not only important historical knowledge but also real world skills by having students read and interpret short historical texts, statistical data, maps, charts, and tables. The test consists of 70 multiple-choice questions. Some of the multiple-choice questions include a chart, map, or other stimulus that must be interpreted accurately in order to answer the questions correctly. Questions from the following content strands are distributed throughout the test: Domestic Affairs, Global Affairs, Civil Rights/Human Rights, Economics, and Culture. (Mississippi Department of Education, 2013, p. 22)

The performance level descriptors (PLDs) define how well a student has demonstrated mastery of the objectives outlined in the Mississippi Curriculum Frameworks (MCF) and assessed by the SATP2 (Mississippi Department of Education, 2013). Score reports identify a numerical scale score and the corresponding performance level. There is a range of scale scores for each PLD, which are shown in Table 1. The four performance levels are as follows: minimal, basic, proficient and advanced. As mandated by NCLB, the proficient level of performance signifies that the student has demonstrated mastery of grade level content on the mandated assessment. It is important to note that the MDE identifies a minimum passing scale score for each SATP2 for graduation purposes. The passing score for Algebra I is 647; which falls within the basic performance level. The passing score for Biology I is 645; which falls within the basic performance level. The passing scores for English II and U.S. History are 645 and 641
respectively. A passing score is not synonymous to performing at the proficient level.

This study analyzed the average proficiency rates of ninth grade students.

Table 1

*Mississippi Subject Area Tests Performance Levels*

<table>
<thead>
<tr>
<th>Subject</th>
<th>Label</th>
<th>Scale Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra I</td>
<td>Advanced</td>
<td>661 and above</td>
</tr>
<tr>
<td></td>
<td>Proficient</td>
<td>650-660</td>
</tr>
<tr>
<td></td>
<td>Basic</td>
<td>642-649</td>
</tr>
<tr>
<td></td>
<td>Minimal</td>
<td>641 and below</td>
</tr>
<tr>
<td>Biology I</td>
<td>Advanced</td>
<td>665-688</td>
</tr>
<tr>
<td></td>
<td>Proficient</td>
<td>650-664</td>
</tr>
<tr>
<td></td>
<td>Basic</td>
<td>640-649</td>
</tr>
<tr>
<td></td>
<td>Minimal</td>
<td>610-639</td>
</tr>
<tr>
<td>English II</td>
<td>Advanced</td>
<td>661 and above</td>
</tr>
<tr>
<td></td>
<td>Proficient</td>
<td>650-660</td>
</tr>
<tr>
<td></td>
<td>Basic</td>
<td>642-649</td>
</tr>
<tr>
<td></td>
<td>Minimal</td>
<td>641 and below</td>
</tr>
<tr>
<td>U.S. History</td>
<td>Advanced</td>
<td>658 and above</td>
</tr>
<tr>
<td></td>
<td>Proficient</td>
<td>647-657</td>
</tr>
<tr>
<td></td>
<td>Basic</td>
<td>641-646</td>
</tr>
<tr>
<td></td>
<td>Minimal</td>
<td>640 and below</td>
</tr>
</tbody>
</table>
Instrumentation

As was noted previously, the instrument entitled Teachers’ Awareness of Cultural Diversity and Academic Achievement in Ninth Grade Academies and Senior High Schools was employed for this study. Embedded in the larger instrument is the Cultural Diversity Awareness Index (CDAI), which measured teachers’ awareness of cultural diversity. Additional sections were created by the researcher to solicit demographic information about participants, measure perceived academic achievement growth, and perceived persistence in school.

The CDAI, which is Section C of the larger instrument, is a self-examination questionnaire that assesses attitudes, beliefs and behaviors of teachers who provide services to culturally diverse students and specifically elementary students with special needs (Henry, 1995). The 28-item CDAI in Section C examines five constructs that are assessed via items in related subscales: general cultural awareness, culturally diverse family, cross-cultural communication, assessment, and multicultural environment (Henry, 1995). These five constructs collectively (Items 1-28 of the CDAI) were used to calculate the aggregate cultural diversity awareness score, and the overall cultural diversity score served as the independent variable.

The descriptive statistics for the subscales were not reported in this study because the subscales were not used to address research questions. However, items associated with each subscale in the CDAI section of the instrument are as follows:

Table 1 (continued).

• The general cultural awareness subscale consists of Items 1, 2, 3, 5, and 7.
• The culturally diverse family subscale consists of Items 6, 8, 9, 10, 15, 21, and 24.
• The cross-cultural communication subscale consists of Items 4, 12, 13, and 14.
• The assessment subscale consists of Items 18, 19, and 20.
• The multicultural environment subscale consists of Items 11, 16, 17, 22, 23, 25, 26, 27, and 28.

Only the aggregate cultural diversity awareness score was used as the independent variable in statistical analyses for this study. All of the CDAI items are rated on a five-point Likert scale. The response choices include: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, and 5=strongly agree. To obtain an aggregate or composite score, the researcher averaged Items 1-28. Responses with higher scores indicated higher awareness of cultural diversity. To illustrate, Item 1 is “I believe my culture is different from the students I serve.” For this statement, participants who indicate they strongly agree received 5 points, agree received 4 points, neutral received 3 points, disagree received 2 points, and strongly disagree received 1 point. In contrast, reversed scoring is necessary on Items numbered 4, 5, 7, 11, 16, 17, 18, 19, 20, 21, 22, and 28. These items were reversed in polarity to minimize response set, and reflect attitudes or beliefs that do not align with culturally responsive pedagogy. For example, Item 22 is “I believe teachers should not be responsible for teaching ethnic customs and traditions.” For this statement, participants who indicated they strongly agree received 1 point, agree received 2 points, neutral received 3 points, disagree received 4 points, and strongly disagree received 5
points. Items 3 and 10 are parallel items, and neutral was the optimal response (Henry, 1995).

Henry (1986) originally designed the CDAI for teachers and service providers of young children. However, the psychometric properties were not empirically established until 1995. A panel of experts determined the content and construct validity of the CDAI (Henry, 1995). Henry (1995) found the CDAI had “acceptable content and construct validity” (p. 50). Face validity was adequate as “all items were relevant to cultural diversity” (Henry, 1995, p.50). “Internal consistency validity for CDAI showed that 92% (N = 26) of the 28 total items correlated at a level above 0.52.” (Henry, 1995, p. 50). The test-retest reliability of the CDAI was established at the .66 level (Henry, 1995). Cronbach alphas indicated that the overall internal consistency reliability estimate was .90; which is acceptable (Henry, 1995).

Since the development of the CDAI, researchers have used the instrument consistently through the years with pre-service teachers and in-service teachers that serve students at the elementary and secondary level (Awang-Shuib, Sahari, & Ali, 2012; Brown, 2004; Davis & Whitener-Lepanto, 1994; Gunn & King, 2015; Jones, 2011; Plimper, 2009; Walker-Dalhouse & Dalhouse, 2006; Yeung, 2006). A Google Scholar search of the CDAI yielded 22 studies employing the instrument. Although the intended users of the CDAI are elementary educators, this study administered the CDAI to secondary teachers as other researchers have done (Deering, 1997; Koyama, Plash, & Davis, 2012; Ponterotto, Mendelsohn, & Belizaire, 2003; Russell & Russell, 2014; Vassallo, 2014). Dr. Gertrude Henry granted permission to modify and use the CDAI in this study (Appendix B). The CDAI is a dimension specific instrument as evidence by its
content and construct validity. The psychometric properties of the CDAI indicated that it satisfactorily measures the construct of cultural diversity awareness (Henry, 1995). The advantage of a dimension specific instrument is that it provides a valid and reliable assessment of a specific construct regardless of the population (Awang-Shuib et al., 2012; Gunn & King, 2015; Russell & Russell, 2014; Vassallo, 2014). Henry (1995) asserted, “…with the reliability and validity of the CDAI established, the instrument can be used to determine with some confidence what the attitudes of different groups of teachers anywhere may be” (p. 3). Based on the review of literature, the CDAI appears to be relevant to educators whether they serve elementary, middle, or high school students (Awang-Shuib et al., 2012; Gunn & King, 2015; Russell & Russell, 2014; Vassallo, 2014). Pre-service teachers, practicing teachers, and graduate school students majoring in education across the United States have been administered the CDAI, and one researcher used the instrument to survey educators from Malaysia (Awang-Shuib et al., 2012; Brown, 2004; Larke, 1990).

In light of Dr. Henry’s (2015) recommendations to update elements of the instrument (Appendix B), and the desire of the current researcher to adapt the instrument to include more variables, additional steps were taken to address validity and reliability. The following procedures describe the steps taken by the current researcher to address Dr. Henry’s suggestions. As Dr. Henry pointed out in Appendix B, the CDAI is over 20 years old. Nevertheless, the current researcher conducted a review of current literature, and it clearly indicated that the CDAI is frequently cited and used in research with contemporary K-12 preservice and in-service educators (Awang-Shuib et al., 2012; Gunn & King, 2015; Koyama et al., 2012; Russell & Russell, 2014; Vassallo, 2014).
Furthermore, the current researcher conducted a review of the CDAI with a panel of experts to revalidate the CDAI and consider how potential participants might respond to the inventory (Appendix F). The panel of experts reviewed a slightly modified version of the CDAI in terms of semantics and syntax, as the review of current literature indicated minor modifications to the CDAI (Russell & Russell, 2014). For example, Henry (1995) used the word *children* throughout the instrument, but Russell and Russell (2014) used the term *students*.

In addition to reviewing the CDAI, the panel of experts in the current study assessed the validity of the perceived academic achievement growth subscale. These panel members provided feedback on this subsection of the instrument via the previously mentioned expert panel questionnaire (Appendix F). The panel provided feedback about the clarity, relevance, and appropriateness of the perceived academic achievement growth subscale. Based on the feedback, the researcher determined modifications that needed to be made to the subscale. The researcher used the expert feedback to make minor adjustments to the questionnaire and improve clarity.

Upon securing IRB approval to conduct the research, a pilot study was executed to determine the reliability of the instrument. The IRB approval letter is shown in Appendix G. A district with ninth grade academies established for less than two years was selected for the pilot. This allowed the researcher to avoid reducing the already limited number of participants in ninth grade academies that had been in operation for two or more years and were eligible for the full study. The sample population for the pilot study consisted of 87 teachers from three high schools with ninth grade academies on site. Most of the participants were senior high school teachers (73.6%), and 26.4% of the
participants were ninth grade academy teachers. The sample consisted of 37.9% male participants and 62.1% female participants. The majority of the participants were 39 or more years old (44.8%), followed by 21.8% participants who were 33 to 38 years old, and 18.4% who were 27 to 32 years old. Of all participants, 14.9% reported an age range of 21 to 26 years old. The participants also indicated their race, and the largest proportion of the participants were Black (64%). The other participants consisted of 27.9% White, 3.5% Hispanic, 2.3% Asian, and 2.3% indicated other for race. The teacher experience data indicated that 36.8% of the participants had 1 to 5 years of teaching experience, followed by participants with 11 to 15 years of experience (19.5%). The participants indicated that 18.4% had 21 or more years of teaching experience, 16.1% had 6 to 10 years teaching experience. Only 8.0% of the participants had 16 to 20 years of teaching experience while 1.1% did not report years of teaching experience.

Cronbach’s alpha was used to determine the internal consistency of the perceived academic achievement growth and perceived persistence in school items (Section B) and the 28-item CDAI (Section C). The perceived academic achievement growth and perceived persistence in school survey items appeared to have an adequate internal consistency; $\alpha = .74$. The 28-item CDAI was found to be highly reliable; $\alpha = .86$. The pilot allowed the researcher to make necessary changes to the instrument before conducting the full study.

This study used two measures of student achievement. First, participants responded to statements using a five point, Likert scale. These statements measured teachers’ perceptions of academic achievement growth on the four previously mentioned SATPs and teachers’ perceptions of student persistence in school (changes in dropout
rates) over time. These achievement and persistence data were used in the analyses for Research Questions 1, 2, 3, and 4, and the related Hypotheses 1, 2, 3, and 4. Ninth grade students’ archived performance scores on the 2012-2013 Mississippi Subject Area Testing Program II (SATP2) for Algebra I, and Biology I also provided measures of academic achievement. The Algebra I and Biology I tests are typically taken in the ninth grade (Mississippi Department of Education, 2013). These archived data were used in the analysis related to Research Question 12. These tests along with the English II test and U.S. History tests, which are taken in senior high school (grades 10-12), are the four end-of-course tests that are required for graduation. Therefore, these are the only tests that were used to determine if there was a difference between the academic achievement gap of ninth grade academy students and ninth graders statewide by race and socioeconomic status.

Procedures

The researcher secured approval from the dissertation committee and the Institutional Review Board (IRB) of The University of Southern Mississippi before conducting the study. The researcher also requested permission to conduct the study from the superintendents of the targeted school districts. After the superintendents granted permission to conduct the study, the researcher contacted each principal at the high schools selected for this study. The researcher asked the principal to allow the school counselor to assist with data collection. The researcher mailed or hand-delivered surveys to each school’s counselor. The researcher conducted a phone conference with each counselor to outline the procedures for data collection and provided a script (Appendix H) for the counselor to use during data collection. Directions for handling, distributing,
collecting, and returning the completed surveys were provided. Participants did not identify themselves by name or number on the surveys. Anonymity and confidentiality were maintained for each completed survey, and a document outlining these safeguards were included for each prospective participant (Appendix E). The document also explained to the participants that completing the survey was strictly voluntary.

The school counselor was a certified educator who worked at the school and was designated by the principal to serve as the researcher’s volunteer. The counselors’ major responsibilities were as follows: serve as the point of contact for the researcher, facilitate a faculty meeting to administer the survey, reiterate the voluntary nature of the study, collect completed surveys without reviewing them, place the surveys in the envelope provided, and mail the surveys to the researcher in a timely manner. The counselor completed, signed, and returned a checklist to the researcher verifying that the procedures for administering the instrument were followed. Communications with school counselors were face-to-face, by telephone, and/or via email to help facilitate the data collection process. Each school’s counselor received a $25.00 gift card from the researcher after the surveys were returned to the researcher.

In addition to following the described procedures to implement the survey instrument, the researcher secured archival data from the Mississippi Department of Education’s Web site. This public Web site contains a database known as MAARS in which users may view and download student achievement data. The researcher downloaded Excel spreadsheets from MAARS containing SATP aggregate performance level data for each school targeted for this study. The data were imported into IBM SPSS for analyses.
Data Analyses

After receiving the surveys via mail, the researcher entered the responses into a Microsoft Excel spreadsheet. The researcher imported the data to a software package, IBM Statistical Product and Service Solutions (IBM SPSS) and analyzed the data. Additionally, the researcher imported Algebra I and Biology I aggregated archival data from MDE into IBM SPSS for analyses. The results were reported in the dissertation without identifying the participants.

Data collected from the questionnaires were studied using descriptive, correlational, and inferential statistics. Data from the CDAI responses were aggregated at the teacher level and overall school level. A Cronbach’s alpha test was used to determine the final reliability of the perceived academic achievement growth and perceived persistence in school items (Section B) and the 28-item CDAI (Section C). The perceived academic achievement growth and perceived persistence in school survey items had an adequate internal consistency; $\alpha = .70$. An adequate Cronbach’s alpha was also attained for the CDAI after deleting 5 items; $\alpha = .68$. Items 1, 10, 13, 16, and 28 were deleted.

Correlational analyses determined if relationships exist between the variables identified in Research Questions 1-3. The independent variable was teachers’ awareness of cultural diversity. There were several dependent variables (perceived academic achievement growth, teachers’ race, gender, age, and years of experience) in Research Question 4 and one independent variable (cultural diversity awareness). Therefore, a multiple regression was conducted to answer Research Question 4. An independent t-Test provided a result for Question 5, and ANCOVA evaluated if differences existed between the variables identified in Research Questions 6. Descriptive statistics were calculated for
Research Questions 7-11 and for other variables used to answer the remaining research questions. Descriptive statistics were used to address Research Question 12.

Summary

Chapter III explains the methods employed by this study to determine levels of perceived achievement and persistence among students in ninth grade academies and the schools to which they matriculate. It outlines the methods for determining levels of cultural diversity awareness among teachers. The chapter describes methods and procedures for determining if a relationship exists between high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth. It further explains the procedures for determining if there are differences between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity. The CDAI was described as a measure of teachers’ awareness of cultural diversity, and its psychometric properties were presented. Protocols for administering, collecting, and returning surveys are outlined.
CHAPTER IV
RESULTS

The purpose of this study was to investigate teachers’ awareness of cultural diversity, perceptions of academic achievement growth, and perceptions of student persistence in ninth grade academies and senior high schools. Eight high schools in Mississippi participated in the study. Three of the schools were ninth grade-only schools located on a different campus from the senior high school, and three were senior high schools with a tenth through twelfth grade configuration. Students from the ninth grade-only schools matriculated to the senior high schools that participated in the study. Two of the schools were traditional high schools with grades nine through twelve. However, the ninth graders were housed in a dedicated building on campus to create a small learning community within a large high school. Thus, the configuration of the schools included two programs focused on separate service to ninth graders and two tenth-twelfth grade programs. The survey instrument was completed by 154 high school teachers; 51 were ninth grade academy teachers, and 103 were senior high school teachers (Grades 10-12).

The instrument consisted of three sections. Section A contained demographic items. Section B was created by the researcher to measure teachers’ perceptions of academic achievement growth and perceptions of persistence in school. Section C contained the Cultural Diversity Awareness Index (CDAI) originally developed by Dr. Gertrude Henry.

Fourteen public school districts in Mississippi were invited to participate in the study. Five of fourteen superintendents (35%) consented in writing for their districts to participate in the study. Nine schools within these districts had a ninth grade academy in operation for two or more years, and therefore met the criteria to participate in the study.
The principals at eight of these schools consented to participate, and allowed the school counselor to assist with the research. However, one counselor did not consent to administer the survey. Therefore, the researcher administered the survey at that specific school. Each school received a package consisting of a checklist and script for the counselor to use during the administration of the survey, along with a large, self-addressed envelope in which to return letters of consent and surveys. The packages also contained the number of surveys equal to the number of teachers employed at the eight schools. Eight schools (100%) returned completed surveys. A total of 154 teachers in the eight schools participated in this study. A little more than (33%) were ninth grade academy teachers, and 66.9% performed the majority of their duties at a senior high school serving grades 10-12.

The return rates from each school ranged from 20% to 90%, and the overall return rate was 60%. Considering that the population for this study was limited, all participating schools were included regardless of the return rate. Of the 154 surveys returned, two contained missing values. Participants with missing values were not included in some of the analyses related to ninth grade academies. For the purpose of this study, means from individual schools were not used in the analyses related to the study hypotheses. Instead, the researcher analyzed aggregated data for ninth grade academies and aggregated data for senior high schools. With the exception of one school, the school counselor disseminated the letter of consent, notice of informed consent, and surveys to teachers. After facilitating the data collection process using a script provided by the researcher, the school counselor collected the completed surveys, completed the counselor’s checklist provided by the researcher, and mailed these items in a self-addressed, stamped envelope
provided by the researcher. The return address of the school was written on the envelope to identify each participating school.

A review of the literature suggested that ninth grade academies can be effective models for providing instruction to students in their first year of high school, but few empirical studies have examined high school teachers’ awareness of cultural diversity, particularly among those who teach at ninth grade academies. This study examined differences and relationships among high school teachers’ awareness of cultural diversity and perceived academic achievement growth in ninth grade academies and the senior high schools to which ninth graders matriculate. The researcher used SPSS to conduct statistical analyses, and the results of the analyses are presented in the sections that follow.

Demographic Items

The survey was divided into three sections. Demographic items were addressed in Section A of the survey instrument. The participants indicated their gender, age, race, years of teaching experience, grade level teaching assignments, and the type of school where they performed the majority of their teaching responsibilities as shown in Table 2. Grade level teaching assignments were not needed to address any research questions. Therefore, these data are not reported. Most of the participants (67.5%) were female, while 32.5% were male. The largest proportion of participants were 39 or older (51.9%), followed by teachers who were 27 to 32 years of age (20.1%). About sixteen percent (16.2%) of the participants were 33 to 38 years of age, and 11.7% were 21 to 26 years old. Participants were also asked to identify their race. The majority of the participants were White (64.9%), and 31.8% were Black.
Table 2

*Frequencies and Percentages of Participants’ Gender, Age Range, and Race (N=154)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50</td>
<td>32.5</td>
</tr>
<tr>
<td>Female</td>
<td>104</td>
<td>67.5</td>
</tr>
<tr>
<td><strong>Age Range</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 to 26</td>
<td>18</td>
<td>11.7</td>
</tr>
<tr>
<td>27 to 32</td>
<td>31</td>
<td>20.1</td>
</tr>
<tr>
<td>33 to 38</td>
<td>25</td>
<td>16.2</td>
</tr>
<tr>
<td>39 or more</td>
<td>80</td>
<td>51.9</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>49</td>
<td>31.8</td>
</tr>
<tr>
<td>White</td>
<td>100</td>
<td>64.9</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3</td>
<td>1.9</td>
</tr>
<tr>
<td>Native American</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>.6</td>
</tr>
</tbody>
</table>
Over half of the participants had 10 or fewer years of teaching experience (51.9%), and 48% had 11 or more years of teaching experience. A total of 154 high school teachers returned completed surveys, which included 33.1% (N=51) ninth grade academy teachers and 66.9% (N=103) senior high school (grades 10 -12) teachers. Table 3 displays the frequencies and percentages for these data.

Table 3

Frequencies and Percentages of Participants’ Years of Teaching Experience and School Type (N=154)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Teaching Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 5</td>
<td>41</td>
<td>26.6</td>
</tr>
<tr>
<td>6 to 10</td>
<td>39</td>
<td>25.3</td>
</tr>
<tr>
<td>11 to 15</td>
<td>23</td>
<td>14.9</td>
</tr>
<tr>
<td>16 to 20</td>
<td>20</td>
<td>13.0</td>
</tr>
<tr>
<td>21 or more</td>
<td>31</td>
<td>20.1</td>
</tr>
<tr>
<td>School Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ninth Grade Academy</td>
<td>51</td>
<td>33.1</td>
</tr>
<tr>
<td>Senior High School</td>
<td>103</td>
<td>66.9</td>
</tr>
</tbody>
</table>
Statistical Analyses

Descriptives

Descriptive analyses were run to address Research Questions 7 through 12. Participants were asked to respond to Sections B and C of the instrument (Appendix A) to address Research Questions 7 through 11. Section B consisted of five items used to determine the participants’ perceptions of academic achievement growth (Items 1-4) and perceptions of persistence in school (Item 5). Participants were asked to select the response that best described their perception of academic achievement growth and perceptions of persistence in school at their district’s ninth grade academy and the senior high school to which freshmen matriculate. The Likert scale was as follows: 1=Substantially Decreased, 2=Moderately Decreased, 3=Remained the Same, 4=Moderately Increased, 5=Substantially Increased.

As discussed in Chapter III, the full study yielded a 23-item CDAI as five items were excluded from the original instrument to improve the instrument’s reliability for the sample in the full study (N=154). These items were not included in the data analyses addressing the research questions. The CDAI response choices included 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, and 5=strongly disagree. Negatively phrased items were analyzed with reverse coding so that a high score reflected a culturally sensitive perception. The means and standard deviations for the CDAI are listed in Table 4 for ninth grade academy teachers and Table 5 for senior high school teachers. The items are sorted in descending order for ease of comparison. A mean score of 3.5 or greater indicated that the participant tended to be more culturally sensitive. A mean score of 3.4 or less indicated that the participants tended to be neutral or not culturally sensitive.
Research Question 7: What is the level of ninth grade academy teachers’ awareness of cultural diversity?

The composite CDAI mean score indicated that ninth grade academy teachers perceived themselves as neutral to cultural diversity awareness ($M = 3.43$, $SD = 0.28$). The highest mean score on the CDAI for ninth grade academy teachers was 4.33 for Item 16, “I should accept the use of ethnic jokes/phrases by students.” This mean score is between disagree and strongly disagree scores since reverse coding was used for this item, which indicates that the ninth grade academy teachers were culturally sensitive on this item. The mean scores for 12 of the 23 items ranged from 3.51 to 4.33, which indicate favorable levels of cultural diversity awareness for ninth grade academy teachers.

For Item 23, “It is my responsibility to provide cultural opportunities for students to share cultural differences like foods, dress, family and/or beliefs” the mean score is 3.47. This score is closer to neutral than agree and indicated the participants had some cultural awareness on this item of the CDAI. Eleven items had a mean score between 2.58 and 3.47, which indicate neutral perceptions of cultural diversity. The lowest cultural diversity awareness mean score was 2.58 on Item 19, “Adaptations in standardized assessments are questionable since it alters reliability and validity.” This item was reversed scored and indicated ninth grade academy teachers were not culturally sensitive on this item. Table 4 provides means and standard deviations for these data.
Table 4  
*Descriptive Statistics for Ninth Grade Academy Teachers Responses to the CDAI (N=49)*

<table>
<thead>
<tr>
<th>Item Number and Description</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>6R Accept use of ethnic jokes/phrases</td>
<td>4.33</td>
<td>0.75</td>
</tr>
<tr>
<td>27 Student job assignments should rotate</td>
<td>3.88</td>
<td>0.75</td>
</tr>
<tr>
<td>17R Ignore racial statements</td>
<td>3.88</td>
<td>1.11</td>
</tr>
<tr>
<td>5R Uncomfortable with different values</td>
<td>3.88</td>
<td>1.01</td>
</tr>
<tr>
<td>7R Surprised by certain ethnic group participation</td>
<td>3.78</td>
<td>1.07</td>
</tr>
<tr>
<td>8 Include family's views in school programming</td>
<td>3.71</td>
<td>0.68</td>
</tr>
<tr>
<td>2 Identify students by ethnic groups</td>
<td>3.71</td>
<td>0.94</td>
</tr>
<tr>
<td>12 English should be taught as second language</td>
<td>3.69</td>
<td>1.04</td>
</tr>
<tr>
<td>24 IEP meeting schedule for convenience of parent</td>
<td>3.63</td>
<td>0.81</td>
</tr>
<tr>
<td>25 Make program adaptations to accommodate diversity</td>
<td>3.61</td>
<td>0.57</td>
</tr>
<tr>
<td>11R Solution to communication is student responsibility</td>
<td>3.51</td>
<td>0.96</td>
</tr>
<tr>
<td>20R Translating standardized tests</td>
<td>3.51</td>
<td>1.06</td>
</tr>
<tr>
<td>23 Provide opportunities to share cultural differences</td>
<td>3.47</td>
<td>0.79</td>
</tr>
<tr>
<td>9 Include parent input in program planning</td>
<td>3.37</td>
<td>1.05</td>
</tr>
<tr>
<td>22R Should not be responsible for teaching ethnic customs</td>
<td>3.29</td>
<td>0.98</td>
</tr>
<tr>
<td>4R Uncomfortable with non-standard English</td>
<td>3.24</td>
<td>1.03</td>
</tr>
<tr>
<td>14 Non-standard English should be accepted</td>
<td>3.14</td>
<td>1.02</td>
</tr>
<tr>
<td>6 Interact with parents outside of school</td>
<td>3.06</td>
<td>1.11</td>
</tr>
<tr>
<td>21R Parents know little about assessing their children</td>
<td>3.00</td>
<td>1.08</td>
</tr>
</tbody>
</table>
Table 4 (continued).

<table>
<thead>
<tr>
<th>Item Number and Description</th>
<th>Mean</th>
<th>Std.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Ethnic identification preferences</td>
<td>2.96</td>
<td>0.93</td>
</tr>
<tr>
<td>26 Displays/materials reflect three different cultural groups</td>
<td>2.94</td>
<td>0.94</td>
</tr>
<tr>
<td>18R Refer for testing if learning difficulties are cultural</td>
<td>2.67</td>
<td>0.99</td>
</tr>
<tr>
<td>19R Adaptations to standardized tests</td>
<td>2.58</td>
<td>0.82</td>
</tr>
<tr>
<td>Total CDAI Composite Score</td>
<td>3.43</td>
<td>0.28</td>
</tr>
</tbody>
</table>

Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

*An R following the question number denotes reverse-scored items.

Research Question 8: What is the level of senior high school teachers’ awareness of cultural diversity?

The composite CDAI mean score indicated that senior high school (Grades 10 - 12) teachers perceived themselves as neutral to cultural diversity awareness ($M = 3.49$, $SD = 0.36$). The highest mean score on the CDAI for senior high school teachers was 4.24 for Item 16, “I should accept the use of ethnic jokes/phrases by students.” This mean score is between disagree and strongly disagree scores since reverse coding was used for this item, which indicates that the senior high school teachers were culturally sensitive on this item. The mean scores for 11 of the 23 items ranged from 3.53 to 4.24; which indicate favorable levels of cultural diversity awareness for senior high school teachers.

For Item 9, “It is necessary to include parent input in program planning” the mean score is 3.49. This score is closer to neutral than agree and indicated the participants had
some cultural awareness on this item of the CDAI. Twelve items had a mean score between 2.86 and 3.49, which indicate neutral perceptions of cultural diversity. The lowest cultural diversity awareness mean score was 2.86 on Item 19, “Adaptations in standardized assessments are questionable since it alters reliability and validity.” This item was reversed scored and indicated that senior high school teachers were not culturally sensitive on this item. Table 5 provides means and standard deviations for these data.

Table 5

_Descriptive Statistics for Senior High School Teachers Responses to the CDAI (N=103)_

<table>
<thead>
<tr>
<th>Item Number and Description</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>16R Accept use of ethnic jokes/phrases</td>
<td>4.24</td>
<td>0.93</td>
</tr>
<tr>
<td>17R Ignore racial statements</td>
<td>4.06</td>
<td>1.07</td>
</tr>
<tr>
<td>27 Student job assignments should rotate</td>
<td>3.98</td>
<td>0.71</td>
</tr>
<tr>
<td>12 English should be taught as second language</td>
<td>3.93</td>
<td>1.00</td>
</tr>
<tr>
<td>8 Include family's views in school programming</td>
<td>3.90</td>
<td>0.84</td>
</tr>
<tr>
<td>5R Uncomfortable with different values</td>
<td>3.74</td>
<td>1.03</td>
</tr>
<tr>
<td>11R Solution to communication is student responsibility</td>
<td>3.63</td>
<td>1.01</td>
</tr>
<tr>
<td>2 Identifying students by ethnic groups</td>
<td>3.60</td>
<td>0.98</td>
</tr>
<tr>
<td>7R Surprised by certain ethnic group participation</td>
<td>3.59</td>
<td>1.01</td>
</tr>
<tr>
<td>24 IEP meeting schedule for convenience of parent</td>
<td>3.57</td>
<td>0.91</td>
</tr>
<tr>
<td>23 Provide opportunities to share cultural differences</td>
<td>3.53</td>
<td>1.04</td>
</tr>
</tbody>
</table>
Table 5 (continued).

<table>
<thead>
<tr>
<th>Item Number and Description</th>
<th>Mean</th>
<th>Std.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 Include parent input in program planning</td>
<td>3.49</td>
<td>0.92</td>
</tr>
<tr>
<td>25 Make program adaptations to accommodate diversity</td>
<td>3.48</td>
<td>0.92</td>
</tr>
<tr>
<td>6 Interact with parents outside of school</td>
<td>3.40</td>
<td>0.95</td>
</tr>
<tr>
<td>20R Translating standardized tests</td>
<td>3.36</td>
<td>1.01</td>
</tr>
<tr>
<td>4R Uncomfortable with non-standard English</td>
<td>3.35</td>
<td>1.18</td>
</tr>
<tr>
<td>22R Should not be responsible for teaching ethnic customs</td>
<td>3.24</td>
<td>1.04</td>
</tr>
<tr>
<td>21R Parents know little about assessing their children</td>
<td>3.16</td>
<td>1.10</td>
</tr>
<tr>
<td>26 Displays/materials reflect three different cultural groups</td>
<td>3.13</td>
<td>0.90</td>
</tr>
<tr>
<td>14 Non-standard English should be accepted</td>
<td>3.12</td>
<td>1.14</td>
</tr>
<tr>
<td>15 Ethnic identification preferences</td>
<td>2.93</td>
<td>0.97</td>
</tr>
<tr>
<td>18R Refer for testing if learning difficulties are cultural</td>
<td>2.92</td>
<td>1.08</td>
</tr>
<tr>
<td>19R Adaptations to standardized tests</td>
<td>2.86</td>
<td>0.88</td>
</tr>
<tr>
<td>Total CDAI Composite Score</td>
<td>3.49</td>
<td>0.36</td>
</tr>
</tbody>
</table>

Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

*An R following the question number denotes reverse-scored items

Research Question 9: What is the level of academic achievement growth, as perceived by teachers, of students in ninth grade academies?

In order to gauge the change in academic achievement, the participants were asked to choose the response that best described their perception of academic
achievement growth and perceptions of persistence in school as shown by items in Section B of the instrument. The mean score for Item 1 indicated that the participants perceived Algebra I SATP scores had remained the same over two years ($M = 3.24$, $SD = 0.85$). Similarly, for Item 2, the participants indicated that Biology I SATP scores had remained the same over two years as measured by Item 2 ($M = 3.22$, $SD = 0.95$).

Research Question 10: What is the level of academic achievement growth, as perceived by teachers, of students in the senior high schools to which ninth grade academy students matriculate?

Participants were asked to choose the response that best described their perception of academic achievement growth and perceptions of persistence in school as shown by the items in Section B of the instrument. The mean score for Item 3 indicated that the participants perceived English II SATP scores had remained the same over two years ($M = 3.18$, $SD = 0.86$). Similarly, for Item 4, the participants indicated that U.S. History SATP scores had remained the same over two years as measured by Item 4 ($M = 3.20$, $SD = 0.89$).

Research Question 11: What is the degree to which the dropout rate, as perceived by teachers, in ninth grade academies has changed?

The participants were asked to choose the response that best described their perception of persistence in school as shown by Item 5 in Section B of the instrument. The mean score for Item 5 indicated that the participants tended to think the dropout rate had moderately decreased over two years ($M = 2.60$, $SD = 0.82$).
Research Question 12: Is the academic achievement gap by race and SES of ninth grade academy students different from the academic achievement gap by race and SES of ninth graders statewide?

Using archival SATP data from the MDE website, the researcher employed cross-tabulation to compare and contrast the achievement gap in ninth grade academies that participated in this study to ninth graders statewide. The average percent of students scoring proficient and above on the Algebra I SATP and the Biology SATP are shown in Table 6. The data indicated that achievement gaps exist among student performance indicators in ninth grade academies and statewide. The Black/White achievement gap is more prevalent in ninth grade academies. Generally, the percentage of Black students scoring proficient or above was less than the percentage of White students scoring proficient or above in ninth grade academies and statewide. On the Algebra I SATP in ninth grade academies, the average percent of Black students scoring proficient or above was 58.8% compared to 86% for White students. Furthermore, the Black/White achievement gap was 27.2% in ninth grade academies and 19% statewide on the Algebra I SATP. On the Biology I SATP, the average percent of Black students scoring proficient or above was 33% compared to 70% for White students in ninth grade academies. Furthermore, the Black/White achievement gap was 37% in ninth grade academies and 34% statewide on the Biology I SATP. Black and White students statewide tended to outperform Black and White students in ninth grade academies.
Table 6

*SATP Average Percent Scoring Proficient or Above in Ninth Grade Academies and Statewide by Race and Socioeconomic Status*

<table>
<thead>
<tr>
<th>SATP</th>
<th>NGAs</th>
<th>Statewide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Algebra I</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Students</td>
<td>59.8</td>
<td>78</td>
</tr>
<tr>
<td>Black Students</td>
<td>58.8</td>
<td>69</td>
</tr>
<tr>
<td>White Students</td>
<td>86</td>
<td>88</td>
</tr>
<tr>
<td>Black/White Gap</td>
<td>27.2</td>
<td>19</td>
</tr>
<tr>
<td>Economically Disadvantaged (ED)</td>
<td>58.6</td>
<td>72</td>
</tr>
<tr>
<td>Non-economically Disadvantaged (NED)</td>
<td>62.5</td>
<td>88</td>
</tr>
<tr>
<td>ED/NED Gap</td>
<td>3.9</td>
<td>16</td>
</tr>
<tr>
<td><strong>Biology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Students</td>
<td>37.6</td>
<td>63</td>
</tr>
<tr>
<td>Black Students</td>
<td>33</td>
<td>47</td>
</tr>
<tr>
<td>White Students</td>
<td>70</td>
<td>81</td>
</tr>
<tr>
<td>Black/White Gap</td>
<td>37</td>
<td>34</td>
</tr>
<tr>
<td>Economically Disadvantaged (ED)</td>
<td>34</td>
<td>52</td>
</tr>
<tr>
<td>Non-economically Disadvantaged (NED)</td>
<td>45.6</td>
<td>79</td>
</tr>
<tr>
<td>ED/NED Gap</td>
<td>11.6</td>
<td>27</td>
</tr>
</tbody>
</table>
Further review of the data indicated that the achievement gap between economically disadvantaged students and non-economically disadvantaged students is more prevalent statewide than in ninth grade academies. On the Algebra I SATP in ninth grade academies, the average percent of economically disadvantaged students scoring proficient or above was 58.6% compared to 62.5% for non-economically disadvantaged students. Furthermore, the economically disadvantaged/non-economically disadvantaged achievement gap was 3.9% in ninth grade academies and 16% statewide on the Algebra I SATP. On the Biology I SATP, the average percent of economically disadvantaged students scoring proficient or above was 34% compared to 45.6% for non-economically disadvantaged students in ninth grade academies. Furthermore, the economically disadvantaged/non-economically disadvantaged achievement gap was 11.6% in ninth grade academies and 27% statewide on the Biology I SATP. Non-economically disadvantaged students in ninth grade academies tended to outperform economically disadvantaged students statewide.

Tests of Hypotheses

Research Hypothesis 1: There is a relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of academic achievement growth.

Fifty-one ninth grade academy teachers responded to the survey about their level of cultural diversity awareness ($M = 3.43$, $SD = 0.28$) and their perceptions of academic achievement growth. There were two variables related to teachers’ perceptions of academic achievement growth for ninth grade academies; these variables were
perceptions of Algebra I SATP scores \((M = 3.24, SD = 0.85)\) and perceptions of Biology I SATP scores \((M = 3.22, SD = 0.95)\).

A Pearson’s \(r\) data analysis revealed that there was not a correlation between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of Algebra I SATP scores, \(r = -.029, N = 45, p = .852\). The hypothesis was rejected. Overall, there was not a significant correlation between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of Algebra I SATP scores. There was not enough evidence to suggest that this correlation exists in the population.

A Pearson’s \(r\) was also computed to assess the relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of Biology I SATP scores, \(r = -.138, N = 45, p = .366\). The hypothesis was rejected. Overall, there was not a significant correlation between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of Biology I SATP scores. There was not enough evidence to suggest that this correlation exists in the population.

Research Hypothesis 2: There is a relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth.

One hundred three senior high school teachers responded to the survey about their level of cultural diversity awareness \((M = 3.49, SD = 0.36)\) and their perceptions of academic achievement growth. There were two variables related to teachers’ perceptions of academic achievement growth for senior high schools; these variables were perceptions of English II SATP scores \((M = 3.18, SD = 0.86)\) and perceptions of U.S. History SATP scores \((M = 3.20, SD = 0.89)\).
A Pearson’s $r$ data analysis revealed there was not a correlation between senior high school teachers’ awareness of cultural diversity and their perceptions of English II SATP scores, $r = .097, N = 103, p = .340$. The hypothesis was rejected. Overall, there was not a significant correlation between senior school teachers’ awareness of cultural diversity and their perceptions of English II SATP scores. There was not enough evidence to suggest that this correlation exists in the population.

A Pearson’s $r$ was also computed to assess the relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of U.S. History SATP scores, $r = .029, N = 103, p = .744$. The hypothesis was rejected. Overall, there was not a significant correlation between senior high school teachers’ awareness of cultural diversity and their perceptions of U.S. History SATP scores. There was not enough evidence to suggest that this correlation exists in the population.

Research Hypothesis 3: There is a relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of changes in dropout rates.

A Pearson’s $r$ was computed to assess the relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of changes in dropout rates, $r = -.150, N = 49, p = .336$. The hypothesis was rejected. Overall, there was not a significant correlation between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of changes in dropout rates. There was not enough evidence to suggest that this correlation exists in the population.
Research Hypothesis 4: There is a relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth after accounting for teachers’ race, gender, age, and years of experience.

The multiple regression revealed a non-significant model for predicting senior high schools’ teachers awareness of cultural diversity, $F(6, 90) = 0.540, p=.777, R^2 = .035$. The model demonstrated that there was not a significant relationship between senior high teachers’ awareness of cultural diversity and their perceptions of academic achievement growth after accounting for teachers’ race, gender, age, and years of experience. The results of this analysis did not support Hypothesis 4.

Research Hypothesis 5: There is a difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity.

An Independent $t$ test was utilized to determine if there was a significant difference in teachers’ awareness of cultural diversity in ninth grade academies and the senior high schools to which their students matriculated. Ninth grade academy teachers’ awareness of cultural diversity, ($M=3.42, SE= 0.04$) was similar to senior high school teachers’ awareness of cultural diversity, ($M=3.48, SE= 0.03$). Therefore, there was not a statistically significant difference between the groups $t(152) = -1.15 p=.170$. The hypothesis was rejected.

Research Hypothesis 6: There is a difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity after accounting for teachers’ race, gender, age, and years of experience.
An ANCOVA was conducted to determine if there was a statistically significant difference between ninth grade academy teachers’ and senior high school teachers’ awareness of cultural diversity after controlling for teachers’ race, gender, age, and years of experience. There was not a statistically significant difference between ninth grade academy teachers’ and senior high school teachers’ awareness of cultural diversity after controlling for teachers’ race, gender, age, and years of experience ($F(1,147) = 1.24, p = .268$). The hypothesis was rejected.

Summary

This study of teachers’ awareness of cultural diversity and perceived academic achievement growth in ninth grade academies and senior high schools included 154 high school teachers from eight high schools in Mississippi. The statistical program SPSS was used to analyze the quantitative data collected for this study. Descriptive statistics indicated that ninth grade academy teachers and senior high school teachers have similar levels of cultural diversity awareness. Both groups of teachers perceived that academic achievement growth remained the same over two years, and ninth grade academy teachers indicated that the dropout rate had decreased over two years. An analysis of archival SATP data revealed that the Black/White achievement gap was more prevalent in ninth grade academies that participated in this study compared to the statewide gap. However, the gap between poor and affluent students was more prevalent among ninth graders statewide when compared to ninth graders at the participating ninth grade academies. All of the hypotheses that examined relationships and differences among the variables for this study were rejected.
Chapter V will provide a discussion of these results, the limitations of this study, recommendations for policy and practice, and future research recommendations.
CHAPTER V
DISCUSSION

The national graduation rate was 80% for the 2011-2012 school year (Stetser & Stillwell, 2014). Although the increased graduation rate is promising, disparities continue to exist because students of color and students from poverty do not graduate from high school at the same rate as their counterparts (Layton 2013; U.S. Department of Education, 2013; Balfanz et al., 2014). The purpose of this study was to investigate teachers’ awareness of cultural diversity, perceptions of academic achievement growth, and perceptions of student persistence in ninth grade academies and senior high schools. The following section summarizes the results of this study beginning with the research questions that were addressed through the descriptive statistics (Research Questions 7-12). The summary of findings for these questions is followed by the summaries of findings for Research Questions 1-6 and their related hypotheses (Hypotheses 1-6).

Major Findings

Descriptive and inferential statistics allowed the researcher to address each of the research questions for this study, and several findings emerged. This research was exploratory in nature. Considering that the methodology did not employ random sampling, generalizations about the findings should be made with caution.

Research Question 7 asked: “What is the level of ninth grade academy teachers’ awareness of cultural diversity?” Participants responded to survey items using a Likert scale that was based on a 1-5 point scale with strongly disagree receiving a rating of 1, neutral receiving a rating of 3, and strongly agree receiving a rating of 5. A composite CDAI mean score of 3.43 for ninth grade academy teachers shows that ninth grade
academy teachers in the participating eight high schools perceived themselves as neutral to cultural diversity awareness. However, their beliefs about accepting the use of ethnic jokes/phrases by students (Item 16) indicated that teachers disagreed or strongly disagreed with the behavior ($M=4.33$). Item 16 had the highest rating and demonstrated that ninth grade academy teachers had high cultural sensitivity with regard to this item. Furthermore, the study revealed that ninth grade academy teachers had favorable levels of cultural diversity awareness for most items on the CDAI with mean scores ranging from 3.51 to 4.33. The mean for Item 19 “Adaptations in standardized assessments are questionable since it alters reliability and validity” was 2.58. This was the lowest rated item, and the mean suggests ninth grade academy teachers were not culturally sensitive toward making adaptations to standardized assessments.

Research Question 8 stated: What is the level of senior high school teachers’ awareness of cultural diversity? The composite CDAI mean score was 3.49 for senior high school teachers; which suggests that senior high school teachers had neutral levels of cultural diversity awareness like ninth grade academy teachers. Like the ninth grade academy teachers, the highest mean for senior high school teachers was 4.24 for Item 16, “I should accept the use of ethnic jokes/phrases by students”. This suggests that teachers disagree or strongly disagree with students using ethnic jokes/phrases. Additionally, the study found that senior high school teachers had favorable levels of cultural diversity awareness for many items of the CDAI with means ranging from 3.53 to 4.24. Item 19 “Adaptations in standardized assessments are questionable since it alters reliability and validity” was the lowest rated item for senior high school teachers ($M=2.86$); which was also the item that received the lowest rating from ninth grade academy teachers.
Although the senior high school teachers rated Item 19 slightly higher than ninth grade academy teachers, the means suggest teachers were not culturally sensitive toward making adaptations to standardized assessments.

Research Question 9 was: “What is the level of academic achievement growth, as perceived by teachers, of students in ninth grade academies?” Ninth grade academy teachers perceived that Algebra I SATP scores \((M=3.24)\) and Biology I SATP scores \((M=3.22)\) had remained the same over two years. This finding suggests that participating ninth grade academies have not, on average, observed a decrease or increase in their students’ Algebra I and Biology I SATP scores over two years.

Research Question 10 was: “What is the level of academic achievement growth, as perceived by teachers, of students in the senior high schools to which ninth grade academy students matriculate?” Senior high school teachers perceived that English II SATP scores \((M=3.18)\) and U.S. History SATP scores \((M=3.20)\) had remained the same over two years. This finding suggests that participating senior high schools have not, on average, observed a decrease or increase in their students’ Algebra I and Biology I SATP scores over two years.

Research Question 11 was: “What is the degree to which the dropout rate, as perceived by teachers, in ninth grade academies has changed?” A mean of 2.60 indicates that ninth grade academy teachers perceived that the dropout rate had, on average, decreased moderately over two years.

Research Question 12 was: “Is the academic achievement gap by race and SES of ninth grade academy students different from the academic achievement gap by race and SES of ninth graders statewide?” The achievement gap was different for ninth grade
academy students at the participating schools and ninth graders statewide by race and SES. Ninth grade academies had a wider Black/White achievement gap when compared to the statewide Black/White gap. White students generally outperformed Black students in ninth grade academies and statewide. The Black/White achievement gap was 27.2% in ninth grade academies and 19% statewide on the Algebra I SATP. The Black/White achievement gaps were wider for the Biology SATP compared to the Algebra I SATP. The Black/White achievement gap was 37% in ninth grade academies and 34% statewide on the Biology I SATP. The data further indicated that Black and White students statewide tended to outperform Black and White students in ninth grade academies.

The data indicated that the economically disadvantaged/non-economically disadvantaged achievement gap was wider for ninth graders statewide than ninth graders in the participating ninth grade academies. The economically disadvantaged/non-economically disadvantaged achievement gap was 3.9% in the participating ninth grade academies and 16% statewide on the Algebra I SATP. Although these gaps were wider for the Biology I SATP, students in the participating ninth grade academies outperformed ninth graders statewide. The gap was 11.6% for students in the participating ninth grade academies, and 27% for ninth graders statewide.

The tests of the hypotheses did not yield significant relationships between the variables examined in the analyses. Hypothesis 1, which stated: “There is a relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of academic achievement growth,” was not supported. There was not a relationship between ninth grade teachers’ awareness of cultural diversity and their
perceptions of academic achievement growth for the Algebra I SATP and Biology I SATP.

Hypothesis 2, which stated: “There is a relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth,” was not supported. There was not a relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth for the English II SATP and U.S. History SATP.

Similarly, Research Hypothesis 3, which stated: “There is a relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of changes in dropout rates,” was not confirmed. There was not a relationship between ninth grade academy teachers’ awareness of cultural diversity and their perceptions of changes in dropout rates.

Hypothesis 4, which stated: “There is a relationship between senior high school teachers’ awareness of cultural diversity and their perceptions of academic achievement growth after accounting for teachers’ race, gender, age, years of experience,” was not supported. The results did not provide evidence that senior high school teachers’ awareness of cultural diversity is related to perceived academic achievement growth after controlling for teachers’ race, gender, age, and years of experience.

Research Hypothesis 5, which stated: “There is a difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity,” was not supported. There was no difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity.
Research Hypothesis 6, which stated: “There is a difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity after accounting for teachers’ race, gender, age, and years of experience,” was not supported. There was no difference between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity when controlling for teachers’ race, gender, age, and years of experience.

Discussion

Many studies quantify the level of teachers’ awareness of cultural diversity. These studies confirm that teachers’ awareness of cultural diversity either support or impede learning (Carter, 2009; Gay, 2013). A review of the literature did not yield any studies that examine the constructs of the current study. Previous studies focused independently on either cultural diversity awareness of teachers or student achievement in ninth grade academies. Therefore, this study may be the first study to examine relationships between high school teachers’ awareness of cultural diversity, perceived academic achievement growth, and perceived persistence in school. Furthermore, no other study in the review of literature explored differences between teachers’ awareness of cultural diversity in ninth grade academies and the senior high schools to which their students matriculate. Although this study did not yield any statistically significant results, the strength in the research design was measuring high school teachers’ awareness cultural diversity in Mississippi and addressing a gap in the current literature. In the section that follows, a more thorough discussion of the study’s findings as related to the literature is provided.
Levels of Cultural Diversity Awareness, Perceived Academic Achievement Growth, and Perceived Persistence in School

Current student enrollment data indicate that predictions about a new, diverse majority student population are actually reality. In Mississippi, 54% of all students enrolled in school are students of color. Like the nation, the teaching force is predominately White in Mississippi with 73% White and 27% non-White (Boser, 2014). For this study, demographic data about students was not collected. However, the data show that 65% of the teachers who participated in this study were White and 35% were non-White, as illustrated in Table 2. Of the 65% who were White, 42% were females and 23% were males. The demographic characteristics of the participants in this study are more diverse when compared to the nationwide demographic of a monocultural teaching force. Nationally, there is a cultural divide between the teaching force and the student population that may be influencing the disparities observed in educational outcomes (Barnes, 2006; Ehrenberg et al., 1995; Ferguson, 2002; Gay, 2013; Singleton & Linton, 2006). In this study, there were no differences between teachers’ levels of cultural diversity awareness in ninth grade academies and senior high schools. Ninth grade academies offer a unique opportunity for students and teachers to thrive in a more personalized learning environment. However, the results of this study seem to indicate that this is a missed opportunity since there were no differences found between teachers’ levels of cultural diversity awareness in ninth grade academies and senior high schools.

Mean scores for this study indicated neutral levels of teachers’ awareness of cultural diversity for ninth grade academy teachers and senior high school teachers. A neutral self-rating suggests that these teachers may not be as prepared to purposefully use
such awareness to communicate high expectations of all students, adopt culturally responsive teaching practices, and attain high student achievement for all students; these practices are more typical of teachers with high levels of cultural diversity awareness (Maylor, 2014; Rodriguez & Bellanca, 2007; Steele & Aronson, 1995). A neutral level of awareness may signify that teachers are colorblind, which means that teachers do not acknowledge that racial or ethnic differences exist (Atwater & Castro, 2008; Delpit, 1992).

Goodwin (2000) argued that teachers should understand their students’ cultural background and frame of reference and ensure that instruction aligns to meet the diverse needs of students. In addition, inequitable practices like making assumptions about students’ abilities or behaviors that may be explained by cultural patterns contributes to the achievement gap (Goodwin, 2000). Interestingly, although both groups of teachers who participated in this study had neutral levels of cultural diversity awareness, an examination of the mean for each item on the CDAI indicated that there were items in which teachers held strong beliefs. For example, Item 18 stated, “I believe students should be referred for testing if learning difficulties appear to be due to cultural or language differences.” For both groups, this item had the second lowest mean. The mean for ninth grade academy teachers was 2.67, and the mean was 2.92 for senior high school teachers. Essentially, both groups of teachers indicated that they agreed with this statement; which is not a culturally sensitive belief. Therefore, this item was reverse coded to ensure that high mean scores reflected high levels of cultural sensitivity. This finding is one example of how a lack of understanding about different cultures could lead to an inequitable practice of having students referred for testing unnecessarily. Some
researchers assert that this practice has also led to the over identification of traditionally underserved students for special education (Mattai et al., 2010; Maynard, 2012; Shannon & Bylsma, 2006).

As discussed in Chapter II, the literature review did not yield any studies that empirically examined teachers’ awareness of cultural diversity and academic achievement. This examination was beyond the scope of this study, but this study did describe the levels of perceived academic achievement growth and determined its relationship to teachers’ awareness of cultural diversity in ninth grade academies and senior high schools. Descriptive statistics revealed that both groups of teachers perceived the measures of academic achievement (Algebra I, Biology I, English II, and U.S. History SATPs) had remained the same over two years. The researcher initially expected participants to indicate that test scores had increased over the years because the literature revealed that culturally sensitive teachers are better equipped to help diverse students achieve. Considering that the participants reported neutral levels of cultural diversity, it stands to reason that they would also self-report perceived levels of academic achievement growth as “remained the same;” which is arguably synonymous to “neutral”. An analysis of actual academic achievement data might have yielded more definitive results; which is why it is an important variable to consider when designing future research studies.

Personalized learning environments are essential to student engagement and persistence in school particularly high school. Small learning communities offer a structural change that allows more opportunities for personalization (Cook, 2013; Darling-Hammond et al., 2002). Therefore, this study sought to determine the level of
persistance in school specifically for ninth grade academies. Ninth grade academy teachers perceived that the dropout rate had decreased over two years. This trend was not found to be related to levels of cultural diversity awareness, nor is it clear whether this perceived improvement is a result of the establishment of the ninth grade academy or coincidental.

Achievement Gaps

Peasant (2010) found that the Black/White achievement gap was not prevalent in ninth grade academies in his study. However, this study found that the Black/White achievement gap was more substantial in the participating ninth grade academies compared to ninth graders statewide. One reason for this difference in results may be attributed to the different methodologies employed by the researchers. Peasant (2010) analyzed student level data (individual scale scores), whereas this study examined aggregated school level data (groups of students scoring proficient or above).

Conversely, descriptive statistics for this study indicated that the poor/affluent achievement gap was not as wide in ninth grade academies when compared to ninth graders statewide. Some researchers argue that the achievement gap exists because of negative, long held stereotypes the teaching force has about students of color and student from poverty (Paige & Witty, 2010). Item 5 on the CDAI was “I believe I am uncomfortable with people who have values different from mine.” Teachers may perpetuate stereotypes when the teacher’s culture is different from the culture of students the teacher serves (Lindsey et al., 2005). It is encouraging that both groups of teachers had more elevated levels of cultural sensitivity as determined by their responses to Item 5. The mean for ninth grade academy teachers was 3.88, and the mean was 3.74 for
senior high school teachers. Essentially, both groups of teachers indicated that they disagreed with this statement; which is not a culturally sensitive belief. Therefore, this item was reverse coded to ensure that high mean scores reflected high levels of cultural sensitivity.

*Relationships Among Variables*

The results of this study did not confirm that teachers’ awareness of cultural diversity was related to perceived academic achievement growth or perceived persistence in school. The researcher hypothesized that relationships exist between these variables because extant literature substantiates that teachers who work in small learning communities have a better opportunity to capitalize on the diversity of students and use their diverse backgrounds, cultures, and languages to provide a more personalized learning environment (Williams, 2003; Williams, 2011). Some of the major concerns in high school reform are that large, impersonal high schools impede learning, cause students to disengage, and eventually drop out (Barbour, 2010; Kennelly & Monrad, 2011; Shannon & Bylsma, 2006). The research also substantiates that small schools alone do not improve achievement outcomes. Therefore, the researcher theorized that teachers in small learning communities may have higher levels of cultural diversity awareness; which would enable them to provide equitable learning opportunities. Although the results did not confirm the researcher’s hypotheses, the study addresses a gap in the literature that may help researchers design future studies. Furthermore, it is possible that a confounding variable such as recent professional development in cultural diversity awareness may have influenced the results.
Between-Group Differences

There were not significant differences between ninth grade academy teachers’ awareness of cultural diversity and senior high school teachers’ awareness of cultural diversity. The researcher hypothesized that differences would exist, but the results did not substantiate such. Both groups had neutral levels of cultural diversity awareness which were self-reported. Furthermore, there were no significant differences between the two groups of high school teachers when controlling for the teachers’ race, gender, age range, and years of experience. The sample was diverse; so it appears unusual that there would be no differences between the groups. Therefore, the researcher concludes that the participants may have selected socially desirable responses, or that they may have responded to the survey in a stereotypical manner based on their race or gender since participants were asked to identify their race and gender through the demographic questions on the instrument.

Limitations

As is typical with research studies, this study has limitations to consider when generalizing about the results. The population was limited to eight high schools in Mississippi that yielded a sample size of 154 respondents. The projected sample size included 246 high school teachers. However, the return rate was 60% with 154 respondents. Although, this percentage does represent the majority of the population, the results may only be relevant to the participating schools and schools with similar profiles. The participating ninth grade centers met the criteria of having a ninth grade academy in operation for two or more years. Therefore, the 10th-12th grade programs were invited to participate in this study. The review of literature indicated that it takes a few years to
establish a ninth grade academy with essential components such as dedicated space, dedicated teaching staff, and effective principal leadership (Legters et al., 2013).

Although the purpose of this study was achieved, a larger sample size representing high school teachers across the United States would be optimal. To generalize the research findings to high school teachers across the nation, the study would need participants from a representative sample across multiple states.

The return rates ranged from 20% to 90%. The counselors who assisted with data collection received training from the researcher and were provided a script (Appendix H) and checklist (Appendix I). Exacting procedures were developed to ensure that the respondents would be confident that their anonymity was protected. Nevertheless, the data collection procedures may not have been followed explicitly. Considering the sensitive nature of the beliefs the CDAI is designed to measure, participants may not have been comfortable responding honestly about their beliefs and behaviors toward culturally diverse students. Even though there is no evidence that anonymity was compromised, future studies may provide additional assurances by allowing participants to return completed surveys individually or by employing an online data collection procedure.

While this study was conducted in 2015, the archival data used to address Research Question 12 was from 2013. The 2014 SATP2 dataset disaggregated by NCLB subgroups was not available by the Mississippi Department of Education at the time of this study. Therefore, the most recent available dataset was used in the analyses to answer Research Question 12.
Given these limitations, the relevance of the results should be weighed thoughtfully by readers. A review of the literature did not yield any research that examined the constructs within this study’s design. Therefore, this work addresses a gap in the body of knowledge that could be applicable to others working to reform high schools.

Recommendations for Policy and Practice

There is limited research that examines teachers’ awareness of cultural diversity in high school settings and specifically ninth grade academies. This study sought to address a gap in the literature, but it did not produce significant results for the majority of the questions posed. Therefore, the researcher primarily makes the following recommendations for policy and practice based on the review of literature and more tentatively on the actual findings for this study.

The No Child Left Behind Act of 2001 (NCLB) is a major federal policy that changed many practices in U.S. schools when it became law in 2002. Some argue that NCLB was revolutionary because it calls for the amelioration of every achievement gap (Skrla, McKenzie, & Scheurich, 2009). Others assert that NCLB has caused teachers to focus too much on test preparation (Mottet et al., 2008) Furthermore, disparities in state achievement tests, graduation rates, college entrance/prepatory tests, and other measures of achievement continue to exist between traditionally marginalized students and their counterparts (Mottet et al., 2008; Skrla et al., 2009).

NCLB holds educators accountable for eliminating achievement gaps, but its success depends on how well educators implement the law (Skrla et al., 2009). The theoretical framework for this study provided a conceptual model of school reform that
could support educators with realizing the vision of NCLB. To provide equal educational opportunity for all students, teachers should use their awareness of cultural diversity to activate students’ prior knowledge and experiences, build cultural capital for traditionally marginalized students and confront barriers to learning caused by stereotypes (Delpit, 2006; Gay, 2013; Goldenberg, 2014). The theoretical underpinnings for this study serve as a guide for educators to put theory into action with policies, programs, and practices that eliminates inequality in student achievement. The recommendations that follow are based on the problem that led to this investigation of teachers’ awareness of cultural diversity and academic achievement in high school settings. Teachers with a superficial understanding of cultural diversity and its implications for teaching and learning are not equipped to address the needs of culturally diverse students (Lindsey et al., 2005). Teachers should have a deep understanding of how their attitudes and beliefs influence how they teach. In other words, “[t]he key here is not the kind of instruction but the attitude underlying it. When teachers do not understand the potential of the students they teach, they will underteach them no matter what the methodology” (Delpit, 1995, p. 175).

Ongoing, strategic professional development can help teachers produce better student achievement outcomes (Heller, Daehler, Wong, Shinohara, & Miratrix, 2012; Holland, 2005; Little, 2012; Reeves, 2012). Findings of this study may guide policymakers and practitioners who design, lead or support teacher preparation programs and/or professional development in school districts or schools. For instance, assessing teachers’ awareness of cultural diversity yields essential information about teachers’ capacity to educate culturally diverse students (Gay, 2013). As a result, the information would support the development of programming designed to build the capacity of the
teaching force to employ culturally responsive teaching practices. This type of 
professional development could be designed to help preservice teachers, inservice 
teachers and school leaders evaluate their beliefs and assumptions about educating 
culturally diverse students. Educators evaluating their beliefs about teaching culturally 
diverse students is an important initial step, but additional steps must be taken to find 
solutions to achievement gaps.

Courageous conversations followed by action research are necessary steps to 
move beyond superficial understandings of teaching culturally diverse students. A 
courageous conversation is “a strategy for addressing the various impacts of race on 
student achievement” (Singleton & Linton, 2006, p. 7). The authors strongly argued that 
educators are incapable of resolving a problem that is not acknowledged:

We believe that the racial achievement gap exists and persists because 
fundamentally, schools are not designed to educate students of color, and 
educators continue to lack the will, skill, knowledge, and capacity to affirm racial 
diversity. Consequently, educators need to begin a deep and thorough 
examination of their beliefs and practices in order to “re-create” schools so they 
can become places where all students do succeed. (Singleton & Linton, 2006, p. 
5)

Courageous conversations are an impetus, which enables educators to begin the 
necessary investigative work to identify gaps in achievement. Even districts or schools 
with little or no cultural diversity should engage in this work because inequities might 
exist between males and females or transfer students and students who have been 
enrolled for several years. A myriad of data are available to schools. Action research
using the various sources of data could be in the form of equity audits. An equity audit is a “systematic way for school leaders, principals, superintendents, curriculum directors, teacher leaders to assess the degree of equity or inequity present in three key areas of their schools or districts: programs, teacher quality, and achievement” (Skrla et al., 2009, p. 3).

For instance, there are often different grading practices within a school or district. These practices influence one measure of student achievement such as a grade earned in a specific course. To illustrate, a ninth grade academy principal discovers that one of four ninth grade English teachers has the highest failure rate in the entire school. The principal could lead a discussion with the teachers about grading practices to determine why the problem exists. Through the dialogue, the principal learns the teacher records a zero for each missing assignment. This would be an opportunity for the principal to lead a courageous conversation with the teacher about why the teacher records zeroes for missing assignments. In addition to having a general conversation about the rationale for the practice, the principal along with the teacher could examine the teacher’s grade book at the student level to determine if there are specific groups of students who do not submit assignments. This examination may also help them identify why certain students are not submitting assignments, and allow the teacher and principal to address the root cause of the problem.

The literature demonstrates that creating a small learning community does not solely improve the academic achievement of all students (Darling-Hammond et al., 2002). Districts and schools could adopt equitable grading practices. As evident by teachers’ perceptions of academic achievement growth and perceptions of persistence in
school, teachers assert students are not demonstrating gains on state tests nor has the
graduation rate improved substantially. Students need a supportive learning environment
where teachers expect excellence and do not give students the option to fail. For example,
schools may adopt grading practices that prohibit a grade of zero (Reeves, 2004). Instead
of recording a zero for missing assignments, teachers record incomplete and require
students to complete the work before, during, or after school (Guskey, 2000; Reeves,
2004). If educators agree that the purpose of grading is to provide feedback, then
recording a zero does not hold students accountable for learning or completing the work.
Allowing any student to retake a test for partial credit and to improve their overall grade
is another practice that holds students accountable for their learning.

Transition programs from elementary school to middle school and middle school
to high school are essential to helping students become acclimated to a new school
setting. Transition is challenging for most students, but ninth grade attrition rates
demonstrate that educators should effectively engage freshmen (Kennelly & Monrad,
2011). Three or more yearly and ongoing transition activities are necessary for an
effective transition program. Educators should make implementing these powerful
practices a priority to decrease dropout rates in high schools. Establishing small learning
communities like ninth grade academies has proven to be an effective transition strategy.
However, limited resources may not allow schools to put this strategy in place. Low cost,
but high impact strategies include student and parent orientation events, ninth grade
advisory/mentoring programs, and early intervention/remedial programs. With strategic
scheduling, creating a common planning time for interdisciplinary teams allows teachers
to collaborate consistently to design instruction that offers authentic learning experiences
for students. These practices should also improve the learning environment, which improves student engagement.

While the national graduation rate, among other indicators, suggests the imperative for high school reform, the literature demonstrates that dropping out is a process not an event (Balfanz et al., 2014). Researchers can accurately predict high school dropout rates by studying third grade proficiency in literacy (Balfanz et al., 2014). With a 30 million word gap prevalent between poor and affluent students before they enter school, investing in public, early childhood education for all children is a necessity (Hart & Risley, 2003; Heckman, 2011).

Like the authors of the Coleman report, Heckman (2011) contended schools alone would struggle to change the overwhelming influence the home environment and family background factors have on academic achievement. Heckman (2011) challenged policymakers to develop “[a] comprehensive, cost-effective policy to enhance the skills of disadvantaged children of all racial and ethnic backgrounds through voluntary, culturally sensitive support for parenting is a politically and economically palatable strategy” (Heckman, 2011, p. 27).

The Heckman Equation (Invest + Develop + Sustain = Gain) offers a proactive instead of reactive solution to closing the achievement gap:

- **Invest** – Invest in educational and developmental resources for disadvantaged families to provide equal access to successful human development.
- **Develop** – Nurture early development of cognitive and social skills from birth to age five.
• Sustain – Sustain early development with effective education through adulthood

• Gain – Gain a more capable, productive and valuable workforce that pays dividends to America for generations to come. (www.heckmanequation.org)

Heckman (2015) insisted that if his equation is operationalized, the achievement gap would not exist, educational outcomes would improve, health risks would decrease, and crime would diminish. The assertions about investing in early childhood education make it plausible for secondary educators to sustain student achievement and ensure every ninth grader matriculates through graduation within four years.

Recommendations for Future Research

Cultural diversity awareness is a complex construct to examine, and this study is a starting point for other researchers to reference when designing future research. The literature review did not yield any studies that examined this study’s variables interdependently. Therefore, it is difficult to generalize the results or compare the results of this sample to a similar population. Further research opportunities are suggested below; so that comparisons can be made in the future.

1. Conduct a study in the high school setting that determines if a relationship exists between teachers’ awareness cultural diversity and student level or school level measures of actual academic achievement.

2. Replicate the current study in districts across the United States.

3. Conduct studies in districts with a monocultural teaching force and a monocultural student population and compare to districts with a monocultural teaching force and a diverse student population.
4. Conduct a study of teachers’ awareness of cultural diversity in elementary, middle, and high schools.

5. Determine if targeted professional development at the school level changes teachers’ awareness of cultural diversity over time.

6. Assess cultural diversity awareness of all school personnel who interact with students.

7. Determine if relationships exist between school culture and cultural diversity awareness.

8. Determine if differences between and within groups exist by the CDAI subscales.

9. Measure and compare teachers’ perceptions’ of their levels of cultural diversity awareness and students’ perceptions of teachers’ awareness of cultural diversity.

Summary

Efforts to reform high schools are necessary when considering the grave disparities found in U.S. graduation rates. This study aimed to address a gap in the literature by assessing high school teachers’ awareness of cultural diversity, determining how cultural diversity awareness relates to perceived academic achievement growth and perceived persistence in school variables, and determining if differences exist between the cultural diversity awareness of ninth grade academy teachers and senior high school teachers. The research design was non-experimental and quantitative. Descriptive statistics resulted from a survey methodology that employed the Cultural Diversity Awareness Index (CDAI). Varied inferential statistical analyses were used to address
each research question. The results indicated that ninth grade academy teachers and
senior high school teachers have neutral levels of cultural diversity awareness. There
were no statistically significant relationships or differences found between the variables
for this study. Educators should design responsive, personalized high schools where all
students excel academically regardless of race, socioeconomic status, disability, or
language proficiency. This study provides a reference for educators to consider when
designing small learning communities or investing in professional development to
enhance teachers’ awareness of cultural diversity.
APPENDIX A

SURVEY INSTRUMENT

Teachers’ Awareness of Cultural Diversity and Academic Achievement in Ninth Grade Academies and Senior High Schools

<table>
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<th>Section A: Demographic Information</th>
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</thead>
<tbody>
<tr>
<td>For each question in Section A, please check the box of the item that best describes you.</td>
<td></td>
</tr>
<tr>
<td>1. What is your gender?</td>
<td>2. What is your age?</td>
</tr>
<tr>
<td>☐ Male ☐ Female</td>
<td>☐ 21 to 26 ☐ 27 to 32</td>
</tr>
<tr>
<td></td>
<td>☐ 33 to 38 ☐ 39 or more</td>
</tr>
<tr>
<td>3. What is your race?</td>
<td>4. How many years of teaching experience do you have (including the 2015-2016 school year)?</td>
</tr>
<tr>
<td>☐ Black ☐ White ☐ Hispanic</td>
<td>☐ 1 to 5 ☐ 6 to 10</td>
</tr>
<tr>
<td>☐ Asian ☐ Native American</td>
<td>☐ 11 to 15 ☐ 16 to 20</td>
</tr>
<tr>
<td>☐ Other</td>
<td>☐ 21 or more</td>
</tr>
<tr>
<td>5. What grade levels do you teach?</td>
<td>6. Where do you perform the majority of your teaching responsibilities?</td>
</tr>
<tr>
<td>☐ Ninth ☐ Tenth</td>
<td>☐ Ninth Grade Academy (Grade 9)</td>
</tr>
<tr>
<td>☐ Eleventh ☐ Twelfth</td>
<td>☐ Senior High School (Grades 10-12)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section B: Perceptions of Academic Achievement Growth and Persistence in School</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>For each statement in Section B, please check the box of the response that best describes your perception of academic achievement growth and persistence in school at your district’s ninth grade academy and the senior high school to which freshmen matriculate.</td>
<td></td>
</tr>
<tr>
<td>1. Over the past two years, Algebra I SATP scores have _____.</td>
<td>Substantially Decreased</td>
</tr>
<tr>
<td></td>
<td>☐ 1</td>
</tr>
<tr>
<td>2. Over the past two years, Biology I SATP scores have _____.</td>
<td>☐ 1</td>
</tr>
<tr>
<td>3. Over the past two years, English II SATP scores have _____.</td>
<td>☐ 1</td>
</tr>
<tr>
<td>4. Over the past two years, U.S. History SATP scores have _____.</td>
<td>☐ 1</td>
</tr>
<tr>
<td>5. Over the past two years, the dropout rate has_____.</td>
<td>☐ 1</td>
</tr>
</tbody>
</table>
Section C: Cultural Diversity Awareness Index (CDAI)

The CDAI is a self-examination questionnaire developed by Dr. Gertrude Henry. It is designed to assist educators with evaluating their own beliefs and behaviors toward culturally diverse students. There are no “right” answers, only what you believe. Please answer each item by checking your response.

<table>
<thead>
<tr>
<th>I believe …</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My culture is different from the students I serve.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. It is important to identify immediately the ethnic groups of students I serve.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I would prefer to work with students and parents whose cultures are similar to mine.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I would be uncomfortable in settings with people who speak non-standard English.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I am uncomfortable with people who have values or beliefs different from mine.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I should interact with parents outside of required school activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I am sometimes surprised when members of certain ethnic groups participate in a particular school activity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I should include cultural views of a diverse community in the school’s yearly program planning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. It is necessary to include parent input in program planning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. I sometimes experience frustrations in conferences with parents whose culture is different from my own culture.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Students are responsible for solving communication problems that are caused by their racial/ethnic identity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. English should be taught as a second language to non-English speaking students as a regular part of the school curriculum.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Students’ spoken language should be corrected by role modeling without further explanation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. There are times when the use of non-standard English should be accepted.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. I should ask families of diverse cultures their preference for ethnic identification during initial meetings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I believe…</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------</td>
<td>---------</td>
<td>-------</td>
<td>----------------</td>
</tr>
<tr>
<td>16. I should accept the use of ethnic jokes/phrases by students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. There are times when racial statements should be ignored.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. Students should be referred for testing if learning difficulties appear to be due to cultural or language differences.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. Adaptations in standardized assessments are questionable since reliability and validity are altered.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20. Translating a standardized achievement or intelligence test to the child’s dominant language gives the child an added advantage and does not allow for peer comparison.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21. Parents know little about assessing their own children.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22. Teaching ethnic customs and traditions is NOT the responsibility of public school programs or personnel.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23. It is my responsibility to provide opportunities for students to share cultural differences like foods, dress, family life and/or beliefs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. Individual Education Program meetings or program planning should be scheduled for the convenience of the parent.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. I make adaptations in programming to accommodate the different cultures as my enrollment changes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26. Displays and materials should reflect at least three different ethnic groups or customs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27. Student job assignments should (i.e. group work, teacher helpers) rotate regularly and equally in job assignments.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28. Knowledge of a particular culture should affect my expectations of student performance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
APPENDIX B

EMAIL APPROVAL TO USE THE CDAI

4/5/2015

The University of Southern Mississippi Mail - CDAI

Jamellah Whipps-Johnson <jamellah.whippsjohnson@eagles.usm.edu>

CDAI

trudy48@verizon.net <trudy48@verizon.net> Sun, Apr 5, 2015 at 12:49 PM
To: jamellah.whippsjohnson@eagles.usm.edu

J. Johnson: You have my permission. G. Henry

On 04/05/15, Jamellah Whipps-Johnson <jamellah.whippsjohnson@eagles.usm.edu> wrote:

Hello Dr. Henry,

The CDAI continues to be used by researchers. The most recent study I have found was published in 2012, and the CDAI was used with practicing K-12 teachers. More current instruments are too long and measure constructs not needed for my study. May I please have your permission to use and modify the CDAI for my study?

Thanks,
Jamellah Johnson
Sent from my iPhone

On Feb 12, 2015, at 11:43 AM, Jamellah Whipps-Johnson <jamellah.whippsjohnson@eagles.usm.edu> wrote:

Hello Dr. Henry!!! Thank you for responding to me. I would love to set up a phone conference. What is a good daytime to call you? I am in the central time zone...Clinton, MS.

Jamellah Johnson
Sent from my iPhone

On Feb 11, 2015, at 4:20 PM, trudy48@verizon.net wrote:

Ms. Johnson: Your e-mail was forwarded to me today. I have retired from Hampton and therefore I have a new e-mail address. The CDAI is very old (1965) and was designed to examine attitudes of educators toward young culturally diverse children & families. There are many topics in the CDAI which may be appropriate to your research, however I believe you will need to change many of the items which will effect the reliability and/or the validity. Please consider developing your own inventory and giving me credit for the parts of the CDAI you used. I would agree to assist you and offer my help in the development. I am retired but still involved in culturally diverse education. My contact info: ph. 804 693 0352, or e-mail trudy48@verizon.net. Thanks for your interest. G. Henry
APPENDIX C

LETTER TO THE SUPERINTENDENT

Date
Name of Superintendent
Name of School District
Address

RE: Permission to Conduct Research Study

Dear Superintendent _______________

My name is Jamellah Whipps-Johnson, and I am currently enrolled in the Educational Leadership doctoral program at The University of Southern Mississippi. In order to fulfill the requirements of my dissertation, I must conduct a survey that focuses on my topic of research. The goal of my survey is to gather and examine teachers’ awareness of cultural diversity and achievement in ninth grade academies and senior high schools. I will use the Cultural Diversity Awareness Index to quantify teachers’ beliefs about teaching culturally diverse students. These results will be statistically compared to teachers’ perceptions about academic achievement growth, perceptions of persistence in school, and ninth grade Biology I and Algebra I aggregated scale scores. The information I will gather through my research may provide educational leaders, administrators, and fellow educators with insights into how awareness of cultural diversity is related to academic achievement in high school settings.

The purpose of this letter is to request your permission to survey the high school teachers at ______ (school name) and _____ (school name). With your approval, I will contact the principals of these high schools in your district for permission to conduct a short survey of the teachers. It is important to note that no staff member, no school, and no district will be identified anywhere in my research and findings. All staff members, schools, and districts will remain completely anonymous.

I will ask the high school principal to identify a volunteer on the staff to distribute the questionnaires, collect the completed questionnaires, and then mail the questionnaires back to me. The volunteer will receive a $25 gift card upon my receipt of the school’s completed questionnaires. Questionnaires will be administered during the fall of the 2015-2016 school year, with a target return date of August 2015.

Please contact me if you have any questions or concerns at 601-966-1912 or at jamellah.whippsjohnson@eagles.usm.edu. My dissertation advisor is Dr. David Lee, who can be contacted at david.e.lee@usm.edu.

If you agree to my request, please sign and return the form in the enclosed self-addressed envelope. Alternatively, you may submit a signed letter of permission on your district’s
letterhead acknowledging your consent and permission for me to conduct this survey within your school district. The consent form is provided for your convenience.

Sincerely,

Jamellah Whipps-Johnson

Consent Form

By signing and returning this form, I give Jamellah Whipps-Johnson, a doctoral candidate at The University of Southern Mississippi, permission to conduct a research study in the _____________ District. I acknowledge that Jamellah Whipps-Johnson may contact the high school principal(s) and upon approval from the principal(s), Jamellah Whipps-Johnson will deliver consent forms and questionnaires to high school teachers during the fall of the 2015-2016 school year.

Approved by:

_______________________________________________________________

Signature ______________________________ Date ______________

Superintendent
Name
District
Address
APPENDIX D

PARTICIPANT COVER LETTER

June 26, 2015

Dear High School Teacher,

My name is Jamellah Whipps-Johnson, and I am currently enrolled in the Educational Leadership doctoral program at The University of Southern Mississippi. In order to fulfill the requirements of my dissertation, I will conduct a study entitled “Teachers’ Awareness of Cultural Diversity and Academic Achievement in Ninth Grade Academies and Senior High Schools”.

I will use the Cultural Diversity Awareness Index to quantify teachers’ beliefs about teaching culturally diverse students. The survey will take approximately 15 minutes to complete. Your participation is strictly voluntary, and at any time, you are free to decline participation or discontinue your participation without penalty. If you choose to participate, you may also choose to skip questions on the survey. To uphold confidentiality, this letter of consent will be maintained separately from completed questionnaires. Please do not include your name or school on the questionnaire if you choose to participate. No district, school, or teacher will be identified by name in any reports of this research.

By participating in this research, you are helping fellow educators gain insight about any relationships that may exist between teachers’ awareness of cultural diversity, teachers’ perceptions of academic growth, and perceptions of persistence in school in different high school settings.

If you have any questions or concerns about this research study, please contact me at 601-966-1912 or at jamellah.whippsjohnson@eagles.usm.edu. My dissertation advisor is Dr. David Lee, who can be contacted at david.e.lee@usm.edu. If you agree to participate in this study, please sign the acknowledgement of informed consent.

Sincerely,

Jamellah Whipps-Johnson

Participant Acknowledgement of Informed Consent

I have read the notification of informed consent. I understand that my participation in this study is voluntary and that I may withdraw from participation at any time. My signature below indicates my consent to participate in this study.

Signature ___________________________________________ Date________________________
APPENDIX E

NOTICE OF INFORMED CONSENT FOR RESEARCH PARTICIPANTS

University of Southern Mississippi
118 College Drive #5147
Hattiesburg, MS 39406-0001
601-266-6820

Consent to Participate in a Research Study

Date: June 5, 2015

Research will be conducted by: Jamellah Whipps-Johnson

Phone Number: 601-966-1912

Email Address: jamellah.whippsjohnson@eagles.usm.edu

Faculty Advisor: Dr. David E. Lee

What are some general things you should know about research studies?
High school teachers who work in ninth grade academies and the senior high schools to which their students matriculate are being asked to take part in a research study. Participating in this study is voluntary. You may refuse to take part, or you may withdraw your consent to be in the study, for any reason, without penalty. If you consent to complete the survey, you may skip questions that you do not want to answer.

Research studies are designed with the intent to obtain new knowledge. This new information may help people in the future. You may not receive any direct benefit from being in the research study. There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study. You should ask the researcher named above, or staff member who is assisting them throughout this process, any questions you have about this study at any time.

What is the purpose of this study?
You are being asked to take part in a research study to determine how teachers’ awareness of cultural diversity impacts academic achievement and persistence in school in high school settings. The goal of the research is to determine if relationships and/or differences exist between teachers’ awareness of cultural diversity, teachers’ perceptions of academic achievement, and teachers’ perceptions of persistence in school in ninth grade academies and senior high schools.
**How many people will take part in this study?**
If you decide to be in this study, you will be one of approximately 550 participants in this research study.

**How long will your part in this study last?**
If you chose to participate, you will be asked to read the notice of consent information and will also receive a survey that will take you no longer than 15 minutes to complete. Your name or identity will not be asked for within the survey, nor will your personal information be reflected anywhere within this research. Participants will place surveys in an envelope. A report of my findings will be made available to you upon request at the conclusion of this study by emailing me at jamellah.whippsjohnson@eagles.usm.edu.

**What will happen if you take part in the study?**
High school teachers willing to participate in this research will sign the letter of consent and fill out a survey. To ensure confidentiality, you will place your signed letter of consent in one envelope and your survey in a different envelope. The researcher will collect data from the completed survey. Throughout the process of analysis, the researcher will keep the surveys in a locked file cabinet. The survey will be shredded upon completion of this project.

**What are the possible benefits from being in this study?**
The information contained in the study may not directly benefit you. However, this study may provide needed information to assist schools, policymakers, and state or federal agencies with designing responsive, personalized high schools where all students excel academically regardless of race, socioeconomic status, disability, or language proficiency.

Your answers to the survey items will contribute to study findings that educators can take into account when deciding to create small learning communities and invest in professional development of teachers.

The results of this study could also potentially play a vital role in the provision of valuable insight that can be shared with persons involved in the educational system, including students, parents, teachers, administrators, educational professionals and policymakers. These insights could potentially bridge gaps in understanding about these policy issues, thus resulting in enlightenment of administrators/policymakers regarding the need to design personalized high schools and provide professional development about cultural diversity awareness.

**What are the possible risks or discomforts involved from being in this study?**
No risks or discomforts are expected for the participants of this study. However, it is possible that participants may feel uneasy answering questions about his/her beliefs regarding cultural diversity awareness. These concerns might be alleviated by the
assurances of confidentiality. Only the researcher and faculty advisors will view the participant responses. All responses will be kept secure and locked in a file cabinet. Completed surveys will be destroyed after one year.

To minimize the possibility of coercion, a school counselor instead of a supervisor will help recruit you to participate. It is your choice to participate or not. To ensure confidentiality, you will place your own letter of consent and survey in separate envelopes if you elect to participate. The counselor will seal the envelopes without reviewing the content.

**How will your privacy be protected?**
Participants will not indicate their identities on the questionnaire. They will not be identified in any report or publication about this study. Only the researcher and her university faculty advisors will have access to these questionnaires. Questionnaires will be kept secure and locked in the researcher’s home. Additionally, completed surveys will be shredded after one year.

**What if you have questions about this study?**
You have the right to ask, and have answered, any questions you may have about this research. If you have questions, or concerns, you should contact the researcher listed on the first page of this form.

**What if you have questions about your rights as a research participant?**
This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820.
APPENDIX F

EXPERT PANEL VALIDITY QUESTIONNAIRE

Teachers’ Awareness of Cultural Diversity and Academic Achievement in Ninth Grade Academies and Senior High Schools

Thank you for volunteering to serve on the expert panel for evaluating the questionnaire designed for this study. This study will examine teachers’ awareness of cultural diversity and academic achievement in ninth grade academies and senior high schools. Your time, expertise, and assistance are needed to evaluate the content validity of the questionnaire. The attached questionnaire is designed to measure factors related to perceived academic achievement growth, perceived persistence in school, and cultural diversity awareness. Your input and feedback is extremely important, greatly appreciated, and will provide useful information about the clarity, appropriateness, and relevance of the questionnaire.

Your knowledge and years of experience as a high school educator qualify you to serve as an expert panel member. Your input and feedback will provide valuable insight for possible adjustments or revisions to the questionnaire.

Please take your time and critique the attached questionnaire by answering either “Yes” or “No” to the questions below, as well as providing feedback for your reasoning(s) behind any responses that receive a “No” on the lines that follow.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>If you selected No, please write why, and provide any feedback and/or suggestions that you feel would correct this aspect of the survey.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the survey questions/statements direct and specific?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the survey questions/statements designed in such a way that participants can understand them?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Yes</td>
<td>No</td>
<td>If you selected No, please write why, and provide any feedback and/or suggestions that you feel would correct this aspect of the survey.</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----</td>
<td>----</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Are the terms used in the survey understandable by high school teachers?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the survey provide choices that will allow participants to respond appropriately?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the questions/statements applicable to the practices or expertise of high school teachers?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the survey adequately address factors that will allow the researcher to obtain sufficient information regarding high school teachers’ perceptions of <strong>academic achievement growth</strong>?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the survey adequately address factors that will allow the researcher to obtain sufficient information regarding high school teachers’ perceptions of <strong>persistence in school</strong>?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the survey adequately address factors that will allow the researcher to obtain sufficient information regarding high school teachers’ beliefs about <strong>cultural diversity awareness</strong>?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Yes</td>
<td>No</td>
<td>If you selected Yes, please write why, and provide any feedback and/or suggestions that you feel would correct this aspect of the survey.</td>
</tr>
<tr>
<td>Are there any particular items within the survey that you would modify?</td>
<td></td>
<td></td>
<td>*Please specify the item number(s) with your response if you selected “Yes”.</td>
</tr>
<tr>
<td>Are there any items within the survey that you believe should be excluded from the survey?</td>
<td></td>
<td></td>
<td>*Please specify the item number(s) with your response if you selected “Yes”.</td>
</tr>
</tbody>
</table>
11. Are there any survey items that you feel should be included that are not currently included on the questionnaire attached?

*If you selected “Yes” please write your suggested statement(s) below:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>

12. Please feel free to provide any further suggestions or comments that you feel would strengthen the validity of this questionnaire in the following section:

Comments/Suggestions:
APPENDIX G

IRB APPROVAL LETTER

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

INSTITUTIONAL REVIEW BOARD
118 College Drive #5147 | Hattiesburg, MS 39406-0001
Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional.review.board

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the “Adverse Effect Report Form”.
- If approved, the maximum period of approval is limited to twelve months.
- Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 15072103
PROJECT TITLE: Teachers’ Awareness of Cultural Diversity and Academic Achievement in Ninth Grade Academies and Senior High Schools
PROJECT TYPE: New Project
RESEARCHER(S): Jamellah Whipp-Johnson
COLLEGE/DIVISION: College of Education and Psychology
DEPARTMENT: Educational Leadership and School Counseling
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Exempt Review Approval
PERIOD OF APPROVAL: 08/14/2015 to 08/13/2016

Lawrence A. Hosman, Ph.D.
Institutional Review Board
APPENDIX H

COUNSELOR’S SCRIPT FOR DATA COLLECTION

Hello!

On behalf of doctoral candidate Jamellah Whipps-Johnson, I would like to thank you for attending today’s meeting. The purpose of this meeting is to share an opportunity for you to participate in a research study. Please review the consent letter and notice of informed consent I am providing to you.

The consent letter explains……

Ms. Whipps-Johnson is completing a doctoral degree in Educational Leadership at The University of Southern Mississippi. As part of her degree requirements, she is conducting a study entitled “Teachers’ Awareness of Cultural Diversity and Academic Achievement in Ninth Grade Academies and Senior High Schools”. She is conducting a survey of high school teachers in ninth grade academies and the senior high schools to which their students matriculate.

The survey will take approximately 15 minutes to complete. Your participation is strictly voluntary, and at any time, you are free to decline participation or discontinue your participation without penalty. To uphold confidentiality, the letter of consent will be maintained separately from completed questionnaires. Please do not include your name or school on the questionnaire if you choose to participate. No district, school, or teacher will be identified by name in any reports of this research.

Even though your participation in this research will take some of your valued time, your contribution and support will be greatly appreciated by the researcher. By expressing your beliefs and perceptions, you will be making a meaningful contribution toward our knowledge base for improving educational outcomes for all high school students.

As a reminder, the survey is strictly voluntary, anonymous, and confidential. No person, no school, and no district will be identified in any written research documents or publications related to this research. You may refuse to complete the survey without consequence, and you may choose which questions to complete.

If you agree to participate, please sign the letter of consent and place it in the envelope labeled “consent forms”. (Note: Hold up envelope.) I will give you a survey to complete. To ensure confidentiality, I will not collate letters of consent and completed questionnaires. When you have completed the questionnaire, please place it in the envelope labeled “survey”. (Note: Hold up envelope.) Thank you!
APPENDIX I

COUNSELOR’S CHECKLIST FOR DATA COLLECTION

_______ Arrange faculty meeting.

_______ Facilitate faculty meeting to recruit participants by reading the script (see attached) prepared by the researcher. (Note: The script will introduce the researcher, briefly describe the purpose and rationale of the study, explain informed consent, and reiterate the voluntary nature of the study.)

_______ Distribute a letter of consent and an informed consent notice to each teacher. Allow time for teachers to read and review the information. (Do not coerce teachers to sign the letter of consent. Teachers must decide whether or not to consent to participate. The incentive will be provided for your assistance with the data collection process. Therefore, do not be concerned if teachers elect not to participate. This is their right, and they should not be coerced to participate.)

_______ Instruct participants to place signed letters of consent in the envelope provided by the researcher. (Note: Do not attach or collate letters of consent to surveys.)

_______ Distribute surveys to participants that consent to participate in the study.

_______ Instruct participants to place the surveys in the envelope provided.

_______ Seal each envelope without reviewing the contents and place in larger envelope.

_______ Mail the documents to the researcher in the envelope provided.

_______ Complete, sign, and return this checklist (along with surveys) to the researcher verifying that the procedures for administering the instrument were followed.

Liaison’s Print Name ________________________________

Liaison’s Mailing Address ________________________________

Liaison’s City, State and Zip Code ________________________________

Liaison’s Signature _______________________________________

A $25 gift card will be sent to the address above when the researcher receives the surveys.
REFERENCES


Henry, G. B. (1986). *Cultural diversity awareness inventory*. Hampton University:


Mississippi Department of Education. (2013). *Mississippi subject area testing program, second edition SATP2: Student/Parent information guide*. Jackson, MS: MDE.


Muhammad, A., & Hollie, S. (2012). *The will to lead, the skill to teach: Transforming schools at every level*. Bloomington, IN: Solution Tree Press.


National Center for Education Statistics. (2013). *Enrollment and percentage distribution of enrollment in public elementary and secondary schools, by race/ethnicity and*
region: Selected years, Fall 1995 through Fall 2023. Retrieved from

National Center for Education Statistics. (2014). The condition of education 2014 (NCES
2014-083), Status dropout rates of 16- through 24-year-olds, by race/ethnicity:


imperative for educational reform. The Elementary School Journal, 113-130.

Nield, R. C. (2009). Falling off track during the transition to high school: What we know
and what can be done. The Future of Children, 19(1), 53-76.


Obama, B. (2009). Remarks by the president to the Hispanic chamber of commerce on a
complete and competitive American education. Retrieved from
https://www.whitehouse.gov/the_press_office/Remarks-of-the-President-to-the-
United-States-Hispanic-Chamber-of-Commerce/

Ogletree, Q. D. (2012). The relationship between elementary teachers' beliefs about
diversity and their selections of multicultural materials for instructional practices
in one urban school district (Doctoral dissertation). Retrieved from ProQuest
Dissertations & Theses Full Text. (1221239961)


left behind and the reduction of the achievement gap: Sociological perspectives on federal education policy (pp. 53-76). New York, NY: Routledge.


