INTEGRATION OF NON-TRADITIONAL STUDENTS: COMPARING TRADITIONAL AND NON-TRADITIONAL STUDENTS' SENSE OF BELONGING

by

Michelle LeeAnn Walbeck

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

Liberty University

2022

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APPROVED BY:

Rebecca Lunde Ed.D., Committee Chair

Jessica Talada Ed.D., Committee Member

ABSTRACT

With an ever-increasing number of non-traditional students enrolling each year, the importance of ensuring their academic success falls primarily on the higher education institutions (HEIs). Each institution has its recipe for success and mostly consists of a student success office to assist when non-traditional students begin to show signs of markers for being at-risk. The reactive approach of waiting for students to show signs of struggle is missing the larger picture. The researcher utilized quantitative correlative and predictive correlative studies to determine if a direct correlation existed between non-traditional students' perceived sense of belonging, which is at the core of inclusion, and their academic success. The Yorke Belongingness Survey in Higher Education (YBS) was given to both traditional and non-traditional undergraduate students at a rural private university in West Texas with several campuses nationwide within the United States. The class size was 298 students with a 48.3% return rate on survey (n=41 traditional, n=87 traditional). IBM SPSS statistical software was used to analyze the data. A *t* test and bivariate regression analysis were performed to determine a correlation between traditional and non-traditional students' sense of belonging and academic success. The researcher was not able to reject the null hypotheses for the *t* test or the bivariate regression analysis due to a small effect size. The direct correlation between a higher sense of belonging and higher academic achievement could be a catalyst for programmatic reform.

Keywords: sense of belonging, inclusion, academic success, traditional students, non-traditional students, academic and social engagement.

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List of Abbreviations

Higher Education Institutions (HEIs)

National Center for Education Statistics (NCES)

National Survey of Student Engagement (NSSE)

Psychological Sense of School Membership Scale (PSSM)

Sense of Belong (SoB)

Student Inclusiveness Survey (SIS)

Yorke Belongingness Survey (YBS)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this study is to determine if there is a difference between the perceived sense of belonging at an institution for both traditional and non-traditional students at an urban southern private university. Chapter One provides the background on institutional inclusion and its impact on tertiary students. The problem statement examines the scope of recent literature on this topic. This quantitative non-experimental study will utilize the Yorke Belongingness Survey in Higher Education on undergraduate students. This study's significance is that prior literature has concluded that the sense of belonging is a critical element of both social and academic inclusion. In turn, the sense of belonging directly impacts student engagement levels. Finally, the research questions are introduced, and definitions pertained to this study are provided.

Background

A review of current literature reveals that non-traditional students are discriminated against at institutions, even though this demographic makes up over 74% of the student population (Bohl et al., 2017; National Center for Educational Statistics, (NECS), 2019). First, the description of non-traditional students must be presented. Numerous attributes place a student in the demographical category of non-traditional students. According to Choy (2002), a non-traditional student's primary characteristics are: being over the age of 25, attending college part-time, having families, transfer students or delayed college entry, being financially independent, employed full time, military veterans, and often commuters. Witkowski et al. (2016) deemed non-traditional students are the most underserved demographic within a student population. According to the National Center for Educational Statistics (NCES), as of 2018,

students with at least one characteristic of being classified non-traditional account for over 74% of the overall student population (Choy, 2002).

In 2015, Markle (2015) observed that the NCES data from the 2011 report showed that one-third of students were considered non-traditional, and the numbers were expected to increase 28% by the year 2019. The expectations for these projections have been surpassed exponentially. Ellis (2019b) noted that non-traditional students display unique characteristics over their traditional peers in their needs within engagement, with a need for increased levels of feedback from instructors, increased stressors, different intrinsic motivations, and motivation for self-efficacy. Previous literature has identified three areas that have the most significant impact on the academic success of non-traditional students as institutional support (Markle, 2015; Ellis, 2019a), engagement (Arjomandi et al., 2018, Woods & Frogge, 2017), and inclusion/motivation (Bohl et al., 2017; Warden & Meyer, 2017).

Pioneers in research, Hurtado and Carter (1997), focused on the theoretical framework of Tinto's (1993) model of student persistence to determine if specific demographic groups' experiences with exclusion on campus affected their sense of belonging. Tinto's (1975) research confirmed that academic and social integration were integral for higher education persistence. Tinto's research spurred recent research by Davis et al. (2019) in developing a Sense of Belonging Index. Davis et al. (2019) identified that a students' social and academic belonging are predictors of the student's success.

Astin's (1984) theory of student involvement was groundbreaking in identifying that student involvement leads to their motivation to do well academically. Astin's theory spurred the recent research of Duran et al. (2020), denoting that the student's sense of belonging can adversely affect academic achievement when faced with exclusion issues due to a minority

group. Duran et al. (2020) redefined a sense of belonging as a need of the student to feel comfortable, fit into the academic community, feel safe, welcomed, and respected.

Kahu's (2013) framework for student engagement encompasses six elements of socio-cultural influences on students' engagement levels. Among those listed are the structural effects of the student's background and institutional culture and policies, psychological influences between the faculty and staff support, workloads, and relationships that affect students' motivation (Kahu, 2013). These factors will increase or decrease students' engagement which is at the core of their sense of belonging. In addition, the framework has proximal and distal consequences that affect their academic achievements, satisfaction, retention, and personal growth (Kahu, 2013).

Kahu's theory was utilized by Arjomandi et al. (2018) to determine if pedagogical approaches change the level of engagement for traditional and non-traditional students. Arjomandi et al. (2018) noted that non-traditional students differ from traditional students in how they feel inclusion in learning. Arjomandi et al. added that non-traditional students often feel stereotyped by their professors, and the exclusion is tied to their academic success.

Vaccaro and Newman (2016) noted that students who belong to diverse or minority groups would feel a lower sense of belonging. Suppose non-traditional students are forced to play the role of a minority group on campuses while their enrollment numbers increase annually. In that case, they will be never be fully included in campus life. Research has identified that non-traditional students with a lower sense of belonging express loss of support, insecurity, lack of involvement (Tett et al., 2017), lack of validation (Witkowsky et al., 2016), lower motivation (Woods & Frogg, 2017), and social exclusion (Wong, 2018). McCall et al. (2020) noted that

students that identify as a minority group struggle with persistence and belonging; it is imperative for institutions to offer equal opportunities for all students.

Utilizing the theoretical research frameworks from Tinto's (1975) model of student persistence, Astin's (1984) theory of student involvement, and Kahu's (2013) framework for student engagement, themes began to emerge. In Tinto's (1975) model, the goal of academic success via retention was met through institutional and family support, institutional support which in turn allowed for academic and social integration (motivation, engagement). Astin's (1984) theory deducted that student involvement (engagement) became a return on investment (motivation). Finally, Kahu's (2013) framework defined the socio-cultural factors that induce student engagement through structural support, policies, systems, and connections. At the core of student engagement was the student's sense of belonging. Therefore, it can be concluded that the sense of belonging is the motivational catalyst that dictates academic and social integration.

The non-traditional student is becoming a minority group among higher education institutions. The effects of stereotyping could harm a student's academic and social success. By discovering a relationship between traditional and non-traditional students' sense of belonging, institutions could restructure their programs to become more inclusive to all student groups. In addition, the sense of belonging could provide the information necessary to have academically successful programs.

Problem Statement

The literature on tertiary students has not addressed the effects of the sense of belonging on non-traditional students while noting a correlation with student engagement (Wong, 2018; Peacock & Cowan, 2019). Higher educational institutions are failing a large portion of their student population. Despite an increase of non-traditional students reaching over 74% of student

demographic makeups, institutions have not changed their approaches to being fully inclusive of non-traditional students (NECS, 2019). Institutions often see non-traditional students as a demographic that requires additional support services (Bohl et al., 2017). Academic research within primary and secondary institutions has deemed the students' sense of belonging as a key to inclusion and academic success (Ellery, 2019).

Literature has gleaned over the criterion for the sense of belonging. Arjomandi et al. (2018) noted that low levels of student engagement are directly connected with social and academic consequences, and at the core of student engagement is a sense of belonging. By offering a comprehensive analysis of traditional and non-traditional students' perceived sense of belonging, which drives inclusion, institutions can utilize this information to mitigate the social and academic consequences of a large demographic group being excluded from full integration in their collegiate investment. The problem is that there has not been research to determine if a difference exists between traditional or non-traditional students' sense of belonging and if the difference could be a predictor of academic success.

Purpose Statement

The purpose of this quantitative, causal-comparative study (RQ1) and a predictive, correlational study (RQ2 and RQ3) is to explore if differences between the perceived sense of belonging between traditional and non-traditional students affect their academic achievement in an urban southern private university. For the first null hypothesis, the independent variable is the students' enrollment status with two groups, traditional and non-traditional. The dependent variable is the sense of belonging score. For the second null hypothesis, the criterion variable is the student's academic achievement (GPA). The predictor variable is the students' perceived sense of belonging score, analyzing traditional students' population status. For the third null

hypothesis, the criterion variable is also the student's academic achievement (GPA). The predictor variable is also the students' perceived sense of belonging score, analyzing the population status of non-traditional students. Traditional student participants will be defined as having at least one of the following attributes: under 24 years old, unmarried, no children, attended college directly out of high school, attending full-time, financially dependent, and not working full-time (NCES, 2019). The non-traditional students will be determined by having at least one of the following criteria: over the age of 25, married, has children, financially independent, commute to campus, attends courses part-time, works full time, financially independent, or military veteran (NCES, 2019). The dependent variable for the Null Hypothesis One will be the student's surveyed total score depicting their perceived sense of belonging. Finally, the Null Hypothesis Two and Three criterion variable for the study is that the student's academic achievement will be based upon a self-reported GPA. All undergraduate students over 18 and enrolled in the senior seminar course will be selected to participate in an urban four-year private institution in West Texas. The sample will consist of (n = 41 traditional, n = 87 traditional; n = 59 male, n = 66 female, n = 2 non-binary/other) with an equal sampling of male and female participants.

Significance of the Study

Evidence-based research on the students' sense of belonging in other research studies has been broad in both application and research scope. Most literature on a students' sense of belonging has been performed in Europe or Australia; a small percentage has been conducted within the United States. Additionally, much of the literature available is from primary and secondary education research, and very little has been on tertiary education. The transitionary

phase from secondary education into tertiary education neglects what Ellery (2019) deemed an essential element of all schools' focus.

Duran et al. (2020) and Dumford et al. (2019) both researched the traditional and non-traditional students' sense of belonging as it related to their collegiate environment (on-campus, off-campus living). Peacock et al. (2018) studied promoting a sense of belonging through collaborations and tutoring for online courses in the United Kingdom and its relationship to academic achievement. Vacarro and Newman (2016) explored the differences in the sense of belonging for first-year minority students. Finally, Wong (2018) compared high-academic achieving student success to low-academic achieving students in the United Kingdom.

The closest study was done by Davis et al. (2019), who created their instrument to measure social and academic belonging to subsequently generate a retention prediction model. However, the post-pilot study with revisions noted significant discrepancies in the overlooked research, and no further investigation was offered to substantiate their claims. The proposed study will utilize the Yorke Belongingness Survey in Higher Education (YBS) to determine belongingness in higher education based upon three subscales, engagement, belonging to faculty or department, and academic-related self-confidence (Yorke, 2016). The empirical findings from this study will provide definitive information related to the treatment of non-traditional students. Suppose the students feel that they are not being included academically or socially, which directly affects their academic achievements. In that case, the institution can further research specific exclusion areas to make corrections to their programs. It should be the goal of each institution to ensure that all students feel included.

Research Questions

The proposed research will seek to answer the following questions:

RQ1: Is there a difference in students' sense of belonging between traditional and non-traditional students in a rural private university in West Texas with several campuses nationwide?

RQ2: Can traditional students' sense of belonging score predict students' academic achievement (GPA)?

RQ3: Can non-traditional students' sense of belonging score predict students' academic achievement (GPA)?

Definitions

1. *Non-traditional Student* – A non-traditional student is a student that has one or more of the following predictors, age over 25 years old, often has family and work obligations, enrollment delay, part-time student, financially independent, and commutes to the college (NCES, 2019, para, 1).
2. *Self-efficacy* – self-efficacy is defined as "judgments of how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982, p. 122).
3. *Sense of Belonging (SoB)* – The sense of belonging is the level of social interaction (academic and social) that enhances a students' identity with their college (Hurtado & Carter, 1997, p. 328), a basic human need and motivation, sufficient to influence behavior (Strayhorn, 2012, p. 3).
4. *Student Engagement* – Student engagement is defined as the time, and effort students devote to activities that are empirically linked to desired outcomes of college (Kuh, 2009, p. 683) and a narrow set of student and institutional behaviors … a socio-cultural ecosystem (Zepke, 2015, p. 1311).

5. *Student Involvement*- Student involvement is defined as "the physical and psychological energy that a student will devote to the academic experience" (Astin, 1984, p. 518).
6. *Traditional Student* – A traditional student is a student who has the following criteria, under the age of 25, non-married, no children, enrolled in college directly out of high school, enrolled full-time, financially dependent, and lives on campus (NCES, 2019, para. 3).

CHAPTER TWO: LITERATURE REVIEW

Overview

This chapter will be a literature review which will include an overview, a theoretical framework section, a related literature section, and a summary. The overview will provide a general outline of the current research related to students' perceived sense of belonging in higher education. The theoretical framework will provide the historical literature that has set the course to research the sense of belonging related to education and traditional and non-traditional students as distinct student groups. Further, it will be discussed how these theories have focused research on this area and the advancement of current research theories. The section on related literature will synthesize the existing knowledge on the sense of belonging, focusing on the influences for the sense of belonging and how they connect to the sense of belonging. The related literature will correlate this study and examine the gaps and underexamined literature areas. Finally, this section's summary will conclude how the theoretical framework and existing literature have guided the current study.

Theoretical Framework

Maslow (1962) studied the human desire for a sense of belonging as an essential psychological need. Maslow's (1962) hierarchy of needs placed the sense of belonging just above the basic needs for food, water, and security. Since then, many researchers have developed many theories furthering the need for belonging. Baumeister and Leary (1995) posited that the need for belonging is a powerful and prevalent force that drives human motivations towards sustaining a sense of belonging. Karaman and Cirak (2017) describe belonging as the social aspect of being a person. These psychological concepts were reflective in the primary studies of

how the sense of belonging influences early adolescents in secondary education settings (Goodenow, 1993; Roeser et al., 1996).

For this study, three theoretical frameworks will serve as the base for the ideology that builds this study. The first theorist is Tinto's (1975) model of retention, which shaped modern thinking of students' imperative needs to become socially and academically integrated at their institution to achieve their goals and prevent dropout. Many researchers have based their studies on social and academic integration following Tinto's (1975) model (Hurtado & Carter, 1997; Davis et al., 2019; Hermida, 2010). Other research such as Tovar and Simon (2010) and Braxton and Lien (2000) posit that Tinto's research lacks empirical support for ethnic minority and unique student groups and lean more towards Hurtado and Carter (1997). Their research on Latino's sense of belonging in higher education bridged the gap that Tinto's research began.

Hurtado and Carter (1997) utilized Tinto's revised (1993) model to open research and discuss how the sense of belonging supports minorities, specifically Latinos, within his study. The basis for this expansion of thought was necessary because ethnically minority students have varying views on their participation and engagement in a college setting. Strayhorn (2012) defined the sense of belonging as "the degree to which an individual feels respected, valued, accepted, and needed by a defined group" (p. 87). Multiple grouping of students exists within an institution. Understanding how to relate to their needs and create a sense of belonging is pivotal to their success.

Freeman et al.'s (2010) research applied Tinto's revised (1987) model of integration that emphasized faculty and peer interactions as an essential motivation for integration and retention in college freshman integration. Likewise, Johnson et al. (2007) applied Tinto's revised (1993) theory of departure to the critical academic and social aspects of first-year college students'

persistence decisions. First, however, identifying the institutions' necessity to create a supportive climate for racially and ethnically diverse groups (Johnson et al., 2007).

The contention of many researchers (Johnson et al., 2007; Freeman et al., 2010; Tovar & Simon, 2010; Russell & Jarvis, 2019; and Wilson et al., 2013) against Tinto's (1975) model is that it suggests that the student is at fault for any lack of integration, not the institutions. These researchers suggest that the institutions should be primarily responsible for students' academic and social integration, especially those who are part of minority groups.

Tinto (2012) addressed the concerns noting that institutions should be held accountable for creating a congruent environment for supporting student involvement (Jenner, 2019). While Tinto's (1975) theory has evolved with the time's culture, his original theory that students must have academic and social integration to persist in higher education still holds value in this study as the three theories are utilized in conjunction. Tinto's theories continue being validated in research, determining that academic and social integration is met through institutional and family support, fostering student wellbeing (Roksa & Kinsley, 2017; Webb & Cotton, 2019, York & Fernandez, 2018).

The second theory that serves as a theoretical framework for this study is Astin's (1984) theory of student involvement, which refers to "the physical and psychological energy that a student will devote to the academic experience" (p. 518). Astin (1984) determined that institutions must have policies that foster active involvement for students. Astin (1984) noted that student psychological involvement and participation (behavior) are directly linked to their motivation. Burch et al. (2015) utilized Astin's theory to propose student engagement factors and instrumentation for gauging engagement. The National Survey of Student Engagement (NSSE) authors used Astin's (1984) theory as a basis for the conceptual instrument now utilized

nationally with over 6 million participants since the year 2000 (Burch et al., 2015, NSSE, 2015).

Astin's (1984) theory was refuted by Rabourn et al. (2018) because students' engagement and levels of involvement posited by Astin were not achievable for adult-non-traditional students. Rabourn et al. (2018) did not dispute the validity that engagement and involvement were not necessary, merely expressed through intrinsic and internal motivations. Astin's theory is essential because it holds the institution accountable for creating a return on investment that will motivate students to persist.

The third theory that will be utilized in this study is Kahu's (2013) theory of student engagement which identified the socio-cultural influences (culture, economics), structural influences (institutions/background), psychological influences (staff/faculty/student motivations) all have a positive or negative effect on student engagement. Identified in Kahu's (2013) framework for student engagement were also proximal and distal consequences (academic and social) that would affect the student's motivation to persist. At the heart of student engagement was the sense of belonging. Kahu (2013) utilized a holistic approach to academic engagement, which Arjomandi et al. (2018) replicated in a descriptive statistical analysis of how traditional and non-traditional students perceive student engagement.

Arjomandi et al. (2018) utilized Kahu's model to demonstrate that non-traditional students innately have additional structural influences (family, background, and workload) that already tip the scales toward the psychological influences causing student dropout. Student engagement is vital with these student groups. Knowing these factors is critical for institutional strategic and instructional planning that leads to students' academic success. Arjomandi et al. (2018) noted that different minority student groups benefited from active learning techniques that increased engagement and higher academic achievements.

Schindler et al. (2017) explored Kahu's theories among others in their literature review of student engagement activities that employ computer-based technology. Schindler et al. found that Kahu's (2013) theory of student engagement lacked focus on computer-based technology in pedagogical approaches but held merit in determining the behavioral, cognitive, and emotional engagement. Schindler et al. concluded that Kahu's research provided indicators for interactions, a sense of belonging, and knowledge constructions.

Higher cognitive construction and levels of thinking combined with active learning techniques are necessary to engage students. Wekullo (2019) cited the theories of engagement from Kuh (2009) and Kahu (2013) in their systematic review of the literature regarding engagement of international students noting that there is a robust behavioral aspect to engagement that is contingent upon an institution's ability to focus on processes and relationship building (p. 322). The higher levels of engagement become the motivation the student needs to persist.

The three theories, Tinto's (1975) theory of student integration, Astin's (1984) theory of student involvement, and Kahu's (1993) theory of student engagement, all encompass the need for an increased sense of belonging in higher education. Tinto's (1975) model identified that academic and social integration would improve academic performance and retention. Astin's (1984) model indicated that institutions must invest in their policies and services to increase behavioral involvement, leading to academic motivation. Finally, Kahu's (1993) model showed that a holistic approach was necessary to identify and foster the psycho-social, socio-cultural, and structural influences that lead to student engagement. At the core of student engagement is the sense of belonging (Arjomandi, 2018; Kahu, 2013, 2014; Maslow, 1943; Wong, 2018).

Related Literature

A student's perceived sense of belonging (SoB) is heavily linked to student engagement level (Kahu, 2013). Therefore, it is imperative to examine the previous research for the SoB and student engagement and their relationship. This section will be devoted to laying out the related literature on SoB, identifying traditional and non-traditional students, and influencing the sense of belonging, including student engagement, inclusion, and the institutional investments and policies that must foster students' motivation.

Sense of Belonging

Among the pioneers in research on SoB is Goodenow (1993), who began research on young adolescents' (middle school) perceived sense of belonging and sought to create an instrument of measure for the SoB called the Psychological Sense of School Membership Scale (PSSM). Goodenow and Grady (1993) continued this empirical work using the PSSM instrument on a multi-school correlation study. The scale was designed for mid-adolescent students, and therefore, the analysis was not performed on high schools or tertiary schools (Goodenow & Grady, 1993).

Cockerill (2019) furthered Goodenow's (1993) research in a mixed-method study utilizing the PSSM survey and interviews to determine if special needs students' sense of belonging was affected by shared placement. The study confirmed that the school must provide an environment contingent upon maintaining a higher sense of belonging for the unique student population to succeed in general and alternative education placements. Noting that there is no one-size-fits-all educational method is essential because the minority, special needs, and ethnically diverse groups will bring structural influences that affect their engagement levels and turn their sense of belonging.

Strayhorn (2012) defined belonging as the "degree to which an individual feels respected, valued, accepted, and needed by a defined group" (p. 87). Strayhorn examined multiple ethnic and cultural groups and how the sense of belonging affected their academic success in higher education. Vaccaro and Newman (2016) concurred with Strayhorn that a student's sense of belonging directs motivation, behavior, and academic success. However, Vaccaro and Newman's qualitative personal interviews identified that minority groups struggle with fitting in, finding safety, and respect. The addition of respect in these findings was not seen in Strayhorn's study (Vaccaro & Newman, 2016).

Founded on the theories of Tinto (1987,1993) and Hurtado and Carter (1997), Museus et al. (2017) built on the foundation that belonging was the key to success in college and conducted a large sample survey to determine how campus cultures influenced a student's sense of belonging. Museus et al. initiated research on cross-cultural engagement on campuses. The ideology of using community atmospheres to build belonging is widely accepted in the research literature (Davis, 2019; Duran et al., 2020; Leibowitz et al., 2020; Vaccaro & Newman, 2016).

Gilken and Johnson (2019) posited that the key to student belonging was the active engagement in the university community, not just thinking the student belongs but also actions that indicate belonging. Arjomandi et al. (2018) denoted that to achieve student engagement [and subsequently belonging], an institution must not rely upon active teaching methods but incorporate engagement in all areas of their programs. Zepke (2018) denoted that knowledge is gained through self-directed, experiential learning. Moore-Cherry et al. (2016) indicated that a student's sense of belonging and community is best achieved through community-focused programmatic and curricular systems.

McBeath et al. (2018) studied the positive and negative perceived sense of belonging on the student's overall wellbeing. Under a grounded theory qualitative approach, McBeath et al. determined that peer support was essential for developing a student's sense of belonging and improving their overall well-being. Russell and Jarvis (2019), also building upon Tinto and Hurtado's works, completed a large qualitative survey and interview, concluding that a strong sense of belonging must be cultivated and nurtured throughout the institution.

A student's overall wellbeing is a proximal consequence that is socially related, according to Kahu (2013), which also leads back to Tinto's (1975) theory that paralleled wellbeing with academic and social integration. A holistic approach to achieve student belonging utilizing social and academic integration, student involvement, and engagement is essential to motivate students to achieve academic success. A literature review concludes that the sense of belonging in traditional and non-traditional students and the effects on academic success have not been examined.

Traditional Students

Slaten et al. (2018) sought to determine how the sense of belonging affected college-age students who were traditional undergraduate students between 18 and 25, utilizing multiple validated Likert-scale questionnaires. According to the National Center for Educational Statistics (NCES) (2019), a traditional student is under 25, non-married, has no children, enrolled in college directly out of high school, enrolled full-time, is financially dependent, and lives on campus. Moreover, the traditional student group is essential because, in previous decades, this student group made up most students attending college (Ellis, 2019; Warden & Myers, 2017).

Slaten et al. (2018) determined that in line with previous research (Hoffman et al., 2002; Goodenow, 1993), students' sense of belonging was driven by a desire to have pride in their

university, be actively involved in campus activities, be accepted and know that diversity was a goal of the university, and be engaged with their faculty and staff. Cockerill (2019) utilized Goodenow's methods also determined that relationship building (faculty, staff, and peer) was the single most critical indicator of belonging and engagement at an institution. Slover & Mandernach (2018) noted that traditional students are quickly motivated by high academic marks.

Arjomandi et al. (2018) research also correlated the needs of traditional and non-traditional students on campus. It noted that traditional students typically are second-generation students and have parental guidance navigating university life. Rabourn et al. (2018) indicated that institutional policies and procedures are geared towards traditional students and traditional face-to-face pedagogical approaches. Despite the institutional favoring towards traditional students, Woods & Frogge (2017) denoted that traditional students typically have less resilience in an academic setting than non-traditional students because they have only adopted one role in life, a college student.

Wong (2018) denoted in researching traditional and non-traditional student success based upon social class in the U.K. Traditional students typically came from higher class families and achieved their degree goals. Individual and institutional support is in place for the traditional students from higher class families to persist. Duran et al. (2020) noted that social class directly affects a students' sense of belonging. The social class and second-generation status for attending college are direct structural influences that a traditional student bring into an institution and will have an impact on the institutional structural influences and effectively impact student engagement and belonging (Ahn & Davis, 2020; Buchanan et al., 2019; Rivas et al., 2019).

Mkhatshwa and Hoffman (2019) noted that traditional students were not immune to the stresses, depression, and anxiety that affect all students but struggle with motivation and reaching their goals over non-traditional students. Furthermore, Dumford et al. (2019) examined a large data set from the National Survey of Student Engagement (NSSE) using correlation and regression analysis to determine that students who lived away from campus struggled with loneliness, wellbeing, and academic performance.

Social connectedness, community, and social integration can help curb wellness and depression issues among all students (Jorgenson et al., 2018; Johnson et al., 2016). Bowman et al. (2019) determined through a longitudinal survey study of students in their first semester of college evidence that social connectedness and friendships are vital to a student's sense of belonging and overall wellness. Additionally, positive relationships with family and academic productivity held the next highest importance.

In their qualitative survey study, Crone et al. (2020) determined that traditional students have a greater tendency towards academic entitlement than non-traditional students, such as expectations of preferred grades despite performance or effort. In addition, Crone et al. noted that the lack of diverse life experiences for traditional students could contribute to academic entitlement. As a result, the entitlement could become a negative structural influence that detracts from motivation and engagement.

Whatley et al. (2019) utilized the Academic Entitlement Scale in a large sample survey to determine if academic entitlement was correlated with narcissism. The researchers concluded that male students held higher academic entitlement levels and narcissism, which directly translated to higher self-esteem levels. The findings of Whatley et al. redefine the negative connotation that academic entitlement is an ultimately harmful trait.

Johnson et al. (2016) noted that through a medium sampling of traditional and non-traditional students through a 3-part questionnaire on their motivations for meeting their educational goals. Johnson et al. noted that traditional students held that their ability attributions and cost value were the top predictors for gaining higher academic success. Traditional students weigh the current time and energy costs and benefits to their future earning potential.

Ellis (2019b) noted that traditional students are less motivated academically in-class assessments and activities. The return on investment must be met for this student group to actively participate. They have on-campus resources to lean on for additional academic assistance over non-traditional students (Woods & Frogge, 2017). Astin (1984) determined that student involvement is found in the amount of physical and psychological energy they must expend. If the return on investment is not high enough, they will opt for other activities.

Non-traditional Students

The National Center for Educational Statistics defines a non-traditional student as having one or more of the following predictors, age over 25 years old, often has family and work obligations, enrollment delay, part-time student, financially independent, and commutes to the college (NCES, 2019). Bohl (2017) added to the list, noting that a non-traditional student may not have a traditional diploma or single caregiver. Witkowsky et al. (2016) included commuters, transfer students, and military veterans as additional factors representing non-traditional students.

Markle (2015) noted that in 2011 only one-third of students were considered non-traditional in America, and the projections were anticipated to grow. Rabourn et al. (2018) denoted that 2012 data from the U.S. Department of Education held that non-traditional students made up 62% of the student population. In 2019, the NCES reported that non-traditional students now make up over 74% of the United States' student population. Johnson et al. (2016) noted that

traditional and non-traditional students have different motivational and coping mechanisms which can impact their overall persistence and academic achievement. However, institutions have not adapted their programs or policies to accommodate the different learning styles of these two student groups (Bohl et al., 2017).

Ellis (2019b) posited that regardless of the overwhelming empirical evidence that non-traditional outperform traditional students academically, they still experience higher dropout rates than traditional students. Quiggins et al. (2016) noted that adult [non-traditional] learners differ in intrinsic and extrinsic motivations. In comparison, Quiggins et al.'s (2016) study was not correlative between traditional and non-traditional; they utilized a validated survey of non-traditional students. They noted that self-efficacy and intrinsic motivations such as feedback and skills were more important than extrinsic incentives such as grades. Their most significant barrier to learning was institutional support. The findings from Quiggins et al. (2016) have been replicated in research (Arjomandi et al., 2018; Slover & Mandernach, 2018; Tett et al., 2017).

In their mixed-method longitudinal study, O'Sullivan et al. (2019) identified that non-traditional students require more than academic support; they must have peer and faculty support to create an academic identity and have a sense of belonging within the institution. Cho and Serrano (2020) determined that non-traditional students have a higher level of conscientiousness (organization, discipline, and achievement-focus) than traditional students. Individual maturity levels are likely the cause for their focus. However, their skill levels with computers or recall of mathematics could be lacking due to the length of time they have spent outside of the classroom, dictating the need for tutoring or other academic support.

Crone et al. (2020) determined that non-traditional students do not have the same academic entitlement as traditional students through a large qualitative survey. The lack of

entitlement can come from maturity and is driven by intrinsic motivations to succeed. Karmelita (2020) denoted those non-traditional students face barriers upon entry into higher education such as technology skills, age-related limitations, access to resources that translate into feelings of inadequacy, and resistance to seeking support. The drive and motivation to succeed pushes forward; however, their overall wellbeing would benefit from institutional and academic support.

Lambert (2019) identified the need for digital equity amongst non-traditional students. Since non-traditional students typically do not have the same technical skills as their traditional peers, academic support is necessary to get their skill levels brought up to par quickly. Lambert noted that peer-mentor network groups helped non-traditional students reach their technology goals and establish autonomous learners.

The non-traditional student group comprises numerous ethnic, racial, social, and specialty sub-groups that have specific influences on their motivations for academic success. The sub-group of veteran students is not without its challenges on campus. Jenner (2019) performed a qualitative personal interview with veteran students to determine the barriers to transitioning from military to academic life. The veterans identified that they felt marginalized, judged, stereotyped as dysfunctional or volatile PTSD sufferers, lacked identification with peers, and lacked technical savvy to complete assignments.

Vaccaro's (2015) qualitative grounded theory study of veterans revealed similar findings to Jenner (2019) and noted diversity among veterans. While programs and services help, institutions and educators must communicate with veterans and know them individually. Interviews indicated that faculty often pre-judged the veterans and tried to ignore them in class because of their presuppositions on how the veterans might react or what experiences they might

talk about (Vaccaro, 2015). Institutional diversity training for faculty and staff by trained counselors on recognizing these presuppositions is necessary.

Cureton and Gravestock (2019) utilized a mixed-method approach to study the sense of belonging in ethnic groups (BAME: black, Asian, and minority ethnic). The study determined that ethnic groups differ in their sense of belonging, fluctuating with perceived respect received. If the student feels that they are not respected, they will disengage in participation in the course, which has a massive effect on their sense of belonging and academic success.

Ahn and Davis (2020b) conducted a large sample questionnaire questioning the same correlation as Cureton and Gravestock (2019). Their findings noted that ethnic minority groups struggle more with social engagement and interact better when living on campus. Taylor (2017) stated that international students becoming immersed in a new culture could also benefit from peer groups to navigate the unique cultural experiences. Examining the barriers and influence on all non-traditional students is necessary to understanding the specific needs of the individual subgrouping of minoritized students.

Socioeconomic backgrounds can have a substantial impact on students as well. Lanford (2018) noted in an ethnographic study of non-traditional students who obtained a general educational development (GED) degree and began college later in life carrying wounds from socioeconomic upbringing. The student's past scars left them in need of institutional support and gave them the resilience to persevere. McCall et al. (2020) denoted that minority and low-socioeconomic standing non-traditional students were often discarded as too high-risk and not worth the effort by their institution. The value and experiences the non-traditional students brought to the college setting were not seen as advantageous.

According to Modenos (2020), the same characteristics can be found in first-generation students and minority students classified as non-traditional students. Modenos noted that they required extra support, high-touch advising, student-run group mentorships to gain the spirit of persistence. Each student carries their presuppositions, experiences, hurts, and burdens. Institutions must be diligent in recognizing the structural influences that make each student unique and the motivations they need to succeed.

Influences on the Sense of Belonging

Student Engagement

Kuh (2009) defined student engagement as "time and effort students devote to activities that are empirically linked to desired outcomes of college" (p. 683). An institution must entice a student to participate in activities. Zepke (2015) later defined student engagement as a "narrowly set of student and institutional behaviors … a socio-cultural ecosystem" (p. 1311). Zepke (2015) posited that rooted in engagement are self-efficacy, wellbeing, social and academic integration, and success.

Ahn and Davis (2020a) used a large survey study to add to this list of two previously unknown domains linked to student engagement: surroundings and personal space. Surroundings included living spaces geographical and cultural locations. A students' personal space is comprised of self-identity, personal interests, life satisfaction, and self-esteem. Both new contributors relate directly to student success and wellbeing (Ahn & Davis, 2020).

Smyth et al. (2019) denoted through a large quantitative survey study that students can struggle to achieve their new self-identity as a student. Furthermore, the research suggests that the inability to conform to their new role can result in performance undermining behaviors like

procrastination and lower test scores. Therefore, acclimation and social inclusion interventions are necessary to achieve self-identity and belonging, especially in non-traditional students.

Through a longitudinal case study, Kahu et al. (2020) determined that four contributors define a pathway to student engagement; self-efficacy, belonging, emotions, and well-being. A student will engage on a behavioral, cognitive, and emotional level as they interface with their educational journey (Kahu et al., 2020). Turner et al. (2017) conducted an immersive ethnographic study. They determined that self-efficacy is measured through successful completion of academic tasks on a longitudinal basis, which leads to a higher sense of belonging. Bandura (1982) defined self-efficacy as "judgments of how well one can execute courses of action required to deal with prospective situations" (p. 122).

Self-efficacy is part of student engagement that is typically seen in correlation with building student engagement and belonging (Arjomandi et al., 2018; Ellis, 2019a; Leibowitz et al., 2020; Warden & Myers, 2017; Won et al., 2019). Johnson et al. (2016) noted that in addition to self-efficacy, their regression analysis concluded that peer and faculty support fosters a non-traditional student's academic achievement. Through semi-structured interviews, Botha et al. (2019) determined that a student's well-being is influenced by how well they master tasks, find personal growth, and become independent learners. Many factors impact student engagement; however, most research conducted is qualitative and does not provide large sampling or rigor.

Connections such as peer and faculty support can be expressed in different ways. Bohl et al. (2017) determined through open-ended interviews with non-traditional students that because of generation gaps, many non-traditional students had trouble relating to peers, and faculty members openly expressed discrimination against them for being non-traditional students. Furthermore, Bohl et al. (2017) delineated that peer, family, and were identified as pivotal roles

in their support system and overall success. Masika and Jones (2016) concurred with the need for peer communities in their appreciative inquiry approach study, noting that self-supported peer groups and study groups can increase students' sense of belonging.

Witkowsky et al. (2016) mimicked Bohl et al. (2017) finding but added that faculty withheld academic feedback that directly impacted non-traditional students' social and academic engagement. Research has determined that academic and social engagement are crucial for a student to function independently (Ahn and Davis, 2020b; Boulton et al., 2019; St-Armand et al., 2017). Turner et al. (2017) deduced that supportive peer networks create a purposeful engagement that fosters a student's sense of belonging.

Through a small quantitative survey, Buskirk-Cohen and Plants (2019) discovered that a few aspects emerged, positively affecting students' sense of belonging and academic success; academic and social support. The study determined that social acceptance, feeling valued by their professors, the professors expressing a caring environment increase their self-confidence and grit [determination]. The approval, value, and engagement motivated the student to persist.

Arjomandi et al. (2018) measured student engagement utilizing Kahu's conceptual framework in a survey format. Arjomandi et al. (2018) determined a positive correlation between student engagement and motivation through correlation analysis. Zepke (2018) noted that motivation to learn is a key element to student engagement. Traditional students expressed higher academic engagement than non-traditional students; this is elevated when active learning techniques are implemented (Ellis, 2019b).

Rabourn et al. (2018) denoted that non-traditional students are a diverse population with many unique barriers to their learning, including family obligations, time constraints, workload, and often geographical limitations to their education. Karmelita (2020) concluded that not every

non-traditional student expressed issues caused by the common barriers; often, the obstacles were situational. Therefore, institutions must have policies and procedures to provide support for all students. The barriers can also become motivations for persistence.

Social engagement is another critical part of student engagement that works in conjunction with academic engagement. Moore-Cherry et al. (2016) posited that social engagement should be seen as a partnership between students, staff, faculty, the institution, student body representatives, and external bodies and organizations that engage students throughout their academic careers. Kahu and Nelson (2018) addressed social engagement and its interplay with belonging as unique to the individual's emotional and behavioral needs and directly impacted wellbeing.

St-Armand et al. (2017) agreed that emotional wellness was fundamental to a student's sense of belonging. Further, Kahu and Nelson identified that student social and academic engagement must be a partnership between the institution and the student and be fulfilled through a symbiotic relationship. Xerri et al. (2018) determined that positive student-teacher relationships can impact the perception of a higher workload and engagement levels through a medium-sized survey study. Students in a good relationship with their instructors are more likely to see the workload as reasonable and beneficial to their academic endeavors.

Through a literature review, Taylor et al. (2019) found that first-generation and international students thrived more when introduced to service-learning, experiential learning, and active learning because it integrated them into the college and provided a social community of belonging. Furthermore, Wekullo (2019) found that international students often experience perceived social discrimination through a systematic literature review. The literature review

determined that while they are less likely to engage in on-campus activities, they thrive in active learning settings and personal development.

Buchanan et al. (2019) concurred with these findings with an experimental study of minority and at-risk non-traditional students, identifying that a pre-matriculation program and peer-assisted groups led to lower anxiety and increased relationships with students, staff, and peers, in turn, afforded the students' academic success. These subgroups of non-traditional students have been underrepresented in research for years and require added support but warned that institutions should not compromise their elite standards (McCall et al., 2020).

Boulton et al. (2019) utilized a longitudinal survey study in the U.K. While engagement can include multiple activities that can motivate a student both academically and socially, academic success is demonstrated when their effort and happiness express a student's overall wellness. Roksa and Kinsley (2017) identified through a large survey study that family and peer emotional support directly affects students' overall wellbeing, impacting their social and academic engagement. These findings correlate directly to Kahu (2013) with the impact of psycho-social support on student engagement. Students' overall well-being directly affects their engagement levels and subsequently has proximal and distal consequences on their academic success.

Schindler et al. (2017) performed a literature review on student engagement and determined that students must be challenged academically through a higher level of thinking. Furthermore, incorporating technology in conjunction with peer and faculty interactions promotes higher levels of student engagement. Zepke (2018) emphasized that the teacher is essential to how a learner engages, challenging students, providing more analytical levels of thinking, and more profound learning experiences will provide the most engaging experience.

However, Macfarlane and Tomlinson (2017) critique the proposed methods of assessing engagement, noting that they exclude the less quantifiable engagement outcomes such as higher orders of thinking, note-taking, and experience. Faculty must foster learning that stretches the student academically while building positive student-teacher relationships.

Hatch and Bohlig (2015) noted that institutions could increase student engagement through adequately designed programs. Rangvid (2018) studied student engagement through a large-scale survey and determined that four indicators of student engagement existed, motivation and effort, participation in social activities, participation in learning activities, and belonging and wellbeing at school. Further, Rangvid (2018) correlated that student engagement was necessary for student inclusion.

Inclusion

Witkowsky et al. (2016) utilized the Student Inclusiveness Survey (SIS) to determine inclusion's non-traditional student perception. They noted that students questioned the institution's ability to safeguard against discrimination, offering after-hours support services, and a shared disconnect with social inclusion in the classroom. Wong (2018) also noted that institutional diversity services could create a culture that fosters student/peer and student/faculty social inclusion. Peters et al. (2019) determined that students require a culture that allows them to voice and engage in activities through a literature review. Gilken and Johnson (2019) utilized peer feedback to intentionally spur social interactions and create a sense of community within the student population, noting that integration will generate a greater sense of belonging.

Through a mixed-method study, Jorgenson et al. (2018) determined that student connectedness, wellness, and social integration are related to their expressions of social identity and social involvement. Faculty members can foster connectedness through engagement

activities in the classroom. Astin (1984) theorized that active involvement and participation in the classroom would increase motivation. The motivation and engagement provide the student with a sense of identity at the school.

Gizir (2018) determined that students experience high levels of loneliness and low integration (identity) through a large quantitative survey unless the faculty and staff provide positive relationships and classroom climate. Faculty must establish and maintain connective relationships, supportive behaviors, and be relatable. Gizer further noted that peer social relationships also contributed to the positive connective community climate.

Hurtado and Carter (1997) discussed a psychological sense of belonging as the student's inclusion in a college community. Furthermore, Botha et al. (2019) studied student wellness (psychological, social, and emotional) and determined through semi-structured interviews that the most prominent factor contributing to inclusion at a university is the social relationships built through the university's experiences. Finally, Moore-Cherry et al. (2016) concluded that building a student's confidence, trust, and respect levels in a learning community will result in a more profound sense of academic identity, self-efficacy, engagement, and belonging.

Through a large survey study, Ahn and Davis (2020a) determined that positive social interactions are the key to students' sense of belonging and success. The students' social interactions identified mainly by providing the most profound connections were clubs, sororities, and campus activities. Xerri et al. (2018) noted that positive social peer and faculty relationships motivate study, and therefore students are more successful.

Inclusion can be difficult for minorities or culturally-mixed students who struggle to adapt to a new college community atmosphere and social norms. Rivas et al. (2019) determined that institutions must provide international students with social and cultural integration

opportunities to succeed through qualitative interviews. Leibowitz et al. (2020) noted that the college community was correlated with active engagement and self-efficacy making it critical for students to feel included as valued members of the institution.

Cook-Sather (2018) conducted a significant interview study of the inclusion and belonging of minority and culturally diverse students. The study concluded that institutions must facilitate an inclusive environment that intersects students' identities on campus without losing their identity outside the campus. Peters et al. (2019) noted that students must feel welcomed and engaged from day one.

Krafona (2018) posited that an academic community must provide a healthy outlet for expression and address all students' social, spiritual, and learning needs. Kahu et al. (2020) denoted that the common complaint among students included workload, illness, and lack of time. These structural influences on the student's overall wellness are not institutional issues but could be reiterated institutionally as part of wellness and physical activity initiatives. Teaching students to be intentional about taking breaks, using good study habits, and being physically active will increase their overall wellness and satisfaction with school.

Ellery (2019), while researching secondary education students, noted that the sense of belonging could be fostered through inclusive practices in the classroom, such as a welcoming environment, peer and teacher relationship building, inclusive practices (supporting participation), and staff support. Millard (2020) determined through a mixed-method case study and questionnaire that students who participate in work-study or student worker positions will develop a greater sense of community among the staff. Furthermore, the student workers developed practical life skills, and the experience gave them a newfound motivation and inclusion at the institution. Through qualitative interviews, McBeath et al. (2018) concluded that

work-study programs alongside peer support could lower stress and increase students' mental health and confidence.

Warden and Myers (2017) identified that student inclusion must consist of proper motivation, cognitive challenges, and self-efficacy. Whitowsky et al. (2016) identified motivations, engagement, and institutional support as academic and individual validation within inclusion's perception. Institutions can regularly track these validations through student surveys to ensure that inclusion is achieved.

Won et al. (2018) identified through a large quantitative survey within the U.S. The SoB is divided into two classes: peer and school belonging, which directly impacts students' self-regulated learning and cognitive and behavioral engagement. Kahu and Nelson (2018) noted that the manifestation of inclusion for students could be influenced by academic self-efficacy, perception of personal capabilities, belonging, sense of connection to the institution, discipline and people, and wellbeing. These factors can be altered by emotions, stress, and life load.

Through a case study, O'Sullivan et al. (2019) determined that students will develop a higher sense of inclusion as they build relationships with faculty, staff, administration, and other students. The sense of belonging and inclusion was made as they became comfortable with expectations, gained self-efficacy, and built their identity as a prosperous student. O'Sullivan's work directly correlates with the findings of Kahu (2013), which determined that the psycho-social influences of relationships between the institution and the student were critical for keeping the student engaged, directly impacting their sense of belonging.

Labouta et al. (2019) developed a framework for analyzing curriculum reviews. They noted that learning-focused student input is valuable in determining if the curriculum is inclusive and meets the student learning outcomes' academic needs. Higher education institutions must

make continual efforts in choosing if their programs are inclusive for all students. Peters et al. (2019) concurred that allowing students to voice their insight into curricular design and methods gives them active participation and understanding of the processes. Costello-Harris (2019) determined through data mining that colleges and universities must demonstrate on their websites evidence of inclusion to draw in potential students, especially in the areas of academic and human support.

Many institutions utilize reactive policies when students show signs of academic struggle. Taking a more proactive approach will foster a greater sense of inclusion and support for students by recognizing barriers and limitations to success identified through academic research. For example, Garzón-Umerenkova and Gil-Flores (2017) determined that all students experienced varying academic procrastination levels through a large survey. However, non-traditional students are notorious for procrastinating academic tasks over traditional students.

Guided intervention and counseling on setting academic goals and tools for study and time management could help students overcome the limited study time that often causes procrastination. Through a quantitative survey, Cho and Serrano (2020) denoted that self-efficacy, grit, and time management directly correlate to a higher GPA and academic achievement. Proactively fostering these skills at the institutional level will equip students to succeed and increase their sense of belonging. Millard (2020) determined that students who work while going to school develop skills necessary for future employment. There is no direct academic impact caused merely by a student working a job while attending college.

Glowacki-Dudka (2019) posited that the inclusive services that motivate non-traditional students include the flexibility of office hours and student services. The intentional added flexibility and ease of navigating the administrative tasks can provide anxiety-relief for students

struggling to get time off of their primary jobs to attend to these needs. Rivas et al. (2019) proposed that all campuses make the inclusion of all students a priority, providing a holistic approach to academic and social support programs creating a local community of support on campus.

Institutional Investments

Hermida (2010) noted that institutions must take a role in empowering their students for success. Further, institutions must develop pre-matriculation programs to prepare underprepared students and culturally inclusive programs that foster institutional belonging. Quiggins et al. (2016) also resolved that institutions must change policies to be more inclusive of non-traditional students extending hours, mentor programs, online resources, and evening social activities.

Tett et al. (2017) utilized a constant comparative method interview approach to examine students' transitional phases in college. The research determined that institutions must foster peer support, have engaging staff, have services in place for counseling and tutoring, and foster lasting relationships with the students. Webb and Cotton (2018) also noted that it is challenging to keep students engaged with attending tutoring long term due to a negative connotation that they are incapable of completing the required work without assistance. Therefore, institutions must remove this stigma and create a safe environment that enhances students' confidence and skills.

Rivas et al. (2019) determined that an international student's culture can impact their perception of tutoring services through case study interviews. Many cultures foster self-sufficiency, especially in male students, and seeking academic support would signify a character deficiency. Wekullo (2019) agreed that international students have specific needs for support due

to their host countries' cultural differences. Institutions must be proactive in providing peer and mentoring support and additional time to adapt to the new culture and expectations.

Garzón-Umerenkova and Gil-Flores (2017) noted that non-traditional students were extreme proponents of procrastination. Suggesting that more significant support efforts from institutions on academic orientation and pre-matriculation programs that teach time management skills, building academic testing skills, and study habits could curb some of the issues with procrastination. Karmelita (2020) performed a qualitative narrative study that agreed that pre-matriculation programs were beneficial to non-traditional students by removing some of the transitional barriers that could put non-traditional students at risk for poor integration.

Lanford (2018) denoted that many students also struggle with unclear instructor expectations that thwart their confidence and cause them to question their college readiness. Zepke (2018) concluded that supportive institutions must include clear expectations and continually improve support services. However, spending more money will not improve student engagement alone. Bowers et al. (2020) also determined that pre-matriculation programs that foster cohort communities increase the sense of belonging in all students through a large survey. The pre-matriculation programs foster student involvement and engagement while providing skills training and a peer network.

Lee et al. (2016) posited that concept mapping and problem-solving pedagogical approaches increased critical thinking and higher thinking levels for non-traditional students. The higher levels of thinking increase student engagement (Schindler et al., 2017). Masika and Jones (2016) determined that institutions must cultivate provisions for learning aids. In addition, institutions must support both academic and extracurricular activities. Gilken and Johnson (2019) noted that instructional intervention and policies structured around active participation in the

instruction, such as peer feedback and developing an academic community, will anchor a student to the institution and increase belonging.

Remenick (2019) determined through a literature review that institutional support should include the following policies and investments, willingness to adapt to cultural and societal needs, provide flexibility in services offered and access to courses, and availability of resources. The key to maintaining student commitment to an institution is the same institutional support combined with increasing the student's return on investment through direct and indirect involvement (Zainol et al., 2018). Therefore, institutions must market their programs with higher direct student engagement and involvement levels.

Zilvinskis et al. (2017) determined that the 2013 version of the NSSE survey, while having the limitations accompanying any self-reported survey, identifies areas for institutional action and enhancement in student engagement. The action areas included learning outcomes, academic and interpersonal relationships, and a supportive campus environment that offers a sense of belonging for all students. Mkhatshwa and Hoffman (2019) discovered through a mixed-method survey study that while many non-traditional students like the flexibility of online courses, given a choice, they would prefer to attend hybrid classes that incorporate face-to-face interactions.

Besides staff support within the institution with creating a community environment, pedagogical approaches are another way institutions can fail student groups to foster a sense of belonging. York and Fernandez (2018) conducted a quantitative correlation survey to deduce a curvilinear relationship between service-learning and the sense of belonging. York and Fernandez concluded a positive relationship between service-learning courses and a sense of belonging.

Through a validated literature review, St-Armand et al. (2017) determined that students thrive and have a higher sense of belonging when cooperative or team-style active learning strategies are applied. Ribera et al. (2017) identified service-learning as the highest impact practice an institution can utilize to increase student engagement. Active learning and the sense of belonging have been confirmed in multiple studies (Arjomandi et al., 2018; Ellis, 2019b, St-Armand et al., 2017; Taylor et al., 2019).

Masika and Jones (2016) agreed that team learning is beneficial for cultivating a sense of belonging, but team exercises can also cause tension and frustration. Many students acknowledged that the activities were academically valuable but getting all students to follow a timeline and participate became challenging. Instructors must find methods that ensure all students participate evenly in group activities.

Peacock and Cowan (2019) emphasized that all learning environments need to have a sense of belonging perpetuated for student success. Labouta (2019) also focused on the need for institutions to be inclusive by adopting learning-focused approaches over teaching-focused approaches in curricular reviews, thus enabling students to provide pedagogical feedback on how well they learn the required objectives. Empowering the students to provide feedback gives them a sense of belonging and inclusion in the process, ensuring that the institution values their opinion.

Museus et al. (2017) denoted that an institution must foster a culturally engaging campus environment. They accomplished engagement through cultural community services, cross-cultural engagement, cultural validation, familiarity, knowledge, proactive philosophies, and holistic support. In their case study, Heagney and Benson (2017) determined that institutions must provide advising, flexibility, practical learning, diversity support, feedback, and

encouragement on an institutional level to achieve academic and peer support for non-traditional students.

Slaten et al. (2018) concurred that diversity and acceptance were critical for developing a sense of belonging. Most institutions of higher education still cater to traditional students. Institutions have not adopted any policies to improve inclusion and belonging for non-traditional students; with additional support through flexible programming, policies, and services, institutions can make strides to become inclusive to all students (Rabourn et al., 2018). The policy changes will indicate that the students are valued, and enrollment is encouraged along with persistence.

Institutional policies and practices that can work around students' growing needs will enhance the acceptance and meet all students' needs. Ribera et al. (2017) denoted through the NSSE survey that institutions have high-impact practices that directly impact student inclusion and belonging. The highest impact practices include service-learning and community projects, undergraduate research, and internships, leading to an increased sense of belonging, academic success, and leadership skills.

Many researchers believe that additional policies and regulations of higher education are beneficial. Macfarlane and Tomlinson (2017) criticized governmental overstep, regulating a higher education institution's pedagogical approaches and practices. Government over-regulation does not allow for freedom in teaching methods by the instructors to adapt to individual students' learning styles. The researchers identified through a literature review that students may become infantilized or the pedagogical approaches become mere games. As a result, students could not perform life-ready experiences and skills (Macfarlane & Tomlinson, 2017). Zepke (2020) echoed many of the same issues with government regulations to achieve engagement, causing a generic

view of learning that does not support the higher learning level that is beneficial to actual student engagement.

Webb and Cotton (2018) discovered that institutions often neglect student satisfaction throughout their careers through a longitudinal qualitative survey. Increasing students' social and academic engagement will keep their satisfaction levels higher. However, an institution must be diligent about assessing these levels on a longitudinal basis. By creating flexible and inclusive policies and practices, fostering relationships, and providing services to support college transition, institutions can perpetuate a sense of belonging and academic success in all students.

Summary

The theoretical framework for the sense of belonging (SoB) for students has been defined and expanded upon utilizing three theories, Tinto's (1975) model of retention, Astin's (1984) theory of student involvement, and Kahu's (1993) theory of student engagement. The necessity to include all three theories was to develop a holistic approach to the sense of belonging. The SoB has multiple areas that influence the students' sense of belonging. From Tinto's (1975) theory, the utilization of academic and social integration leads to increase motivation and engagement (Arjomandi et al., 2018; Warden & Myers, 2017). Astin's (1984) theory noted that policies, services, and involvement would increase motivation in the form of a return on investment (Linder et al., 2018; Ellis, 2019a; Zainol et al., 2018). Finally, Kahu's (1993) theory creates a structural guide for influences on engagement (structural, psychological, relationships, and behaviors) that have positive and negative consequences (wellbeing, satisfaction, academic, and social engagement). Utilizing a holistic approach to SoB, engagement (Ellis, 2019a, Arjomandi et al., 2018; Rabourn et al., 2018), inclusion (Ellis, 2019b; Whitowsky et al., 2016; Museus et al., 2017), and institutional investment (Bohl et al., 2017; Johnson et al., 2016;

Quiggins & Hoffman, 2019) have the most considerable effects on achieving SoB and academic achievements. The current study seeks to determine what levels of a perceived sense of belonging in higher education exist and if the perceived sense of belonging impacts academic success. The data gained from this study will provide direction for institutions on increasing institutional inclusion for all students.

CHAPTER THREE: METHODS

Overview

The purpose of this quantitative causal-comparative and predictive correlation study will be to investigate the differences in the sense of belonging scores for traditional and Non-traditional students. The rationale for the research methodology and definitions of the predictor variables and criterion variables will be noted. Next, the research questions will be reiterated along with the corresponding research null hypotheses. The participants and settings will be identified with detail given to the sampling procedures utilized. The instrumentation used, Yorke Belongingness Survey in Higher Education, will be described along with the history of development and accuracy validations for the instrument from literature. The processes for securing permissions for the instrument's use and securing IRB approval will ensure that the methods used in this study can be replicated. Next, the study's procedure will be delineated, including the scales of measurements, scoring procedures, training, and tests for reliability, data collection, and statistical analysis. Lastly, the data analysis techniques and rationale for each assumption will be addressed.

Design

The proposed study will employ both a quantitative causal-comparative design and a quantitative predictive correlation design. A causal-comparative design determines the cause-and-effect relationship between two independent variable groups and identifies if those groups differ on the dependent variable (Gall et al., 2007). Gall et al. (2007) noted that a causal-comparative design and correlation design are readily used together because the researcher can easily change the analyzed variables (p. 307). The predictive correlational design utilized in

Research Questions Two and Three will investigate the statistical relationship's strength between the predictor and criterion variables (Warner, 2013).

The aim of RQ1 is to determine if the independent variable differs from the dependent variable. The independent variable is the student's enrollment status with two groups, traditional or Non-traditional students, enrolled in the Senior Seminar Course. The dependent variable for RQ1 is the student's perceived sense of belonging score.

A traditional student is defined as a student who has the following criteria: under the age of 25, non-married, no children, enrolled in college directly out of high school, enrolled full-time, financially dependent, and lives on campus (NCES, 2019). A Non-traditional student is defined as a student with one or more of the following predictors, age over 25 years old, often has family and work obligations, enrollment delay, part-time student, financially independent, and commutes to the college (NCES, 2019). The dependent variable for RQ1 is the overall scoring of the perceived sense of belonging. These two student groups are diverse in their learning styles, experiences, and influences directly affecting their education motivations. The sense of belonging is defined as the level of social interaction (academic and social) that enhances a students' identity with their college (Hurtado & Carter, 1997), a basic human need and motivation sufficient to influence behavior (Strayhorn, 2012).

For Research Questions Two and Three, a predictive correlation design will be utilized. This design will allow the researcher to identify if the predictor variable, students' perceived sense of belonging, predicts the criterion variable of the student's academic achievement (GPA) under two different populations, traditional (RQ1) and non-traditional (RQ2) students. Academic achievement will be defined as students' self-reported GPA.

Evidence-based research found correlating the student's sense of belonging has previously focused on one class (Davis et al., 2019; York & Fernandez, 2018) or only select students through the use of the National Survey of Student Engagement (Rabourne et al., 2018; Dumford et al., 2019). The deficiency has left a need to explore second and third-year classes at four-year public institutions. Further, the relationship between the student's perceived sense of belonging (predictor) will be correlated against the student's self-reported GPA score (criterion) to determine if the sense of belonging positively or negatively affects the student's academic achievement.

Research Questions

The proposed research will seek to answer the following questions:

RQ1: Is there a difference in the students' sense of belonging between traditional and Non-traditional students in a rural private university in West Texas with several campuses nationwide?

RQ2: Can traditional students' sense of belonging predict students' academic achievement (GPA)?

RQ3: Can Non-traditional students' sense of belonging predict students' academic achievement (GPA)?

Hypotheses

The null hypotheses for this study are:

***H*$_0$:** There is no statistically significant difference in undergraduate college students' sense of belonging between traditional and Non-traditional students as determined by the Yorke Belongingness Survey in a rural private university in West Texas with several campuses nationwide.

***H*$_1$:** There is no significant predictive relationship between the predictor variable, sense of belonging score (determined by the Yorke Belongingness Survey), and the criterion variable, academic achievement (GPA), for traditional students in a rural private university in West Texas with several campuses nationwide.

***H*$_2$:** There is no significant predictive relationship between the predictor variable, sense of belonging score (determined by the Yorke Belongingness Survey), and the criterion variable academic achievement (GPA) for Non-traditional students in a rural private university in West Texas with several campuses nationwide.

Participants and Setting

The participants for this quantitative, causal-comparative, and correlation study will be ascertained utilizing a purposeful sample of undergraduate students who consist of traditional and Non-traditional students attending a four-year undergraduate degree at an urban, southern, private institution in the Fall 2021 semester in West Texas. Gall et al. (2007) noted that purposeful sampling provides “information-rich” data useful to the study.

The students' self-reported surveys will include a demographic questionnaire. The questionnaire will be used to determine the student enrollment status groups of traditional or Non-traditional. The researcher will code the answers to indicate an affirmative or negative response to the demographical questions at the beginning of the survey. A traditional student will be of the ages 24 and younger, is financially dependent upon someone else, is not married nor has children, works part-time or less, and speaks English as a primary language. Non-traditional students will be 25 and older and possess one or more of the following criteria, married, has children, financially independent, military veteran, or English as a second language. However, suppose a student age 24 or younger possesses any of the following criteria. In that case, they

will be categorized as Non-traditional: married, has children, works full-time, financially independent, military veteran, or English as a second language. The student will additionally self-report their GPA from a categorical list of grade ranges to determine academic achievement.

The demographical breakdown of the traditional participants is *n* = 41; *n* = 41 age below 25 with ethnicity *n* = 17 Caucasian, *n* = 06 African American, *n* = 15 Hispanic, *n* = 00 Asian, *n* = 01 Pacific Islander, *n* = 01 Other; marital status, *n* = 41 unmarried, and financially dependent yes *n* = 29, no *n* = 12. The Non-traditional participants demographic breakdown is *n* = 87; *n* = 87 age above 25 with ethnicity *n* = 26 Caucasian, *n* = 10 African American, *n* = 36 Hispanic, *n* = 02 Asian, *n* = 00 Indian, *n* = 08 Pacific Islander, *n* = 03 other; marital status, *n* = 69 married, *n* = 18 unmarried, works full-time (over 30 hours) yes *n* = 69, no *n* = 18); financially independent yes *n* = 19, no *n* = 68; veteran status, yes *n* = 17, Active duty, yes *n* = 7, no *n* = 63; and English as a second language, yes *n* = 13, no *n* = 74.

Demographic breakdowns of the overall sample are broken down by the student population groups, traditional and Non-traditional. As depicted in Table 1 Demographics of Sample, each student population group is represented similarly based on gender. The number of white and Hispanic participants in both settings exceeds all other ethnic areas but reflects proportionately to the demographics of the site locations of the sampling.

Table 1

Demographics of Sample

Baseline Characteristic	Traditional Students	Non-traditional Students
	n	*n*
Gender		
Male	23	18
Female	36	49
Nonbinary/Other	0	2
Ethnicity		
White	17	26
Black/African American	6	10
Hispanic	15	36
Asian	0	2
Indian	1	0
Pacific Islander	1	8
Other	1	4

The purposeful sampling of participants will be chosen by the criterion of being part of the Senior Seminar Course. The researcher will select nearly equal amounts of traditional and Non-traditional students for the sampling to achieve population validity. Contact with the Director of Student Success will confirm agreement to participate by the institution. An introductory email will be sent securely through the student's college email introducing the study and voluntary participation status (see Appendix E for Information Eliciting Participation).

The sample size was 144 (1 survey was ineligible, 15 were incomplete, leaving 128 complete surveys when assuming a medium effect size. The average class size is 298 students with a 48.3% return rate on the survey (n = 41 traditional, n = 87 traditional; male n = 59, female n = 67, non-binary n = 2, decline to answer n = 1) with an equal sampling of male and female participants. According to Gall et al. (2007), 100 students are required minimum when assuming a medium effect size with a statistical power of .7 at the .05 alpha level. Further, Warner (2013) noted that the .05 alpha level is the highest level of risk acceptable for Type 1 errors and utilizes Cohen's d (1998) to test the sample size's reliability.

The survey setting will begin during the Senior Seminar Course when an announcement is made by the Director of Student Success, introducing the participants to the survey and being watchful for the emails over the next few weeks. Instructions for the administration will be sent before the announcement (see Appendix B Administration Instructions for Instrument). Then, the participants will receive an email through their university email address to complete the voluntary Qualtrics survey online utilizing the secured link.

Instrumentation

The instrument used for this quantitative causal-comparative and predictive correlational study is the Yorke Belongingness Survey in Higher Education (YBS) (see Appendix A for Yorke Belongingness Survey) was developed by Mantz Yorke (2016). The purpose of the YBS, as utilized by Yorke (2016) and 13 universities within the United Kingdom, was to measure the students' perceived sense of belonging based upon demographical groupings. After extensive literary research and pilot testing of the survey questions, the instrument was confirmed to be a reliable and valid instrument (Leibowitz et al., 2020; Gilken & Johnson, 2019). Cureton and Gravestock (2019), in a mixed-method study, Leibowitz et al. (2020) and Ahn and Davis (2020b)

in the creation of the Sense of Belonging Survey for Bangor University confirmed The Yorke Sense of Belonging Survey to be a reliable and valid instrument. The survey will be administered to students during their second semester of the academic year.

Ahn and Davis (2020b) utilized the YBS in their large mixed-methods study of how students' sense of belonging and socioeconomic status affects their social and academic engagement levels. Ahn and Davis (2020b) utilized Yorke's validated questions on the sense of belonging in conjunction with other instruments to understand relational factors on campus for students. Cureton and Gravestock (2019) utilized the entirety of the YBS on a large sampling of students in a mixed-method study to determine if students of different ethnicities had a higher or lower sense of belonging with their institutions. Cureton and Gravestock (2019) noted that the YBS was chosen because it measures three subscales of belonging; engagement, belonging to faculty or department, and academic-related self-confidence.

The students' perceived sense of belonging will be measured by the Yorke Belongingness Survey in Higher Education through close-ended questions to determine the effects (Creswell & Creswell, 2018) of institutional inclusion or non-inclusion. Creswell and Creswell (2018) recommended selecting a research method based on the research problem and types of questions being proposed, personal experience, and the audience. In choosing a research approach Boeren (2018) noted that qualitative research is abundant among adult education journals that focus on what a problem is and not the why of the problem; this is a primary reason for selecting quantitative research.

The Yorke Belongingness Survey in Higher Education questions were constructed of research from validated instruments from Goodenow's (1993) national surveys in the UK and Australia. James et al. (2010) and Yorke and Longden (2007) included sections on

belongingness, academic engagement, and self-confidence that are confirmed to lead to increased camaraderie, a greater sense of belonging, and inclusion (Yorke, 2016). The 29-question survey contains self-reported responses scored on a five-point Likert scale ranging from strongly agree, tend to agree, neutral, tend to disagree, strongly disagree. Questions 17-29 are additional demographic questions that provide needed data for understanding the belongingness scores but remain optional. Non-responses will be omitted. Each question is given a 1-5 scoring resulting in a total possible score of 16 minimum (indicating a high perceived sense of belonging to 80 points maximum (indicating a low perceived sense of belonging). Yorke (2016) conducted pilot testing on the questions and used Pearson product-moment correlation analysis to analyze the mean scores between each section to the overall scoring.

Warner (2013) noted that Likert scales provide total scores that can be normally distributed. Further, Gehlbach and Brinkwork (2011) posit criteria for making valid research instruments, for which Yorke's instrument followed their techniques. Finally, Fredericks and McColskey (2018) noted that self-reporting is the most common method utilized by researchers to ascertain student engagement and belonging. Therefore, instructions, the scope of research, and Frequently Asked Questions will be given to the institution's staff and faculty to engage and inform them before releasing the survey instrument email (see Appendix B for Administration Instructions for Instrument). The survey will take approximately 5-10 minutes to complete. Results will be collected from the Qualtrics website to be analyzed after the 2-week completion deadline has passed. Reminders will be sent via email at one week lapsed and with one day remaining in the survey as recommended by Creswell & Creswell (2018).

The instrument's reliability will be confirmed by utilizing Cronbach's Alpha (α) coefficient to determine internal consistency (Creswell & Guetterman, 2019). The coefficients

for each sub-scale (strongly agree, tend to agree, neutral, tend to disagree, strongly disagree) will provide consistency among the scores (Creswell & Guetterman, 2019, p. 165). The self-reported GPA will be identified categorically on the following scale: 1.0-1.4 D; 1.5-2.4 C; 2.5-3.4 B; or 3.5-4.0 A. To get a target sample size, a power analysis for a correlation study with one independent variable with two groups, Non-traditional and traditional students, and one predictor variable (sense of belonging) utilizing the formula (Sample Size $r^2 = 104 + m$) as recommended by Tabachnick and Fidell (2001) to determine the sample size using an alpha (α) of 0.05, a power (1-β) of 0.80, and medium effect size ($f = 0.25$). Based on the assumptions, the desired sample size is 126 (Creswell & Creswell, 2018, p. 151). The surveys collected totaled 00, securing validity in the sample size.

Yorke and Lancaster University granted permission to use this instrument (See Appendix C for Permission to Use Instrument). The Yorke Belongingness Survey in Higher Education was chosen over other instruments because this research seeks to determine if Non-traditional students perceive a higher sense of exclusion at their institution over their traditional student peers. Recent research has indicated that Non-traditional students experience exclusion that derives from faculty and administrative bias regarding their age, experiences (Woods & Frogge, 2017), reduced communications and feedback from faculty (Rabourne et al., 2018; Ellis, 2019a), and inflexible policies and scheduling (Witkowsky et al., 2016). Arjomandi et al. (2019) noted that Non-traditional students fall into the same diversity category as those discriminated against based upon gender, race, ethnicity, or disability; this discrimination leads to struggles with a sense of belonging and engagement.

Procedures

The researchers will gain permission to conduct the Qualtrics survey via email for the

undergraduate students at the four-year southern private institution. Once authorization has been granted, the researcher will gain Institutional Review Board (IRB) permission to conduct human survey testing (see Appendix D for IRB Approval). Students will be sent an email with a cover letter explaining the research and their voluntary participation in the survey (see Appendix E for Letter Eliciting Participation). The student participant will click a link within the email which will subsequently take them to a secure website hosted by Qualtrics survey. The first page of the survey will be the Voluntary Consent Form (see Appendix F for Voluntary Consent Form). Once the students click to continue, their consent to participate in the survey has been granted. The survey includes 29 survey questions with an additional ten demographic questions. The final demographic question regarding self-reported GPA will be identified categorically on the following scale: 1.0-1.4 D; 1.5-2.4 C; 2.5-3.4 B; or 3.5-4.0 A. Completion of the survey should only take 5-10 minutes to complete. The total score will be calculated out of a possible 80 points. Since pilot testing was performed by the instrument's originators and the instrument was validated, further pilot testing is unnecessary. Students can skip, omit to answer any of the questions, or leave the survey at any time if they do not feel comfortable answering the questions.

Administrators and faculty for the Senior Seminar will be given a copy of the instructions, consent form, and introduction cover letter to answer any questions that might result from participation in the survey (see Appendix B Administration Instructions for Instrument). No additional training is required as no proctor is necessary. The information packet is only intended to provide details for the Administrators and Chairs if a participant goes to them with any questions regarding the survey.

The student's enrollment status as a student in the undergraduate Senior Seminar Course

will be used to elicit the purposeful sampling of the students. Students will be given two weeks to complete the online survey. After one week has elapsed, a reminder email will be sent to all students and again on the final day of the survey collection period. The results will be collected by Qualtrics and sent to a secure password-protected computer for analysis. A comprehensive report of the survey results will be sent to the Department Chair after analysis has been conducted.

Data Analysis

This study will utilize two statistics, an independent samples *t* test for Null Hypothesis One and a bivariate regression analysis for Null Hypotheses Two and Three. Necessary assumptions testing will be conducted to perform analyses, and data will be screened for missing data points and inaccurate data points. IBM© SPSS software will be used to analyze the responses. According to Warner (2013), the utilization of Bonferroni correction will limit the risk of Type-1 error when performing multiple significance tests. Additionally, with 128 eligible participants, with 41 participants per group, were required, assuming a medium effect size with the statistical power of 0.70 at the 0.05, utilizing Bonferroni-Correction is the Experiment-wise alpha (EWα) level, the per-comparison alpha level is determined EWαlk = .05/3 = .02 (Warner, 2013).

Null Hypothesis One

For the first null hypothesis, as recommended by Gall et al. (2007), a *t* test will be utilized to analyze the independent variable (students' enrollment status, with two groups, traditional and Non-traditional) and the dependent variable (sense of belonging score). A *t* test was chosen because the study seeks to determine if a statistical significance is observed between two sample means (Gall et al., 2007, p. 139). Since Null Hypothesis One seeks to determine if there is a

statistical difference between a students' sense of belonging score and their enrollment status, it is best determined through a *t* test. A Box and Whiskers plot will be utilized to look for extreme outliers in each variable. In order to conduct a *t* test, there are three assumptions the data must meet (Gall et al., 2007, p. 315). An assumption test for normality using the Kolmogorov-Smirnov test will be conducted, and the assumption of equal variance will be examined using Levene's Test of Equality of Error Variance. Once all assumptions have been met, the researcher will conduct a *t* test using an alpha level of .02 and determine the effect size using Cohen's *d* (Warner, 2013).

Null Hypotheses Two and Three

For the second and third null hypotheses, as recommended by Creswell and Guetterman (2019), a bivariate regression analysis will be used to determine if the sense of belonging score influenced the continual outcome predictor of academic achievements (GPA) because the purpose of this type of analysis is to assess the strength of the relationship between the two variables. Gall, Gall, and Borg (2007) determined that bivariate regression analysis was appropriate if the research design studied the relationship between two variables assumed to have the same linear path (p. 347). The analysis will determine if the variables change together and, therefore, if they have a causal relationship. Since Null Hypothesis Two and Three seek to determine if a relationship exists between the students' sense of belonging and academic achievement, it is appropriate to utilize bivariate regression analysis. There is one predictor (sense of belonging) and one criterion (GPA) with two populations (traditional and non-traditional students), examined in Null Hypothesis Two and Null Hypothesis Three. Null Hypotheses Two and Three will be analyzed individually as the population differs between each hypothesis.

First, data screening will be performed before analysis. A scatter plot will be utilized for all three assumption tests within each null hypothesis and the assumption of bivariate outliers, the assumption of linearity, and the assumption of bivariate normal distribution. To examine for extreme bivariate outliers in each group, the researcher will use a scatter plot between the predictor variable (x) and criterion variable (y). The researcher will look for extreme bivariate outliers and a cigar-type shape to determine normal bivariate distribution. As Warner (2013) recommended, Pearson's *r* (r^2) between the predictor and outcomes variables is to be used to determine the effect-size index. Further, Gall et al. (2007) denoted that the same table for conducting Pearson's *r* will also represent the statistical power, $\alpha = .05$, with a statistical power of .7 on medium effect size.

CHAPTER FOUR: FINDINGS

Overview

This chapter presents the results of data analysis, beginning with the revisiting of the research questions, descriptive statistics, and hypotheses. The results will be organized into three sections covering the topics framed by the research questions. The study first defined the components of student belonging. Then, it assessed group differences in student belonging between traditional and Non-traditional students. Lastly, it examined if the sense of belonging scores is a variable for hypothesized predictors of student academic achievement (GPA).

Research Questions

RQ1: Is there a difference in students' sense of belonging between traditional and non-traditional students in a rural private university in West Texas with several campuses nationwide?

RQ2: Can traditional students' sense of belonging score predict students' academic achievement (GPA)?

RQ3: Can non-traditional students' sense of belonging score predict students' academic achievement (GPA)?

Null Hypotheses

$H_0$1: There is no statistically significant difference in undergraduate college students' sense of belonging between traditional and Non-traditional students as determined by the Yorke Belongingness Survey in a rural private university in West Texas, with several campuses nationwide.

$H_0$2: There is no significant predictive relationship between the predictor variable, sense of belonging score (determined by the Yorke Belongingness Survey), and the criterion variable,

academic achievement (GPA) for traditional students in a rural private university in West Texas, with several campuses nationwide.

$H_0$3: There is no significant predictive relationship between the predictor variable, sense of belonging score (determined by the Yorke Belongingness Survey), and the criterion variable academic achievement (GPA) for Non-traditional students in a rural private university in West Texas with several campuses nationwide.

Descriptive Statistics

The descriptive statistics provide the basic breakdown of the instrument utilized for this study. Three composite areas categorized the instrument that the survey questions focused upon to gain an overall sense of belonging. Instrument scoring is denoted on a five-point scale from high-belonging to low-belonging that coincides with the five-point Likert answers given in the survey.

Basic Statistics of Survey Instrument

For ease of reference, below is Table 2. Table 2 summarizes the descriptive statistics for belonging and output variables and depicts the overall participation in the survey. It also displays the scales used to measure each area and determine the overall sense of belonging score.

Table 2

Basic Statistics for Belonging Measures and Educational Outputs

Composite Area	*n*	*M*	*SD*	Scale
Belonging				1-5
q-02 I feel at home at this university	128	1.55	.903	1-5
q-04 Being at this university is an enriching experience	127	1.51	.844	1-5
q-07r[c] I wish I had gone to another university	128	4.21	1.201	1-5
q-11 I have found my program to be welcoming	128	1.36	.661	1-5

q-14 Members of staff in this department show me respect	128	1.23	.456	1-5
q-15r[ac] Sometimes I feel I don't belong in this university	128	4.28	1.255	1-5
Engagement				
q-01 I am motivated towards my studies	128	1.27	.621	1-5
q-03[a] I expect to do well in my program	127	1.18	.407	1-5
q-05 I try to make connections between what I learn from different parts of my program	128	1.35	.555	1-5
q-06 I try to do a bit more on the program than it asks me to	128	1.60	.714	1-5
q-08 I seek out academic staff to discuss topics relevant to my program	128	1.93	1.192	1-5
q-10 I put a lot of effort into the work I do	127	1.27	.526	1-5
q-12 I use feedback on my work to help me improve what I do	128	1.34	.551	1-5
Self-Confidence				
q-03[a] I expect to do well in my program	127	1.18	.407	1-5
q-09r[c] I worry about the difficulty of the program	128	3.27	1.687	1-5
q-13r[c] I doubt my ability to study at a university level	128	3.89	1.416	1-5
q-15r[ac] Sometimes I feel I don't belong in this university	128	4.28	1.255	1-5
q-16 I'm confident of completing my program successfully	128	1.15	.487	1-5
Overall Belongingness Score				0/80
Demographic questions to determine the rationale for belongingness score	*n*	*M*	*SD*	Scale
q-17 Is English your first language?	124	1.22	.414	Yes/No
q-18 Which campus do you attend?	124	< .001	< .001	Drop-down
q-19 When you started your program, in which age bracket were you? Under 20, 20-24, 25-29, 30-34, 35-39, 40-44, 50 and above	128	3.38	2.008	Drop-down
q-20 What is your gender? Male, female, non-binary, other	128	1.56	.558	Drop-down
q-21 To which of the following broad ethnic groupings would you say you belong? White (non-Hispanic), Black/African-American, Asian, Hispanic, Indian, Pacific Islander, Other _____	128	2.60	1.623	Drop-down
q-22 Do you have a declared disability to the institution? Yes or No	128	1.98	.293	Yes/No/Prefer not to answer

q-23 Will you receive financial aid (FAFSA) while in higher education?	128	1.49	.602	Yes/No
q-24 Are you the first in your family to enter higher education? (Immediate family includes those directly related to you, such as parents, brothers, and sisters). Yes No Unsure	128	1.64	.513	Yes/No/Unsure
q-25 Where were you living when you applied for a place at this institution? Within the State, Outside of the State but inside the US or outside the US?	128	1.16	.447	Drop-down
q-26 Do you have difficulty in finding a quiet space to do your coursework?	128	1.77	.425	Yes/No
q-27 Will you have a part-time job while undertaking your program of study?	128	1.49	.502	Yes/No
q-28 Will you need to care for dependents while undertaking your program of study?	128	1.55	.500	Yes/No
q-29 How often does your travel to and from the institution take you more than 45-minutes one-way? Never, Occasionally, Frequently, Always	125	1.72	1.021	Drop-down
Demographics to determine population status				
dq-01 Do you currently identify in the following age bracket: age 24 or under or 25 and above?	128	1.66	.477	Drop-down
dq-02 Are you married?	128	1.48	.502	Y/N
dq-03 Do you have a child(ren)?	128	1.63	2.054	Y/N
dq-04 Are you working full-time (over 30 hours per week)?	128	1.40	.492	Y/N
dq-05[b] Are you financially dependent on another person?	128	1.63	.486	Y/N
dq-06[b] What is your mode of studying this year? – full-time or part-time	128	1.27	.447	Drop-Down
dq-07 Are you a military veteran or active-duty military?	128	2.68	.698	Veteran Active Duty N/A
dq-08[b] Do you commute to campus?	128	1.51	.502	Y/N
dq-09 Which school is your major field of study a part of?	127	4.98	3.051	Drop-down
dq-10 What is your current GPA?	128	1.52	.575	Drop-down

Note. This table demonstrates the question breakdown of the instrument utilized in this study. *n* = 128 participants in the study. *M* = mean answer given in each question. *SD* = standard deviation for each question.

[a] Denotes questions that are reflective of multiple areas within belongingness.

[b] Denotes that this demographic was omitted to determine population status due to external influences on-campus that prohibited possible residential occupancy, current work/ job loss issues, and dependent status due to alternative living arrangements due to external influences.
[c] Denoted by the letter "*r*" after the question number represents that the question was reverse scored.

Instrument Composites

Composites of belonging were then created as an unweighted average of the items in each component (see Table 3). Table 3 includes a summary of the alphas, means, and standard deviations for each of the composites. While these composites separately did not impact the overall belongingness score, they are included to show the interaction between the sets of questions in each composite.

Table 3

Reliability Statistics for Belonging Composites

Composite	No. of items	α	*M*	*SD*
Belongingness	6	< .001	14.138	1.837
Engagement	7	< .001	9.914	2.897
Self-Confidence	5	< .001	13.766	2.793

Determination of Student Population Status

Determination of Non-traditional student population status was qualified by coding positive answers to the demographic questions listed in the following table, Table 4. Qualifications of Student Population Status Non-traditional.

Table 4

Qualifications of Student Population Status Non-traditional

Question	Demographic Question	*n*	*α*	*M*	*SD*
dq-1	Above age 25	84	.014	1.97	.184
dq-2	Married Yes	66	< .001	1.24	.430
dq-3	Have children Yes	70	< .001	1.20	.399
dq-4[a]	Work over 30 hours - Yes	77	.758	1.21	.407
dq-5 [a]	Dependent - No	80	.086	1.78	.416
dq-6	Part-time Student - Yes	35	< .001	1.36	.482
dq-7	Veteran, Active Duty - Yes	24	< .001	2.55	.789
dq-8 [a]	Commute – Yes	63	.004	1.41	.495

Note. This table demonstrates that qualification questions utilized to code a participant as a Non-traditional student.

[a] Denotes that this demographic was omitted to determine population status due to external influences on-campus that prohibited possible residential occupancy, current work/ job loss issues, and dependent status due to alternative living arrangements due to external influences.

Instrument Scoring

An overall belonging score will range from 16-80 points. For example, a score of 16-25 represents a high belonging score, 26-40 is above average, 41-55 is an average belongingness score, 56-70 is below average, and 71-80 represents a low belongingness score. The chart below, Table 5 Overall Belongingness Score by Student Population, depicts the overall belongingness scores for each population group, traditional and non-traditional. The overrepresentation of the non-traditional student population (68%) over traditional (32%) is representative of the national average, reported by the NCES (2018) of the makeup of nearly 74% of all students are considered Non-traditional students.

Table 5

Overall Belongingness Score by Student Population

Overall Belongingness Score	*Traditional*	*Non-traditional*
Score 16-25 High Belonging	*5*	*13*
Score 26-40 Above Average	*32*	*66*
Score 41-55 Average	*4*	*8*
Score 56-70 Below Average	*0*	*0*
Score 71-80 Low Belonging	*0*	*0*
Total	*41*	*87*

Results

The results will be organized according to the analysis used for each null hypothesis. Data screening was performed for all three null hypotheses to look for extreme outliers before any analysis. A scatter plot was utilized for all three assumption tests within each null hypothesis and the assumption of bivariate outliers, the assumption of linearity, and the assumption of bivariate normal distribution. To examine Null Hypothesis One, the researcher used an Independent Sample *t* test, and to examine Null Hypothesis Two and Three, the researcher utilized a predictive, correlational study.

Null Hypothesis One

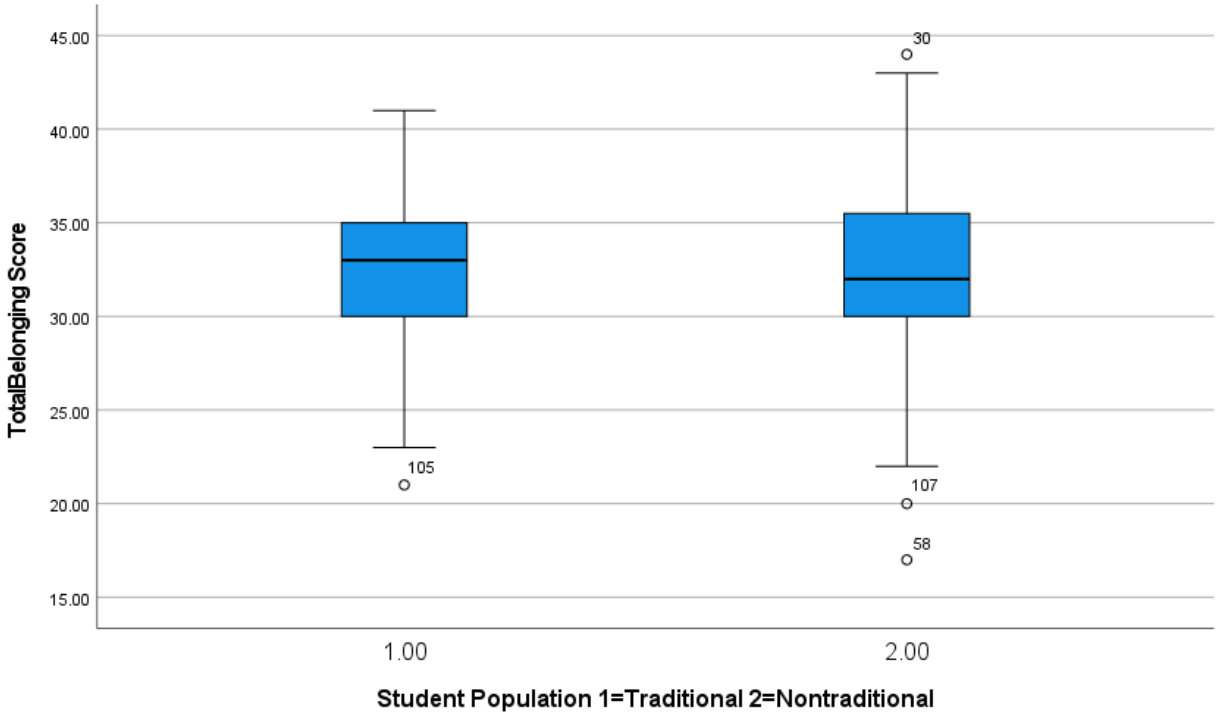
To determine the Null Hypothesis One, "there is no statistically significant difference in undergraduate college students' sense of belonging between traditional and non-traditional students as determined by the Yorke Belongingness Survey in a rural private university in West Texas with several campuses nationwide," an Independent Samples *t* test was performed. The

Independent Samples *t* test (students' enrollment status, with two groups, traditional and non-traditional) and the dependent variable (sense of belonging score) was performed. Prior to the *t* test, data screening was conducted.

Data screening was conducted on each group's dependent variable. The researcher sorted the data on each variable and scanned for inconsistencies. No data errors or inconsistencies were identified. Box and whiskers plots were used to detect outliers on each dependent variable. No outliers were identified, the assumption was met. See Figure 1 for box and whisker plots.

Figure 1

Box and Whisker Plots for Hypothesis One



Descriptive Statistics for Hypothesis One

Descriptive statistics were obtained on the dependent variable for each group. The sample consisted of 128 participants. Belongingness Scores range from 16 to 80. A high score of 16 is a

perfect score on the Belongingness Scale, whereas a low score of 80 means that the student has the lowest perceived sense of belonging. Descriptive statistics are found in Table 6.

Table 6

Descriptive Statistics for Hypothesis One

Student Population		N	Minimum	Maximum	Mean	Std. Deviation
Traditional	Belonging Score	41	21.00	41.00	32.5854	4.19509
	Valid N (listwise)	41				
Non-traditional	Belonging Score	87	17.00	44.00	32.2529	4.91372
	Valid N (listwise)	87				

Assumption Testing for Hypothesis One

Assumption of Normality

The Independent Samples *t* test requires that the assumption of normality be met. Therefore, normality was examined using the Kolmogorov-Smirnov. The Kolmogorov-Smirnov test was utilized to see if the data came from a normally distributed population because the sample size was over 50 individuals. The assumption test yielded a significance level of $p = .09$ for the traditional students and $p = .20$ for non-traditional students, which is over the significance value of $p \leq .05$; therefore, the assumption was normally distributed. Thus, the assumption of normality was met. See Table 7 for Tests of Normality.

Table 7

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Student Population	Statistic	df	Sig.	Statistic	df	Sig.
Belongingness Score	Traditional	.127	41	.092	.969	41	.312
	Non-traditional	.082	87	.200*	.985	87	.411

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Assumption of Homogeneity of Variance

The Independent Samples *t* test requires that the assumption of homogeneity of variance be met. The assumption of homogeneity of variance was examined using Levene's test. The assumption of homogeneity of variance was met where ($p = .20$) as the significance value was over the value of $p \leq .05$. See Table 3 for Levene's Test of Equality of Error Variance.

Table 8

Levene's Test of Equality of Error Variance

		Levene Statistic	df1	df2	Sig.
Belongingness Score	Based on Mean	1.681	1	126	.197
	Based on Median	1.677	1	126	.198
	Based on Median and with adjusted df	1.677	1	125.366	.198
	Based on trimmed mean	1.746	1	126	.189

Results for Hypothesis One

An Independent Samples *t* test was conducted to see if there was a significant difference in the sense of belongingness scores between the two student population groups, traditional and Non-traditional students. The independent variable was the student population, and the dependent variable was the belongingness scores. The researcher failed to reject the null hypothesis at the 95% confidence level where $t(126) = .395$, $p = .693$. Eta square equaled ($\eta^2 = .017$). The effect size was small. Eta square was calculated using the formula $\eta^2 = t^2/(t^2 + df)$. There was not a statistical difference between the sense of belongingness scores of traditional

students (M = 32.59, SD = 4.20) and Non-traditional students (M = 32.25, SD = 4.91). See Table 9 for Independent Samples t test results.

Table 9

Independent Samples t test

			Belongingness Scores	
			Equal variances assumed	Equal variances not assumed
t test for Equality of Means	*t*		.374	.395
	df		126	90.792
	Sig. (2-tailed)		.709	.693
	Mean Difference		.33249	.33249
	Std. Error Difference		.88986	.84069
	95% Confidence Interval of the Difference	Lower	-1.42851	-1.33749
		Upper	2.09350	2.00247

Null Hypothesis Two

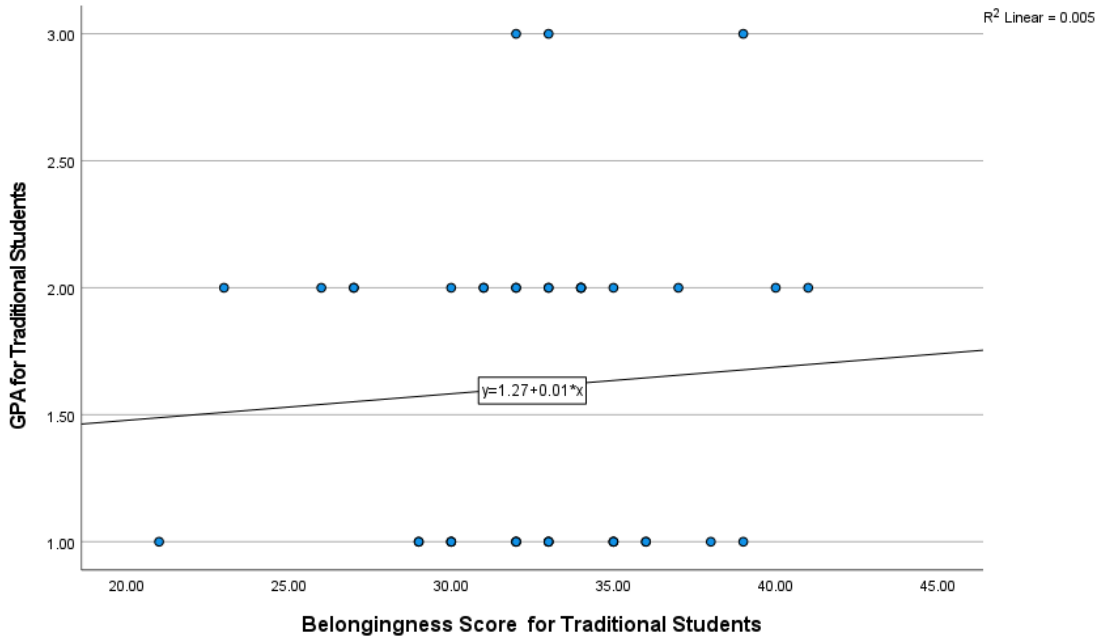
To determine the Null Hypothesis Two, "there is no significant predictive relationship between the predictor variable, sense of belonging score (determined by the Yorke Belongingness Survey), and the criterion variable, academic achievement (GPA) for traditional students in a rural private university in West Texas with several campuses nationwide," a regression analysis was performed. Null Hypotheses Two was analyzed individually as the population differs between each hypothesis. The Findings section includes the research question, null hypothesis, data screening, descriptive statistics, assumption testing, and results.

The researcher sorted the data and scanned for inconsistencies on each variable. No data errors or inconsistencies were identified. A scatter plot was used to detect bivariate outliers

between the independent and dependent variables—no bivariate outliers were identified. See Figure 2 for the scatter plot. The assumption was met.

Figure 2

Simple Scatter Plot for Hypothesis Two



Descriptive Statistics for Hypothesis Two

Descriptive statistics were obtained on each of the variables. The sample consisted of 39 participants. Belongingness scores can range from 16 to 80, with an average of 33. A low score of 0 means that the student perceives a high level of belonging, whereas a high score of 80 means that the student perceives a low level of belonging. Belongingness scores for this study range from 26 to 41, with a median of 33.13. Descriptive statistics can be found in Table 10.

Table 10

Descriptive Statistics for Hypothesis Two

	N	Minimum	Maximum	Mean	Std. Deviation
Belongingness Score for Traditional Students	41	21.00	41.00	32.5854	4.19509
GPA for Traditional Students	41	1.00	3.00	1.6098	.62762
Valid N (listwise)	41				

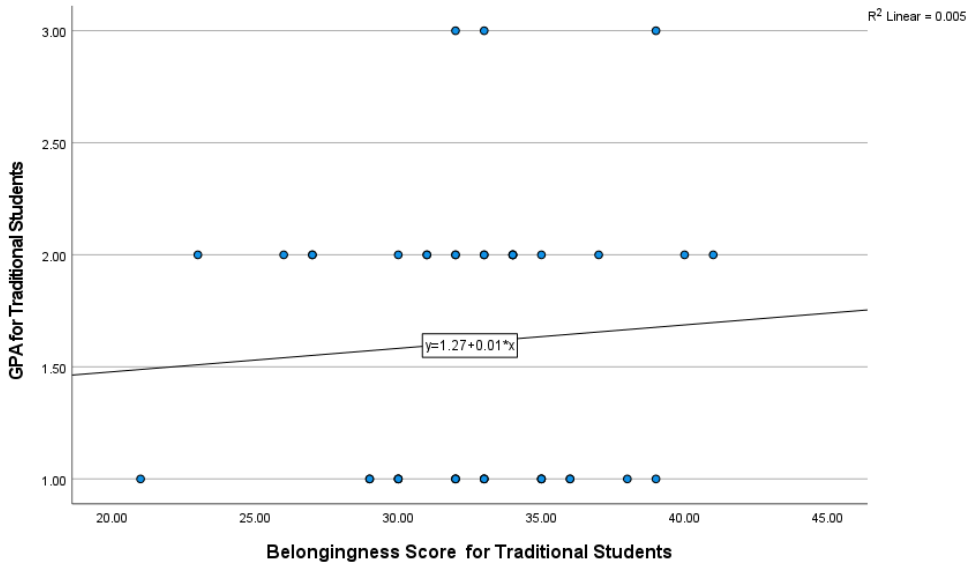
Assumption Testing for Hypothesis Two

Assumption of Linearity

The bivariate regression requires that the assumption of linearity be met. Linearity was examined using a scatter plot. The assumption of linearity was met. See Figure 3 for the bivariate scatter plot. The scatter plot compared the GPA of traditional students with the belongingness score of traditional students, showing that the data contained a slightly positive linear relationship (r = .047).

Figure 3

Assumption for Linearity: Scatter Plot for Hypothesis Two

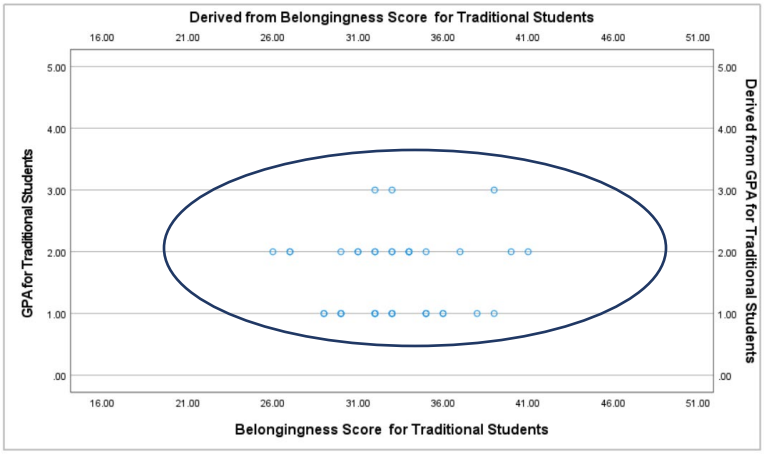


Assumption of Bivariate Normal Distribution

The bivariate regression requires that the assumption of bivariate normal distribution be met. The assumption of bivariate normal distribution was examined using a scatter plot. The assumption of bivariate normal distribution was met. See Figures 4 for scatter plot.

Figure 4

Assumption of Bivariate Normal Distribution: Scatter Plot for Hypothesis Two



Results for Hypothesis Two

A bivariate regression was conducted to see if there was a predictive relationship between the belongingness scores of the traditional student population and GPA scores. The independent variable was belongingness scores. The dependent variable was GPA scores. The researcher failed to reject the null hypothesis at the 95% confidence level where $F(1, 39) = .192$, $p < .664$. There was not a statistical predictive relationship between the independent variable (Belongingness Scores) and the dependent variable (GPA). See Table 11 for regression model results.

Table 11
Regression Model Results for Hypothesis Two

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.077	1	.077	.192	.664[b]
	Residual	15.679	39	.402		
	Total	15.756	40			

a. Dependent Variable: GPA for Traditional Students
b. Predictors: (Constant), Belongingness Score for Traditional Students

The model's effect size was small, where $R = .07$. Furthermore, $R^2 = .005$ indicates that approximately 0.5% of the variance of the GPA scores can be explained by its linear relationship with the Belongingness scores. See Table 12 for the Model Summary.

Table 12
Model Summary for Hypothesis Two

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.070[a]	.005	-.021	.63406

a. Predictors: (Constant), Belongingness Score for Traditional Students

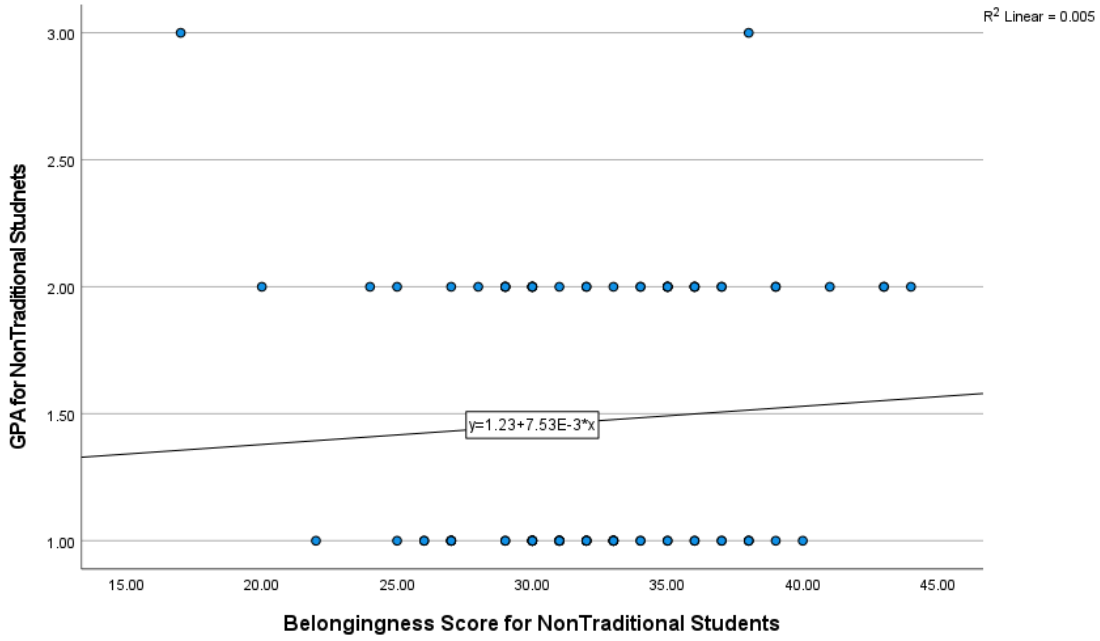
Null Hypotheses Three

To determine the Null Hypothesis Three, "there is no significant predictive relationship between the predictor variable, sense of belonging score (determined by the Yorke Belongingness Survey), and the criterion variable, academic achievement (GPA) for non-traditional students in a rural private university in West Texas with several campuses nationwide," a regression analysis was performed. Null Hypotheses Two was analyzed individually as the population differs between each hypothesis. The findings section includes the research question, null hypothesis, data screening, descriptive statistics, assumption testing, and results.

The researcher sorted the data and scanned for inconsistencies on each variable. No data errors or inconsistencies were identified. A scatter plot was used to detect bivariate outliers between the independent and dependent variables—no bivariate outliers were identified. See Figure 5 for the scatter plot. The assumption was met.

Figure 5

Scatter Plots for Hypothesis Three



Descriptive Statistics for Hypothesis Three

Descriptive statistics were obtained on each of the variables. The sample consisted of 81 participants. Belongingness scores can range from 16 to 80, with an average of 32. A low score of 0 means that the student perceives a high level of belonging, whereas a high score of 80 means that the student perceives a low level of belonging. Belongingness scores for this study range from 17 to 44, with a median of 32.25. Descriptive statistics can be found in Table 13.

Table 13

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Belongingness Score for Non-traditional Students	87	17.00	44.00	32.2529	4.91372
GPA for Non-traditional Students	87	1.00	3.00	1.4713	.54643
Valid N (listwise)	87				

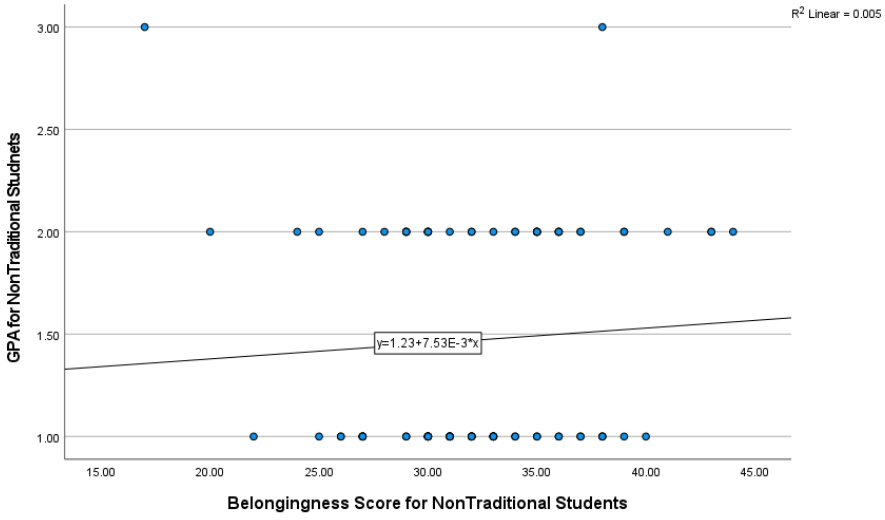
Assumption Testing for Hypothesis Three

Assumption of Linearity

The bivariate regression requires that the assumption of linearity be met. Linearity was examined using a scatter plot. The assumption of linearity was met. See Figure 6 for the bivariate scatter plot. The scatter plot compared the GPA of non-traditional students with the belongingness score of non-traditional students, showing that the data contained a slightly positive linear relationship (r = .14).

Figure 6

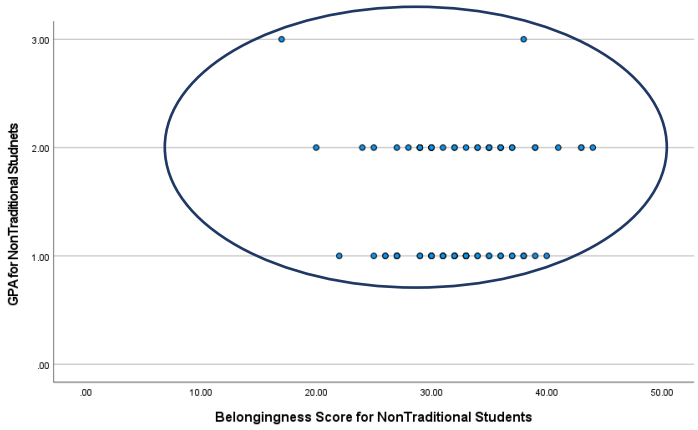
Assumption for Linearity: Scatter plot for Hypothesis Three



Assumption of Bivariate Normal Distribution

The bivariate regression requires that the assumption of bivariate normal distribution be met. The assumption of bivariate normal distribution was examined using a scatter plot. The assumption of bivariate normal distribution was met. See Figure 7 for the scatterplot.

Figure 7 *Assumption of Bivariate Normal Distribution: Scatterplot for Hypothesis Three*



Results for Hypothesis Three

A bivariate regression was conducted to see if there was a predictive relationship between the belongingness scores of the non-traditional student population and GPA scores. The independent variable was the belongingness scores. The dependent variable was GPA scores. The researcher failed to reject the null hypothesis at the 95% confidence level where $F(1, 85) = .391$, $p < .533$. There was not a statistical predictive relationship between the independent variable (Belongingness Scores) and the dependent variable (GPA). See Table 14 for regression model results.

Table 14
Regression Model Results for Hypothesis Three

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.118	1	.118	.391	.533[b]
	Residual	25.560	85	.301		
	Total	25.678	86			

a. Dependent Variable: GPA for Non-traditional Students
b. Predictors: (Constant), Belongingness Score for Non-traditional Students

The model's effect size was small, where $R = .07$. Furthermore, $R^2 = .005$ indicates that approximately 0.5 % of the variance of the GPA scores can be explained by its linear relationship with the Belongingness scores. See Table 15 for the Model Summary.

Table 15
Model Summary for Hypothesis Three

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.068[a]	.005	-.007	.54837

a. Predictors: (Constant), Belongingness Score for Non-traditional Students

CHAPTER FIVE: CONCLUSIONS

Overview

Chapter Five will include a discussion on the purpose of the study and how each of the proposed hypotheses was researched and determined. The discussion will also include how the results of this study relate to previous studies and the theories outlined previously in the literature review. Next, the implications of the study results will be recognized and delineated as to their relation and impact within the field of education. Limitations of this research will be discussed and how those limitations may or may not affect the outcome of this study. Lastly, recommendation of how future research can expand upon this research study. The implications of any changes in detail to this study will be defined and examined for future approaches.

Discussion

The purpose of this quantitative, causal-comparative study (RQ1) and a predictive, correlational study (RQ2 and RQ3) is to explore if differences between the perceived sense of belonging between traditional and non-traditional students affect their academic achievement in an urban southern private university. Ahn & Davis (2020a) posited that a students' sense of belonging is strongly associated with academic achievement in higher education. The three theories, Tinto's (1975) theory of student integration, Astin's (1984) theory of student involvement, and Kahu's (1993) theory of student engagement, all encompass the need for an increased sense of belonging in higher education. This study focused on the differences between two student groups, traditional and non-traditional students, and the correlation between the student's perceived sense of belonging and their academic success.

Null Hypothesis One

Overall Sense of Belonging. Strayhorn (2019) determined through extensive literature

reviews of all research methods that for college students to perceive a sense of belonging, they must feel supported, connected, accepted, and respected. The data indicated that the traditional and non-traditional student population groups had “Above Average” belongingness scores between 26-40. Traditional students had a slightly higher mean score (33.13) for their perceived sense of belonging than traditional students. The average for the total overall belongingness scores was 32.31. Davis et al. (2019) determined that a high sense of belonging was an indicator of academic success and were more likely to persist. The sampling of students in this research suggests that these students have both an above-average sense of belonging and above-average GPA scores. While these scores did not equivalate a difference between student populations, it indicated that all students at this university perceived an above-average sense of belonging. They felt supported, connected, accepted, and respected. The belongingness scores did not have a great differing of scoring primarily due to the small effect size of the sample.

Post Hoc analysis of the belonging scores analyzed the belongingness scores in each separate composite; belonging, engagement, and self-confidence. It was noted that the individual scores for belonging, engagement, and self-confidence did not have a statistical significance when comparing traditional and non-traditional students. However, the scores for engagement were at an average above-average ranking (M = 9.65), while belonging and self-confidence were both at an average ranking (M =14.07, M =14.02). The rankings are interesting because belonging is heavily linked to engagement (Kahu, 2013) and academic achievement (Arjomandi, 2018). In addition, Kahu (2013) and Arjomandi (2018) found that engagement and academic achievement are critical elements to increasing belonging through empirical research. In this research, the higher engagement question scoring positively impacted the overall belongingness scores, which were above-average.

The most significant negative expressed responses amongst all student population groups were questions that fell into the composite category of self-confidence. The question listed as Q9 was reverse-scored and asked the students their personal opinion on how they agreed with the statement "I worry about the difficulty of the program," for which 37.5% of students answered that they strongly agreed or somewhat agreed with this statement. Question Q13, which was also reverse-scored, asked students, "I doubt my abilities to study at a university level," for which 23.44% of students strongly agreed or somewhat agreed. Lastly, for question Q15, which was also reverse-scored, asking the students, "Sometimes I feel I don't belong in this university," 13.28% of students strongly agreed or somewhat agreed. These three negatively expressed questions held similar results to the original study utilizing this instrument. Yorke (2016) noted that their sampling had high negative results for questions Q9 and Q15, suggesting that the students answer these questions on current experiences. The answers to these questions alone cannot predict the motive behind why the students expressed these opinions, but it does raise some questions for further research.

Sample Effect Size. The purposeful sampling was sent to 298 students over the age of 18 who enrolled in the Senior Seminar course at a private university. Of those electronic surveys, 144 were attempted, one survey was disqualified because the student was not over the age of 18, and 15 were incomplete, leaving 128 surveys complete. This sampling yielded a 43% return on completed surveys. However, the effect size was extremely small when analyzed by the *t* test. In recent literature on the sense of belonging, most qualitative research has yielded over 300 participants in their samples (Ahn & Davis, 2020a; Davis et al., 2019; Duran et al., 2020; Won et al., 2018; York & Fernandez, 2018). A larger sample size could have allowed for more variation between the variables.

Null Hypothesis Two

The research hypothesis two was that there is no significant predictive relationship between the predictor variable, sense of belonging score (determined by the Yorke Belongingness Survey), and the criterion variable, academic achievement (GPA) for traditional students in a rural private university in West Texas with several campuses nationwide. The data in this study showed no significant evidence to reject the null hypothesis and concluded that there was no difference in the students' sense of belonging for the student population group, traditional students, and their academic achievement (GPA). A predictive, correlational study was performed using bivariate regression analysis and was not statistically significant at the 95% confidence level where $F(1, 39) = .192$, $p < .664$.

Academic Achievement. The self-reported GPA as an indicator of academic success was not revealed to be an accurate indicator of success for this study for traditional students. However, it was chosen because the survey was being administered across several disciplines and academic programs. In addition, there were numerous external factors from the COVID-19 pandemic, such as many students turning to online teaching over face-to-face courses, and the participants were strictly volunteers. Therefore, the survey was not motivated by incentives and grades. Finally, without a formal classroom setting for all students, participation was elicited through a series of emails to the students; therefore, participation was not directly encouraged by a staff member at the university.

In a similar study, Wurster et al. (2021) sought to determine that if a student's hope and belonging increased, they would also have higher academic performance, measured by GPA. The study concluded that while there was a positive correlation with academic self-efficacy, there was no positive correlation with academic performance, measured by GPA. While GPA is

one measure for academic achievement, it is not the only measure that could represent academic achievement. Furthermore, allowing the students to select or input an exact GPA instead of a range of GPA scores would have qualified for more variation in the results for this variable. Schwartz and Beaver (2015) concluded through a quantitative study that, on average, students would overinflate their current GPA by one-half letter grade. The inflated GPA scores could have negatively affected the present study's results; however, it would be impossible to identify this as a contributing factor without each student's transcript GPA scores.

Overall Sense of Belonging. Ahn and Davis (2020a) concluded that the students' perceived sense of belonging was multi-dimensional. While the area of engagement was a strong factor, it was not the most prominent factor. The study also identified their surroundings and personal space as factors to the sense of belonging. During the academic years of 2020-2021, the surroundings and spaces of colleges and universities have changed drastically. Many higher education institutions had to temporarily shut down, adjust to hybrid online classrooms, and close dormitories and other services as the world learned to adapt to life during and after the global COVID-19 pandemic (Babb et al., 2021).

The current study considered these factors and excluded some previously identified markers for traditional and non-traditional students. The factors excluded as criteria were commuting to campus, financial independence, and working over 30-hours per week. The NCES (2018) considered these factors to identify with non-traditional students. However, post-pandemic many students have opted not to return to campus and live in the dorms and instead returned to living with their parents. The work status, over 30 hours per week, was excluded because of the current inflation issues within the United States. Many students are forced to become full-time students and full-time workers. For these reasons, this study excluded these

factors in consideration of student population status.

Null Hypothesis Three

The research hypothesis three was that there is no significant predictive relationship between the predictor variable, sense of belonging score (determined by the Yorke Belongingness Survey), and the criterion variable, academic achievement (GPA) for Non-traditional students in a rural private university in West Texas with several campuses nationwide. The data showed no significant evidence to reject the null hypothesis and concluded no difference in the students' sense of belonging for the student population group, non-traditional students, and academic achievement (GPA). A predictive, correlational study was performed using bivariate regression analysis and was not statistically significant at the 95% confidence level where $F(1, 85) = .391$, $p < .533$.

Academic Achievement. The variable of non-traditional students' academic achievement compared to their sense of belonging in this study did not significantly correlate. The contributing factors to these outcomes are primarily a lack of participation in the research and that the participants were all senior students in the various degree programs.

In a quantitative study, Wu (2019) determined that academic achievement (GPA) was influenced by academic motivation and academic engagement. However, their study found lower significance in the third- and fourth-year college students. The lower impact was noted to be due to other factors motivating the college student in their later years in college, such as prior achievement. Therefore, it could be theorized that the lack of variation in self-reported GPA due to the students' continued motivation derived from previous semester successes.

The COVID-19 pandemic has created additional life stressors that impacted all students' sense of well-being. Both traditional and Non-traditional students have been negatively affected

by the outcomes of the pandemic. In a quantitative study, Babb et al. (2021) determined that traditional and Non-traditional students alike faced many new stressors not present in pre-COVID research. For example, traditional students struggled with the transition from in-person to online modalities, while Non-traditional students struggled primarily financially. These additional stressors impacted the participation and outcomes of this current study. The study was forced to reduce the classification requirements as non-traditional students because previously traditional students were now being classified as non-traditional in the areas of financial dependency, off-campus living/commuting, and work hours over 30 hours weekly. If the criteria were not reduced, the demographic breakdown would have been greater than 85% non-traditional and 15% traditional.

Overall Sense of Belonging. The outcomes of this study indicated that the majority of non-traditional students expressed an average level of sense of belonging overall. While no statically significant correlations were found, more students in the non-traditional student population expressed a high (8.3%) or only average (4.2%) sense of belonging over traditional students. Furthermore, the majority of all student populations had an above-average sense of belonging score (81.7%). Additionally, a glance at the military population (n = 24) in this study (active duty and veteran) indicated that veteran students outshined their non-military colleagues in two areas. The military population carried a higher GPA (62.5% vs. 52% receive an 'A' average GPA) and scored higher on the self-confidence (M =13.67) questions of the belongingness survey over their non-military colleagues (M = 15.17).

The NSSE (2021) national survey of students now contains specific questions relating to their perceived sense of belonging. The study noted that the students' sense of belonging is positively associated with engagement. In a post-COVID analysis of this research, Tice et al.

(2021) noted that students experienced a drop in belongingness during the pandemic, especially student engagement. Post-COVID, the sense of belonging remains a critical factor in academia. While there was no significant impact between traditional and non-traditional students' sense of belonging and academic achievement (GPA), this study did bring forth data to support the private university and their efforts to ensure that all students have any equal sense of belonging within their institution.

A holistic approach is required to achieve student belonging utilizing social and academic integration, student involvement, and engagement; it is essential to motivate students to achieve academic success. While this study did not demonstrate a correlation between the sense of belonging scores and academic achievement (GPA), this researcher's theory that with larger sample size or different sampling and exact GPA scores, a correlation could still exist based upon prior research in the area of belonging.

Implications

Several implications can be drawn from this study. First, the current research has advanced the knowledge of belongingness in a small private university. A research study on the sense of belonging among a sample of private institutions is not a common practice; this study provides a unique facet of information. Second, the small private university provided a glimpse at how both their traditional and non-traditional students perceive their institution and, therefore, closed this gap in the literature. Third, it was found that there is not a significant difference among all of the students in how they perceive their belonging, indicating that the institution is making substantial efforts in achieving belonging throughout multiple programs and disciplines.

As it relates to the three theories, Tinto's (1975) theory of student integration, Astin's (1984) theory of student involvement, and Kahu's (1993) theory of student engagement, which

all encompass the need for an increased sense of belonging in higher education, this study does express agreement to these theories. The York Belongingness Survey provided that students express belonging through engagement, self-confidence, and social and academic inclusion within the students' perceived sense of belonging.

The instrument utilized in this research was the York Belongingness Survey. Previous research utilizing this instrument was performed in the United Kingdom, Australia, and Europe. Previous applications of this instrument in research are noted to be used at public institutions. This study marks the initial utilization of this instrument within the United States and within a private institution.

Other pertinent information gained from this study indicated that the university was above average in engagement and met belonging and self-confidence at an average belonging level. While not at an alarmingly low rate, the areas of belonging and self-confidence were only average, indicating areas for improvement. The questions with the most significant negative expressed responses fell within the composite of self-confidence. The institution can utilize the information gained for future planning and response.

In this study, the sense of belonging related to academic achievement (GPA) was likewise found not to have a significant correlation. The sampling done amongst senior class students may indicate that the sense of belonging does not directly impact academic performance at this stage of their educational development. The results reinforce the need to broaden the sampling base to all cohorts within a university.

Previous research on the sense of belonging focused primarily on freshman tertiary students, primary education, and secondary education in public schools. The current study adds to the limited literature for senior tertiary students within private institutions. This study also

resulted in relevant information regarding post-COVID research on higher education in the area of belonging, which is becoming a focus for research in the United States (NCES, 2021).

Limitations

Several limitations can be found in this study. Gall et al. (2007) identified generalizability as a threat to external validity because the results of the study show reflect a generalized agreement with the entire population. A large sample size is commonly utilized to ensure the sample population represents the consensus of the whole population. While there was a 48.3% return on responses from the surveys sent, the sample size was relatively small. A larger cohort or university would be necessary to gain a broader correlation between the two student population groups.

The limitations that are threats to internal validity will be addressed. First, the participants' non-accordance with answering the questions without following the appropriate survey instructions, failing to read the questions, or giving proper responses could threaten internal validity. To mitigate this limitation, instructions were stated clearly within the online survey, at the beginning of each section, and page breaks and instructions were given to the student's instructors. Another limitation to internal validity is the administration of the survey. The limitation was minimized by providing the coordinator and instructors with copies of the survey, instructions, and deadlines for the survey. The coordinator sent the initial and reminder emails for the survey with deadlines on set dates as indicated in the procedures. The coordinator and instructors received the same training, and all procedures were stated clearly.

Limitations that could be considered threats could be to the inherent design of the study. The study excluded any surveys with multiple incomplete responses. Some individual questions were left unanswered but were minimal. Results do not account for answers ignored or left blank

by the participants. The distribution of students into the two student population groups, while fitting with the national average of traditional to non-traditional student groups, was not equal to non-traditional students.

Additionally, a limitation was the reduction in criteria dictating which students were considered traditional over non-traditional. The external factors that became a limitation of this study are notable. Due to COVID-19 instilling restrictions to campus living in multiple states, the criterion for campus living and commuting to campus were negated. In addition, the inflation of the economy in the United States has caused many students to work more hours to make ends meet, reduce hours of education to part-time, or switch to online and hybrid courses. For this reason, working greater than 30 hours per week was eliminated as a criterion for non-traditional students and financial dependency.

The limitation of online over traditional face-to-face classrooms in all of the campuses caused a change in distribution from the original procedures, which indicated that the instructor would hold a live session to discuss the survey and participation in the study as part of the Senior Seminar Course. Instead, many instructors placed announcement requests to participate in the research or declined to address the study as a priority within their course. The email invitation to participate was sent to all students in the Senior Seminar Course. However, it was limited in participation due to the absence of the institutions' physical request for participation. This limitation was the most impactful because the lack of participation resulted in a small sample size.

Recommendations for Future Research

A few different recommendations for future research can be deduced from this study. The first recommendation comes in the necessity to expand to larger sample size. The small private

university with only one cohort being sampled was not large enough to provide an adequate sampling of the university as a whole. Since the original instrument was utilized at multiple large public universities, it would be optimal to expand the study to compare the results with a large public university. This study indicated that the small private university was performing well in the areas of belonging, and the GPAs of the senior class were resolute in their performance.

As indicated by previous literature review, most research has been done exclusively through a single cohort (Davis et al., 2019; Dumford et al., 2019; Rabourne et al., 2018; Vacarro & Newman, 2016; and York & Fernandez, 2018). The two academic years that hold the lowest research are the 2nd and 3rd years (sophomore and junior) populations within research literature. Expanding the research to focus on those two crucial developmental years would be beneficial to research in the sense of belonging and fill the gaps in the literature.

While limited in the sample size, the study does provide interesting details into the belonging of veteran and active-duty military students within a population. Further expansions with the military and veteran student populations' sense of belonging at larger institutions would also fill in literature gaps within the limited veteran studies. Previous literature reviews indicated that many veteran students have a lower sense of belonging because of their engagement experiences with faculty and staff. It would be advantageous to explore these areas with a mixed-method study.

Post-Covid limitations were addressed, and COVID research in higher education is beginning to surface. However, from a realistic standpoint, the world is not expecting to return to the same conditions pre-2020. Therefore, new post-COVID era research must be conducted to evaluate what criteria can still be drawn when identifying a student as non-traditional. Determining if the same variables exist or if all students exhibit non-traditional student criteria is

necessary. If all students eventually become classified as non-traditional, novel research could identify new methods or pedagogical approaches that focus on their specific needs.

This research identified the sense of belonging in a rural private school in West Texas and closed the gap in literature regarding the sense of belonging in private schools. This research, coupled with future data gained in public schools, could bridge the gap in institutional practices between traditional and non-traditional student populations. The data could also pilot studies in identifying and classifying non-traditional students in the future.

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APPENDICES

Appendix A

Yorke Belongingness Survey in Higher Education

Mandatory Demographic Questions	Drop-Down and Y/N	1. What age bracket does your current age fall into? 2. Are you married? 3. Do you have a child(ren)? 4. Are you working full-time (over 30 hours per week)? 5. Are you financially dependent on another person? 6. Are you registered for full-time or part-time courses? full-time or part-time 7. Are you a military veteran or active-duty military? 8. Which school is your major field of study a part of? 9. Do you commute to campus? 10. What is your current GPA?
Item #	Scale	Item
1	Likert	I am motivated towards my studies
2	Likert	I feel at home at this university
3	Likert	I expect to do well in my program
4	Likert	Being at this university is an enriching experience
5	Likert	I try to make connections between what I learn from different parts of my program
6	Likert	I try to do a bit more on the program than it asks me to
7	Likert	I wish I had gone to another university
8	Likert	I seek out academic staff to discuss topics relevant to my program
9	Likert	I worry about the difficulty of the program
10	Likert	I put a lot of effort into the work I do
11	Likert	I have found my program to be welcoming
12	Likert	I use feedback on my work to help me improve what I do
13	Likert	I doubt my ability to study at a university level
14	Likert	Members of staff in this program show me respect
15	Likert	Sometimes I feel I don't belong in this university
16	Likert	I'm confident of completing my program successfully
17	Yes/No	Is English your first language?
18	Drop-down	Which campus do you attend?
19	Drop-down	When you started your course, in which age-bracket were you? Under 20, 20-24, 25-29, 30-34, 35-39, 40-44, 50 and above
20	Drop-down	What is your gender? Male, female, non-binary, other
21	Drop-down	To which of the following broad ethnic groupings would you say you belong? White (non-Hispanic), Black/African-American, Asian, Hispanic, Indian, Other

22	Yes/No/Prefer not to answer	Do you have a declared disability to the institution? Yes or No, prefer not to answer
23	Yes/No	Will you receive financial aid (FAFSA) while in higher education?
24	Yes/No	Are you the first in your family to enter higher education? (Immediate family includes those directly related to you, such as parents, brothers, and sisters). Yes No Unsure
25	Drop-down	Where were you living when you applied for a place at this institution? Within the State, Outside of the State but inside the US or outside the US?
26	Yes/No	Do you have difficulty in finding a quiet space to do your coursework?
27	Yes/No	Will you have a part-time job while undertaking your program of study?
28	Yes/No	Will you need to care for dependents while undertaking your program of study?
29	Drop-down	How often does your travel to and from the institution take you more than 45-minutes one-way? Never, Occasionally, Frequently, Always
Overall Score	/80 pts	

Appendix B

Administration Instructions for Instrument

The Yorke Belongingness Survey in Higher Education will be administered during the Summer/Fall of the 2021-2022 academic year. It will be distributed via email utilizing a Qualtrics survey as the platform. Once the student clicks the link to the survey, the students will be given a brief overview of the project and consent form before beginning the survey. All information provided will be protected and anonymity secured. The students will be instructed to answer all questions to the best of their ability and skip any questions they do not wish to answer. The survey should only take 5-10 minutes to complete.

Appendix C

Permission to Use Instrument

January 26, 2021

Dr. Yorke,
I am a doctoral student at Liberty University, completing a dissertation in Higher Education Administration. I am writing to ask for written permission to use the Yorke Belongingness Survey in my quantitative research study. My research is on the inclusion of Non-traditional students by comparing traditional and Non-traditional students' sense of belonging. My research is being supervised by my professor, Dr. Rebecca Lunde[redacted]
I plan to use the entire instrument and only adapt the demographic questions slightly to include GPA and veteran status. I will be administering the survey to undergraduate business students using a purposeful sampling at an urban, southern, public university this Spring 2021. Since the only uses of this survey that I have found have been utilized outside of the United States, I am eager to see how the results will compare. I am seeking the answers to the proposed questions through the self-reported survey:
1) Is there a difference in the students' sense of belonging between traditional and Non-traditional students in a rural private university in West Texas with several campuses nationwide?
2) Can traditional students' sense of belonging predict students' academic achievement (GPA)?
3) Can Non-traditional students' sense of belonging predict students' academic achievement (GPA)?
If you are willing to provide any supplemental material or guidance on using the survey, I would also appreciate receiving copies of (1) the test questionnaire, (2) the standard instructions for administering the test, and (3) the scoring procedures that you utilized.
In addition to using the instrument, I also ask your permission to reproduce it in my dissertation appendix. The dissertation will be published in the Liberty University Digital Commons at https://digitalcommons.liberty.edu/ and deposited in the ProQuest Dissertations & Theses database.
I would like to use and reproduce your Yorke Belongingness Survey under the following conditions:

- I will use the Yorke Belongingness Survey only for my research study and will not sell or use it for any other purposes
- I will include a statement of attribution and copyright on all copies of the instrument. If you have a specific attribution statement that you would like me to include, please provide it in your response.
- At your request, I will send a copy of my completed research study to you upon completion of the study or provide a hyperlink to the final manuscript

If you do not control the copyright for these materials, I would appreciate any information you can provide concerning the proper person or organization I should contact.
If these are acceptable terms and conditions, please indicate so by replying to me through e-mail at [redacted]
Sincerely,
Michelle Walbeck
Ph.D. Candidate Class of 2021

Response from Dr. Yorke

MY

Wed 1/27/2021 8:37 AM
To: Walbeck, Michelle

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

Dear Michelle

My term as Visiting Professor at Lancaster came to an end last month. Paul Ashwin passed on your request.

I'm happy for you to use the instrument subject to the usual acknowledgements. You may find you need to adjust wordings to suit your research environment, and you'll almost certainly need to amend the demographic part. That would be acceptable.

Best wishes for your study

Mantz Yorke

Appendix D

IRB Approval for Project

[redacted]

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

September 22, 2021

Michelle Walbeck
Rebecca Lunde

Re: IRB Exemption - IRB-FY20-21-801 INTEGRATION OF NON-TRADITIONAL STUDENTS: COMPARING TRADITIONAL AND NON-TRADITIONAL STUDENTS' SENSE OF BELONGING

Dear Michelle Walbeck, Rebecca Lunde,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(i). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Permission Request Letter(s)

Wayland Baptist University | Vice President of Academic Affairs

August 2, 2021

Michelle Walbeck
Ph.D. Candidate, Class of 2021
Liberty University
[redacted]

Dear Michelle Walbeck,

After careful review of your research proposal entitled Integration of Non-traditional Students: Comparing Traditional and Non-traditional Students' Sense of Belonging, [I/we] have decided to grant you permission to conduct your study at Wayland Baptist University.

Check the following boxes, as applicable:

☑ [I/We] grant permission for Michelle Walbeck to contact our undergraduate students to invite them to participate in her research study.

☐ [I/We] will not provide potential participant information to Michelle Walbeck. but we agree to send her study information to the undergraduate students on her behalf.

☐ [I/We] are requesting a copy of the results upon study completion and/or publication.

Sincerely,

[redacted]

C. Marlow McClenagan, Ph.D.
Vice President of Academic Affairs
Professor of English
Wayland Baptist University

[redacted]

Wayland Baptist University | *Vice President of External Campuses*

September 15, 2021

Michelle Walbeck
Ph.D. Candidate, Class of 2021
Liberty University
[redacted]

Dear Michelle Walbeck

After careful review of your research proposal entitled Integration of Non-traditional Students: Comparing Traditional and Non-traditional Students' Sense of Belonging, [I/we] have decided to grant you permission to conduct your study at Wayland Baptist University. This permission applies to the following external campuses: Albuquerque, Amarillo, Anchorage, Fairbanks, Hawaii, Lubbock, Phoenix, San Antonio, Sierra Vista, and Wichita Falls.

Check the following boxes, as applicable:

☒ [I/We] grant permission for Michelle Walbeck to contact our undergraduate students to invite them to participate in her research study.

☒ [I/We] will not provide potential participant information to Michelle Walbeck. but we agree to send her study information to the undergraduate students on her behalf.

☒ [I/We] are requesting a copy of the results upon study completion and/or publication.

Sincerely,

[redacted]

David L. Bishop PhD
Vice President of External Campuses
Wayland Baptist University

[redacted]

[External] Survey for proposal

[redacted]

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

September 20, 2021

Michelle Walbeck
Ph.D. Candidate, Class of 2021
Liberty University
[redacted]

Dear Michelle Walbeck

Sorry for the slow response. I recently had surgery and was out a short time.

After careful review of your research proposal entitled Integration of Non-traditional Students: Comparing Traditional and Non-traditional Students' Sense of Belonging, [I/we] have decided to grant you permission to conduct your study at Wayland Baptist University.

Check the following boxes, as applicable:

X [I/We] grant permission for Michelle Walbeck to contact our undergraduate students to invite them to participate in her research study.

[I/We] will not provide potential participant information to Michelle Walbeck. but we agree to send her study information to the undergraduate students on her behalf.

[I/We] are requesting a copy of the results upon study completion and/or publication.

Sincerely,

Patricia M. Ritschel-Trifilo, Ph.D.
Director of WBUonline
[redacted]

CERTIFIED ACCESSIBILITY SPECIALIST TxDLA

Recruitment Letter(s)

Initial Recruitment Email

Dear Student:

As a graduate student in the School of Education at Liberty University I am conducting research as part of the requirements for a Ph.D. degree and I am partnering with Wayland Baptist University. The purpose of my research is to explore how students considered traditional or nontraditional in status with the college perceive their sense of belonging and inclusion within the institution. I seek to measure how the institution meets specific needs and collaborates with the student body and how the sense of belonging affects a student's academic success. I am writing to invite eligible participants to join my study.

Participants must be 18 years of age or older and enrolled in an undergraduate program at Wayland Baptist University. Participants, if willing, will be asked to complete a brief online survey, which includes ten basic demographic questions, and 29 Likert scale questions. It should take approximately 5-10 minutes to complete the survey. Participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, please click here and complete the attached survey by Friday, October 15th, 2021. Contact me at [redacted] for more information.

A consent document is provided as the first page of the survey. The consent document contains additional information about my research. Because participation is anonymous, you do not need to sign and return the consent document unless you would prefer to do so. After you have read the consent form, please click the next button to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey.

Wayland Baptist University Belongingness Survey

Sincerely,
Michelle Walbeck
Ph.D. Candidate Class of 2021
[redacted]

Follow-up Email

Dear Student,

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Ph.D. degree. Two weeks ago an email was sent to you inviting you to participate in a research study. This follow-up email is being sent to remind you to complete the survey, if you would like to participate and have not already done so. Your participation is greatly appreciated.

The deadline for participation is **TODAY, Friday, October 15th, 2021**.

Participants must be 18 years of age or older and enrolled in an undergraduate program at Wayland Baptist University. Participants, if willing, will be asked to read and sign a consent form and complete a brief 29 question online survey. It should take approximately 5-10 minutes to complete the survey. Participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, please click here and complete the attached survey by **TODAY, Friday October 15th, 2021**. Contact me at [redacted] for more information.

A consent document is provided as the first page of the survey. The consent document contains additional information about my research. Because participation is anonymous, you do not need to sign and return the consent document unless you would prefer to do so. After you have read the consent form, please click the next button to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey.

Sincerely,

Michelle Walbeck
Ph.D. Candidate Class of 2021
[redacted]

Final Follow-up Email

Dear Student,

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Ph.D. degree. Two weeks ago an email was sent to you inviting you to participate in a research study. This follow-up email is being sent to remind you to complete the survey, if you would like to participate and have not already done so. Your participation is greatly appreciated.

The deadline for participation is **TODAY, Friday, October 15th, 2021**.

Participants must be 18 years of age or older and enrolled in an undergraduate program at Wayland Baptist University. Participants, if willing, will be asked to read and sign a consent form and complete a brief 29 question online survey. It should take approximately 5-10 minutes to complete the survey. Participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, please click here and complete the attached survey by **TODAY, Friday October 15th, 2021**. Contact me at [redacted] more information.

A consent document is provided as the first page of the survey. The consent document contains additional information about my research. Because participation is anonymous, you do not need to sign and return the consent document unless you would prefer to do so. After you have read the consent form, please click the next button to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey.

Sincerely,

Michelle Walbeck
Ph.D. Candidate Class of 2021
[redacted]

Consent Material(s)

Survey Consent Form

Title of the Project: Integration of Non-Traditional Students: Comparing Traditional and Non-Traditional Students' Sense of Belonging
Principal Investigator: Michelle Walbeck, MAT, Liberty University
Co-investigator: Rosemary Peggram, Ed.D., Wayland Baptist University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be **18 years of age and enrolled in an undergraduate program at Wayland Baptist University.**
Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to explore how students considered traditional and nontraditional in status with the college perceive their sense of belonging and inclusion within the institution. I seek to measure how the institution meets specific needs and collaborates with the student body and how the sense of belonging affects a student's academic success.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. Complete the online survey which includes ten basic demographic questions and 29 survey questions. The survey should only take 5-10 minutes to complete.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life. There are no risks or discomforts that are anticipated from your participation in this study.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher(s) and faculty committee will have access to the records.
Include the following in this section:

- Participant responses will be anonymous.
- Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or Wayland Baptist University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey prior to submission and close your internet browser. Your responses will not be recorded or included in the study

Whom do you contact if you have questions or concerns about the study?

The researcher(s) conducting this study Michelle Walbeck MAT, and Rosemary Peggram Ed.D. You may ask any questions you have now. If

[redacted]

Whom do you contact if you have questions about your rights as a research participant?

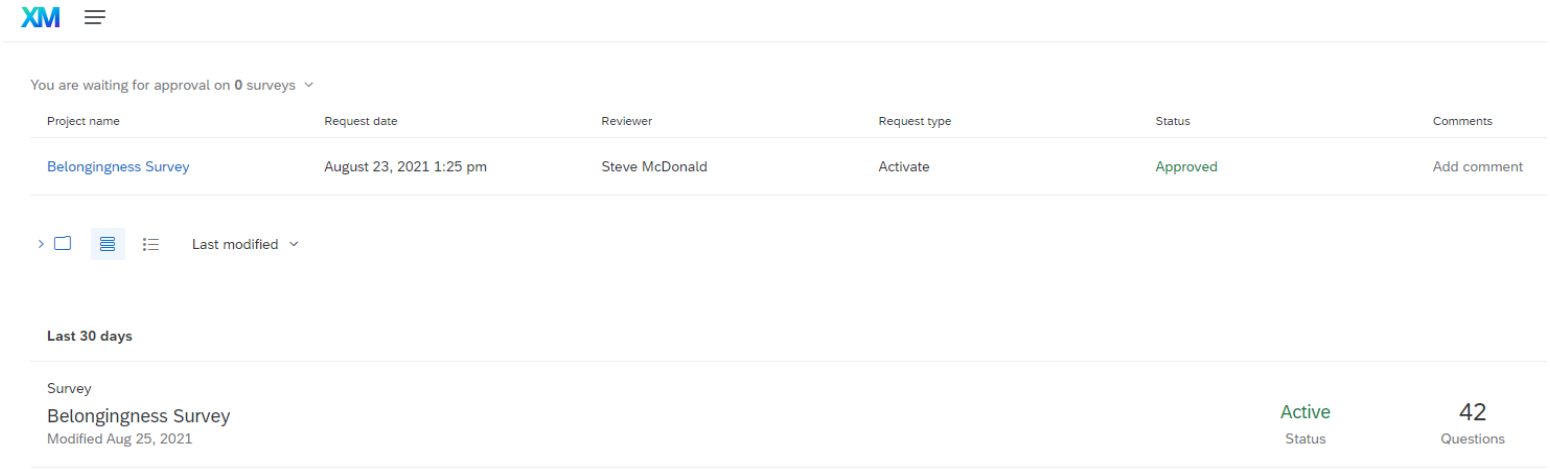
If you have any questions or concerns regarding this study and would like to talk to someone other than the researchers, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researchers using the information provided above.

Instrument


XM
You are waiting for approval on 0 surveys
Project name
Request date
Reviewer
Request type
Status
Comments
Belongingness Survey
August 23, 2021 1:25 pm
Steve McDonald
Activate
Approved
Add comment
Last modified
Last 30 days
Survey
Belongingness Survey
Modified Aug 25, 2021
Active
Status
42
Questions

Appendix E

Information Eliciting Participants

Dear Student:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Ph.D. degree, and I am partnering with Wayland Baptist University. The purpose of my research is to explore how students considered traditional or Non-traditional in status with the college perceive their sense of belonging and inclusion within the institution. I seek to measure how the institution meets specific needs and collaborates with the student body and how the sense of belonging affects a student's academic success. I am writing to invite eligible participants to join my study.

Participants must be 18 years of age or older and enrolled in an undergraduate program at Wayland Baptist University. Participants, if willing, will be asked to complete a brief online survey, which includes ten basic demographic questions, and 29 Likert scale questions. It should take approximately 5-10 minutes to complete the survey. Participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, please click here and complete the attached survey by Friday, October 15th, 2021. Contact me at [redacted] for more information.

A consent document is provided as the first page of the survey. The consent document contains additional information about my research. Because participation is anonymous, you do not need to sign and return the consent document unless you would prefer to do so. After you have read the consent form, please click the next button to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey.

Wayland Baptist University Belongingness Survey

Sincerely,

Michelle Walbeck

Ph.D. Candidate Class of 2021

[redacted]

Appendix F

Consent

Title of the Project: Integration of Non-traditional Students: Comparing Traditional and Non-traditional Students' Sense of Belonging
Principal Investigator: Michelle Walbeck, MAT, Liberty University
Co-investigator: Rosemary Peggram, Ph.D., Wayland Baptist University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be **18 years of age and enrolled in an undergraduate program at Wayland Baptist University.**
Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to explore how students considered traditional and Non-traditional in status with the college perceive their sense of belonging and inclusion within the institution. Then measure how the institution meets specific needs and collaborates with the student body and how the sense of belonging affects a student's academic success.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. Reading and signing the consent form for this survey study.
2. Complete the online survey which includes ten basic demographic questions and 29 survey questions. The survey should only take 5-10 minutes to complete.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life. There are no risks or discomforts that are anticipated from your participation in this study.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher(s) will have access to the records.
Include the following in this section:

- Participant responses will be anonymous. Participant responses will be kept confidential through the use of codes
- Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or Wayland Baptist University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study

Whom do you contact if you have questions or concerns about the study?

The researcher(s) conducting this study Michelle Walbeck MAT, and Rosemary Peggram Ph.D. You may ask any questions you have now. If you have questions later, **you are encouraged** to [redacted]ct the researcher's

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researchers, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You will be given a copy of this document for your records/you can print a copy of the document for your records. If you have any questions about the study later, you can contact the researchers using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

_____

Printed Subject Name

_____

Signature & Date