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Sense of Belonging and Association with Academic Achievement of Hispanic and Non-Hispanic High School Students

Mary Webster
mcwebster06@gmail.com

LMU | Carter & Moyers School *of* Education
LINCOLN MEMORIAL UNIVERSITY

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SENSE OF BELONGING AND ASSOCIATION WITH ACADEMIC ACHIEVEMENT OF HISPANIC AND NON-HISPANIC HIGH SCHOOL STUDENTS

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MARY LOUISE CALLAWAY WEBSTER

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Committee Member	01/27/2021 Date
Committee Member	01/27/2021 Date
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SENSE OF BELONGING AND ASSOCIATION WITH ACADEMIC ACHIEVEMENT OF HISPANIC AND NON-HISPANIC HIGH SCHOOL STUDENTS

Dissertation

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of the requirements for the degree of Doctor of Education
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by

Mary Louise Callaway Webster

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Dedication

According to John Maxwell, *To add value to others, one must first value others*. Goals are not accomplished alone because we need to be encouragers, and we need others to encourage us throughout life. While we have our own plans, God directs the path and the timeline. The path was not easy, nor was the timeline; however, anything with best effort and consistency is worth it!

I am most grateful to my husband Mitchell and son Bruin during this educational journey; they joined my adventure with extra love and patience. I am grateful for my parents, Barbara and Jim, and parents, Glena and Larry; they have been my constant encouragers and support. I am thankful for my father, Groat Morris Callaway Sr., who told me years ago *Dr. Webster* would be a good goal, and his words have resonated within my soul, even though his life on this earth was not as long as I expected. To Willie and Jeanie Morris, thank you for always asking me about how it was going with the work and praying for me. Thank you for the encouragement. To all of you, thank you for believing in me!

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Abstract

The purpose of this quantitative, nonexperimental, correlational research study was to investigate the extent that Hispanics in grade 11 in a rural high school in Tennessee experienced a sense of belonging and the correlation, if any, between sense of belonging and academic achievement on the state English I and English II standardized tests. I selected Maslow's Hierarchy of Needs as the theoretical framework to focus the nonexperimental, correlational study. I collected student perceptions for sense of belonging using the Psychological Sense of School Membership scale, designed to measure perceptions of psychological membership and sense of belonging, for students in grade 11 determining the possible influence on academic achievement for Hispanic and non-Hispanic students. Hispanic students had lower English I and English II state standardized test scale scores; however, students who scored higher on the Psychological Sense of School Membership scale for sense of belonging had higher English I and English II state standardized test scale scores. As the Hispanic students' sense of belonging increased, the scores on the state English I and English II standardized tests increased.

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Chapter I: Introduction to the Study

Educators must consider students' complex identities as they provide strategies to face opportunities and challenges in facilitating academic success in a welcoming environment (Auslander, 2018). Wehlage et al. (1989) determined a sense of school belonging was one such sociocultural concept that correlated with academic growth, emotional and cognitive development, and sense of safety. Moreover, Wehlage et al. (1989) determined when students experienced school belonging, they also experienced positive academic engagement, academic growth, and academic achievement. As a result, Baumeister and Leary (1995) suggested sense of belonging had strong outcomes for social emotional learning and academic thinking and learning.

Accordingly, Blad (2017) discussed how students identified signals in the school and classroom environments, how those signals influenced whether the students felt like they belonged or did not belong, and how the resulting feelings affected the students' successes. Likewise, Mitchell et al. (2016) studied the effects of student trust in teachers and student perceptions of safety on identification within the school, and the researchers determined when students felt trusted and safe, it was more important than socioeconomic status (SES), ethnicity, and academic levels in school. Furthermore, Goodenow (1991) asserted students needed to experience sense of belonging in the school environment to achieve educational goals. Goodenow (1991) determined the concept of school belonging positively correlated with several favorable student outcomes while mitigating against risk factors, such as racial or ethnic minority status and SES.

In this chapter, I introduced the sense of belonging and impact on academic achievement. Then I introduced the Statement of the Problem with describing how sense of belonging impacted academic achievement, moving toward the idea of school belonging and academic achievement connections with a research question focal point. The frame of the study was Maslow's Hierarchy of Needs. Next, I identified the Significance of the Study and the Purpose of the Study, both of which focused on the Hispanic population. I then provided Description of the Terms for clarification within the study. Finally, I provided the Organization of the Study to guide the reader of this quantitative, nonexperimental, correlational research design.

Statement of the Problem

Students' experience of sense of belonging positively impacted academic achievement (Cemalcilar, 2010). According to Cemalcilar (2010), when students experienced a sense of belonging in the school environment, those students were positively impacted in psychological and academic areas. Accordingly, Hagborg (1998) described school belonging as the extent to which students experienced personal belonging, respect, and support while in school. When students were able to access information, acquire knowledge, apply information, and positively engage in school, academic growth and achievement occurred (Hagborg, 1998). As a result, students with sense of belonging had more positive experience in the academic environment (Hagborg, 1998).

In contrast, students lack of sense of belonging also impacted academic achievement (Newmann et al., 1992). Newmann et al. recognized when a student felt like a failure and felt disrespected in a competitive school environment, the

student decreased effort on academic tasks and redirected energies to more achievable areas that were more comfortable. Students needed support from peers and teachers, and if this support was not available and consistent, the students failed academically and socially (Newmann et al., 1992). Additionally, Lam et al. (2017) stated, "Students who feel rejected in school are more likely to feel tired, helpless, bored and depressed and less likely to feel satisfied, calm, and relaxed while learning, tendencies that in turn may undermine academic performance" (p. 12).

Additionally, Ekstrom et al. (1986) examined an analysis based on characteristics of dropouts using the National Center for Education Statistics (NCES) Study of Excellence in High School Education with 30,000 high school sophomores in a national probability sample who attended 1,000 public and private level high schools. Ekstrom et al. (1986) started with the sophomores in 1980 and then provided a follow-up survey for data collections from 22,000 of the students in 1982, of which 2,000 participants had dropped out. The researchers compared "race/ethnicity, socioeconomic status, family structure, home educational support system, ability and attitudes, and school behaviors" (p. 53) in one path analysis. Ekstrom et al. (1986) used the second path analysis to determine why some students dropped out while others did not, and the third path analysis was value-added to predict the impact of staying in school or dropping out on gains for standardized assessments. Ekstrom et al. determined two characteristics strongly connected, which were SES and race/ethnicity. As a result, Ekstrom et al. (1986) determined the students who were more likely to drop out felt like other students did not perceive them as good students, and these

students experienced low self-esteem and lack of sense of belonging and frustration with overall school experience.

Then students in minority groups who experienced decreased sense of belonging also experienced decreased academic achievement (Roche & Kuperminc, 2012). Roche and Kuperminc determined students who were members of minority populations were at a higher risk of having negative experiences in school and dropping out of school. The researchers studied 199 Latino middle school students with 80% immigrants from a metropolitan southeastern area. Specifically, Roche and Kuperminc (2012) determined lack of school belonging "may be a mechanism by which discrimination stress . . . decreases school performance among Latino youth" (p. 61). Roche and Kuperminc linked discrimination stress to acculturative stress and defined acculturative stress when a minority experienced stress when adapting to the dominant culture. Minority students experiencing decreased sense of belonging had increased levels of stress within the school environment (Roche & Kuperminc, 2012). Thus, Newmann (1992) explained how many minority students in secondary schools, though they appeared to do well enough on tests and managed to achieve average results, experienced increased challenges due to being "low income, having limited English proficiency, and or having little to no family support" (p. 201). Newmann et al. (1992) determined students who did not fall into the majority student population felt left out of psychological membership when the environment did not embrace unique cultural backgrounds.

The Hispanic population continued to increase in size in the United States. According to Bauman (2017), "By 2016, Hispanics numbered 57.5 million,

17.9% of the total population, making them the largest ethnic or racial minority in the United States" (p. 1). During the same time frame, the percentage of Hispanic students in grades 1-8 classrooms in the United States increased 14.1%-25%; the percentage of Hispanic students in high school classrooms in the United States increased 13.2%-23.7% (Bauman, 2017). I conducted dissertation research in a rural high school in Tennessee, and according to the Tennessee Department of Education (2018b), the English learner (EL) population in Tennessee more than doubled between the years of 2006-2016.

Since the growth of the Hispanic population within the community increased, the growth of Hispanic students in the school increased, and English skills and achievement concerns were valid in providing growth for student outcomes in educational goals. In District A, I investigated the standardized tests for English Language Arts (ELA) growth and achievement scores for the population within the one high school in the district and found achievement gaps between the Hispanic subgroup compared to the majority population, Black/Hispanic subgroup and majority population, and EL subgroup in grades 9-11 (see Table 1).

Table 1

State Test English I, English II, English III Growth Scores Entire Population 2016–2018 and 3-Year Average for District A High School

	2016	2017	2018	3-Year Average
English I	-6.2	0.9	1.5	-1.2
English II	-2.5	0.4	0.4	-0.6
English III	1.9	0.2	0.7	-0.3

Note. English III is no longer a state test as of 2018-2019.

While there was academic growth in overall population, there were gaps in the Hispanic and EL categories in academic growth measure for, grades 9-11. To clarify, not all students in the EL category were Hispanic, and not all Hispanic students were in the EL category. I considered the role of language in acculturation and its impact on the ELA state standardized test results. Individual students were influenced by the connections or lack thereof between sense of belonging and academic achievement (Goodenow, 1991). Blad (2017), Mitchell et al. (2016), and Goodenow (1991) established the connection between a student's sense of belonging and a student's academic performance.

The average growth for the Hispanic and EL categories was less than the average district reference population for ELA in English I, English II, and English III in grades 9-11. The increase of the Hispanic population growth in ELA skills was needed to meet grade-level proficiency expectations for the overall student population (see Table 2).

Table 2

State Test School-Level Results, District A High School English I, English II, English III Scores for Hispanic Students

Valid Tests	Below	Approaching	On-Track/Mastery
124 in 2018	27 (21.8%)	78 (62.9%)	17 (13.7%)/ 2 (1.6%)
131 in 2017	37 (28.8%)	71 (54.2%)	19 (14.5%)/ 4 (3.1%)

Note: Below and *Approaching* were approaching grade-level expectations on standards for competency on grade-level skills. *On-Track* and *Mastery* were on grade level and above for expectations on grade-level skills.

The growth measure was the estimate that showed the district effects, which compared student progress to the average district in the reference population (see Table 3).

Table 3

State Test School-level Results, District A High School English I, English II, English III Scores for White Students

Valid Tests	Below	Approaching	On-Track/Mastery
648 in 2018	60 (9.3%)	307 (47.4%)	249 (38.4%)/ 32 (4.9%)
677 in 2017	85 (12.5%)	279 (41.3%)	250 (37%)/ 62 (9.2%)

Note: Below and *Approaching* were approaching grade-level expectations on standards for competency on grade-level skills. *On-Track* and *Mastery* were on grade level and above for expectations on grade-level skills.

The growth measure for District A's ELA scores in grades 9-11 was -2.3 for Hispanic students in comparison with the student progress to the average district in the reference population, while -1.0 in the Black/Hispanic/Native American (BHN), and EL with -1.7 revealed there was a deficit in growth measure for these subgroups.

In 2018, 15.3% Hispanic students were proficient at grade level indicated by On-Track (on grade level) or Mastery (above grade level), as compared to 17.6% in 2017 in District A (see Table 4).

Table 4

State Test School-level Results, District A High School English I, English II, English III On-Track and Mastery for Hispanic and White Students

	Hispanic	White
2018	15.3%	43.4%
2017	17.6%	46.2%

While more Hispanic students were meeting grade-level expectations in 2017, the number of students on grade level dropped during the year. Also, when comparing 2017 and 2018 state test scores, 46.2% of White students' scores were proficient or at grade level indicated by On-Track or Mastery levels in 2017 compared to 43.3% in 2018. This is important because White students are were decreasing proficiency in skills, while all students should be increasing in proficiency at the same rate. Finally, I looked at the comparison for proficiency levels between Hispanic and White students, which indicated differences of 28.6% in 2017 and 28.1% in 2018. This was important because the Hispanic population needed greater increases for proficiency in ELA. Thus, the purpose of this quantitative, nonexperimental, correlational research study was to investigate the extent that Hispanics in grade 11 in a rural high school in Tennessee experienced a sense of belonging and the correlation, if any, between sense of

belonging and academic achievement on the state English I and English II standardized tests.

Research Questions

The purpose of these questions was to focus the examination of the study of the extent that Hispanic students in grade 11 in a rural high school in Tennessee experienced a sense of belonging and psychological membership and the correlation, if any, between sense of belonging and academic achievement on the state English I and English II standardized tests.

Research Question 1

What was the difference, if any, in academic achievement proficiency on English I state standardized test scores based on race/ethnicity (Hispanic/Latino and non-Hispanic/Latino) and sense of belonging in a predominantly White student body in a rural high school in Tennessee?

Research Question 2

What was the difference, if any, in academic achievement proficiency on English II state standardized test scores based on race/ethnicity (Hispanic/Latino and non-Hispanic/Latino) and sense of belonging in a predominantly White student body in a rural high school in Tennessee?

Research Question 3

Does Hispanic students' sense of belonging predict academic achievement proficiency on English I state standardized test scores in a predominantly White student body in a rural high school in Tennessee, and if so, how?

Research Question 4

Does Hispanic students' sense of belonging predict academic achievement proficiency on English II state standardized test scores in a predominantly White student body in a rural high school in Tennessee, and if so, how?

Theoretical Framework

I chose Maslow's Hierarchy of Needs as the theoretical framework to focus the study. Maslow (1958) determined people were born with the desire to achieve their maximum potential, referred to as self-actualization. Additionally, Maslow (1958) suggested prior levels of needs must be satisfied in a specific order: physiological, safety, love, esteem, and then self-actualization. For example, Maslow (1943) theorized humans first required physiological needs (i.e., air, food, water, shelter, and warmth) be met and then safety needs (i.e., financial, health, and wellness) be met.

McLeod (2018) determined the physiological needs and safety needs would be the individual getting basic needs met before the consideration of the more complex needs. Then humans required love and belongingness (e.g., family and friendships, allowing a place in a group) needs be met. McLeod (2018) suggested love and belongingness impacted movement to the higher levels of esteem and self-actualization.

Freedman and Hurley (1979) defined the level of esteem as needs that were desired for achievement, recognized as competence. Freedman and Hurley (1979) described the level of self-actualization as the potential the person could reach or what the person might become in life. Allen et al. (2018) identified school belonging influenced adolescence "academic motivation, emotional

stability, personal characteristics, parent support, peer support, teacher support, gender, race and ethnicity, extracurricular activities and environmental/school safety" (p. 1). Delgado et al. (2016) investigated Latino adolescents' academic growth and achievement and how friendships mattered, either positively or negatively. The researchers used a subset of the National Longitudinal Study of Adolescent Health representing grades 7-12 students for a total of 6782 students within 132 schools measuring friends' characteristics, academic achievement, and problem behavior based on self-reported data (Delgado et al.). Delgado et al. (2016) determined Latino adolescents' successes in academic courses was connected to friendships and sense of belonging within the school environment. Delgado et al. (2016) explained school belonging in connection to friendships positively linked to academic achievement outcomes.

Thompson (2007) maintained motivation was imperative and had a direct impact on students' growth and achievement, and Thompson conceptualized the connection of being an adolescent and belongingness in the school environment. Until sense of belonging was determined, the learning process may be challenging. Thompson (2007) referenced the connection of Maslow's Hierarchy of Needs to the basic needs for sense of belonging being met before higher needs can be met.

Significance of the Project

I determined the population was important to include to consider the dynamic of the district for the elementary, middle, and high school to understand the study. District A's elementary school had a total of 519 students with 274 Hispanics (52.79%). District A's intermediate/middle school had a total of 641

students with 284 Hispanics (44.31%). District A's high school had a total of 1161 students with 210 Hispanics, (18.09%). A county middle school was considered a feeder school for students transitioning to high school, explaining the changed numbers 44.31%-18.09%, given that the feeder county school, District B provided two thirds of the incoming student population to the high school environment with only 9.23% of Hispanic students in grade 9 in 2019-2020 and 9.23% in grade 9 in 2020-2021.

According to Musu-Gillette et al. (2017), in the NCES from 2003-2013 for all public elementary and secondary schools, the percentage of White students dropped 59% to 50%, and the "percentage increased for students who were Hispanic from 19 to 25 percent" (p. 1). Musu-Gillette et al. (2017) indicated Hispanic populations in schools were growing, but those populations continued to be minorities. Stevens et al. (2007) noted this information:

> This decline [in student motivation during the middle school years] was related to a lack of awareness by educators of the social factors, including belonging, that can explain students' motivation. Thus, students' sense of school belonging, which refers to psychological membership in a supportive school community, becomes an especially social variable to consider with Hispanic students during their middle school years. (p. 57)

I sought to understand the correlation of Hispanic students' sense of belonging and if this correlation impacted Hispanic students' academic growth and achievement on standardized English tests. If I determined the correlation between sense of belonging and academic growth and achievement, then school district administrators could utilize the information to better prepare students and

teachers for sense of belonging and impact on academic achievement and how to apply awareness for future academic growth and achievement goals within the Hispanic subgroup population. I determined the study would provide information on Hispanic students' perspectives on sense of belonging in the high school setting, and the information could fill a gap in the literature by providing insight to the Hispanic students' perspectives on the possible correlation between sense of belonging and academic achievement.

Description of the Terms

The purpose of describing these terms was to provide a common understanding of terminology and key concepts utilized within the study.

Academic Achievement

Orelus (2010) stated, "Academic achievement is defined as 'working at grade level in writing, reading, and speaking skills'" (p. 7). Orelus (2010) also examined how information was obtained by students and what resources were used impacting literacy skills and how these achievements changed over time in the process for reading, writing, and the connection to performance outcomes on state standardized testing. In this study, I used ELA scores for academic achievement. For District A's English I proficiency state standardized test scores, scale scores were Level 1, Below (200-306); Level 2, Approaching (317-332); Level 3, On-Track (333-346); and Level 4, Mastery (347-450). For District A's English II proficiency state standardized test scores, scale scores were Level 1, Below (200-302); Level 2, Approaching (303-317); Level 3, On-Track (318-333); and Level 4, Mastery (334-450). The categories On-Track and Mastery were demonstrating proficiency (Sellers, 2018).

Hispanic or Latino

The U.S. Census Bureau's definition of *Hispanic or Latino* was "a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race" (Humes et al., 2011, p. 2). In this study, I used *Hispanic* to identify these people.

School Membership

Hagborg (1998) indicated, "School membership is the extent of personal belonging, respect, and support students feel in school" (p. 1). Hagborg (1998) summarized students with higher school membership were reported to have more motivation and successes within school environments.

Sense of Belonging

According to Lam et al. (2017), "A sense of belonging may be derived from an inner need to develop connections with other people and a sense of group identity" (p. 2). According to Goodenow (1993), "The extent to which students feel personally accepted, respected, included, and supported by others in the school environment" (p. 80) provided sense of belonging. Baumeister and Leary (1995) defined sense of belonging as "a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships" (p. 497). Researchers referred to this concept using other phrases: identification (e.g., school belonging, school climate, school connectedness, school membership) (Hagborg, 1998; Karakus, 2017; Libbey, 2004; Voelkl, 1997).

Organization of the Study

My study followed a format with five sections. In Chapter I, I introduced the sense of belonging study including the overview, the Statement of the Problem, research questions on the correlation of Hispanic students' sense of belonging and impact on academic achievement, the Theoretical Framework of Maslow's Hierarchy of Needs, the Significance of the Project, and a description of important terms. Chapter II included a thorough review of the literature, including history of educational policy, immigrant population in the United States, academic achievement, sense of belonging, and the Psychological Sense of School Membership scale (PSSM). In Chapter III, I described the research methodology as quantitative based on the responses from the PSSM in a rural high school in Tennessee. After completing the study, in Chapter IV, I reported results for the data based on the results from the PSSM and the students' achievement and growth scores on the state ELA standardized state tests. Finally, in Chapter V, I summarized the findings and provided suggestions for future research focused on sense of belonging and impact on academic achievement and growth.

Chapter II: Review of the Literature

In determining the sense of belonging and impact on academic growth and achievement on the state English I and English II standardized tests for Hispanics in grade 11 in a rural high school in Tennessee, I determined Maslow's Hierarchy of Needs and connection to motivation as relevant to the study for sense of belonging and impact on achievement; after the physiological and safety levels of needs were met, the next level was focused on relationships, including the need for belonging in groups (Maslow, 1943). The context of Hispanic educational policy and laws provided background for foundational educational support in years 1968-2001, while additional educational policies and laws provided the frame for educational support in years 2002-2019. Another relevant aspect was immigration population in the United States. As the increase in minority population occurred, educational systems needed to understand how to support Hispanic students. While school district personnel considered academic achievement, educators needed to support educational growth and achievement. Using a quantitative, nonexperimental, correlational research design, I utilized the PSSM, which provided an overview of students' perspectives to sense of belonging, and the scale supported impact of students' sense of belonging, whether positively or negatively.

Maslow's Hierarchy of Needs

Maslow's Hierarchy of Needs suggested physiological and safety needs must be met before moving to educational academic achievement and growth; in other words, the lower levels of Maslow's Hierarchy of Needs must be addressed as proficient before motivation for academic success will occur within the

classroom and school environments (Maslow, 1943). Maslow stated the physiological needs were the basis for motivation theory. Determining homeostasis and finding food to provide for hunger were physiological needs. Maslow (1948) stated this was a process with water, salt, sugar, protein, fat, calcium, constant hydrogen-ion level, and constant temperature of the blood in physical needs of the body, which indicated if the body lacks in an area, the appetite for foods providing more vitamins and minerals in the food selection balanced what was needed. According to Maslow, physiological needs and consummatory behavior might be a channel. Thinking you were hungry could be you needed more comfort rather than vitamins; therefore, "a person who is lacking food, safety, love, and esteem would most probably hunger for food more strongly than for anything else" (Maslow, 1943, p. 373). Then if physiological needs were satisfied, a new set of needs became important, which was safety. Noltemeyer et al. (2012) discussed safety having impacts on academic and cognitive development and how effects of health care or lack thereof impacted academic achievement. Noltemeyer et al. (2012) summarized results:

> As access to health and dental care increased, higher levels of academic and cognitive performance were found on both parent-reports and direct skill assessments. It is possible that having access to health and dental care allows students to miss less instruction due to major medical or dental issues, since prevention and early intervention care can be provided to address issues before they become severe enough to warrant absence from school. (p. 1866)

Noltemeyer et al. (2012) suggested a connection between deficiency needs and academic achievement and improving safety needs would have an impact on what students learned in classrooms.

In addition, safety for children was in the routine of the day in which the children felt safe within an organized and predictable environment (Maslow, 1943). Maslow stated once the physiological and the safety needs were met fairly, love, affection, and belongingness needs were next. Thus, the person will desire relationships or sense of belonging with people to achieve this level in Maslow's Hierarchy of Needs, which indicated a place in a group—belonging (Maslow, 1943).

Maslow (1943) provided the next level as esteem needs when people wanted "self-respect, or self-esteem, and for the esteem of others" (Maslow, 1943, p. 381). Maslow indicated achievement was one part of the state as well as the reputation and appreciation as the additional part. Once someone had identified with this level in Maslow's Hierarchy of Needs, the self-confidence provided an internal usefulness and purpose to the person's world. Maslow (1943) referred to the next level as self-actualization, which had different meanings to different people, but the overall interpretation was a person reached an ideal level of creativity or achievement. To get to this point, the other levels had to be met within the society.

Maslow (1948) stated, "The most basic consequence of satiation of any need is this need is submerged and a new and 'higher' need emerges" (p. 403). Maslow showed the first level of feelings as physical and based on food, sleep, and overall well-being of health. Then Maslow determined the feelings of safety

and protection as the next level, which was feelings of belongingness and being accepted into a group. Maslow demonstrated gratification of the basic emotional needs for belongingness for respect and moving toward kindness improved psychological overall well-being for people. Maslow (1948) provided the levels for feelings of love and being loved as they moved to the next level of feelings in self-respect and self-esteem. Maslow (1948) determined the feelings of self-actualization were evidence toward self-fulfillment and reaching potential in one's life, which was what a person interpreted that potential to be.

Dodd (2000) indicated students would not be able to learn mathematics or English if they were hungry, when they did not feel safe or as if anyone cared, and when they perceived themselves as failures in the school environment. Dodd demonstrated the focus must not be only on content but students' emotions, which connected to academic achievement when higher expectations and standards were implemented. Students needed to address emotions and feel valued, and students would be provided a more positive foundation for academic achievement (Dodd, 2000).

Wang et al. (2018) explained when people loved others, they understood their own safety was not just about the individual, but it was about the people around them in the environments in which they function. Wang et al. (2018) determined the following:

> The need to love can make people do their best and do not harm others or protect others from harm. Overall, the need "to love and to be loved" can motivate people to have a strong sense of responsibility for safety and make people attach great importance to safety. (p. 135)

Wang et al. (2018) discussed having an emotional safety in a culture could have a positive impact on productivity and improve the culture.

Educational Policy

When studying a subgroup for educational research, historical context within the scope of education should be considered. While providing educational opportunities for Hispanics was evident in the 1960s, the implications of educational opportunity had context as well. Portes et al. (2014) discussed, "Education is product and process of social and historical events and practices" (p. xvii). In the 1968 Bilingual Education Act, *Lau v. Nichols*, *Plyler v. Doe, ESEA Title III,* and No Child Left Behind (NCLB) provided support for educating children, regardless of language and ethnicity, through bilingual education (Boehner, 2002; Crawford, 1997; Dulay & Burt, 1979; Feinberg et al., 2014; Leiter & Leiter, 2011; Rong & Preissle, 2009). Later, government officials revised Elementary and Secondary Education Act (ESEA) Title III as Language Instruction for Limited English Proficient and Immigrant Students and determined NCLB Policies on Bilingual Education did not have an impact on academic reading assessment data according to the National Assessment of Educational Process (NAEP), although NCLB required all scores were aggregated data to provide evidence for subgroups within the state testing accountability (Caldas, 2013). Federal officials decided the Every Student Succeeds Act (ESSA) indicated more push for equity in schools; however, government officials left the responsibility to the states to make decisions concerning the plan.

Leiter and Leiter (2011) reported the 1968 Bilingual Education Act provided educational classes for teaching English to students with limited

English-speaking ability or limited English proficient students or English Language Learners (ELL) in their native language, and culture was important to students' development and growth in the educational process (Leiter & Leiter). Congress wanted to provide support for learning English but not "cognitively damage" (Leiter & Leiter, 2011, p. 122) children by denying them their native languages. In other words, educators were expected to provide educational services for learning the English language, but teachers were not supposed to prevent students from using native language in the classrooms and school environments; however, Chavez argued Title VI of the 1964 Civil Rights Act promoted segregation of Hispanic students because the programs were more political than effective for the actual students in the classes (Leiter & Leiter, 2011).

The bill was designed for Spanish-speaking students to be in bilingual classes—it was to provide access to English classes but not designed to shelter or segregate students with within a minority-designed classroom environment, such as English class or Biology I class only for Hispanic students (Leiter & Leiter, 2011). Decision makers later added bills and added amendments in 1978 as the Title VII of ESEA, which helped education with federal programs to continue support for Hispanic students to effectively progress through educational settings. Dulay and Burt (1979) stated this policy, intended for the children who were either born outside the United States or the children who are living in a household with a predominant language other than English, received additional supports that helped with language arts, reading, mathematics, social studies, and science.

Another situation occurred in 1970 when Chinese students were not getting educational needs met because the students were placed in classrooms to learn English without English language instruction, and their families went to the U.S. Supreme Court with *Lau v. Nichols* (Leiter & Leiter, 2011). Chinese students were not getting instructional support to overcome deficits in the English language. The school district personnel did not support educational needs, only supplied facilities and textbooks, and the students were refused assistance because lack of English skills. The court decision determined Title VI of the Civil Right Act of 1964 as basis to ban discrimination of national origin (Leiter & Leiter, 2011). New programs began as a result of the law that provided instruction to fill language gaps for students to obtain proficiency in English with instruction while also keeping native language. Rong and Preissle (2009) suggested, "Three types of bilingual programs were proposed at that time: (1) transitional bilingual education; (2) bilingual-bicultural education; and (3) multilingual-multi-cultural education" (Rong & Preissle, 2009, p. 59); however, decision makers continued to make progress for bilingual education by proposing access to these options.

Crawford (1997) stated, "Title VII, Part A, of the Improving America's Schools Act, the legislation includes a section entitled 'Findings, Policy, and Purpose'" (p. 9), which provided the federal government's support for why programs were needed, how they worked, which students benefited, and what were the goals of policy. The decisions made by policy makers were providing an avenue to educate children for same level of academic achievement that was expected of all children, regardless of native language and still developing native language skills (Crawford, 1997).

Feinberg et al. (2014) reported in 1975 Texas legislature changed its policy to not offer public education to anyone who was not admitted legally to the United States; however, in the court decision for *Plyler v. Doe* (457 U.S. 202, 1982), a United States Supreme Court ruling provided the Equal Protection clause that stated no State shall "deny to any person with its jurisdiction the equal protection of the laws" (*Plyler v. Doe*, 1982). Children within the boundaries of the state must have educational opportunities, yet undocumented immigrants have faced challenges dealing with educational opportunities. According to Rong and Preissle (2009), if the status quo was threatened by allowing others to embrace their languages, then the groups with minimal power may obtain power, which could go against the majority of English-speaking. Bilingual education supporters identified several factors influenced a student's ability to maintain his or her home language and learn English, including origin of birth, age of person when arrived in the United States, the amount of time the person had been in the United States, how many years the person had in the home language, social class, and the amount of education that the parents had (Rong & Preissle, 2009).

Government officials revised the ESEA Title III as Language Instruction for Limited English Proficient and Immigrant Students (Boehner, 2002). Portes and Salas (2014) stated, "Unlike NCLB that safeguards a failed system focused more on accountability on test scores than equity and development, counteraction must increasingly narrow the existing educational gaps in a sustained fashion" (p. 11). Harman (2014) stated even though officials were holding districts accountable to federal mandates, the state officials had disadvantages toward ELs. Harman (2014) indicated issues addressed by educators "to develop discourse

strategies that acknowledge immigrant students as vital partners in building classroom knowledge of new concepts despite English-only mandates and high-stakes school reform" (p. 174) were challenging to support students. The decision makers for federal and state policies provided these implications for Hispanic students with progress toward equity in education (Harman, 2014).

Regarding reading assessment data, students in grade 4 and grade 8 participated in the NAEP, and since "All states receiving Title I federal funding participate in the NAEP. This requirement allows for national comparison of math and reading scores between Hispanic ELLs, Hispanic non-ELLs, and non-Hispanic whites" (Caldas, 2013, p. 206). Also, this would determine what effects NCLB might have on closing achievement gap for Hispanic students. According to Caldas (2013), the achievement gap can never be closed:

> As long as ELLs are defined by their low scores in English proficiency--the language in which most high stakes assessments are administered. Thus, districts with large ELL populations will always underperform, and ELLs can never be proficient on assessments administered in English–not in 2014, 2044 or 4044. (p. 216)

NCLB required all scores be aggregated, including ELL students, special education students, and regular education students for annual yearly progress (Caldas, 2013). Caldas found a small increase in reading NAEP scores for grade 4 Hispanic ELLs 2002-2009, though it was not statistically significant. Contrasting to this slight increase, there was a statistically significant decrease in grade 8 Hispanic ELL reading scores 2002-2009; therefore, scores on the reading NAEP did not significantly increase for ELLs over the period of NCLB, and these scores

decreased for the reading NAEP grade 8 scores for ELLs; however, non-ELL Hispanics showed growth on the reading NAEP test. The statistically significant increase was in the gap between non-ELL and ELL Hispanics on the grade 8 test. Caldas determined no apparent evidence that NCLB closed the reading achievement gap based on NAEP data, and ELLs were achieving at a faster rate in reading prior to NCLB. Caldas (2013) concluded NCLB mandates for ELLs were not working and were seemingly having consequences for ELs.

Montero-Sieburth and Perez (2014) provided evidence of inconsistency: "Fifty years of academic research and policy recommendations at all levels of administration and government, educational outcomes for the majority of the Latinos in the United States have been inconsistent, unequal, and lacking a long-term strategy" (p. 92). Montero-Sieburth and Perez conducted a comparative analysis of educational policies and research for the achievement of Latinos in the United States and Latin Americans in Spain. Montero-Sieburth and Perez determined solutions were needed and compared U.S. policies with those of Spain in how Latin Americans were integrated into the society with how the people adjusted to the new environments. Montero-Sieburth and Perez (2014) suggested, due to the nature in which Latin Americans were integrated, they had more successes in those outcomes in education as compared to the United States. Even though NCLB in 2002 was evident, Montero-Sieburth and Perez (2014) indicated, "Nationally the second generation of immigrants passed the first generation by thirty-six percent" (p. 93). The second-generation Latinos increased high school attendance, postsecondary education, and college graduation; however, the percentage of growth was behind non-Latinos concerning college matriculation.

According to Montero-Sieburth and Perez (2014), “Teachers normalize their expectations about Latinos ‘not making it’ based on their second-language learner status or by simply being classified as Latinos” (p. 94). Also, Montero-Sieburth and Perez acknowledged generic policies not encouraging educational growth within the Latino population. Montero-Sieburth and Perez (2014) interpreted the results to mean the multi-faceted interpretation of policies, such as NCLB, used punitive measures for accountability. Pew Research Center (2011) indicated close to 6.1 million or about 35% of Latino children aged 17 and younger lived in poverty, becoming the single largest group of non-White poor children. Montero-Sieburth and Perez (2014) addressed these issues, indicating these challenges would continue through adolescence. Montero-Sieburth and Perez (2014) suggested:

> Adaptation of the second generation and the determinant factors for their future not only stem from the human capital of parents of immigrant children, but also from the social context in which immigrants are received and the composition of the immigrant family. (p. 95)

Montero-Sieburth and Perez (2014) emphasized, when Latinos were compared in Spain and the United States, increases in immigrant entry levels in Spain were due to the federal and community support systems. Montero-Sieburth and Perez (2014) noted the curriculum was the same for all students in Spain. Immigrant students received the following curriculum aspects:

1. individualized educational support for talented students, curricular support or instructional adaptations, including for culturally diverse students, and after-school programs such as pull-out classes in Spanish or Spanish as a second language;
2. compensatory programs with curricular diversification for students with limited educational levels, to at least complete high school; or
3. professional qualifications programs enabling 16-year-old students who have not finished secondary school to receive training to enter the labor market. (p. 97)

Montero-Sieburth and Perez (2014) suggested expectations for teachers being required to increase knowledge for intercultural education and the strategies utilized for educating immigrants. The researchers extended this idea to the support of students and families within the school environment as well as the community environment, and initiatives developed more positive behavior outcomes for culturally diverse students, and distinguished teachers who were willing to contribute to these culturally diverse populations (Montero-Sieburth & Perez, 2014).

Montero-Sieburth and Perez (2014) designated the idea that groups impact educational decision-making provided a sense of belonging can impact educational goals and aspirations:

> It is not the culture of origin or the lack of educational and social opportunities that stand in the way of Latin American students' educational achievement, but rather the educational level they arrive with, as well as the support of their family and peers, that counts in developing their academic expectations and motivations. (p. 99)

In other words, the researchers interpreted the results to mean overall sense of belonging was significant as well as educational background, relationships, and goals in the assimilation for Hispanic students within the school and community (Montero-Sieburth & Perez, 2014).

Egalite et al. (2017) determined, "While certain provisions of The Every Student Succeeds Act may reduce inequity and improve educational outcomes for all students, rigorous enforcement of the laws protections will be necessary to ensure existing inequities are not exacerbated" (Egalite et al., 2017, pp. 757-758). Egalite et al. stated U.S. President Barack Obama signed ESSA (P.L. 114-95), replacing NCLB to improve educational equal opportunities for students who were classified as low-income. Egalite et al. suggested the federal mandate instituted school performance would be reported according to demographic subgroups for accountability purposes to determine long-term goals for graduation rates and student achievement and growth. Egalite et al. (2017) stated, "Academic achievement outcomes must be disaggregated at the school level by gender, race/ethnicity, economically disadvantaged status, student disability

status, migrant status, and English proficiency status" (p. 769). In addition, ESSA indicated the students' English-language proficiency evidence was required for accountability measures by the federal government (Egalite et al.). To decrease the inequities in states depended on whether the choices were made to provide increased equity in schools with the ESSA provisions (Egalite et al., 2017). In conclusion, I determined the historical context and federal and state mandates impacted decision-making within school districts, and the decision-makers for each state determined how to provide equity in education for students to close learning gaps. Policy makers determined federal and state policies and set a tone for school districts and teaching professionals regarding inclusion and cultivating a sense of belonging.

Academic Achievement

James R. Squire Office of Policy Research (2014) members reported standardized tests were used for "high stakes purposes such as determining which students will pass or graduate, which teachers are fired or given raises, and which schools are reorganized or given more funding" (p. 1). The researchers determined ELA teachers and the students in these classes felt effects of standardized testing because literacy was the central component within the tests. James R. Squire Office of Policy Research committee members stated student learning was limited by standardized testing, and those students designated as not proficient may have had problems understanding individual skill sets and have become disengaged with the educational process. In addition, the researchers supported standardized testing had an impact on certain poor and minority student

populations because lower test scores impacted graduation. James R. Squire Office of Policy Research (2014) committee members stated the following:

> English language learners, currently the fastest-growing population within US schools, represent another group whose learning is limited by standardized tests . . . Unfortunately, the tests English language learners take are not always valid measures of their ability, and their opportunities to learn are diminished as a result. Instead of receiving the support they need, students are assigned to classes where there learning is hampered because they cannot understand the language being used. (p. 3)

Committee members determined standardized testing increased negative effects on student learning, and these can be reduced by measures such as the following:

- Employ multiple assessments of student achievement so standardized tests are administered alongside broader, more comprehensive measures of student learning;
- Represent standardized tests to students as one type of assessment among several and help students understand how this type of assessment functions;
- Ensure the standardized tests being used are valid and reliable for the populations of students being tested; and
- Provide special accommodations such as allowing extra time, dictation, and translations for ELL and other students with special needs.

The Tennessee Assessment Development Project Manager Sellers (2018) provided information about the end-of-course assessments—English I and

English II with the ELA Assessments—focused on the state by indicating students would demonstrate proficiency using literary texts and informational texts that would require close analysis of text passages with text-evidence based questions to show comprehension of text complexity and language as well as providing a text-evidence-based written response based on a prompt, and demonstrate command of English skills. The committee members of the State Board of Education High School Policy 2.103 determined the students enrolled in the English I and English II courses were required to take the tests (Sellers, 2018). Sellers provided the information for each subpart of the ELA tests: Subpart 1 had 85 minutes with one passage set and three-five passage-based items, and one writing prompt. Subpart 2 had 50 minutes with two passage sets, including 6-11 items per passage set, and Subpart 3 had 95 minutes with three passage sets, including 6-11 items per passage set, and 8-16 editing items. Sellers (2018) supported performance level evidence based on scale scores: Level 1 (Below), Level 2 (Approaching), Level 3 (On-Track), and Level 4 (Mastered). Sellers (2018) clarified the category On-Track and Mastered as meeting grade-level expectations. According to the state testing focus, the test results included three racial and ethnic groups (i.e., Black, Hispanic, and Native American) that had low scores on the state achievement assessments. Also, the committee confirmed the following:

The English Learners' subgroup included all students who were identified based on the state's EL entrance screener and have not achieved the state's exit criteria, as outlined in the Title III, Part A: Language instruction for English Learners & Immigrant Students section of this plan. The EL subgroup will also

include recently exited EL students for the first four years after they exit. (Tennessee Department of Education, 2018a, p. 69)

For the accountability system to be used, the state testing committee members combined BHN subgroup for schools to identify subgroup students if there were not enough students isolated in one group for accountability since this combination would allow an increase in numbers of schools to show accountability for academic performance (Tennessee Department of Education, 2018a).

According to District A in this study, there was an achievement gap for the Black/Hispanic subgroup and ELs subgroup in grades 8-12 (see Table 5).

Table 5

District A Release File 2018, English Language Arts Proficiency Compared to 2017

English Language Arts	Grades 6-8	Grades 9-12
Black/Hispanic	-5.8	-1.0
English Learners	-3.7	-1.7
Hispanic	-8.5	-2.3

Source: Tennessee Department of Education (2018a).

In response to the problem of uncertainty dealing with this overall achievement gap, I investigated sense of belonging and academic growth, which was students' growth from previous year's score to the next year in relation to predicted score and achievement for proficiency, measuring if students perform at grade-level expectations for proficiency.

Finn et al. (2014) supported a study of many states determining what abilities were categorized by high-stakes testing on standardized tests and how effectiveness with these educational skills were measured. Finn et al. (2014) stated scores students received on these achievement standardized tests "predict important long-term educational and socioeconomic outcomes" (p. 7). Finn et al. acknowledged reading levels at 7 years old associated positively with educational attainment and socioeconomic outcomes. The researchers supported schools influenced standardized test scores in such a way knowledge was obtained. Finn et al. (2014) identified reading skills as significant for students in disadvantaged environments, and the consistent practice using cognitive skills not only influenced standardized test scores, but also significantly influenced the long-term successes of students.

Finn et al. (2014) studied students in public schools and compared the Massachusetts Comprehensive Assessment System (MCAS) scores from grades 4-8, and Then the researchers compared traditional, exam, and charter schools. "Exam school students scored highest, reflecting their admission to those schools based on test performance" (Finn et al., 2014, p. 4), while students from charter schools through the lottery process increased from statewide average to "above average between 4th and 8th grade" (Finn et al., 2014, p. 4). The researchers examined the ELA scores and cognitive measures (PS: $r = .38$, $p < .001$; WM: $r = .18$, $p < .001$; FR; $r = .36$, $p < .001$; composite $r = .40$, $p < .001$). The researchers utilized a path analysis, and outcomes were positive and statistically significant between both grade-level tests and the cognitive measure. Finn et al. provided evidential support with growth on the MCAS tests was related to

cognitive performance as the researchers calculated gains for each student based on predicted scores and actual test scores using the multivariate model with cubic functions for grade 4 achievement. Finn et al. (2014) identified gains:

> Correlated positively with cognitive measures, . . . with ELA (PS: $r = .29$, $p < .001$; WM: $r = .04$, $p = .2$; FR: $r = .19$, $p < .001$; composite $r = .18$, $p < .001$), suggesting overall academic improvement. (p. 4)

This included any gains provided support for individual and within context was connected to cognitive ability. Finn et al. (2014) suggested cognitive skills predicted performance on academic assessments through standardized testing, and the cognitive development and cognitive skills taught in schools impacted the outcomes.

Sense of Belonging

Additionally, Osterman (2000) researched students' sense of acceptance in the school community with a focus on motivation through social cognitive perspective. Osterman suggested humans had psychological needs, and the satisfaction or dissatisfaction of these needs influenced individual perception and behavioral outcomes. The researcher conducted qualitative research through exploratory process. Osterman supported being accepted provided positive emotions and being rejected provided negative emotions. The researcher discussed cognition in how "relatedness affects people's perceptions of others, leading people to view friends and group members more favorably and to think about them more often and in more complex ways" (Osterman, 2000, p. 327). The researcher suggested educational policy targeting students' scores on standardized tests to show results in the educational environment did not consider the social

and emotional indicators that could have impacted overall success in school (Osterman, 2000).

Gillen-O'Neel and Fuligni (2013) examined how changes occur in school belonging throughout the high school years in association with motivation and achievement in academics. The researchers determined the positive impact of belonging on academic engagement. Some academic achievement theories included the idea that sense of personal connection with school and environment promoted understanding for academic values and behaviors and then played a role in academic success (Gillen-O'Neel & Fuligni, 2013; Voelkl, 1997).

Gillen-O'Neel and Fuligni (2013) conducted a longitudinal study restricted to 572 students from three public high schools in Los Angeles, California, from Latin American, Asian, and European backgrounds with an age span of 13-20 years of age. The members of the three schools identified with diverse ethnicity and socioeconomic variables. The students at school provided diverse samples:

> School 1 primarily served students from Latin American and Asian backgrounds whose families had lower-middle to middle class educational and occupational statuses. School 2 primarily served students from Latin American and European backgrounds whose families were lower-middle to middle class. Finally, School 3 primarily served students from families with Asian and European backgrounds who were middle to upper-middle class. (Gillen-O'Neel and Fuligni, 2013, p. 682)

Gillen-O'Neel and Fuligni (2013) provided information including 210 participants in the study were from Latin American family unit with Mexican backgrounds (82.4%) including 40 teens who were first generation immigrants

and 130 teens who were second-generation and 40 teens who were third-generation or later. Then Gillen-O'Neel and Fuligni utilized within-person longitudinal analyses to interpret the years in which students had higher levels of sense of belonging compared to other years and influenced the students' overall perception and level of achievement. Gillen-O'Neel and Fuligini supported the importance of sense of belonging for consistent academic engagement and achievement successes during the high school years. The researchers used the stage-environment fit theory for the longitudinal study. Gillen-O'Neel and Fuligni (2013) utilized a school belonging measure from Tyler and Degoey's work on institutional engagement in a revised format to determine the extent to which students feel a sense of belonging with the school. The researchers used student records at the end of the school year to determine grade point average (GPA). Gillen-O'Neel and Fuligni (2013) emphasized the school belonging scale consisted of good internal consistency (αs = .86-.89) and was reliable for the three ethnicities (Latino: αs = .86-.89, Asian: αs = .85-.89, European: αs = .88-.92).

Gillen-O'Neel and Fuligni (2013) advocated ethnicity was not the main risk factor, but minority students had increased risk for engagement in academic tasks, which could impact sense of belonging. Gillen-O'Neel and Fuligni considered the few differences in school belonging could have been impacted by not having the majority of student body as one dominant ethnicity, and, therefore, the difference was the environment. Gillen-O'Neel and Fuligni found group membership based on ethnicity was not correlated with school belonging mean levels within high school; however, students with Latin American, Asian, and European backgrounds had similar outcomes for school belonging during high

school (Gillen-O'Neel & Fuligni, 2013). Gillen-O'Neel and Fuligni decided belonging was not related to ethnicity. Again, Gillen-O'Neel and Fuligni determined not having a dominant majority for ethnicity at the high school possibly influenced this outcome. Gillen-O'Neel and Fuligni (2013) explained, "None of the ethnicity terms reached significance, indicating students from Latin American, Asian, and European backgrounds reported similar levels of school belonging in the ninth grade" (p. 685). Furthermore, Gillen-O'Neel and Fuligni (2013) studied students' sense of belonging and prediction of academic achievement focused on GPA and results were students' sense of belonging "for a particular year had no association with grade point average in that same year" (p. 686). Gillen-O'Neel and Fuligni (2013) suggested future research should include more individual-level variables to examine predictors of school belonging among subgroups of students.

Delgado et al. (2016) introduced the study of the relationship between students' sense of belonging in the school setting indicating friendships and academic outcomes utilizing a sample of Latino youth ($N = 6782$). These youth consisted of 50.4% Mexican participants, 25.6% Central/South American participants, 13.5% Puerto Rican participants, and 10.5% Cuban participants with the age ranges 10-19 years old, including 30.5% of the participants born outside of the United States. Delgado et al. (2016) examined relationships within four Latino subgroups and provided findings:

> That being nominated as a friend by peers and perceiving to have friends exerted both direct effects on school belonging in all but one of the Latino ethnic samples (i.e., Puerto Rican samples) and indirect effects on

> academic achievement in the full Latino, Mexican, and Central/South American samples. (p. 1110)

Delgado et al. (2016) emphasized the positive and negative roles that friendships influenced school belonging and academic achievements for grades 7-12. According to Delgado et al., the relationship of close friends performing in the average to low achievement ranges provided more sense of belonging for Mexican youth and less sense of belonging for Cubans. Delgado et al. (2016) determined the topic of academic growth and achievement for Latino youths needed more attention for acquiring knowledge. Also, the researchers advocated friendships played a significant role for Latino adolescents' academic successes. Delgado et al. (2016) concluded different levels of friendships as important characteristics to sense of belonging and its connection to academic growth and achievement.

Roche and Kuperminc (2012) examined 199 Latino middle school students based on the levels of acculturative stress and school belonging. The researchers hypothesized the school belonging level in connection to acculturative stress would decrease academic growth and achievement. According to Roche and Kuperminc (2012), "Eighty percent youth of the sample were immigrants, 73% had Mexican origins, 57% were girls, and the mean age of the participants was 13.6 years" (p. 61). The researchers determined lack of school belonging "may be a mechanism by which discrimination stress . . . decreases school performance among Latino youth" (p. 61). Roche and Kuperminc defined acculturative stress when a minority experiences stress when adapting to a more prevalent culture, and this was made more complex with ethnic minorities born in

the United States versus the youth who immigrated and depending on the age of immigration to the United States. Roche and Kuperminc described acculturation as involving confusion with processing cultural differences, which led to anxiety and stress. The researchers determined the findings as considerations of the differences with student immigrants based on the actual ages the students immigrated. Roche and Kuperminc (2012) revealed information that "immigration-related stress increases incrementally with how recently youth arrived in the United States but discrimination stress was constant across all immigration ages lends support to the validity of the distinction between these two types of acculturative stress" (p. 74). According to the researchers, a decreased amount of school belonging may be a manner in which discrimination stress and lower academic achievement occur. School administrators should research interventions for increasing school belonging and decreasing discrimination (Roche & Kuperminc, 2012).

Thompson (2007) maintained motivation was imperative and had a direct impact on students' growth and achievement, and the researcher conceptualized the connection of being an adolescent and belongingness in the school environment, and until sense of belonging was determined, the learning process may be challenging. Thompson (2007) referenced the connection of Maslow's Hierarchy of Needs to the basic needs for sense of belonging being met before higher needs can be met.

Motivation and engagement in academics were dependent upon the following:

1. Opportunities for success (e.g. extra help from teachers or peer tutors),
2. Relevance of school work to current interests and future goals (e.g., curriculum that is associated to real-world situations and a wide-range of career alternatives,
3. A caring and supportive environment (e.g., positive and supportive relationships between teachers and students),
4. Help with personal problems (e.g., availability of support systems and integration social services within social learning teams). (Thompson, 2007, p. 14)

Thus, students who were connected to the school had correlated positively to academic growth and achievement. Thompson (2007) determined the school connectedness had significance on academic performance and investigated if the academic successes of students were directly correlated to the teenagers' need for sense of belongingness. The researcher utilized data from grade 6 students because previous research found school climate and instructional practices did not connect to the needs of the middle school students' developmentally. Thompson (2007) predicted students who scored high on the PSSM would have higher GPAs. In this study, Thompson found the responses of the participants to the PSSM were not related to their GPA during the first semester of classes. The researcher determined the collective importance for sense of belongingness and academic achievement. Also, Thompson determined future studies should provide

information between sense of belonging for students and relationships between teachers and students within classroom environments. Even though this study was completed with grade 6 students, Thompson (2007) suggested belongingness could change with age and diverse classroom environments through changes students engage in over time.

Lam et al. (2017) determined, "Academic emotions mediated the relation between school belonging and academic achievement" (p. 1). Lam et al. (2017) surveyed 406 junior high school students in Macao, China, to determine how these students felt toward acceptance and respect and the feelings they had toward academics and GPAs. Lam et al. utilized the Chinese version of PSSM to measure sense of belonging within the school environment an utilized the Adolescent Academic Emotions Scale to measure feelings in academic settings. Lam et al. (2017) conducted data analysis with path analysis using maximum likelihood estimation and bootstrapping method with results that provided sense of belonging positively correlated with academic achievement being mediated by academic emotions. Lam et al. examined being rejected in the school setting could facilitate negative impact on academic achievement. Students who had sense of belonging had more positive emotions toward academic achievement. Lam et al. (2017) promoted school belonging being studied in connection to self-determination, self-efficacy, student engagement, and need for psychological relatedness as to how variables influenced outcomes in academics. Lam et al. (2017) indicated, "School belongingness can be one of the most important sources of students' academic emotions, which subsequently exert influences on various types of academic engagement and performance" (p. 10). Lam et al. (2017)

determined belongingness impacted academics. Thus, overall academic achievement was impacted by standardized tests, grades, and GPA, although other variables impacted these, such as school belongingness.

Researchers Monahan and Booth-LaForce (2015) set forth the information to detail different situations occurred as indicators for school belonging:

> Elucidating development pathways in competent peer interactions across the transition from childhood to adolescence is especially important because understanding why some individuals fare well during this developmental period and others do not may serve to inform our understanding of how to promote positive (and prevent negative) development in adolescence. (p. 270)

Monahan and Booth-LaForce (2015) measured the continued existence of competent peer interactions and the break of competent peer interactions as children transitioned to adolescence from grades 3-6. In addition, Monahan and Booth-LaForce examined children's socialization, which became less frequent during this developmental period and determined quality of relationships and how these impacted relationships with peers. The researchers decided if students did not face challenges with competent social interactions, individuals experienced maladaptive development, which impacted future sense of belonging in situations (Monahan & Booth-LaForce, 2015).

Monahan and Booth-LaForce (2015) summarized results and identified the study as limited due to grade 3 and grade 6 by teachers and possibly biased information from these teachers. According to Monahan and Booth-LaForce (2015), the researchers attributed socialization with children having a best friend

helped maladaptive behavior transitioning to adolescence. Also, the researchers characterized the individuals who experienced a decrease in friendships with a best friend moved to maladaptive behavior through adolescence, and as a result, having a best friend relationship allowed more competent behavior in social belonging within the school experience. Thus, Monahan and Booth-LaForce (2015) considered "competent behavior with peers is both a maker of current adaptation and a predictor of future successful development" (p. 282). By having these social competencies in a group of peers, Monahan and Booth-LaForce (2015) emphasized the importance through the adolescent years.

Hamm and Faircloth (2005) investigated a diverse group of teenagers to determine what kinds of connections through friendships provided interrelatedness within the school environment. Twenty-four male and female students in grades 10-11 participated in qualitative in-depth and semi-structured interviews with questions focused on sense of belonging and school. The researchers summarized the findings that friendships in the school setting provided benefits as students participated and engaged in social and academic avenues. Additionally, "Results clearly speak to the protective, adaptive, and resiliency-enhancing nature of having close friends to buffer the common and aliening effects of cliques, and academic stress and ennui" (Hamm & Faircloth, 2005, p. 76). The researchers determined the sense of belonging psychologically and being valued affected experiences in school and connections to the school community.

Hamm and Faircloth (2005) defined the following:

> A sense of belonging to a community such as school involves feeling more than just that one fits in; there is an emotional attachment to and security in the setting that comes from feeling valued by and valuing of the community. (p. 62)

Hamm and Faircloth utilized survey data from students (N = 5, 494) in grades 9-12 feelings connected to sense of belonging and relationships between friendships in connection to the perceived notions of sense of belonging with the following two dominant themes: challenges to a positive sense of belonging and friendship and belonging. Hamm and Faircloth (2005) utilized structural equation modeling to determine the "relationships between belonging, efficacy beliefs, valuing of school, and academic success" (p. 300) for each of the four ethnic groups (i.e.., Black, Asian, European American, and Latino) to study independently. Hence, Hamm and Faircloth determined friends provided key connectedness within the school, and perceptions of psychologically belonging produced increased feelings of acceptance. Hamm and Faircloth (2005) also concluded when students had this developmental need met, they were more able to address the academic challenges. Hamm and Faircloth determined significance for belonging within European-American and Latino students, but friendship connections were not significant for all four groups. Hamm and Faircloth determined belonging is important to academic achievement for high school students. Hamm and Faircloth (2005) reported understanding the variables that contributed the development of sense of belonging for students was significant.

As reported by Van Ryzin (2011), students' perceptions of school environment utilized autonomy, teacher/peer support, and goal orientation encompassing engagement, hope, and academic achievement. Van Ryzin asserted higher levels of school connection and school engagement provided students with more positive view of school environment. In further support of school belonging, Van Ryzin (2011) delineated students given more voice in the overall school experience provided increases in sense of school connection and school engagement. Students from five small secondary schools in the upper Midwest reported connecting to school and engaging with school that led to more positive outcomes in mental responses to school and increased achievement in academics. Van Ryzin (2011) summarized the results of the study:

> The nature of the school environment to better support students' needs for developmental nutriments such as autonomy and belongingness may be able to instigate a positive feedback loop that, over time, promotes the growth of the protective factors within students, such as engagement and hope. (p. 1578)

Van Ryzin advocated this insight for better interventions in student assistance within the academic environment.

Sanchez et al. (2005) emphasized belonging as a basic need for humans, and individuals were motivated to satisfy this need by connecting with other human beings. The researchers acknowledged not having a sense of belonging might cause negative results, such as stress. Sanchez et al. studied an urban Midwestern public high school with a 95% Latino population, and all participants were grade 12 students. The purpose of the study was to "examine the roles of

sense of belonging and gender in the outcomes of urban, Latino adolescents" (Sanchez et al., 2005, p. 619). Sanchez et al. (2005) studied "grade point average, absenteeism, motivation, effort, and educational aspirations and expectations" (p. 619). The researchers decided when members felt like a part of the group and needs were met, then the feeling of belonging occurred. Sanchez et al. determined lack of significant relationships and GPA was dependent on the grade 12 students recognized in the study. Also, Sanchez et al. concluded students who did not feel a sense of belonging had an increased probability for absenteeism because students would be less likely to attend school if the perception of being cared for did not exist. Sense of belonging was pertinent psychologically and behaviorally. Sanchez et al. (2005) suggested future research investigate school belonging with minority males and females to understand the school environment and how their perceptions shape sense of belonging in school.

Bankole (2010) determined a [sense of belonging] to school and academic growth and achievement, and a positive student-teacher relationship could promote increased academic growth and achievement. While Bankole identified the relationships between the elementary students and family members, friends, and teachers were all significant, the most important indicator was the relationship individual students had with the teacher for academic growth and achievement. Furthermore, Bankole (2010) determined even if students experienced destructive or damaging relationships with family members or peer group members, the positive relationship with the teacher produced increased academic growth and achievement. Bankole also provided evidence based on cultivating student trust and determined when students trusted the teacher, the positive impact provided

increased in academic achievement. Bankole (2010) determined when students had trust and were in poverty, the trust factor was a positive variable in the prediction of academic growth and achievement. Bankole concluded as the results of the study that teachers and school administrators utilized curriculum and instruction as strategies to outcomes in education as significant; however, the researcher specified "developing the social conditions in schools between role groups that have an impact on achievement" (Bankole, 2010, p. 96) as imperative to student academic growth in the educational setting.

Chun and Dickson (2011) studied the "Hispanic teen academic performance by investigating the relationships of parental involvement, culturally responsive teaching, sense of school belonging, and academic self-efficacy and academic performance" (p. 1581).

The researchers provided the hypotheses:

- Parental involvement and culturally responsive teaching will have direct effects on academic self-efficacy;
- Parental involvement and culturally responsive teaching will have direct effects on academic performance;
- Sense of school belonging will mediate the relationships between parental involvement and academic self-efficacy;
- Sense of school belonging will mediate the relationships between parental involvement and academic performance and between culturally responsive teaching and academic performance;
- Academic self-efficacy will mediate the relationship between parental involvement, culturally responsive teaching, and sense of school

> belonging and academic performance. (Chun & Dickson, 2011, p. 1584)

The participants were middle school students near the United States-Mexico border with 65.2% Hispanic and 18.7% foreign born. The study involved Hispanic students, and responses were taken from only those who self-identified as Hispanic. The researchers referenced the term Hispanic as living in the United States and having Mexican, Cuban, and other Latin American ancestry.

Chun and Dickson (2011) reported participants identified generation values:

> First generation as including persons who were born in a country other than the United States; second-generation as including persons who were born in the United States and with parent was born in a country other than the United States. Only 64 (13.4% students there were currently receiving English Language Learner services at school. (p. 1585)

Chun and Dickson (2011) studied 478 participants with 51.5% (n = 246) females and 47.5% (n = 227) males; five students did not self-identify gender, and the participants' ages, 11-14. Also, students self-identified family generational status in the United States with 1st (n = 43, 9%), 2nd (n = 173, 36.2%), and 3rd or higher (n = 253, 54%), and 9 students did not identify generational status. The researchers utilized quantitative method by using the Parental Involvement in School Scale, Student Measure of Culturally Responsive Teaching Scale, The PSSM, School Ability Self-Concept Index, and academic performance measured by student response. Chun and Dickson (2011) concluded the "relationship

between culturally responsive teaching and English grade was negative, culturally responsive teaching were insignificant with math and science grades, and sense of school belonging had only indirect effects on Hispanic students' academic performance" (p. 1591).

Chun and Dickson (2011) presented, "Proximal processes (i.e., parental involvement and culturally responsive teaching) and a psychological factor (i.e., sense of belonging) lead to positive academic outcomes (i.e., academic self-efficacy and academic performance) among Hispanic adolescents" (p. 1590). The students simplified perceptions of teachers and the willingness of these teachers to identify cultural responsiveness was an important variable to sense of school belonging and academic self-efficacy. In addition, Hispanic students' feelings in connection to others had a direct impact of feeling capable in academic achievement (Chun & Dickson, 2011). Chun and Dickson reported Hispanic students only emphasized parental involvement, culturally responsive teaching, and sense of school belonging on academic performance were evident when self-efficacy was connected. Students in this study had been influenced by teachers to believe they could or could not achieve academic successes, although when a sense of self-efficacy was present, the students were held to expectations for success. The researchers' conclusions were the "relationship between culturally responsive teaching and English grade was negative, culturally responsive teaching were insignificant with math and science grades, and sense of school belonging had only indirect effects on Hispanic students' academic performance" (Chun & Dickson, 2011, p. 1591).

Uslu and Gizir (2017) investigated relationships, such as teacher-student, peer, and family involvement in school, as the relationships influenced sense of school belonging for students in adolescent years. The researchers provided findings that yielded consistent with previous research when students perceive there was a positive school community, then positive sense of belonging was experienced by students. Uslu and Gizir (2017) maintained teachers played a significant role in acknowledgement by students by being cared about and comfortable in the learning environment. Uslu and Gizir determined these 815 adolescent students in grades 7-8 revealed when supportive adult relationships were formed with teachers in the school setting that students recognized safety and felt more competent in the environment, which provided a stronger sense of belonging. Uslu and Gizir (2017) determined teacher-student relationships as the most important variable for boys and girls to have a sense of belonging. Then Uslu and Gizir explained peer adolescent relationships indicated the second predicted important variable for girls' sense of school belonging and third for boys' sense of school belonging. Uslu and Gizir (2017) designated the sense of belonging for adolescents strengthened by supportive relationships providing strong correlations to student achievement.

Akar-Vural et al. (2013) researched students' perceptions within the social environment and the individual perceptions for how students participated in setting and sense of belonging. Akar-Vural et al. studied primary schools, which in Turkey provided for 10–15-year-old students to demonstrate if the developed scale provided information for relationships between attendance, homework, classroom engagement, and extracurricular activities. Akar-Vural et al. (2013)

utilized a sample with 781 students divided into two sections: first half (n = 387) for the explanatory factor analysis and second half (n = 394) with a confirmatory factor analysis. Akar-Vural et al. (2013) used the profile form for students, social support appraisals scale, and the Item Generation and Evaluation of the Sense of Belonging to School Scale (SEBES) and the University of California Los Angeles Loneliness Scale. The researchers suggested data in an exploratory factor analysis with results defined two factors with eigenvalues of 4.2 and 1.9. The researchers specified this two-factor solution or structure accounted for 60.72% of the total variance (32.72% and 28.01%). Akar-Vural et al. determined the study, only being defined as peer relations, needed more research about teacher-student relationships, students' academic competence, and students' satisfaction in school determining impacts on school climate in classrooms and the school as a whole, which was sense of belonging. Akar-Vural et al. (2013) suggested future research investigate students' sense of belonging across a variety of cultures.

Goodenow (1991) determined belonging in an educational environment was "perceived friendliness from others and a sense of being personally valued are necessary, but not sufficient; belonging in a class must also include participation in the shared educational goals of the class" (p. 4). Goodenow utilized 612 students in a middle school within grades 5-8 recognizing sense of belonging as student-student relationships and teacher-student relationships and impacting expectations in academic achievement and success. Goodenow referenced Maslow suggesting basic social belonging needs must be met before activating higher motivation for classroom learning. Goodenow discussed any person who had a status of minority group did not have full membership within

the group, and the researcher determined this perceived role affected the individual within the group environment. Goodenow (1991) synthesized results providing the importance of belonging for pre-adolescents and early adolescents in the educational environment.

Kuperminc et al. (2008) utilized the PSSM (Goodenow & Grady, 1993), a questionnaire assessing school belonging with perceptions from students through interviews concerning school belonging and academic competence. The researchers examined a path model based in theory of social capital with Latino middle school and high school students. Kuperminc et al. (2008) studied participants ($N = 129$) who were 77% immigrants, and most were from Mexico. Kuperminc et al. determined high school students had stronger relationships than middle school students between parent involvement and academic adjustments, and middle school parent involvement was not connected to teacher expectations and had indirect effects on grades. Kuperminc et al. (2008) suggested the following:

> For Latino students, parent involvement might function to support and maintain young people's sense of belonging to school; this sense of social connection might, in turn, promote a belief in education as a means for young people to 'give back' to their families and communities. (p. 480)

Kuperminc et al. (2008) suggested future research for parent involvement supporting students' academic achievement and growth.

Tillery (2009) emphasized the factors that impact adolescents' interpersonal relationships within the school environment—not only with peers, but more significantly with adults who increase sense of belonging. Tillery

reported while adolescents sought to separate from adult control within the family unit, these adolescents revealed increase in relationships with other adults, such as those in the educational environment impacted motivation. Tillery concluded the positive adult connections increased student motivation and related to students' sense of belonging, which provided students with improved educational outcomes for achievement. Tillery (2009) stated, about this indicator, "Adult connections that foster self-determination in students exceed simply providing supportive relationships and in addition supply students with psychological needs that may be at heightened levels during adolescence" (p. 76).

Libbey (2004) concluded, whether or not students liked the school experience, when teachers were supportive, friends present, actively participating in academics, experiencing balanced discipline, and participating in extra activities, the sense of belonging and being connected to a school was evident. Libbey (2004) indicated students who perceived a connection to the school and had fair and supportive educators had higher academic growth and achievement.

Hernandez et al. (2014) concluded humans having a sense of belonging was a basic requirement and must be present before goals can be achieved. Hernandez et al. (2014) stated, "Youths' feelings of belonging in school may promote their academic competence (i.e., grade point average [GPA], and how well the student does coursework compared to peers) and expectations (i.e., aspirations and expectations for future academic attainment)" (p. 241). The researchers conducted a longitudinal study of Mexican-origin youth grades 5-8. Valenzuela (1999) determined the study as a cross-sectional replication using items from school attachment and qualitative work on Mexican-origin students.

Valenzuela (1999) suggested caring within cultural awareness and understanding to provide sense of belonging among Mexican-origin students. The researchers decided this Mexican-origin study considered a range of generational backgrounds by declines in academic achievement and increases in expectations (Hernandez et al., 2014). The researchers suggested future research examine associations beyond the middle school adolescent years as well as examining school belonging among Mexican-origin [or other Latino groups] to determine how school staff, families, and students promoted an environment that was conducive to sense of belonging (Hernandez et al., 2014).

Goodenow (1993) investigated measurements of adolescent students' perceptions of psychological membership and belonging in the school environment. The researcher organized 454 middle school students and 301 students from multi-ethnic urban junior high schools. Goodenow (1993) determined internal consistency reliability occurred with English and Spanish versions of the PSSM. Goodenow decided internal consistency estimated as to how much the total test scores would change if slightly different items were utilized in the scale. Goodenow determined substantial correlation with self-reported motivation in the school environment, and the weaker correlation was with grades and teacher-rated effort. According to Goodenow (1993), "Internal consistency reliability was acceptable for an attitude scale, ranging .77-.88 for different samples. Contrasted groups validation procedures found, as predicted, girls exhibited a higher sense of membership or belonging than did boys" (p. 87).

Goodenow supported students' sense of belonging in a specific classroom including peers and teachers. The researcher studied a sample (n = 353), with a

test of correlation between classroom belonging, motivation (expectancy and value), effort, and achievement using only English grades from a subset sample (n = 87). Goodenow (1993) used grade as a measure of achievement, which could impact finding based on how grades are determined between teachers in a school. Goodenow utilized the dependent variables, effort and achievement, and revealed expectancy was the strongest predictor of effort (r = .422, p <.001) and grade (r = .625, p < .001), with classroom belonging as significant correlate in the second highest position (r = .341, .430, p <.001) and peer support with no significant effect. Goodenow (1993) demonstrated the psychological membership connected to an individual within a specific school environment, and the idea of social connections within this environment needed measures on effects it had academic learning and growth as well as motivation. Goodenow maintained this information would provide useful information for school interventions for individuals and groups. As stated by Goodenow (1993):

> The Psychological Sense of School Membership Scale . . . presented here may be a valuable tool both for identifying adolescent students at risk for disengaging from participation in school and for conducting research on social and contextual influences in education. (p. 89)

You et al. (2011) examined the structure of the PSSM to utilize information for refinements in the scale as a multidimensional instrument. The researchers recognized awareness from students for three school membership factors: caring relationships, acceptance, and rejection. You et al. (2011) provided "membership was multidimensional and comprised of attachment, commitment, involvement, and valuing school" (p. 3). You et al. (2011) demonstrated the

PSSM was created to determine the "extent to which students feel personally accepted, respected, included, and supported by others in the school environment" (p. 80).

Gaete et al. (2016) reported school membership correlated to academic performance. Gaete et al. identified the school environment as vital for students to develop a sense of psychological school membership or sense of belonging. The researchers determined school community as vital to the entire functioning system of the school. Gaete et al. utilized the PSSM because no studies had been used in Spanish-speaking Latin American countries determining validity and reliability. Gaete et al. (2016) investigated in the study:

> Psychometric properties, factor structure and reliability of this scale in a sample of 1250 early adolescents in Chile. Both exploratory and confirmatory factor analyses provide evidence of an excellent fit for a one-factor solution after removing the negatively worded items. (p. 2)

The association analyses supported better academic performance was connected to high school membership, and support for reliability and validity was supported for the PSSM. The researchers found eight studies with the internal item structure of the 18-item PSSM: Three studies were in the United States, two were in China, one in Australia, one multi-country with the Netherland, Kenya, Indonesia, and Spain included. Gaete et al. (2016) used an analytical cross-sectional survey with self-reported information for a population of students in grades 5-8, ages 10-11, from seven different schools in Chile. The researchers invited 2,108 students to participate by sending a letter to parents and utilizing informed consent. The respondents for the survey were 69.5% with a sample of

1,465 students. There were 1,250 students who completed all the PSSM items. Gaete et al. (2016) collected data on gender, elementary school type, religiosity, parental education and occupation, parental marital status, and SES. The students reported GPA from the previous year. The researchers used scales for concerns about failing, school bonding, school liking, school staff support, school misbehavior, and substance abuse.

Gaete et al. (2016) performed data analysis using STATA 12.1, Factor 9.02, and Amos 7. The researchers studied "sociodemographic variables, as well as the items' psychometric characteristics by using descriptive statistics (i.e., means, standard deviations, frequencies, percentages, skewness, and kurtosis)" (Gaete et al., 2016, p. 5). Gaete et al. determined associations between school membership and the school related factors using regression models for the age, gender, and SES. Gaete et al. (2016) identified the school environment as vital for students to develop a sense of psychological school membership. The school community was considered as vital to the entire functioning system of the school.

Summary of Review of the Literature

Maslow's Hierarchy of Needs and connection to motivation were relevant to the study for sense of belonging and impact on achievement; after the physiological and safety levels of needs were meet, the next level was relationships and provided the need for belonging. The history of Hispanic educational policy and laws provided background for foundational educational support in years 1968-2001, while additional educational policies and laws provided the frame for educational support in years 2002-2019. Another relevant aspect was immigration population in the United States. As the increase in

Hispanic population occurred, educational systems must understand how to support students for academic achievement. I built on this and used the PSSM to investigate the extent that Hispanics in grade 11 in a rural high school in Tennessee experienced a sense of belonging and the relationship, if any, between sense of belonging and academic achievement on the state English I and English II standardized tests.

Chapter III: Methodology

The purpose of this quantitative, nonexperimental, correlational research study was to investigate the extent that Hispanics in grade 11 in a rural high school in Tennessee experienced a sense of belonging and the correlation, if any, between sense of belonging and academic achievement on the state English I and English II standardized tests. In this chapter, I provided information about the design for the research, methods to collect the data, and statistical tests to analyze the data. I based this quantitative study on the PSSM. I provided the PSSM information on sense of belonging, and I correlated the student survey responses to scores on standardized English state tests to determine influence on academic achievement. Within the chapter, I described the methodology.

Research Design

For the research study, I used a quantitative, nonexperimental, correlational research design. I determined quantitative research was best for the study for accessing student perceptions for understanding sense of belonging using a Likert-scale and determining possible influence on academic achievement for Hispanic and non-Hispanic students. For the quantitative component, I utilized the PSSM, designed to measure perceptions of psychological membership and sense of belonging for students in grade 11. Analysis was conducted to determine whether or not a correlation did exist between sense of belonging and performance on state standardized test scores.

Population of the Study

Fowler (2009) determined studying a sample of a specific population provided patterns and included cross-sectional information by using the scale

from that specific sample to represent the determined population. An English as a Second Language (ESL) educator, Summers (personal communication, February 1, 2021) indicated the students considered newcomers attended a session with parent/guardian proving residency for enrollment, filling out registration packets, and providing transcripts if available. The ESL teacher representative continued the conversation with the Newcomer Conversation Document, which was designed to provide important information about attending high school in the United States. Summers (personal communication, February 1, 2021) discussed the two key questions: *What language did you learn first?* and *What language do you speak in your home?* Summers indicated if either of the answers to the questions was a language other than English, the World-Class Instructional Design and Assessment screener was utilized to provide evidence for placement in the English Development program with four categories: listening, speaking, reading, and writing in English.

I identified the Hispanic population within the three schools in District A. District A's elementary school had 299 Hispanic students for 54.17% of the total school population. District A's intermediate middle school had 305 Hispanic students for 47.43% of the total population. District A's high school had 254 Hispanic students for 21.03% of the total population. District A had two feeder middle schools: one District A's middle school and the other District B's, a neighboring district's middle school, which had an impact on total student population in the high school. District B provided two thirds of the incoming student population to the high school environment, with only 9.23% of Hispanic students in grade 9 in 2019-2020 and 9.23% in grade 9 in 2020-2021.I recognized

the total high school population and increase in Hispanic students 2017-2020 (see Table 6).

Table 6

Total Student Population, District A High School 2017-2020

Academic Year	Total Students	Hispanic Students	Percent Hispanic Students
2017-2018	1,116	175	15.68
2018-2019	1,161	210	18.09
2019-2020	1,259	259	20.57

I determined the study would include the specific student population utilizing categories for Hispanic and non-Hispanic students in grade 11 in the high school environment, and I offered the participation in the study to all grade 11 students. The student population consisted of 47 Hispanic students out of 259 (18.15%) total students for grade 11 (see Table 7).

Table 7

Grades 10-11 Student Population, District A High School 2019-2020

2019-2020	Total Students	Hispanic Students	Percent Hispanic Students
Grade 10	345	93	26.96
Grade 11	259	47	18.15

The students who completed the PSSM self-identified either as Hispanic and non-Hispanic. I recognized the Hispanic population of students in the high school represented students who were designated by the U.S. Census Bureau

definition of Hispanic or Latino "as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race" (Humes et al., 2011, p. 2). According to state educational policy, school districts must provide information concerning the group of students, which was indicated as a subgroup on state assessments required by the Tennessee Department of Education (2018b). I investigated students sense of belonging and the correlation, if any, between sense of belonging and academic achievement for students in high school grade 11. This sample included 103 students completing the PSSM, with 19.82% students identifying as Hispanic and 80.18% students identifying as non-Hispanic. I determined the population to be able to answer the research questions focused on perceptions of Hispanic and non-Hispanic students within the grade 11 population.

Data Collection

I used the PSSM for the quantitative study. The PSSM contains 18 questions on a five-point Likert scale. Questions 3, 6, 9, 12, and 16 were reversed coded; therefore, I indicated this within the parameters for the scale when giving points within the SurveyMonkey platform. Once students completed the scale, a total score was given for a total of 18 questions with a possibility of 5 points per question.

I requested a meeting with the Superintendent of Schools to discuss the research topic, timeframe for the study, and the PSSM. The Superintendent of Schools verbally gave permission for the study. I requested a meeting with the principal for District A's high school. I met with the principal of District A's high school and discussed the study and shared the PSSM and received verbal

permission for the study. I completed and submitted the standard requests for permissions to conduct research within the District A through email correspondence to the Superintendent of Schools for District A and principal of District A's high school (see Appendix A). Upon receipt of email approvals, I contacted the principal to reiterate research goals.

I requested the appropriate documentation from the district translator for Institutional Review Board approval for translating documents in the dissertation process. I had request for consent for parents in English (see Appendix B) and in Spanish (see Appendix C). Additionally, the PSSM was translated from English (see Appendix D) to Spanish (see Appendix E). I loaded the PSSM into SurveyMonkey and checked to make sure the scale linked by sending a sample through school email to myself similar to how students would receive the scale. The additional question to verify student email was added to the bottom of the page to match student responses to student test data results for the study.

I requested a reminder alert through District A's high school assistant principal to be sent to parents and guardians of grade 11 students for returning informed consents and assents for the study. I distributed a parent/guardian consent since students were under the age of 18, and I collected consents. Then due to the COVID-19 pandemic, I attended the high school yearbook distribution library book return day requesting verbal parent/guardian consent and student assent for the study. After receiving parent/guardian consent, I sent a link for the PSSM in student email. Then students gave assent to complete the scale through the school email account with identifying school email to match standardized test scores for English I and English II for analysis.

Prior to the COVID-19 pandemic, I planned to meet with students during a non-instructional homeroom period to distribute informed consent forms and student assent forms. I would collect returned forms within three days before placing the PSSM link in student emails for completion during homeroom. I then would have students who received permission go to the auditorium during homeroom and explained the purpose of the study as an avenue for understanding of the perceptions of student sense of belonging and within the school environment, and due to the COVID-19 pandemic of 2020, I collected data electronically. I collected parent consent and student assent through email and verbal correspondence. I entered the questions into the SurveyMonkey platform to allow easy accessibility for PSSM response using a link through email. I identified SurveyMonkey exported results to an SAV file utilized by compatible statistical analysis for Statistical Packages for Social Sciences (SPSS) later for data analysis.

I collected data during the designated time during the months of April and May 2020. I estimated the amount of time to complete the survey was 2-5 minutes and provided the PSSM in English labeled PSSM English; however, I had the translated version from English to Spanish labeled PSSM Spanish if students preferred to use this hard copy version while completing the PSSM through email. I exported the PSSM results to an SAV file compatible to SPSS for statistical analysis.

I provided the PSSM to students in grade 11 whose parents had given consent by sending a direct link to the PSSM through student email. I included an additional button response that students would self-identify with either Hispanic

or non-Hispanic. Additionally, the study group provided evidence to support the study on PSSM for one grade since students in the grade 11 completed the end-of-course English I and English II state standardized assessments during the academic years 2017-2018 and 2018-2019. I received two email consents and 112 verbal consents. Then I returned phone calls to 23 parents/guardians to remind students to complete the scale located in students' email accounts.

I collected data by providing the PSSM (Goodenow, 1993) to students by utilizing a format for an online platform, SurveyMonkey, which contained a Likert scale designed to investigate the correlation in sense of belonging for students in grade 11. Also, this form of data collection provided confidentiality for students; however, I determined this would allow connection to school email addresses for validity purposes to match student names with responses and test scores. I provided PSSM procedures to provide student privacy and allowed for participation that could be matched with student test scores for the additional section of the study analyzing correspondence to scale scores on standardized tests.

Once students completed the PSSM, I went to the guidance department for English I and English II state standardized test scale scores. I discovered 11 students who had completed the online PSSM did not have both English I and English II state standardized test scale scores, and I had to remove those students from the study.

After the survey responses were completed, I collected scale scores for the state standardized test English I and English II assessments for all the participants. The scale scores were the total correct answers students had on the state test that

were converted into a scale for scoring purposes. I collected scale scores for the English I state assessment for students in grade 11, 200-450. In addition, I provided scale scores for English II state assessment for students in grade 11 students, 200-450. I identified 333 and above as proficient for English I and 318 and above for proficient for English II for the standardized state ELA assessment (Sellers, 2018). Tennessee Department of Education (2018b) determined scale score as "a score that maintains the same meaning in each test administration, so scores are comparable over time and across state regardless of which specific form was used or which year a student took their test" (p. 25). I entered student scale scores for English I and English II in addition to total score on the PSSM, range of high, medium, and low for total PSSM response, and self-identification for Hispanic or non-Hispanic in an Excel spreadsheet to determine correlation.

I determined the significance of sample size of 35%-40% of the total population of students in grade 11 in District A's high school with the subgroup being represented as those students who self-identify as Hispanic similar to the student body percentages in grade 11. Furthermore, I did not specify additional student races/ethnicities in the study, even though additional races/ethnicities were represented in grade 11. I compared the two groups, Hispanic students and non-Hispanic students, to examine sense of belonging and achievement outcomes. I analyzed the student perceptions through the positively worded items and negatively worded items and the exploratory and confirmatory factor analysis for two groups, Hispanic and non-Hispanic, with a focus on overall sense of belonging.

I examined the two groups to determine any significant differences and then combined the two groups for subsequent analyses for the total amount for grade 11. I reversed coded questions 3, 6, 9, 12, and 16 because that was the instructions for the PSSM, and then I added the total score for each PSSM completed. I entered the data into an Excel spreadsheet with columns for student participant number, total score for PSSM, range of response for PSSM, race/ethnicity, English I state standardized test score, and English II state standardized test score. I determined the average score on the PSSM midpoint as 3.0 with three levels of response on 18 questions: high (67-90), medium (43-66), low (18-42). The high and medium had 23 points within the ranges, and the low had 24. I used a continuous integral ratio for high, medium, and low ranges for survey responses. I provided additional columns on the Excel spreadsheet for race/ethnicity, Hispanic as 1 and non-Hispanic as 2, in addition to scale scores for English I standardized test scores and English II standardized test scores ranging 200-450. I used the Excel spreadsheet to enter the data into SPSS to analyze data. After the survey was complete and the data collected, the information was deleted from SurveyMonkey within 30 days from the date it was collected.

Analytical Methods

I utilized the analytical methods through SPSS for the study. I checked for normal distribution and skewness. Tanner (2012) indicated normal distribution was "when the data for a large group arranged in a frequency polygon it takes on a predictable shape" (p. 59). Tanner (2012) defined skewed "when a data distribution isn't symmetrical . . . skew is created when scores on one side aren't

counterbalanced by scores a similar distance from the mean on the other side" (p. 60).

I matched the survey response for students with the scores on the state standardized English I and English II assessments to determine the overall score values on the PSSM in relation to the achievement test scale scores labeling entries by Student 1, Student 2, and so forth. For Research Questions 1 and 2, I used a two-way analysis of variance (ANOVA), assumption of normality, assumption of equal variances, and all other assumptions related to a two-way ANOVA because there were two independent variables: race/ethnicity and scores on the PSSM in groups of high, medium, and low sense of belonging. Wiersma and Jurs (2009) indicated a two-way ANOVA tested when "two or more population means are equal" (p. 426). The independent variables were race/ethnicity and the scores on the PSSM in nominal groups of high, medium, and low sense of belonging and psychological membership, and the dependent variable was the state standardized test scores for English I and English II, which are scale scores 200-450. For Research Questions 3 and 4, I used regression to predict test scores based on perceived student sense of belonging. I determined the independent variable was the score for the PSSM, and the dependent variables were state standardized test scale scores for English I and English II between 200-450 respectively.

Reliability and Validity

Merriam and Tisdell (2016) established reliability as the manner in which other researchers could replicate the study with fidelity, and I believed this study could be replicated based on the reliability of the methodology. Goodenow (1993)

determined internal consistency reliability for the PSSM for suburban samples was computed separately from urban samples. Goodenow (1993) used "Cronbach's alpha as an indicator, PSSM scale reliability was .875 for suburban students in Study 1 and .884 the following year in Study 3" (p. 85). Goodenow (1993) found "internal consistency reliability was .803 for urban students responding to the English version of the scale and .771 for the Spanish version" (p. 85). The PSSM was a self-reported instrument that provided student assessment for school belonging with 18 items: 13 statements were worded with positive connotations, and 5 statements were worded with negative connotations. Each statement on the scale had a 5-point scale (1 = not at all true to 5 = completely true) (Goodenow, 1993). I utilized this membership scale for sense of belonging because it had showed evidence of reliability for Latino students with an "internal consistency in this sample was alpha = .82" (Goodenow, 1993, p. 67).

Creswell (2014) determined validity was based on the beliefs of the researcher, participants, and readers and reflected accuracy of findings in a research study. Goodenow considered the suburban students since they had awareness of the local area and school that it would indicate an increased sense of belonging. Goodenow (1993) investigated the effects of "grade level (6th, 7th, or 8th grade) and of being a newcomer (students who had lived in the town 2 years or less versus longer residents) had a significant overall F ratio ($F = 2.64$, $p < .05$)" (p. 86) by using a two-way AVOVA. Goodenow (1993) found a main effect for residence length, with newcomers indicating lower scores than that of

longer-term residents ($F = 7.16$, $p < .01$). Goodenow (1993) did not determine grade level or interaction between grade level and length of residence.

Goodenow (1993) decided sense of belonging as opposed to feeling like an outsider within the environment might connect to representation within the school instead of ethnicity. Goodenow (1993) determined the following:

> Status as a member of the majority ethnic group within the school was associated with significantly higher levels of belonging. When school belonging was considered by itself, Hispanic students (75% of the student body) expressed higher levels of school membership than did non-Hispanic students (3.16 vs. 2.89, $t[99] = 2.01$, $p < .05$). In School A, where no single ethnic groups had clear numerical majority, there were no significant differences between ethnic groups in terms of school membership. (p. 86)

I was the biggest threat to validity since the relationship with many of the participants was already established in the school environment. I had concerns about school climate and serving the Hispanic population for growth and achievement, and I had preconceived ideas about what needed to be changed to better serve the Hispanic students in School A. I mitigated this by providing all students in the grade 11 the opportunity for the survey and only determined the information in this research based on the results of the survey.

Limitations and Delimitations

Mertler and Charles (2008) indicated the limitations were natural conditions that influenced the findings and beyond the control of the researcher. I understood these concerns were out of my control and would need to be

considered as a limitation for the study (Mertler & Charles). In this study, I realized limitations would be determined by the student responses. I determined one limitation might be more student responses from students for whom I was an instructor during previous years. Another limitation was students who were school-aged immigrants in the district were granted access to K-12 public education, and this was granted whether these students were United States citizens or not. While these students were required educational support, some students might be concerned if they did not answer with a more positive response, they might receive disapproval by an adult figure in the school environment or singled out by current classroom teachers. To decrease this type of concern by students, the school system provided support systems for students to have availability for tutors, teachers to assist in classes, and counseling sessions throughout the academic year.

Mertler and Charles (2008) determined delimitations restricted the scope of research based on the methodology the researcher selected. I determined a delimitation was the time frame of the study by having the PSSM given during the COVID-19 pandemic, while the testing results represented the two years of high school academic achievement; however, the study was worthwhile since Hispanic students expressed viewpoints concerning high school experiences that impacted sense of belonging for student perspective. An additional delimitation was having students complete the scale at the end of the academic year; though students finished grade 11 in an online format due to COVID-19, this aspect may or may not have made a difference. The narrow scope provided a snapshot of the Hispanic students' and non-Hispanic students' perceptions for sense of belonging

or lack thereof within the rural high school environment. While a longitudinal study could provide additional information utilizing the same students across multiple years with a similar test, I decided the study would be beneficial.

Assumptions and Biases of the Study

Mertler and Charles (2008) indicated the assumptions of a study were the researcher's beliefs that were true, yet these beliefs could not be verified. I believed the students answered the questions in an honest manner. I determined the online environment would be familiar to administer the scale since homeroom met each Wednesday throughout the academic school year; schools were physically closed, while access to online school continued. I assumed the students would understand and trust the confidentiality provided by me. In the next chapter, I presented the data from the study.

Chapter IV: Analyses and Results

The purpose of this quantitative, nonexperimental, correlational research study was to investigate the extent that Hispanics in grade 11 in a rural high school in Tennessee experienced a sense of belonging and the correlation, if any, between sense of belonging and academic achievement on the state English I and English II standardized tests. In this study, I investigated District A's high school grade 11 student responses on the PSSM for sense of belonging and the association with student state standardized test scale scores for English I during 2017-2018 and English II during 2018-2019.

Data Analysis

I utilized SPSS data analysis software package to determine results and summarized the actual results of the research through an organization of the data associated with the findings. I utilized different statistical analyses for each research question to analyze the data. I answered Research Question 1 using the English I state standardized test scale scores, PSSM scores for sense of belonging, and Hispanic or non-Hispanic student self-identification results. I answered Research Question 2 using the English II state standardized test scale scores, PSSM scores for sense of belonging, and Hispanic or non-Hispanic student self-identification results. I answered Research Question 3 using responses from students who self-identified as Hispanic with PSSM scores for sense of belonging and state standardized English I test scale scores. I answered question four using responses from students who self-identified as Hispanic with PSSM scores for sense of belonging and state standardized English II test scale scores.

I intended to run a two-way ANOVA to compare Hispanic and non-Hispanic students, but the assumption of equal variances was violated. Because of this, I used two separate analyses for the data. I used an independent samples t-test for the independent variable, race/ethnicity (Hispanic and non-Hispanic), and a separate one-way ANOVA tests for the independent variable, sense of belonging. I identified the PSSM range total score for nominal groups high 67-90, medium 43-66, and low 18-42 for sense of belonging for Hispanic and non-Hispanic students' responses. The second one-way ANOVA test was conducted with sense of belonging as the independent variable and English II standardized test scale scores as the dependent variable, and the assumption of equal variances was violated. I used Brown Forsythe statistic since it was robust enough to overcome the assumption violation. I used a linear regression model to examine the correlation between the independent variable, the student responses on the PSSM for sense of belonging, and the dependent variable as the English I state standardized test scale scores. I used a linear regression model to examine the correlation between the independent variable, the student responses on the PSSM for sense of belonging, and the dependent variable as the English II state standardized test scale scores.

Research Questions

In the 2017-2018 and 2018-2019 academic years, the school district experienced an increased population of Hispanic students. I examined the English I and English II state standardized test scale scores to determine if there was a difference between Hispanic and non-Hispanic students. Additionally, I determined if there was a correlation between the scores that Hispanic and

non-Hispanic students responded to the PSSM and how students performed on the English I and English II state tests. The results were presented by each research question.

Research Question 1

What was the difference, if any, in academic achievement proficiency on English I state standardized test scores based on race/ethnicity (Hispanic and non-Hispanic/) and sense of belonging in a predominantly White student body in a rural high school in Tennessee?

To answer Research Question 1, I ran a two-way ANOVA "to assess the relationship of one or more factors with a dependent variable (univariate ANOVA)" (Green & Salkind, 2011, p. 182). I divided participants into two groups based on Hispanic and non-Hispanic race/ethnicity indicators and then placed the students into three groups—high, medium, and low—based on students' scores on the PSSM for sense of belonging. Students with a score of 67-90 were labeled in the high group, students with a score of 43-66 were labeled in the medium group, and students with a score of 18-42 were labeled in the low group. I tested all of the assumptions related to a two-way ANOVA. The two independent variables were race/ethnicity and scores on the PSSM, which represented students' perception of sense of belonging within the high, medium, and low groups, and the dependent variable was the state standardized test scale scores for English I.

The assumption of homogeneity of variance was tested using Levene's test and was met ($F = 2.056$, $p = .093$), indicating equal variance among groups. A two-way ANOVA was used to compare Hispanic and non-Hispanic students'

English I state standardized test scale scores. Based on the analysis, there was a statistically significant difference in English I state standardized test scale scores based on race/ethnicity ($F = 7.219$, $p = .008$); therefore, the total English I state standardized test scale scores for Hispanic students was statistically significantly different than non-Hispanic students. Non-Hispanic students had statistically significant higher test scores ($M = 330.681$) compared to Hispanic students ($M = 316.019$). I identified no statistically significant difference in English I state standardized test scores based on students' scores for sense of belonging ($F = 1.378$, $p = .257$) (see Table 8).

Table 8

Tests of Between-Subjects Effects for English I Scale Scores Based on Students' Scores for Sense of Belonging and Race/Ethnicity and Students' Scores for Sense of Belonging on English I Scale Scores

Variables	*df*	*F*	*p*
Race/Ethnicity	1	7.219	.008
Sense of Belonging	2	1.378	.257
Interaction	2	.744	.478

Also, there was not a significant interaction between race/ethnicity and the PSSM scores for sense of belonging on English I state standardized test scores ($F = .744$, $p = .478$). The students in the low range of sense of belonging had slightly lower English I state standardized scale scores ($M = 317.750$) compared to students who identified in the medium range of sense of belonging ($M = 326.716$) and in the high range of sense of belonging ($M = 325.583$). The

students in the medium range of sense of belonging had slightly higher English I state standardized scale scores (M = 326.716) compared to students who identified in the high range of sense of belonging (M = 325.583).

Research Question 2

What was the difference, if any, in academic achievement proficiency on English II state standardized test scores based on race/ethnicity (Hispanic and non-Hispanic) and sense of belonging in a predominantly White student body in a rural high school in Tennessee?

To answer Research Question 2, I intended to run a two-way ANOVA, but the assumption of equal variances was violated (F = 5.706, p = .005). Since the Levene's test was violated, instead of a two-way ANOVA, I ran one independent samples t-test for race/ethnicity since race/ethnicity had two groups, Hispanic students and non-Hispanic students. I ran a one-way ANOVA for sense of belonging since sense of belonging had three groups, high 67-90, medium 43-66, and low 18-41. I ran an independent t-test to determine if there was a statistically significant difference in Hispanic and non-Hispanic students' English II scale scores (see Table 9).

Table 9

Independent Samples T-Test for Hispanic and Non-Hispanic Students' English II Scale Scores

		t	*p*	*df*
English II Scale Score	Equal variances assumed	*-3.471*	*.001*	*101*

The assumption of equal variances was met ($F = 1.865$, $p = .175$). I determined there was a statistically significant difference between Hispanic and non-Hispanic students' English II scale scores ($t = -3.471$, $p = .001$). The English II scale scores for Hispanic students ($M = 309.762$) were statistically significantly lower than non-Hispanic students ($M = 322.427$).

The one-way ANOVA test was conducted to determine if there was a statistically significant difference in English II standardized test scores based on students' sense of belonging. Based on the Levene's test, the assumption of equal variances was violated ($F = 7.210$, $p < .001$). Since the assumption of equal variances was violated, I used the Brown Forsythe statistic since it is robust enough to overcome this assumption violation. I identified no statistically significant differences in English II standardized test scale scores based on sense of belonging for students ($BF = 2.366$, $p = .181$) (see Table 10).

Table 10

Robust Tests of Equality of Means

	Statistic	*df1*	*Sig.*
Brown-Forsythe	2.366	2	.181

The students' range of scores for sense of belonging were low, middle, and high. The students in the low range of sense of belonging had slightly lower English II state standardized scale scores ($M = 293.60$) compared to students who identified in the medium range of sense of belonging ($M = 321.30$) and in the high range of sense of belonging ($M = 319.71$). The students in the medium range of sense of belonging had slightly higher English II state standardized scale scores

(M = 321.30) compared to students who identified in the high range of sense of belonging (M = 319.71).

Research Question 3

Does Hispanic students' sense of belonging predict academic achievement proficiency on English I state standardized test scores in a predominantly White student body in a rural high school in Tennessee, and if so, how?

To answer Research Question 3, I used a linear regression model to examine the correlation between the independent variable, the student responses on the PSSM for sense of belonging, and the dependent variable, the English I state standardized test scale scores. The model summary was analyzed to determine the proportion of variance, and students' sense of belonging accounted for 13.3% of the variance in English I state standardized test scores (see Table 11).

Table 11

Model Summary

Model	r	r^2	Adjusted r^2
1	.365a	.133	.125

Students' sense of belonging significantly predicted English I state standardized test scores (F = 15.527, p < .001).

A unit increase in students' sense of belonging on the PSSM was associated with an increase in English I state standardized scale scores by .508 units (see Table 12). In other words, as students' sense of belonging increased, students' English I state standardized scale scores also increased.

Table 12

Coefficients Emotional Intelligence Scale Score and Total Psychological Sense of School Membership Scale

Model	Unstandardized Coefficients *B*	Unstandardized Coefficients *Std. Error*	Standardized Coefficients *Beta*	*t*	*Sig.*
Total Score PSSM	.508	.129	.365	3.940	.000

Research Question 4

Does Hispanic students' sense of belonging predict academic achievement proficiency on English II state standardized test scores in a predominantly White student body in a rural high school in Tennessee, and if so, how?

To answer Research Question 4, I used a linear regression model to examine the correlation between the independent variable, the student responses on the PSSM for sense of belonging, and the dependent variable as the English II state standardized test scale scores. Students' sense of belonging accounted for 18.4% of the variance in English II state standardized test scores (see Table 13).

Table 13

Model Summary, Change Statistics for Psychological Sense of School Membership Scale and English II Scale Scores

Std. Error of the Estimate	r^2 Change	*F* Change
14.261	.184	22.712

Students' sense of belonging significantly predicted English II state standardized test scores *(F* = 22.712, $p < .001$). A unit increase in sense of belonging on the PSSM was associated with an increase in English II state standardized scale scores by .779 units (see Table 14). In other words, as students' sense of belonging increased, students' English II state standardized scale scores also increased.

Table 14

Coefficients

Model	Unstandardized Coefficients *B*	Unstandardized Coefficients Std. Error	Standardized Coefficients *Beta*	*t*	*p*
1 - Total Score PSSM	.779	.163	.428	4.766	.000

Summary of Results

In Chapter IV, I presented the data analysis, finding there were differences in the mean for English I and English II state standardized test scale scores among Hispanic and non-Hispanic students. The mean for English I was lower for Hispanic students (M = 316.019) compared to non-Hispanic students (M = 330.681). The mean for English II was lower for Hispanic students (M = 309.762) compared to non-Hispanic students (M = 322.427). I used the data to determine no statistically significant difference with race/ethnicity for Hispanic students and non-Hispanic students' and sense of belonging on English I state standardized test scale scores. English II scale scores based on race/ethnicity for Hispanic students was significantly lower than non-Hispanic students; though, no statistically significant difference was found in English II state standardized scale scores based on sense of belonging for Hispanic and non-Hispanic students. As students' sense of belonging increased, the English I and English II state standardized test scale scores increased. The students who scored higher on the PSSM had higher scale scores for standardized tests in English I and English II; Hispanic and non-Hispanic students who had more sense of belonging scored higher on state standardized tests.

Chapter V: Discussion of the Study

The purpose of this quantitative, nonexperimental, correlational research study was to investigate the extent that Hispanics in grade 11 in a rural high school in Tennessee experienced a sense of belonging and the correlation, if any, between sense of belonging and academic achievement on the state English I and English II standardized tests. Using this research design, I used extant data for the quantitative study. I have provided the results from my data collection and implications for practices in education in this chapter, Discussion of the Study. My intentions were to provide school administrators and teachers the evidence for sense of belonging and the impact these levels of sense of belonging can make on academic achievement, specifically outcomes on state standardized assessments in English.

I came to four conclusions:

1. Significant differences in English I scores based on race/ethnicity indicated non-Hispanic students had significantly higher scores.
2. Significant differences in English II scores based on race/ethnicity indicated non-Hispanic students had significantly higher scores.
3. As students' sense of belonging increased, English I scores increased.
4. As students' sense of belonging increased, English II scores increased. This supports Cemalcilar's research indicating students experiencing sense of belonging positively impacted academic achievement (Cemalcilar, 2010).

Regarding academic achievement proficiency on English I state standardized test scores based on race/ethnicity (Hispanic and non-Hispanic) and sense of belonging in a predominantly White student body in a rural high school

environment, I identified statistically significant difference in English I state standardized test scores. I identified no statistically significant difference in English I standardized test scale scores based on students' scores for sense of belonging for Hispanic and non-Hispanic students. The Hispanic and non-Hispanic students who scored in the low range of sense of belonging had slightly lower English I state standardized scale scores compared to Hispanic and non-Hispanic students who scored in the medium and high ranges of sense of belonging. The Hispanic and non-Hispanic/students in the medium range of sense of belonging had slightly higher English I state standardized scale scores compared to Hispanic and non-Hispanic students who scored in the high range of sense of belonging. Goodenow (1991) discussed any person who had a status of minority group did not have full membership within the group, and I determined this perceived role affected the individual within the group environment. Goodenow (1991) synthesized results providing the importance of belonging for pre-adolescents and early adolescents in the educational environment.

In examining academic achievement proficiency on English II state standardized test scores based on race/ethnicity (Hispanic and non-Hispanic) and sense of belonging in a predominantly White student body in a rural high school environment, I identified statistically significant differences in English II standardized test scale scores. I identified no statistically significant differences in English II standardized test scale scores based on sense of belonging for students. The Hispanic and non-Hispanic students who scored in the low range of sense of belonging had slightly lower English II state standardized scale scores compared to students who identified in the medium and high ranges of sense of belonging.

The Hispanic and non-Hispanic students in the medium range of sense of belonging had slightly higher English II state standardized scale scores compared to students who scored in the high range of sense of belonging. This finding supports Dodd's (2000) proposal that the focus must be not only on content but also on students' emotions, which connected to academic achievement with higher expectations and implementation of standards. When students addressed emotions and felt valued, those students would have a positive foundation for academic achievement.

Another focus I had in the study was to determine if Hispanic students' sense of belonging predicted academic achievement proficiency on English I state standardized test scores in a rural high school environment. Hispanic students' sense of belonging predicted English I state standardized test scores. As Hispanic students' sense of belonging increased, the outcomes on the state standardized test also increased. Gileen-O'Neel and Fuligni (2013) determined the positive impact of belonging on academic engagement. Some academic achievement theories included the idea that sense of personal connection with school and environment promoted understanding for academic values and behaviors and then played a role in academic success (Gillen-O'Neel & Fuligni, 2013; Voelkl, 1997).

A final focus of the study was to determine if Hispanic students' sense of belonging predicted academic achievement proficiency on English II state standardized test scores in a rural high school environment. Hispanic students' sense of belonging predicted English II state standardized test scores. As the Hispanic students' sense of belonging increased, the outcomes on the state standardized test scores increased. Bankole (2010) specified "developing the

social conditions in schools between role groups that have an impact on achievement" (p. 96) as imperative to student academic growth in the educational setting. Libbey (2004) indicated students who perceive a connection to the school and have fair and supportive educators had higher academic growth and achievement.

Implications for Practice

Hispanic students need additional support in the English classrooms as well as other academic classrooms to provide more intensive strategies for learning the reading and comprehension skills needed to achieve proficiency on the English I and English II state tests. Teachers need training to better support Hispanic students and expectations for growth need to be implemented for students to move toward proficiency. Teachers need to address deficiencies using reading intervention strategies for scaffolding and support for English skills. When this is provided and accountability measures are placed for showing student growth, students will be able to build on foundational skills in deficiency areas and will show growth in English reading comprehension and grammar skills.

As reported, students who experience sense of belonging have higher standardized test scores; therefore, the sense of belonging for students has an association with academic achievement. Students who experience higher levels of sense of belonging have higher academic achievement. Overall, however, students' improved sense of belonging is needed for *all* students to increase academic achievement.

By training and having educators conduct discussions to explore improvements within sense of belonging in the school environment in small group

settings, the ideas about sense of belonging can facilitate in-depth discussions to relationships within schools. When discussing statements, such as *I feel like a part of my school* and *People at my school notice when I am good at something*, administrators and teachers can delve into the student explanations, which would provide insight to sense of belonging for modification to these programs and to increase sense of belonging for the larger student population. Once students and educators collectively generate ideas, these should be developed into a scheduled format for survey responses and discussions for improvements to occur throughout the school year on a grade-by-grade basis for topics to improve overall sense of belonging in small groups to build confidence into the larger classroom settings so each student, teacher, and classroom is discussing the same information for consistency.

By identifying sense of belonging within the elementary and middle school settings and by using the same study and population group, individual interventions should be implemented for increasing sense of belonging for positive impact on academic achievement to transition to high school with more sense of belonging and how to identify it and build on the foundational skills that should be taught in elementary and middle schools. While testing outcomes are valuable for school districts, it is most important that students feel they belong in the environment in which they are learning. Thus, the learning should be more self-motivated for students who have consistent and increased sense of belonging.

Recommendations for Further Research

The results of this study are relevant to high school students; however, researchers should study elementary, middle school, and high school in

identifying sense of belonging and the impact on academic achievement in the classroom setting and on outcomes for standardized testing. Beginning in the elementary school level, researchers should examine a longitudinal study for what students view as sense of belonging and determine if sense of belonging makes an impact on academic success. Additionally, researchers should continue the longitudinal study throughout middle school as students change developmentally and examine sense of belonging and association with academic achievement in the classroom and on standardized tests. Determining if students have sense of belonging within academic environments can indicate whether or not they have higher academic achievement; therefore, these tests will indicate whether or not students would have the English skills needed to do well in other academic coursework throughout elementary through high school. Future researchers should continue this inquiry to provide more evidence for sense of belonging.

Researchers should also conduct a qualitative study or repeat this study with another population using a mixed methods approach. By interviewing students, researchers will better understanding student perceptions of sense of belonging and what factors within the school could be adjusted to provide students opportunities for stronger levels of sense of belonging. Students should be able to answer open-ended questions and provide solutions for concerns; therefore, more qualitative data would provide evidence for positive change within the academic classrooms and social interactions within other areas in the actual building, such as cafeteria, library, and hallways.

The possibilities for sense of belonging and association with academic achievement would increase quantitative data, and future researchers should use a

larger sample size or use a study across several school districts. Studying this topic in a different region would provide more evidence of the need for sense of belonging. Regardless of focus population, the importance for future research concerning sense of belonging holds value and impacts school districts across the country as they seek to improve learning for all students.

School districts should focus on the relationships that provide sense of belonging first and then balance this focus with academic content. Longitudinal research should be conducted to provide student data for sense of belonging across grade levels throughout elementary, middle, and high schools to provide interventions when necessary for student successes per grade in association with academic achievement. This can be accomplished by evaluating students' sense of belonging at the beginning of academic years and completing longitudinal studies each year the students are in a school. A study such as this would provide schools and districts valuable information about the success of the schools' efforts to increase sense of belonging and therefore improve overall learning environments for all students for increased academic achievement.

Conclusions of the Study

The purpose of this quantitative, nonexperimental, correlational research study was to investigate the extent that Hispanics in grade 11 in a rural high school in Tennessee experienced a sense of belonging and the relationship, if any, between sense of belonging and academic achievement on the state English I and English II standardized tests. Hispanic students had significantly lower English state standardized test scale scores than non-Hispanic students. Hispanic students need additional support in the English classrooms as well as other academic

classrooms to provide more intensive strategies for learning the skills needed to achieve proficiency on the English I and English II state tests.

Students who experienced sense of belonging had higher standardized test scores; therefore, the sense of belonging for students had an association with academic achievement. Students who experienced higher levels of sense of belonging had higher academic achievement. With more supports for increased sense of belonging in school districts starting in elementary and middle school, students should experience increased sense of belonging, and this increase should have more positive impacts on the educational achievements for students. With these increases in sense of belonging, students can achieve high school educational goals that will lead them into college and career environments.

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Appendix A

Principal Permissions for Study

Dear [redacted]

We have discussed the study I am pursuing for the dissertation research work through Lincoln Memorial University. May I have permission to follow-through with this study once I have been granted permission to move forward from the LMU committee?

Having an email response is a required step in the process, and I will keep you aware of the time frame once the content proposal has been approved.

Thank you for your support in this endeavor.

Sincerely,

Mrs. Mary Webster

[redacted]

Secondary Intervention Specialist/ELA Department/[redacted] Walking Club

"Work hard and play hard to achieve your goals. Balance is the key!"

Appendix B

Parent/Guardian Permission, English

Dear 10th and 11th grade Parents/Guardians,

I have been granted permission from the Superintendent of District A Schools and Principal of District A's High School to conduct a survey of students to determine sense of belonging and impact on academic achievement. I will survey students' levels of sense of belonging and the connection to outcomes on English I and English II state assessments. Since 10th and 11th graders already have this data available for both assessments, I have selected these two groups for the study.

The purpose of this communication is to request permission from parents/guardians to conduct the Psychological Scale of School Membership (PSSM) survey of current 10th and 11th grade students. Surveys will be conducted by me in partial fulfillment of the requirements for the degree of Doctor of Education at Lincoln Memorial University. The PSSM survey contains 18 questions using a Likert scale that students will click buttons in a Google form that corresponds with answers they have selected. The 10th and 11th grade students who have received parental permission, are present, and have consented to the data collection will be given the survey during homeroom, which meets on Wednesdays. The estimated time to complete the survey will be 10-15 minutes.

All responses will be confidential and will be corresponded to test data. Student participants will be given numbers to represent each, and no student names will be used. All data will be stored in secured computer files and paper copies will be in secured storage. No names or other individual information by which one could be identified will be made available to the public. This research is a human research project; however, the personal risk for being involved is minimal. If you have any concerns regarding the research, would like a summary of the research, or would like a copy of the PSSM survey, please contact me at

phone number or EMAIL. This research has been approved by Lincoln Memorial University's Institutional Review Board and by District A Schools.

I have read the above information and consent to have my child participate in this study. I further understand that my child will also have to agree to participate in the study. If my child does not wish to participate, my child has that option. Participation will not affect students' grades; there are no repercussion for not participating. By signing this document on the additional page, I agree that my child may participate in completing the PSSM survey.

Thank you for considering participation in this research study.

Researcher: XX

Doctoral Student at Lincoln Memorial University

EMAIL

PHONE

Faculty Sponsor: Dr. Cherie Gaines

Professor and Chairperson at Lincoln Memorial University

Cherie.Gaines@lmunet.edu

PHONE

Please select your child's level of participation and reply with completed permission form to EMAIL.

_____ Yes, I will allow my child to participate in the PSSM survey.

_____ No, I will not allow my child to participate in the PSSM survey.

Parent/Guardian Permission for Survey

*Please return the form to Mrs. Webster in classroom #XXX.

Please print clearly or type.

Student Name:

Student Email Address at School:

Appendix C

Parent/Guardian Permission, Spanish

Estimados Padres / Guardianes de 10 ° y 11 ° grado,

El Superintendente de las Escuelas de la Ciudad de Lenoir y el Director de la Escuela Secundaria de la Ciudad de Lenoir me dieron permiso para realizar una encuesta a los estudiantes para determinar el sentido de pertenencia y el impacto en el rendimiento académico. Examinaré los niveles de pertenencia de los estudiantes y la conexión con los resultados en las evaluaciones estatales de inglés I e inglés II. Como los alumnos de 10º y 11º grado ya tienen esta información disponible para ambas evaluaciones, he seleccionado estos dos grupos para el estudio.

El propósito de esta comunicación es para solicitar permiso a los padres / guardianes para realizar la encuesta de la Escala Psicológica de Membresía Escolar (PSSM) de los estudiantes actuales de 10º y 11º grado. Las encuestas serán realizadas por el investigador en cumplimiento parcial de los requisitos para el título de Doctor en Educación en la Universidad Lincoln Memorial. La encuesta PSSM contiene 18 preguntas usando una escala Likert en la que los estudiantes harán clic en los botones en un formulario de Google que corresponda con las respuestas que hayan seleccionado. Los estudiantes de los grados 10 y 11 han recibido el permiso de los padres, están presentes y han dado su consentimiento para la colección de datos que se les dará la encuesta durante la clase, que se reúne los miércoles. El tiempo estimado para completar la encuesta será de 10-15 minutos.

Todas las respuestas serán confidenciales y se corresponderán con los datos de la prueba. Los estudiantes participantes recibirán números para representar cada uno, y no se utilizarán nombres de estudiantes. Todos los datos

serán guardados en archivos de computadora seguros y las copias en papel estarán en un almacenamiento seguro. No se pondrán a disposición del público nombres u otra información individual por la cual se pueda identificar uno. Esta investigación se considera un proyecto de investigación en humanos; sin embargo, el riesgo personal de estar involucrado es mínimo. Si tiene alguna inquietud con respecto a la investigación, desea un resumen de la investigación o una copia de la encuesta de PSSM, comuníquese con la Sra. Mary Webster al XXX o XXX. Esta investigación ha sido aprobada por la Junta de Revisión Institucional de la Universidad Lincoln Memorial y por las Escuelas de la Ciudad de Lenoir.

He leído la información anterior y doy mi consentimiento para que mi hijo/a participe en este estudio. Además, entiendo que mi hijo/a también tendrá que aceptar participar en el estudio. Si mi hijo/a no desea participar, mi hijo/a tiene esa opción. Al firmar este documento en la página adicional, acepto que mi hijo/a pueda participar en completar la encuesta PSSM.

Gracias por considerar participar en este estudio de investigación.

Mary Louise Callaway Webster, Ed.S.

LMU Candidato a Doctorado

Seleccione el nivel de participación de su hijo/a y responda con el formulario de permiso completado para mwebster@lenoircityschools.net

_____ Sí, permitiré que mi hijo/a participe en la encuesta PSSM.

_____ No, permitiré que mi hijo/a participe en la encuesta PSSM.

Permiso del padre / guardián para la encuesta

* Si responde en papel, devuelva el formulario a Mrs. Webster en la clase #XXX.

Por favor escriba claramente o tecléelo.

Nombre del estudiante:

Dirección de correo electrónico del estudiante en la escuela:

Appendix D

Psychological Sense of School Membership - English

Circle the answer for each statement that is most true for you. *This was entered in the online tool. Students were asked to click on the button that corresponded with the answer.

1) I feel like a part of my school.	Not at all true 1	2	3	4	Completely true 5
2) People at my school notice when I am good at something.	Not at all true 1	2	3	4	Completely true 5
3) It is hard for people like me to be accepted at my school.	Not at all true 1	2	3	4	Completely true 5
4) Other students in my school take my opinions seriously.	Not at all true 1	2	3	4	Completely true 5
5) Most teachers at my school are interested in me.	Not at all true 1	2	3	4	Completely true 5
6) Sometimes I feel as if I don't belong in my school.	Not at all true 1	2	3	4	Completely true 5
7) There is at least one teacher or adult I can talk to in my school if I have a problem.	Not at all true 1	2	3	4	Completely true 5
8) People at my school are friendly to me.	Not at all true 1	2	3	4	Completely true 5
9) Teachers here are not interested in people like me.	Not at all true 1	2	3	4	Completely true 5
10) I am included in lots of activities at my school.	Not at all true 1	2	3	4	Completely true 5
11) I am treated with as much respect as other students in my school.	Not at all true 1	2	3	4	Completely true 5
12) I feel very different from most other students at my school.	Not at all true 1	2	3	4	Completely true 5
13) I can really be myself at my school.	Not at all true 1	2	3	4	Completely true 5
14) Teachers at my school respect me.	Not at all true 1	2	3	4	Completely true 5
15) People at my school know that I can do good work.	Not at all true 1	2	3	4	Completely true 5

16) I wish I were in a different school.	Not at all true 1	2	3	4	Completely true 5
17) I feel proud to belong to my school.	Not at all true 1	2	3	4	Completely true 5
18) Other students at my school like me the way that I am.	Not at all true 1	2	3	4	Completely true 5

Appendix E

Psychological Sense of School Membership - Spanish

Encierre la respuesta para cada declaración que sea mas cierta para usted.

1) Yo me siento como que soy parte de la escuela?	De ningún modo 1	2	3	4	Completamente cierto 5
2) La gente en la escuela se da cuenta de que soy bueno en algo.	De ningún modo 1	2	3	4	Completamente cierto 5
3)Es difícil para las personas como yo que sean aceptadas en mi escuela.	De ningún modo 1	2	3	4	Completamente cierto 5
4)Otros estudiantes en mi escuela toman mis opiniones en serio.	De ningún modo 1	2	3	4	Completamente cierto 5
5)La mayoria de los maestros en la escuela se intersesan por mi.	De ningún modo 1	2	3	4	Completamente cierto 5
6)Algunas veces me siento como si no perteneciera a mi escuela.	De ningún modo 1	2	3	4	Completamente cierto 5
7)Por lo menos hay un maestro ó un adulto con el que yo pueda hablar en la escuela si es que tengo un problema.	De ningún modo 1	2	3	4	Completamente cierto 5
8)La gente en la escuela es amigable conmigo.	De ningún modo 1	2	3	4	Completamente cierto 5
9)Los maestros aqui no estan interesados en gente como yo.	De ningún modo 1	2	3	4	Completamente cierto 5
10)Yo estoy incluido en muchas de las actividades en la escuela.	De ningún modo 1	2	3	4	Completamente cierto 5
11)Me tratan con mucho respeto al igual como otros son tratados en la escuela.	De ningún modo 1	2	3	4	Completamente cierto 5

12)Me siento muy diferente a la mayoria de otros en mi escuela.	De ningún modo 1	2	3	4	Completamente cierto 5
13)Yo de verdad puedo ser yo mismo en la escuela.	De ningún modo 1	2	3	4	Completamente cierto 5
14)Los maestros en mi escuela me respetan.	De ningún modo 1	2	3	4	Completamente cierto 5
15)La gente en la escuela sabe que yo puedo hacer buen trabajo.	De ningún modo 1	2	3	4	Completamente cierto 5
16)Deseo el poder estar en otra escuela.	De ningún modo 1	2	3	4	Completamente cierto 5
17)Me siento orgulloso de pertenecer a mi escuela.	De ningún modo 1	2	3	4	Completamente cierto 5
18)Otros estudiantes en mi escuela les caigo bien de la manera que yo soy.	De ningún modo 1	2	3	4	Completamente cierto 5