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Academic Advising Predicting Student Persistence at Historically Black Colleges and Universities

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This is to certify that the doctoral dissertation by

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Abstract

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MBA, Virginia College, 2015

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Student retention has been a problem for historically Black colleges and universities (HBCUs) for many years. Academic advising has been used to improve retention. This quantitative correlational study addressed the lack of research on the relationship between academic advising modalities, academic advising, self-assessed academic learning outcomes, and student persistence at two HBCUs. Tinto's student retention theory framed the examination of academic advising, self-assessed academic advising learning outcomes, and student persistence. Ajzen's theory of planned behavior framed the relationship between a student's intention to persist, predicting the student's actual persistence to the next term. Research Question 1 examined academic advising modalities, academic advising, and self-assessed academic advising learning outcomes predicting student persistence. Research Question 2 examined the relationship of students' persistence intentions to students' actual persistence to the next term at two HBCUs. Logistic regression was used to understand how self-assessed academic advising learning outcomes predict student persistence. The predictive discriminant analysis compared the prediction intent to persist to actual persistence. Results suggest that self-assessed academic advising learning outcomes predict a student's intention to persist to the next term. Findings could be used to improve communications between advisors and students and improve student persistence by increasing their knowledge of academic systems. Study findings may have a positive social change by increasing the student persistence rate at HBCUs, thereby strengthening the financial position of HBCUs and increasing the number of college graduates in African American communities.

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Chapter 1: Introduction to the Study

Although U.S. college retention rates increased by 8.6% in 2016 (Kemp, 2016), 20% of first-year college students do not finish college while 40% of college students as a whole do not graduate from college (Bishop, 2016; National Center for Education Statistics [NCES], 2016). Student retention has been a particular problem for historically Black colleges and universities (HBCUs) for many years. In 2018, the retention rate for full-time first-time degree-seeking undergraduates was 65.7% at HBCUs, while the national average for full-time student retention rates at postsecondary institutions for 2018 was 75.5% (NCES, 2019). In 2020, HBCUs reported a 1.4% increase of full-time first-time degree-seeking undergraduate student retention rate compared to 2018 65.7% (NCES, 2019) . The national average for full-time student retention rates at postsecondary institutions for 2020 increased from 75.5% to 75.9% (NCES, 2022). Although the HBCU retention rate increased within two years more than the national average, it is still 10% below non-HBCUs (NCES, 2019).

Academic advising is a strategy implemented at many colleges and universities to retain first-generation college students (Baier et al., 2016; Wibrowski et al., 2016). First-generation students are defined as college students whose parents do not have a college degree or attended a postsecondary college (Cataldi et al., 2018; Toutkoushian et al., 2019). In general, first-generation college students were reported as 33% of general population of all postsecondary colleges (Cataldi et al., 2018). However, HBCUs' enrollment of first-generation college student is greater than 50% (Thurgood Marshall College Fund, 2019). Researchers have found positive relationships between academic

advising and student persistence (DeLaRosby, 2017; Yonker et al., 2019). Given these findings, academic advising is viewed as playing a crucial role in a student's persistence in college, with some colleges making this advising mandatory in academic progression (Vianden & Barlow, 2015; Wibrowski et al., 2016).

In general, academic advising is considered a vital part of retention strategies (Hart-Bridge, 2020). Some colleges have invested in technology to track student appointments and allow advisors to communicate with students (Ireland, 2018). Academic advising also allows advisors to categorize students at high risk of failing courses or withdrawing from college (Ireland, 2018). Researchers have examined specific types of academic advising (prescriptive, proactive, developmental, and appreciative advising approaches) to improve learning outcomes and retention (Harris, 2018; Miller et al., 2019; Yonker et al., 2019). However, little research exists on academic advising and student retention at HBCUs. Findings from the present study helped to fill a gap in the knowledge of whether academic advising modalities (email, phone, or video conferencing), academic advising (advised or not advised), and self-assessed academic advising learning outcomes yield a positive change in a student's persistence to the next term at two HBCUs, one public and one private. This study was an examination of the relationship that academic advising modalities (electronic and face-to-face), academic advising (advised or not advised), and self-assessed academic advising learning outcomes may have with a student's persistence to the next term at two HBCUs.

Students at HBCUs are often unprepared academically, and 72% come from lower socioeconomic levels (Johnson et al., 2019) than their counterparts at

predominately White institutions (PWIs; Freeman et al., 2016; Nichols & Evans-Bell, 2017). Several barriers hindering minority students' intent to persist are being unprepared for college, lacking academic and parental support, and lacking the knowledge needed to overcome social, academic, and financial barriers to graduation (DeAngelo & Franke, 2016; Hardy et al., 2019; Seidman, 2005; Tinto, 1993). Findings from the present study may result in positive social change by promoting the importance of stronger communications through advisor and student relationships and the need to strengthen student support systems and increase students' knowledge of academic systems. By highlighting the potential importance of effective and accessible academic advising, this study's findings may be used to strengthen the persistence of students at HBCUs, thereby improving graduation rates among African Americans and closing the income and wealth gaps in the United States.

Background

Students face different kinds of barriers, challenges, and needs that require assistance from college staff. Academic advisors can help build relationships and commit to the institution by understanding students' needs and challenges. In Savage et al.'s 2019 study, advisors helping students understand the institutions' investment in the students, such as study halls and on-campus activities, made a significant impact on students persisting to the next term through graduation. Brooks and Allen (2014) found that at an HBCU, faculty or staff performing advising duties through fictive kin relationships had positive effects on students' academic persistence. Study findings in Simmons (2019) showed that having a minority faculty acting as an advisor was essential to persistence in

African American male students attending a PWI. The advisor acted as the bridge between the institution and the students. The advisor also served as the guide to the students' intention to persist and ultimately graduate (Simmons, 2019).

Academic advisors can help students persist and graduate from college by guiding them through barriers and challenges (Ellis, 2014; Fosnacht et al., 2017; Zhang et al., 2019). However, minority students often deal with barriers such as financial issues, lack of parental support, and lack of academic preparation to persist in college (Hardy et al., 2019; Seidman, 2005; Tinto, 1993). Minority students also often struggle with assimilating into the culture at PWIs (Baker et al., 2018). Therefore, minority students face unique challenges that academic advisors can guide them through such as assimilating at PWIs, financial issues, and lack of preparation to persist at and graduate from college.

Different types of academic advising approaches and how institutions use different approaches to help students overcome challenges and barriers to persist and graduate are discussed in Chapter 2. Understanding what students learn from academic advising that can help them persist may help institutions increase student persistence and graduation rates. This study provided data from students' responses to a survey on self-assessed academic advising learning outcomes that may help institutions evaluate their academic advising modalities and academic advising programs to assess student persistence and graduation rates.

Problem Statement

U.S. colleges face challenges with student persistence. As of 2017, about 68% of HBCU students did not graduate in 6 years (NCES, 2020c). In contrast, of the entire college student population in 2017 graduating with 4-year degrees, 63.0% of White students and 39.7% of Black students reported having graduated after 6 years (NCES, 2017). Therefore, there is a need to examine what factors may be associated with student persistence. Persistence is defined as students successfully completing a term and continuing enrollment to the next term (Qayyum et al., 2019). Retention is defined as the institution's ability to keep students enrolled through degree completion (Mu & Fosnacht, 2019). In the present study, persistence was measured by data reflecting students' continued enrollment to the next consecutive term provided by university records offices.

As a whole, 40% of freshmen enrollment at HBCUs consists of students from low-income communities (Nichols & Evans-Bell, 2017). Many first-year students at HBCUs have poor academic preparation skills and financial pressures. They also lack time management and study skills, which can affect their persistence in college (Hardy et al., 2019; Harris, 2018; Nichols & Evans-Bell, 2017). Harris (2018) concluded that the advisor-to-student relationships built through academic advising helps with first-year student persistence at HBCUs in South Carolina. However, Harris's study did not include analysis of electronic academic advising modalities and self-assessed academic advisement learning outcomes related to student persistence at HBCUs.

Research has been conducted on academic advising and student retention and ways to improve student success and persistence at postsecondary institutions (Baier et

al., 2016; Brecht & Burnett, 2019; Swecker et al., 2013). Although several studies have focused on socioeconomic status, SAT and ACT scores, and GPAs and retention at HBCUs (Baier et al., 2016; Nguyen et al., 2017), the problem addressed in the present study is that while a number of studies have been conducted on retention and minorities at PWIs (Baker et al., 2018; Green & Wright, 2017; Simmons, 2019), little is known about the relationship between academic advising, self-assessed academic learning outcomes, and student persistence to the next term at HBCUs.

There has been minimal research on electronic academic advising and self-assessed academic advising learning outcomes at HBCUs. Findings from the present study could help HBCUs improve student persistence by examining ways to increase access to knowledgeable and resourceful personnel at the institution. Electronic advising may provide HBCUs new options for communicating and connecting with students. Examining the relationship between electronic academic advising, academic learning outcomes, and student persistence to the next term at two HBCUs filled a gap in what is known about academic advising and persistence and add to the literature in this area.

Purpose of the Study

The purpose of this quantitative correlational study was to examine the relationship between academic advising modalities, academic advising (advised or not advised), self-assessed academic advising learning outcomes, and student persistence at two HBCUs. While there have been studies on academic advising at HBCUs (Harris, 2018; Hardy et al., 2019; Nichols & Evans-Bell, 2017), relationships between the three predictor variables of academic advisement (advised or not advised), academic advising

modality (electronic or face-to-face), and self-assessed academic advising learning outcomes (knows requirements, understands how things work, knows resources, understands connections, has an educational plan, values advisor–advisee relationship, supports mandatory advising, and has significant relationships), and the criterion variables (student actual and intended persistence to the next term at two HBCUs) have not been studied.

Research Questions

In line with the stated study purpose, this study addressed two research questions:

Research Question 1: To what extent, if any, do academic advising (advised or not advised), academic advising modality (electronic or face-to-face), and self-assessed academic advising learning outcomes (knows requirements, understands how things work, knows resources, understands connections, has an educational plan, values advisor–advisee relationship, supports mandatory advising, and has significant relationships) predict a student's persistence intention to the next term at two HBCUs?

Research Question 2: To what extent, if any, do students' persistence intentions predict students' actual persistence to the next term at two HBCUs?

Theoretical Foundation

Tinto's (1975) theory of student retention provided the theoretical context for this study. Tinto's theory addresses a student's commitment, personal viewpoints, and prior influences to enrolling in an institution. Tinto addressed the need for integrating students into institutions' formal and informal academic and social systems. Integration into a college's academic and social systems occurs through multiple factors: relationships built

with faculty, advisors, or staff members of the college; peer group associations; and extracurricular activities (Tinto, 1975). Since academic advising programs are part of the integration processes and can fall under academic and social integration, the present study reflected concepts in Tinto's theory of student retention.

Retention methods should not merely be "add-ons" to the institution's retention plan but strategies to improve student retention that involve students and advisors building relationships through advising (Tinto, 2006). Tinto believed that students are retained based on their academic and social integration into the formal and informal systems and communities in institutions. The relationships that students form with people (peers, faculty, staff, or advisors) at the institution are the bridges that connect the systems and communities. College students are more likely to voluntarily withdraw from college when academic and social integration is unsuccessful (Tinto, 1975). Tinto's theory related to this study because academic advising is a part of the academic system that addresses successful academic integration (Tinto, 1975). Having students assess their academic advising learning outcomes can help to determine if students are integrating academically or not at all. The more students integrate into institutions, the greater their persistence (Tinto, 1975).

Ajzen's theory of planned behavior supported the rationale for Research Question 2. This theory focuses on the prediction of intentions based on a person's intent to achieve a particular behavior (Ajzen, 1991, 2011). Research Question 2 examined the relationship between students' persistence intentions and their actual persistence to the next term. Ajzen (1991) posited that how people perform behaviors is determined by their

intentions to engage in the behaviors, which are influenced by the value they place on the behaviors. Therefore, the greater the intention to achieve the behavior, the greater the chances of the behavioral outcome being performed (Ajzen, 1991). Findings for Research Question 2 identified if a statistical significance existed between student persistence intent and actual persistence to the next term.

Nature of the Study

The present study was quantitative and correlational. A logistic regression and a predictive discriminant analysis were used to analyze the data for Research Questions 1 and 2. Nominal predictor variables were transformed into dichotomous dummy variables for analysis. Quantitative correlational designs are used to determine the relationship and meaningful significance between different variables (Creswell, 2009). A correlational design was best for the present study to provide evidence of the changes an institution might need to make to support its mission statement and improve student persistence and graduation rates.

Data on academic advising modality, academic advising (advised or not advised), and self-assessed academic advising learning outcomes from this study filled a gap in the literature. The results may help higher education administrators understand the importance of removing location barriers and academic advisors' time constraints. They suggested that academic advisors should focus on advising sessions such as locating resources to student problems and knowing how to navigate college. As a result, this study's findings could help to improve retention and graduation rates at HBCUs.

Definition of Terms

The following terms were used throughout this study:

Academic advising modality: Academic advising modalities are various approaches to meeting with students, including in person or face-to-face, email, phone, or video conferencing such as Skype, Zoom, and WebEx (Gurantz et al., 2020).

Academic integration: Academic integration is the measurement of how well a student assimilates into academic system: the student's GPA, course grades, class attendance, academic advising, interaction outside of class with faculty and study groups (Tinto, 1993).

Electronic academic advising: For the present study's purpose, electronic academic advising reflects Gurantz et al.'s (2020) definition of virtual advising being a meeting held between advisor and student through technologies such as email, phone, or video conferencing.

Face-to-face advising: Face-to-face advising is scheduled advising session where a student and an advisor meet in a designated area. This advising approach does not include email or other forms of electronic advising methods (Schwebel et al., 2012).

Historically Black colleges and universities: HBCUs are public and private colleges established prior to 1964 to educate African Americans. Today, HBCUs offer open enrollment to all students regardless of race (White House Initiative on Historically Black Colleges and Universities, 2020).

Persistence: Persistence refers to a student successfully completing a term and continuing enrollment to the next term (Qayyum et al., 2019).

Retention: Retention is an institution's ability to keep students enrolled (Mu & Fosnacht, 2019).

Self-Assessed Academic advising learning outcomes: Academic advising learning outcomes are the information that students learn from academic advising (Smith & Allen, 2014). This information includes (a) knowing what requirements (e.g., major, general education, other university requirements) they must fulfill in order to earn a degree; (b) understanding how things work at their institutions (timelines, policies, and procedures regarding registration, financial aid, grading, graduation, petitions, and appeals; (c) knowing resources, meaning that when students have problems, they know where they can go to get help; (d) understanding how their academic choices at their institutions connects to their career and life goals; (e) having a plan to achieve their educational goals; (f) believing in the importance of developing an advisor–advisee relationship with someone on campus; (g) believing that there should be mandatory academic advising for students; and (h) having had at least one relationship with a faculty or staff member at their institutions that had a significant and positive influence on them (Smith & Allen, 2014).

Social integration: Social integration is the measurement of how well a student is assimilated into the social systems of a college: clubs, intramural athletics, sororities, and fraternities, activities, work-study jobs, student government, and resources (Tinto, 1993).

Assumptions

The first assumption was that the study participants would answer all questions honestly concerning their knowledge and future goals based on their experience from academic advising sessions. The second assumption was that the participants would follow the instructions provided to complete the survey. The third assumption was that the experiences garnered from the data collected could be applied to the larger population of first-year students at HBCUs. These assumptions were necessary to ensure that the survey information was received without bias and that no outside opinions influenced the study outcomes.

Scope and Delimitations

The present study's scope was on investigating the relationship between academic advising modalities (electronic and face-to-face), academic advising (advised or not advised), and self-assessed academic advising learning outcomes, and first-year student persistence from Spring 2021 to Fall 2021 at Institution A (a private HBCU) and Fall 2021 to Spring 2022 at Institution B (a public HBCU). Data provided by both HBCUs were used to determine if students persisted from one term to the next. A delimitation existed because the population was limited to first-year students and no other classification of students or the institution's entire population. Another delimitation existed because the selected population of first-year students was enrolled at two HBCUs in the southern United States. Because of the geographical region delimitation, this study's data may not apply to HBCUs outside of the southern United States. Although both institutions were HBCUs, one was public and the other was private, and the study

was conducted during two different semesters (Spring 2021 for Institution A, Fall 2021 for Institution B). The final delimitation was only HBCUs were examined and PWIs were not included, reflecting gaps in the literature on HBCUs.

Limitations

The NCES (2020a) reported that 51% of HBCUs are classified as public institutions and 50% are classified as private nonprofit institutions. The initial attempt to collect data from one institution did not yield enough participants to obtain the necessary sample size. Therefore, a second institution (Institution B) was added to the study. This study's limitation to generalization reflected only studying students at one private and one public HBCU in the southern United States. Findings from this study cannot be generalized to all HBCUs, other higher education institutions, or all students enrolled in postsecondary institutions.

Significance

The present study provided data on student persistence, academic advising modalities, academic advising, and self-assessed knowledge of academic advising learning outcomes. The data were collected from first-year students at two HBCUs. The study findings may help higher education administrators understand the importance of removing location barriers and time constraints for academic advisors. The findings on electronic academic advising could improve student-to-advisor and student-to-institution relationships and improve the institution's persistence to graduation rate. Implementing electronic academic advising and the findings concerning self-assessed academic advising learning outcomes could create positive social change by increasing advisor-to-

student relationships, increasing students' knowledge of overcoming barriers to persist, and improving HBCU graduation rates.

Summary

As of 2018, HBCUs reported their first-time degree-seeking student retention rate at 10% below the national average for Fall 2017 to Fall 2018 (NCES, 2019). Academic advising has been known to improve student persistence. Previous research has reported positive correlations between academic advising and student persistence (DeLaRosby, 2017; Yonker et al., 2019). Since HBCUs reported 65.7% retention for first-time degree-seeking students for Fall 2017 to Fall 2018, and the national average is 75%, there was a need to examine ways to improve student persistence at HBCUs. The present study's focus was on investigating if academic advising modalities (email, phone, or video conferencing), academic advising (advised or not advised) and self-assessed academic advising learning outcomes (knows requirements, understands how things work, knows resources, understands connections, has an educational plan, values advisor–advisee relationship, supports mandatory advising, and has significant relationships) could yield a positive change in a student persistence at HBCUs.

Examining academic advising modalities (electronic and face-to-face), academic advising (advised or not advised) and self-assessed academic advising learning outcomes (knows requirements, understands how things work, knows resources, understands connections, has an educational plan, values advisor-advisee relationship, supports mandatory advising, and has significant relationships) yielded data that could be used to improve term-to-term student persistence and improve graduation rates. By reducing

limitations and biases, findings from this study had more generalizability and therefore a more significant impact on improving academic advising programs and student persistence at HBCUs. In Chapter 2, I discuss the theoretical framework of Tinto (dropout theory and student integration model) and Azjen (theory of planned behavior) and review the literature on academic advising, self-assessed academic advising learning outcomes, and student retention.

Chapter 2: Literature Review

The purpose of this quantitative correlational study was to examine the relationship of academic advising modalities (electronic and face-to-face), academic advising (advised or not advised) and self-assessed academic advising learning outcomes with student persistence at two HBCUs. Student retention has been a particular problem for HBCUs for many years. Minority students face challenges and barriers including lack of motivation, less academic and social engagement, identity and self-perception issues, lack of parental support, academic expectations, lack of academic preparation, and lack of financial resources (Hardy et al., 2019; Laurence, 2016; Moya et al., 2017; Preston, 2017; Seidman, 2005).

Contemporary literature has provided data supporting the idea that advisors' abilities to help students overcome challenges can affect students' decisions to persist. Academic advising is a strategy implemented at many colleges and universities to retain first-generation college students (Hurd, 2000). Researchers have examined the positive correlation between academic advising and student persistence (DeLaRosby, 2017; Yonker et al., 2019). Given this positive correlation, academic advising is viewed as playing a crucial role in student persistence in college, with some colleges making this advising a mandatory part of academic progression (Vianden & Barlow, 2015; Wibrowski et al., 2016). Examining these academic advising modalities may result in best practices that HBCUs can use to improve student persistence term to term.

The literature search strategy and the theoretical foundation from Tinto's (1975) institutional departure model on student retention and academic integration used in the

present study are discussed in this chapter. Also reviewed is current research on retention and persistence for postsecondary students attending HBCUs, challenges and strategies, academic advising, and what learning outcomes predict or tell college administrators about students.

Literature Search Strategies

The following databases and search engines were used to find articles related to the research topic: Academic Search Complete, Education Source, ERIC, Computers and Applied Sciences Complete, Computer Science Database, Gale Academic OneFile Select, Information Science & Technology Abstracts, SAGE Journals, ScienceDirect, National Academic Advising Association (NACADA), Social Sciences Citation Index, U.S. Department of Education (IPEDS, Digest of Education Statistics), and ACT. The following terms were searched: *student persistence*, *student retention*, *academic advising*, *academic advisor*, *academic adviser*, *types of academic advising modalities*, *appreciative advising*, *developmental advising*, *proactive advising*, *prescriptive advising*, *Astin*, *Astin's theory*, *augmented advising*, *flipped advising*, *online advising*, *distance advising*, *virtual advising*, *internet website advising*, *advising and technology*, *tech*, *technology and academic advising*, *Integrated Planning and Advising for Student Success*, *iPASS*, *e-advising*, *online advising*, *advising learning outcomes*, *higher education*, *college*, *university*, *postsecondary*, *African American*, *Black*, *minority*, *HBCUs history*, *HBCUs student retention*, *HBCUs student persistence*, *HBCUs academic advising*, *HBCUs athletes and retention*, *graduation*, *persistence*, *resilience*, *Bean*, *Bean's student attrition model*, *student attrition model*, *Spady*, *Spady's undergraduate student dropout model*,

undergraduate student dropout model, Tinto's theory on student retention, student departure, sense of belonging in college, communities on a college campus, academic integration, social integration, web-based advising, academic affairs, and student affairs.

The literature search scope was 1992 to 2020. Seminal and historic sources earlier than this scope were also included. Walden University's online library was used to locate most of the articles in the literature review. Also, NACADA and the Center for the Study of College Student Retention websites were searched for peer-reviewed and non-peer-reviewed articles. The websites provided research articles on student retention, student persistence, academic advising approaches, and academic advising learning outcomes at HBCUs and postsecondary education institutions.

Theoretical Foundation

Tinto's (1975, 2006) dropout theory was the present study's theoretical basis. As shown in Tinto's (1975) student integration model, there are two pathways for integrating into college: academic and social. Tinto's theory on why students drop out from higher education originated from Durkheim's suicide theory (Aljohani, 2016; Burke, 2019; Tinto, 1975; Turner & Thompson, 2014) and Spady's theory of undergraduate dropout process (Tinto, 2006).

Durkheim's cost/benefit analysis of suicide theory suggests that a person will weigh the value of staying in society against the value of withdrawal (suicide) and decide to stay or withdraw based on which output holds more value (Tinto, 1975). Students apply similar processes to determine whether to withdraw (similar to suicide) or persist in college. When students are provided information on the benefits of earning a college

degree, they will evaluate the benefits against persistence or withdraw from college (Tinto, 1975). Evaluating the benefits of earning a college degree may strengthen students' commitment to their institutions and to graduating (Xu & Webber, 2018).

Tinto (2010) examined four institutional conditions (student expectations, support, feedback, and involvement) to determine the association between student retention and a student's decision-making process of withdrawal (similar to suicide) or persistence through making a commitment to an institution. Tinto emphasized institutional environments (academic and social systems), members of the institution (staff, faculty, or advisors), and students' perceptions of belonging in determining whether to withdraw or persist. The need for students to connect with someone at the institution became a focus point for student retention (Tinto, 2010).

Arnold Van Gennep's study of the rites of passage (separation, transition, and incorporation) was a foundation of Tinto's (1993) student departure study. Tinto compared the rites of passage (separation, transition, and incorporation) into society to how college students integrate socially and academically into college. Based on Van Gennep's study, Tinto believed that to integrate socially and academically, students must separate from past communities such as family, high school, and local areas and transition into the college environment. This separation is a major concern for minority students, who tend to lean more on family support to encourage persistence. Minority students have different needs when compared to their White counterparts (Seidman, 2005, p. 43). Hunter et al. (2019) differed from Tinto in arguing that the needs of Black

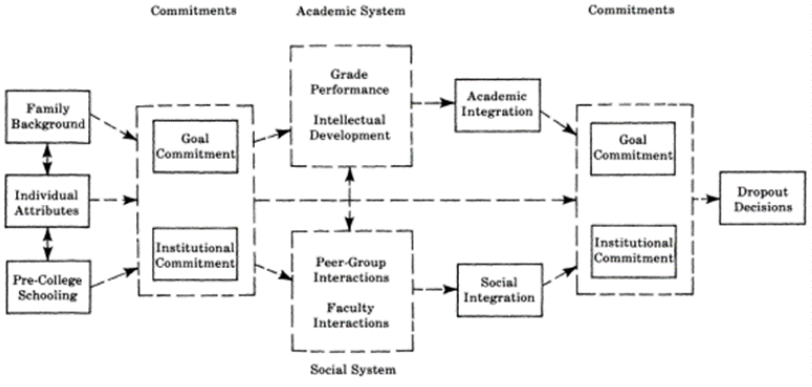
students include racial identity and sense of community. The needs of minority students are discussed later in this chapter.

Tinto's Institutional Departure Model

Tinto's institutional departure model (see Figure 1) consists of family and previous educational background, academic potential, normative congruence, friendship support, intellectual development, grade performance, social integration, satisfaction, and institutional commitment. This model shows the process of a student moving through the systems to determine persistence or departure. The model begins with the student's precollege skills and education, individual attributes, and family background entering into college to determine the student's goals and institutional commitment before moving onto the academic and social systems (Tinto, 1993). The student's degree of integration (academically and socially) determines the student's level of commitment and ultimately the decision to persist or depart (Tinto, 1993).

Figure 1

Tinto's Institutional Departure Model



Note. Adapted from "Dropout from Higher Education: A Theoretical Synthesis of Recent Research," by V. Tinto, 1975, *Review of Education Research, 45*(1), p. 95. Copyright 1975 by SAGE Publications. Reprinted with permission.

In earlier views of retention and attrition, students were blamed for not progressing and graduating (Tinto, 2006). Spady (1971) argued that a student's ability to fully integrate into and commit to an institution academically and socially depended on the student's academic aptitude and previous training, reflecting such factors as grades and GPAs. Earlier thinking also reflected beliefs that students dropped out of college due to their lack of preparedness for postsecondary education, including poor skills or abilities, and lack of motivation (Tinto, 2006). Astin (1984) posited that a student's behavior toward academic and social systems and processes was a predictor of student retention and that institutions should focus on implementing programs and services to strengthen student skills and provide support and resources to help students who were not academically prepared for college.

Tinto (1975, 2006) believed that students integrate into an institution through the institution's academic and social systems. He further believed that students could be retained and would persist if institutions stopped "the blame game" and instead focused on academic and social integration. Academic integration is the measurement of how well a student integrates into academic system (Tinto, 1975). The student's GPA, course grades, class attendance, academic advising, and interaction outside of class with faculty and study groups are used to evaluate how well the student has integrated academically. Social integration is the measurement of how well a student integrates into a college's

social systems (Tinto, 1975). These social systems consist of peer interactions and on-campus organizations, activities, and resources. Institutional integration, therefore, reflects the student's ability to become acclimated to the institution through academic and social systems (Tinto, 1975, 1993).

In Tinto's (1993) longitudinal academic departure model, academic and social systems are divided into two subcategories: formal and informal. The formal academic system consists of academic performances such as GPA and test grades. The informal academic system consists of faculty or staff interaction, such as academic advising, with students outside of the classroom. The formal social system consists of extracurricular activities such as student government or work-study jobs (Tinto, 1993). The informal social system consists of peer group interaction such as clubs, intramural athletics, sororities, and fraternities.

Tinto (1993) argued that the absence of integration into the formal and informal academic and social systems leads to student departure and that both systems play a role in student persistence. Students can integrate into an institution through committing to a set of goals that allow them to build a sense of belonging in the institution's student body. By merging the commitment to personal goals and the commitment to the institutions, students will decide to persist and remain at an institution (Tinto, 1993).

Tinto's theory was unique in that he did not just consider student grades and prior enrollment variables (high school GPA and SAT or ACT scores) in student retention; he also included the institution's involvement in student retention (Burke, 2019; Tinto, 1975, 1993; Xu & Webber, 2018). Tinto's theory is similar to Spady's in that they both

believed that academic and social pathways affect student retention (Burke, 2019). When comparing college systems to societal systems, similarities of integration into society and integration into college can be seen (Tinto, 1975). In studying why students do not persist in college, Tinto (1975) examined how the inability to integrate academically and socially can lead to withdrawal from a college. Tinto (2017a) found that students must feel a sense of belonging to a group, place, or person at an institution to successfully integrate into the institution

Further research on student departure, retention, persistence, and academic integration followed the publication of Tinto's theory (Choi et al., 2019; DeLaRosby, 2017; Savage et al., 2019; Sidelinger et al., 2016). In reference to Tinto's dropout theory, the common theme is the need to integrate students into college systems through one of many ways, including student–advisor relationships and environments where students can come to feel a sense of belonging. This research has affirmed that students need relationships to support them and encourage them to persist (Baier et al., 2016; Brooms, 2018; Hurd, 2000) .

Criticism of Tinto's Theory

Although Tinto is often referenced because of his work on student retention, he has also been criticized for not applying his dropout theory to students of color (Kim & Irwin, 2013). Kim and Irwin (2013) argued that Tinto's theory only vaguely applied to students of color. Many researchers have criticized Tinto's theoretical foundation because he researched student persistence primarily at PWIs (Baker et al., 2018, 2020; Metz, 2004; Williams & Johnson, 2019).

While Tinto did not apply his dropout theory to students of color, he did mention these students in some of his work. In 1993, Tinto stated that Black students and students of other races formulated "supportive personal relationships: faculty, peers, and family" with a collective group of people from groups outside and inside of the institution (p. 122) and that Blacks were more apt to integrate socially into formal social groups. Hunter et al. (2019) differed from Tinto in arguing that the needs of Black students include racial identity and sense of community. This is similar to Latino and Hispanic students, whose support groups are derived from their strong connection and commitment to their family and culture (Seidman, 2005). Gonzalez and Ting (2008) found that 70% of the Latinos or Hispanic students did not integrate into social organizations regardless if the organizations were designed to connect them to their culture. Similar to Blacks and other groups' need for mentorship, Gloria (1999) found that mentorship is a vital part of Chicana/o student persistence and integration and recommended that institutions should seek to foster environments that allow Chicana/o students to have mentors.

Tinto has also been criticized for limited research on minorities and the separation phase. Tinto (1993, p. 95) believed that students are to "disassociate themselves from past communities and family" to integrate into college successfully. Minority students have different needs when compared to their White counterparts, and this separation is a major concern for minority students, who use family support to encourage persistence (Seidman, 2005; Simmons, 2019). However, Tinto also acknowledged that minority students are often disadvantaged because they have not been prepared for college. Therefore, minority students find separation from family difficult.

According to Baker et al. (2020), Tinto's theoretical dropout model has primarily been used in research on PWIs, not HBCUs. Baker et al. argued that the research conducted at PWIs should not be considered a sufficient representation of the HBCU population. As Tinto's theory has largely been used to study PWI populations, using his theoretical dropout model in the present study expanded the research on academic integration by investigating if electronic advising and academic learning outcomes may or may not impact student persistence at two HBCUs. Therefore, using Tinto's theory as the theoretical model in the present study allowed for expanding this theory to HBCUs. The need to extend Tinto's research to HBCUs validated using this theory in the present study to add to the literature on academic advising and student persistence in HBCUs, which is underrepresented in existing research.

Tinto's student departure theory made a significant contribution to understanding student retention, persistence, and attrition. Through advancing other theoretical models that evolved from different parts of Tinto's theory of student departure (academic and social systems, integration, and commitment), the field of education has increased in understanding and knowledge, as reflected in the following discussions of theories and models developed by Spady (1971), Bean (1981a, 1981b), Astin (1984), Pascarella and Terenzini (1979), Bean and Metzner (1985), and Cabrera et al. (1993).

Other Student Retention Theories

Spady's Undergraduate Dropout Process

In 1971, Spady was the first to study student retention and attrition using Durkheim's suicide theory and to study student retention from the view of the

institution's responsibility (Aljohani, 2016; Burke, 2019; Turner & Thompson, 2014). Spady focused on student involvement and the institutional environments that allowed student's abilities and skills to be influenced by the academic and social systems in the institution (Aljohani, 2016; Burke, 2019; Turner & Thompson, 2014). He studied undergraduate dropout to identify the impact of academic and social systems, their interrelationships, and how they impacted student attrition. The academic system included the student's grades and student's ability to intellectually progress academically; the social system reflected the student's ability to build different relationships (Aljohani, 2016). Spady added intellectual development, social integration, satisfaction, and institutional commitment as variables to the study of retention (Burke, 2019).

Spady's theory focused on academic systems that relied on the evaluation of student grades. He believed the cause of a student's decision to withdraw from an institution was due to low or nonexisting social and academic rewards (Burke, 2019). Further, Spady determined that Durkheim's suicide theory was similar to a student leaving an institution (Burke, 2019). Spady (1971) believed that a student's social life spills over into the student's academics. Further, he believed that students need to be fully integrated into the social and academic systems of the institution to be retained. He identified students as bearing the responsibility for this integration.

Spady's (1971) undergraduate dropout process model synthesized and extended Durkheim's suicide theory and previous theories on higher education student dropout. Spady's model is similar to Tinto's, with the exception of Tinto's model's focus on the

institution's responsibility of retaining the student and the student's motivation to persist (Tinto, 1975, 2006, 2017).

Bean's Student Attrition Model

In 1980, Bean released a complex theory on student attrition model that he synthesized from Tinto, Spady, Durkheim, and other previous theorists (Bean, 1983). Working from more of an industrial perspective, Bean's study consisted of four main variables—background, organizational, environmental, attitudinal and outcome—with multiple predictor variables in each category. The variables in Bean's causal student attrition model explain student attrition. The model shows the relationships between background variables such as performance and socioeconomic status with organizational determinants, intervening variables, and dependent variables (Bean, 1981a, 1981b, 2017; Burke, 2019; Cabrera et al., 1993). Bean theorized that the variables behind student attrition were similar to those seen in employee turnover; both reflecting attitude–behavior interactions. In 1983, Bean modified his previous model and published the industrial model of student attrition, which reflected a reduction in the 1980 student attrition model's variables.

Tinto's (1975) and Beans' (1983) models are a contrast in terms. Tinto (1975, 1993) referred to student dropout as student departure. Bean (2017) saw student dropout issues as similar to those seen in dissatisfied employee. Bean's student attrition model focused more on outside variables that influence student attitudes and caused student behavior to determine persistence or departure (Cabrera et al., 1993; Wylie, 2005). In contrast, Tinto focused on the student's motivation, academic abilities, and academic and

social integration into the institution to determine if a student will demonstrate commitment or depart from the institution (Cabrera et al., 1993).

Bean's student attrition model also differs from Tinto's dropout model in that Bean founded his model on Price/Mueller's environment model of work turnover (Bean, 1983). He defined dropout as the "cessation of individual student enrollment in a particular institution" (Bean, 1983, p. 131). Tinto based student dropout on the lack of connection between students and institutions. However, Bean and Tinto both agreed that academic and social systems positively influence student persistence.

Astin's Student Involvement Theory

Astin (1984) built on Tinto's dropout theory by focusing on student behavior, whereas Tinto examined the institution's involvement. Astin's student involvement theory argues that the student is an active participant and not passive. To determine student persistence, faculty and administrators should examine the student's behavior through the actions or lack thereof in in academic and social systems (Astin, 1984).

Pascarella and Terenzini's Student–Faculty Informal Contact

Research by Pascarella and Terenzini (1979) resulted in the student–faculty informal contact model, which expanded on Tinto's research in academic and social integration by focusing on student–faculty interactions outside of the classroom. Pascarella and Terenzini also expanded Tinto's research by including variables that allowed examining race, parents' education, and precollege academic skills and persistence. Pascarella and Terenzini argued that student–faculty interaction beyond the classroom fostered students' academic and social integration and their decisions to

persist. These findings related to the present study as they suggest that academic advising may have a positive effect on student persistence.

Bean and Metzner's Nontraditional Student Attrition Model

Bean and Metzner (1985) based their nontraditional student attrition model on Tinto's (1975) social systems and process. They felt it more important to focus on environmental variables (finances, employment, outside encouragement, family responsibility, and opportunity to transfer) than academic variables (advising, study habits, major, and course availability). Researchers who focused on nontraditional student attrition examined student-to-institutional social integration while examining the personal social influence and processes (Bean & Metzner, 1985). Bean and Metzner's nontraditional student attrition model posits that older, part-time, and commuter students differ from traditional students by age, enrollment status, and living arrangements and that institutional social systems have less influence on nontraditional students. Because of their maturity, these students spend less time with faculty and other students and focus more on obtaining personal goals, including courses, certifications, and degrees (Bean & Metzner, 1985). Unlike Tinto's (1975) student dropout theory, Bean and Metzner's student attrition model identifies a specific group of students who have been known to attend college and stop out, transfer, or drop out.

Cabrera et al.'s Integrated Model of Student Retention

Cabrera et al.'s (1993) integrated model of student retention was based on Tinto's student departure model. Cabrera et al. differed from Tinto by examining external factors (student's ability to pay and noninstitutional support or influence such as family, friends,

or significant other) that were not included in Tinto's model but that affect academic and social integration. Cabrera et al. found that the external variables (financial attitudes and support from family and friends) had a significant effect on academic integration, commitment to the institution, and persistence, resulting in student persistence through graduation.

Ajzen's Theory of Planned Behavior

The theory of planned behavior expands the theory of reasoned and action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). The theory of reason and action slightly differs from the theory of planned behavior because it focuses on the attitudes, social pressures (norms), and intentions to predict a person's behavior. A person's personality, ethnicity, and past experiences are variables that are considered in the theory of planned behavior (Ajzen, 1991; Yoo, 2020). The theory of planned behavior focuses on predicting a person's intentions to achieve the desired behavior through behavioral controls (Ajzen, 1991, 2011). The resources available to a person are likely to determine the control behavior. Therefore, because of the resources available to students through academic advising, students can perceive their ability to persist and graduate from college. Yoo (2020) argued that a student's intention directly predicts the student's desired behavior. Ajzen (1991) stated that a person's intention is demonstrated in how hard the person is willing to work to achieve the desired behavior. Therefore, the desired behavior is more than likely to be achieved when a person has a firm intention to accomplish the behavior (Ajzen, 1991).

Student Persistence at HBCUs

NCES (n.d.-a) data showed that 68% of HBCU students did not graduate in 6 years, and 65% of HBCU students were retained from the 2017 cohort. Further, NCES (2020b) data showed that, collectively, 64% of Whites and 40% of Blacks from the 2010 cohort graduated in 6 years. These figures suggest the need for more research on student retention, persistence, and attrition at HBCUs.

There is a wealth of literature on academic advising; student persistence, retention, and attrition; and graduation rates at PWIs. Researchers have noted the lack of research on student retention, persistence, and attrition at HBCUs compared to PWIs (Aljohani, 2016; D. Allen, 1999; Baker et al., 2018, 2020; Farmer & Hope, 2015). Data on background variables such as precollege scholastic achievement, demographics, and socioeconomic levels are available on minorities, male and female minorities at PWIs (Farmer & Hope, 2015; Henry et al., 2011; Palmer et al., 2013; Palmer & Young, 2009; Trent et al., 2020). Although African Americans are not represented as minorities at HBCUs, African Americans or Black students were referred to as minorities in the present study for the obvious reason that they populate HBCUs.

Existing research on student retention, persistence, and academic advising at HBCUs has primarily focused on male retention and graduation rates (Farmer & Hope, 2015), female retention and graduation rates (Farmer et al., 2016), HBCU college rankings compared to PWIs (Hardy et al., 2019), and student success and retention at HBCUs (Nguyen et al., 2017). A number of researchers, including Farmer and Hope (2015), Farmer et al. (2016), Hardy et al. (2019), Nguyen et al. (2017), and Woods et al.

(2019) examined student GPA (collegiate and prior high school), ACT, or SAT scores for different populations (male, female, STEM, and athletes) to determine student success and retention rates at HBCUs. Research aligned with Tinto's theoretical model on student academic and social integration has shown successful student persistence (Farmer & Hope, 2015; Farmer et al., 2016; Hardy et al., 2019; Nguyen et al., 2017; Woods et al., 2019). Institutions are seeking ways to retain students, and students want to persist and graduate, but institutional leaders must help students find a way to have students feel a sense of belonging (Tinto, 2017b).

The Need to Belong

Minority students often need a connection with their communities until self-identification with the college institution occurs. Researchers have found that minority students must identify with a community and be received into institutions that foster inclusive environments that influence student integration and persistence (T. Allen & Stone, 2016; Hunter et al., 2019; Trent et al., 2020; Williams & Johnson, 2019). Academic advising, the focus in the present study, cannot replace the support and a sense of belonging that a student's family can provide. However, these advisors can act as guides who are full of knowledge and wisdom to help students navigate through institutional academic and social systems. Academic advisors connect students to their institutions in the hope that the students feel they are not alone in their college journeys. These connections, provided in academic advisor-to-student relationships, were the focus in the present study, specifically to explore the impact of session outcomes on student persistence. Although little research has been conducted on student persistence and

academic advising at HBCUs, research at PWIs and community colleges has shown positive outcomes from relationships with advisors who can help students overcome academic challenges and connect with their institutions, both of which can yield student success and persistence (Johns et al., 2017; Thomas, 2017; Varney, 2012).

A Sense of Belonging

Maslow's hierarchy of needs reflects the idea that basic human needs consist of belongingness to a group or community (Harper & Guilbault, 2008; Kim & Irwin, 2013; Schulte, 2018). Many researchers have recognized that students' basic needs still include the fundamental need that humans have to belong. Malm et al. (2020) defined sense of belonging as "a product of how persons perceive themselves and how they feel that others perceive them" (p. 2). Gopalan and Brady (2020) defined students' engagement in their studies as a benefit of a sense of belonging. The sense of belonging could lead to persistence and success (Gopalan & Brady, 2020). Other researchers have defined sense of belonging as solely to a social community or social connection (Hunter et al., 2019). Tinto's definition is slightly different from other researchers. Tinto focused on the sense of belonging based on the student's connection to the institution (Malm et al., 2020; Tinto, 2017a). Tinto (2017a) argued that a sense of belonging "often expressed commitment that serves to bind the individual to the group or community even when challenges arise" (p. 4).

Previous research has shown that a sense of belonging through relationships, learning and teaching environments, and student engagement positively impacts student persistence (Green & Wright, 2017; Kim & Irwin, 2013; Palmer & Young, 2009;

Severiens & Schmidt, 2008; Tinto, 2008). Feeling as if one fits into a group or the institution can lead to a sense of dedication to the group or institution. This dedication is seen in the form of engagement in the institution's systems, activities, and utilization of resources. Green and Wright (2017) postulated that if students with positive senses of belonging become more involved, they would experience more academic success. Davis et al. (2019) found that academic and social belonging indexes positively correlated with 88% retention from the first term to the second term.

Students who receive support, empathy, and psychological support from faculty often feel a sense of belonging, confidence, and increased self-esteem (Palmer & Young, 2009). First-generation and first-year students often do not know what to expect and may be unprepared for college (Tinto, 2010, 2017). Creating environments that foster learning communities and relationships may help increase a sense of belong among students and increased academic success (Green & Wright, 2017; Severiens & Schmidt, 2008; Tinto, 2008). Participating in learning environments or communities inside and outside the academic system can help students gain a feeling of acceptance or validation of fitting into the institution.

Pratt et al. (2019) found that first-generation and first-year college students had a 20% attrition rate compared to non-first-generation first-year college students, who had a 10% attrition rate. First-generation first-year college students are more likely to withdraw from college because of lack of finances, lack of academic preparation for college, and lack of mentorship and knowledge about college (Baier et al., 2016; Everett, 2019; Pratt et al., 2019). Pratt et al. stated that students must be able to feel accepted in college

systems and see themselves as equal to other students to be successful. Davis et al. (2019) and Vianden and Barlow (2015) aligned with Tinto (2010) in positing that a sense of belonging and developing relationships with others are critical in student persistence. Tinto reported that the absence of academic relationships, involvement, and engagements predicted student withdrawal from an institution. Cavanagh et al. (2018) found a positive correlation between the trust students have in their professors and higher levels of student commitment. Trolian et al. (2016) also found a positive correlation between student–faculty relationships and student academic motivation. Katrevich and Aruguete (2017) found that academic relationships between students and faculty were a predictor of persistence among first-generation students, a finding that aligns with Tinto.

The Need for Academic Advising

Academic advising is used to integrate students academically with an institution. Multiple studies align with Tinto's (1993) theoretical model in reporting that academic advising yields positive outcomes for student persistence (DeLaRosby, 2017; Zhang et al., 2019). Fosnacht et al. (2017) found that advising influences student persistence when students met with advisors an average of two times. Twenty percent of first-year students in Fosnacht et al. met with their advisors at least four times. Schreiner (2009) found that students were 17% less likely to persist if they had difficulty contacting their advisors. Swecker et al. (2013) found that student retention increased by 13% with every advising session.

Savage et al. (2019) reported results consistent with Tinto's (1993, 2006) student retention model. Students who attended academic advising increased their commitment to

graduating from their institutions through building student-to-advisor relationships. Academic advising allows institutions to take ownership and become actively involved in students' decision-making processes regarding their persistence. The institutions do not make the decisions for the students but instead provide support and become a guide and helper that indirectly influences choices students will make to withdraw or persist (Savage et al., 2019).

Intervention programs have been implemented to improve student persistence and retention at many intuitions. These programs have been a research focus. Thomas (2017) researched the impact of intervention programs and intrusive advising on student outcomes from developmental courses. Intrusive advising is an advising approach that focuses on the needs of the students and the proactiveness of the advisor to assist the students by focusing on the student's academic success and predetermined goals in advising sessions between advisor and student (Thomas, 2017).

The population was from a community college, and Thomas (2017) did not study academic advising (advised or not advised), just intrusive advising's impact on academic success. The findings showed a significant difference in the academic success of the students in the intervention program (68.43% pass rate) compared to the students who were not in the intervention program (59.46% pass rate). Thomas's findings are supported by other research. Miller et al. (2019) found that 59.2% of residential students on academic probation who attended three or more academic advising sessions were removed from academic probation and persisted to the next term.

Students at HBCUs and community colleges often are unprepared for college and enroll in developmental courses (Hardy et al., 2019; Thomas, 2017). Proactive (formerly called intrusive) advising in certain settings such as community colleges and a public university in the Midwest were found to have a greater impact on student success and persistence (Donaldson, 2016; Johns et al., 2017; Thomas, 2017).

Academic advising systems are a part of the academic integration process and play a role in the goal of student persistence. Academic advisors attempt to build relationships to understand students' needs, barriers, and challenges to help and guide students toward success and persistence (Ellis, 2014; Fosnacht et al., 2017; Zhang et al., 2019). In a mixed method study by Jorgenson et al. (2018), the qualitative portion of the study provided an understanding of connectivity's importance through building relationships with instructors, institutional connectedness, and social connections' positive impact on students' sense of belonging and persistence. Davis et al. (2019) found a 0.65 correlation between academic belonging (defined as belonging to major) and social belonging (defined as belonging to institution) predicted student retention.

At most institutions, academic advisors are assigned to students to provide support, advice, and guidance on overcoming challenges and barriers (Larson et al., 2018). Academic advisors have a wealth of knowledge they can use to direct students toward available resources that may help them succeed. The person assigned as an advisor varies. At some institutions, the academic advisor is a faculty member; at other institutions the advisor is a counselor or professional hired solely to be an advisor (J. Smith et al., 2004; White, 2020; Yonker et al., 2019). White (2020) stated that academic

advising differs depending on the department that oversees the academic advising program, typically academic affairs or student affairs. Advising from the student affairs point of view emphasizes developing the student's life and career goals and focuses on areas including jobs, work-study programs, residential life, student services, campus life, accommodations and transportation, health, and athletics (Sengupta, 2017; J. Smith et al., 2004). Academic advising often stresses the missions of academic affairs with little emphasis on student affairs (White, 2020). Advising from the view of academic affairs focuses on the students' intellectual development and improving student retention and success by advising students on in-class instruction, tutoring, writing centers, and libraries (Gulley, 2017; J. Smith et al., 2004; Terenzini & Pascarella, 1994).

Institutional leaders have realized that academic and student affairs must work together to produce successful students and improve student retention (Martin et al., 2019; O'Halloran, 2019). Researchers have discussed developing collaborations between academic affairs and student affairs to help students with personal goals and academic issues. O'Halloran (2019) found that advisors are connecting curriculum activities with first-year students' residential lives and their classroom experiences during their advising sessions. Lepeau (2015) found that the collaboration between academic and student affairs allowed each department's advisors to offer different perspectives on student issues that would provide students with diversified knowledge or skills. Fernandez et al. (2017) reported that changing academic advising at an HBCU to a shared advising program focusing on students' personal and academic success improved student

persistence by decreasing the number of students on academic warning and probation by 36.4% from the 2015–2016 academic year to the 2016–2017 academic year.

There is a wealth of research on academic advising's impact on student satisfaction, persistence, and learning outcomes (Baier et al., 2016; Balfour-Simpson & Burnett, 2017; Brecht & Burnett, 2019; DeLaRosby, 2017; Everett, 2019; Savage et al., 2019). Types of academic advising approaches and their impact on learning outcomes or student persistence and retention are other academic advising areas highly researched (Harris, 2018; Miller et al., 2019; Yonker et al., 2019). NACADA identified the following academic advising approaches: learning-centered advising, appreciative advising, proactive advising, Socratic advising, and hermeneutic and narrative advising. Institutional demographics and missions and student needs help to determine the advising method the institution uses. For example, appreciative advising was used in the Appalachian region in keeping with the area's culture and the need to motivate Appalachian women to persist through graduation (Pulcini, 2016). Because of technology advancements and the tech savvy generation, electronic academic advising methods and systems (e.g., *e*Advisor and flipped advising) are being used more in academic advising (Pasquini & Steele, 2016; Phillips, 2013; Shellenbarger & Hoffman, 2016). The different academic advising approaches are discussed in the next section.

Research has shown that colleges with strong academic advising programs or academic advising programs whose students were satisfied with the advisor scored higher in learning outcomes (knows requirements, understands how things work, knows resources, understands connections, has an educational plan, values advisor–advisee

relationship, supports mandatory advising, and has significant relationships; C. L. Smith & Allen, 2018). Students who attended advising sessions at least once per term and sought out the advisor's counsel concerning academic progression or challenges knew how to navigate through college and were successful academically (C. L. Smith & Allen, 2014, 2018). Miller et al. (2019) found that 59.2% of residential students on academic probation who attended three or more academic advising sessions were removed from academic probation and persisted to the next term, consistent with C. L. Smith and Allen's (2014) findings.

In summary, academic advising is pertinent to student persistence. The need for students to maximize advisors' counsel shows a potentially positive relationship between academic advising and student ability to succeed and persist. Through the different academic advising types, advisor can provide support and guidance to assist students through their college experience to graduation.

Types of Academic Advising

The overall U.S. student retention over 6 years was 59.1% in 2009; in 2017 it was 61.7% (National Student Clearinghouse Research Center, 2020). For the 2013 cohort, NCES (n.d.-b) reported that HBCUs graduated 37.6% of students within 6 years. Research on academic advising has shown that it influences learning outcomes and impacts student persistence (Mu & Fosnatch, 2019; C. L. Smith & Allen, 2014, Swecker et al., 2013). Because of the institutional focus on student retention, academic advisors function as guides, helpers, or mentors to help students navigate college systems and

processes. Academic advising has shown to be a valuable element in student retention strategies.

Academic advising approaches reflect institutional goals (Donaldson et al., 2016). National Academic Advising Association (NACADA) identified four types of academic advising: appreciative, prescriptive, developmental, and proactive. Prescriptive, developmental, and intrusive advising approaches have been the key focus of research to date (Donaldson et al., 2016). All four types are discussed next.

Appreciative Advising

Appreciative advising consists of six phases: disarm, discover, dream, design, deliver, and do not settle (Pulcini, 2016). They are defined as follows:

- build rapport and trust with students (disarm),
- uncover strengths based on past accomplishments (discover),
- encourage students to share their goals and be inspired by them (dream),
- co-author educational plans to make each student's dreams a reality (design),
- support students throughout their educational journeys (deliver), and
- challenge students to do and become better. (do not settle; Pulcini, 2016, para. 12)

The six phases of appreciative advising are a sequential process designed to help advisors build a relationship with students (Tian & Louw, 2020). The advisors act as motivators who encourage students to share their dreams and create and implement plans that will guide them while they are achieving their goal (Tian & Louw, 2020). Appreciative advising is seen as strength-based advising (He & Huston, 2015). In this advising process, advisors use strategies centered on student strengths, active listening,

and words of affirmation to help students succeed academically (Hutson et al., 2014; Miller et al., 2019; Pulcini, 2016).

Researchers have found that the appreciative advising method yields a positive impact on academic success. Huston et al. (2014) and Pulcini (2016) noted positive academic success, experiences, and persistence because of appreciative advising. For residential students, Miller et al. (2019) found increases in GPAs and improvements in academic status in 59.2% of students who met with advisors three or more times. Appreciative advising methods yielded positive outcomes for students who were in danger of involuntarily withdrawn from an institution (Miller et al., 2019).

Prescriptive Advising

Prescriptive advising is an information-sharing approach (He & Hutson, 2015). The advisor is the expert and shares their knowledge, experience, and information with the student (He & Hutson, 2015). A disadvantage of this approach is that it limits communication with students. Drake (2011) described prescriptive advising like a patient and doctor relationship. Harris's (2018) study is consistent with Drake's findings in that the student's role in this approach is limited to the advisor's directives.

Empowering students to know what it takes to be success and having a plan to graduate are positive outcomes from prescriptive advising (Bolkan et al., 2018). During prescriptive advising sessions, advisors give students information about the institution's policies, procedures, and degrees (Bolkan et al., 2018; Cheung et al., 2017). Bolkan et al. (2018) found that prescriptive advising positively impacted academic goals, and students preferred the prescriptive advising method over the developmental advising method.

Cheung et al. (2017) found that students preferred developmental advising compared to prescriptive advising.

Developmental Advising

Developmental advising differs from prescriptive in that it is student centered, with the entire advising session being about the student's concerns, needs, and future goals (Gordon, 2019). Ugur (2015) reported that developmental advising is about the student's potential and growth, which is similar to Harris's (2018) view that in developmental advising, the advisor is involved in developing the student as a whole person and not just academically. When building advisor–student relationships, developmental advising focuses on two goals: academic success and personal achievement (Miller et al., 2019).

Although limited research exists on academic advising modalities used at HBCUs, Harris (2018) compared prescriptive and development advising approaches at an HBCU and student satisfaction with the methods being used. Eighty-seven percent of the participants responded that developmental advising was the most prevalent approach and that they were highly satisfied with the academic advising they received.

Proactive Advising

Proactive advising (previously intrusive advising) is a combination of developmental advising (a relationship focusing on the student as a whole) and prescriptive (student's needs) advising (Varney, 2012). Donaldson et al. (2016) and Thomas (2017) found that in regularly scheduled meetings and student involvement, proactive advisors focused on the student's interests, needs, and abilities, consistent with

Varney's (2012) proactive advising research. Donaldson et al. reported that some students will not seek help. For students who will not seek help, proactive advising is the right approach. In proactive advising methods, the advisor initiates communications by reaching out to students (Miller et al., 2019).

Based on this research, proactive advising might be the most appropriate method at HBCUs and PWIs because it allows for advisors to seek out student concerns or needs while structuring the paths and resources needed to become successful in college. Considering that HBCU students are often unprepared for college, proactive advising aligns with helping students who lack a strong foundation of educational knowledge (Farmer & Hope, 2015; Henry et al., 2011; Johnson et al., 2018; Nyirenda & Gong, 2010; Sandiford, 2010). Proactive advising assists academic and social integration in hopes of leading students toward persistence. Institutions with developmental courses for students who are unprepared for college have found proactive advising critical in their students' success (Johns et al., 2017).

Miller et al. (2019) stated that proactive advising blended with appreciative advising has yielded positive results with residential and online academic probation students. Miller et al. found a significant difference in academic probation status and student persistence for students who attended three or more advising sessions than students who attended less than three advising sessions. However, no one advising approach can address all types of student persistence issues. The need for advising and the different approaches used at institutions is based on students' needs.

Technology in Academic Advising

Technology brings people closer together and allows systems to run more efficiently. Using technology in academic advising helps to remove distance barriers, create flexibility for advisors and students, and facilitates connections between students and advisors. Schaffling (2018) stated student-to-advisor advising sessions that represent communication with an institution's member are considered an element of academic integration, reflecting Tinto's (1993) institutional departure model. Steele (2018) had a similar perspective to Schaffling and Tinto and also noted that technology allows academic advisors a safe medium for evaluating student learning and the ability to connect with students. Using technology such as email, Skype, FaceTime, Zoom, and other video conferencing platforms facilitates connectivity between students and advisors without time and geography limitations.

Considerable research on online advising has been conducted, including studies on students' perceptions of online advising (Cross, 2018), advising for distance library science students (Burns et al., 2019), and technologies used in online advising (Gaines, 2014; Gambio, 2017). Primary modalities reported were email and phone. Commonalities between these studies are the need for human connections, relationships with advisors, interactions with advisors, and advising's impact on student persistence (Burns et al., 2019; Cross, 2018; Kara et al., 2019). Burns et al. (2019) identified advising's impact on student persistence and the value of advisors helping online students overcome barriers and work toward success. Miller et al. (2019) found that 30.7% of online students on academic probation who responded to their academic advising sessions persisted to the

next term. Of the students who responded to academic advising, 47 were allowed to continue on probation, 40 were removed from probationary status, and 66 were suspended or withdrew from their courses (Miller et al., 2019). Online advising has also been shown to impact student persistence and retention in online programs (Cross, 2018).

In contrast to Steel (2018) and Schaffling (2018), Gaines (2014) found that students preferred face-to-face meetings with academic advisors to meetings conducted via Skype. Amador and Amador (2014) studied Facebook's use in academic advising. They found that students accepted using Facebook as an electronic academic advising mode and felt strengthened the advisor–student relationship. However, Gaines's results indicated that students checked emails multiple times a day and preferred email for receiving vital information from their academic advisors. Junco et al. (2016) advanced email as the primary form of advisor-to-student communication, over Facebook, Twitter, and Instant Messenger (no longer available). While focusing on student success, academic integration, and student persistence, administrators and advisors might defer to student preferences when determining the media used.

Newer forms of advising are becoming more internet based. Flipped advising and e-advising systems are examples of these forms that are currently used in academic advising (Steel, 2018). Both are technologies used to provide or collect data and help students register for classes or submitting financial aid (Junco et al., 2016; Mu & Foschnatch, 2019; Phillips, 2013). Flipped advising allows for students to provide communication to advisors and advisors to provide students with information concerning

learning outcomes (Steele, 2020). Student and advisor contact is via computer or software until a meeting is required or requested by the student or advisor.

In both systems, students are provided checklists with tasks via websites (Mu & Foschnatch, 2019). The tasks must be completed to meet the requirements of the advisement. Students may also be provided information about upcoming courses (Mu & Foschnatch, 2019). Arizona State University, a PWI, uses *e*Advisor, a web-based system, as an advising tool (Junco et al., 2016). *e*Advisor allows advising large numbers of students by concentrating on the students who need more support and direction from the advisor (Phillips, 2013). Students use *e*Advisor to choose their majors, select courses, and track their progression toward graduation; academic advisors use the system as a monitoring tool that allows them to reach larger number of advisees (Phillips, 2013).

Flipped advising facilitates student–advisor communication prior to advising sessions. Advisors can use this approach to assign videos, financial aid documents, activities, or modules that students complete prior to advising sessions (Phillips, 2013; Steel, 2018). Students can communicate with their advisors and choose courses for the upcoming term (Phillips, 2013; Steel, 2018). Flipped advising or e-advising could be added to the proactive advising method to remove communication barriers and the need for face-to-face contact in between formal advising sessions. Students can send messages and respond to tasks assigned by their advisors without having to schedule appointments or follow-up meetings. Because of the COVID-19 outbreak in 2020, social distancing guidelines caused all institutions to adjust their advising modalities to integrate more

technology (Hu, 2020). These adjustments resulted in increased use of online technologies such as video conferencing (Hu, 2020). Email use also increased.

Academic Advising Learning Outcomes

Campbell and Nutt (2008) found that learning outcomes acquired from academic advising determines student persistence and success. Hart-Baldridge (2020) and Vianden and Barlow (2015) found that student integration (academically and socially) establishes meaning in education processes, student loyalty, emotional commitment to an institution, and persistence, all additional benefits students obtained from the academic advising learning outcomes. Positive academic advising learning outcomes occur when academic advising is not viewed as an assigned task or completion of a task on a checklist. Hart-Baldridge argued that advisor–student relationships built through academic advising have a great impact on student grades, integration (academically and socially) into an institution, and student retention. Learning outcomes from student advising are most impactful when an advisor–student relationship is developed (Hart-Baldridge, 2020; He & Huston, 2017). Students can gain the knowledge and information necessary to weigh the value to persist, commit to an institution, and be successful academically. Academic advising has been acknowledged as a major element of student retention strategies (He & Huston, 2017).

C. L. Smith and Allen's (2014) research on academic advising learning outcomes at two community colleges and seven universities (22,305 total population) was based on the frequency of advising sessions and academic advising learning outcomes. Participants were placed in three groups: not advised (zero meetings with advisor), occasionally

advised (at least once a year), and frequently advised (at a minimum of once a term, or two times a year). C. L. Smith and Allen used a 6-point Likert-type scale and found that students who contacted their advisors scored higher on two measures (knows requirements, 5.09 mean score, and knows resources, 4.52 mean score) compared to students who had not met with their advisors (4.62 and 3.67 mean scores, respectively).

Academic advising learning outcomes are designed based on the specifications of an institution's goals or mission (Hart-Baldridge, 2020; Muehleck et al., 2014; C. L. Smith & Allen, 2014). According to C. L. Smith & Allen (2014, p. 53), academic advising learning outcome variables are (a) knows requirements, (b) understands how things work, (c) knows resources, (d) understands connections, (e) has an educational plan, (f) values the advisor–advisee relationship, (g), supports mandatory advising, and (h) has significant relationships. explanations of the academic advising learning outcomes. These variables are further explained as

- Knows requirements: a student knows what requirements (e.g., major, general education, other university requirements) a student must fulfill in order to earn a degree.
- Understands how things work: A student understand how things work at their institution (timelines, policies, and procedures with regard to registration, financial aid, grading, graduation, petitions and appeals, etc.).
- Knows resources: When a student has a problem, the student knows where at his or her institution he or she can go to get help.

- Understands connections: A student understands how his or her academic choices at his or her institution connects to his or her career and life goals.
- Has an educational plan: A student has a plan to achieve his or her educational goals.
- Values advisor–advisee relationship: Student believes it is important to develop an advisor–advisee relationship with someone on campus.
- Supports mandatory advising: The student believes there should be mandatory academic advising for students.
- Has significant relationships: A student has had at least one relationship with a faculty or staff member at his or her institution that has had a significant and positive influence on him or her.

HBCUs such as Hampton University have realized the importance of academic advising and persistence. Hampton University used intrusive advising methods to create an intervention program that allowed students on academic probation to connect with academic advisors (faculty) who developed an advisor-to-advisee mentorship-type relationship to help guide them through the college experience (Hurd, 2000). Although researchers (Hurd, 2000; C. L. Smith & Allen, 2014) did not study the impact of academic advising learning outcomes among HBCU students, Swecker et al. (2013) reported that the ability to retain a student increases by 13% every time a student is academically advised. Findings from the present study furthered what is known about the effects of academic advising on academic learning outcomes and student persistence at HBCUs.

Summary and Conclusions

Tinto's (1975) student integration theory, or the theory of why students drop out from higher education, was the theoretical foundation for the present study. Other researchers have expanded on Tinto's theory and focused on variables that influence student attitudes and cause student behaviors (Bean, 1983). Students' families and friends support integration into college (Cabrera et al., 2003). Although Pascarella and Terenzini (1979) found that faculty-to-student interaction outside of the classroom may lead to student persistence, Tinto's student integration model was identified as the best model for the present study. Tinto (1993) posited that the absence of student integration into formal and informal academic and social systems could lead to student departure. Tinto's theory provides the foundation of the institution's role in a student's decision to persist. The present study's focus was on the relationship between various academic advising modalities (electronic and face-to-face), academic advising (advised or not advised), self-assessed academic learning outcomes, and student persistence at HBCUs. Tinto's theory acknowledges the precollege factors (academic preparedness for college, student attributes, and family background) that students will face to commit to the institution, integrate into the institution, and persist to the next term or withdraw.

Prior research has shown that academic advising positively impacts student persistence (Davis et al., 2019; DeLaRosby, 2017; C. L. Smith & Allen, 2014; Tinto, 1993; Zhang et al., 2019). Prior research also supports the need for research on HBCUs and academic advising, academic advising learning outcomes, and student persistence (Harris, 2018; Nyugen et al., 2017). Therefore, the present study expanded prior research

on academic advising, academic advising learning outcomes, and student persistence by gathering data from students at two HBCUs, reflecting an area underrepresented in existing research. In Chapter 3, I discuss the study methodology, including how the data at the institutions were collected, participant recruitment, and the instrumentation used.

Chapter 3: Research Method

The purpose of this quantitative correlational study was to examine the relationship between academic advising and student persistence. The study population was first-year college students at two HBCUs. Chapter 3 includes a description of the research design and rationale for selecting the design and the study methodology, including the population, sample, sampling procedures, recruitment procedures, participation, data collection, instrumentation, and operationalization of constructs. Threats to validity and ethical procedures are also discussed.

Research Design and Rationale

The research question addressed in this study was to what extent do academic advising modalities, academic advising, and self-assessed academic advising learning outcomes predict a student's persistence to the next term at two HBCUs? The following variables were reflected in the research question:

- Academic advising modality (electronic or face-to-face; binary predictor variable).
- Academic advising (advised or not advised; binary predictor variable).
- Self-assessed academic advising learning outcomes (knows requirements, understands how things work, knows resources, understands connections, has educational plan, values advisor–advisee relationship, supports mandatory advising, and has significant relationships; single interval predictor variable/scale variable).

- Student persistence intention (ordinal criterion variable; source: Inventory of Academic Advising Functions-Student Version survey)
- Student actual persistence (from Institution A and Institution B; binary variable).

Quantitative correlational designs are used to determine relationships and meaningful significances between different variables (Creswell, 2009). Because of the limited amount of research on academic advising, academic advising learning outcomes, and student persistence at HBCUs, a correlational design was needed to provide a greater understanding of the relationship between student persistence and various aspects of academic advising at HBCUs. In addition, a correlational design was best for this study to provide evidence of the possible changes institutions may need to make to support their mission statements and improve student persistence. Therefore, a quantitative correlational research design was appropriate for examining the relationship between the predictor variables and a criterion variable in the present study. Binary logistic regression was used to analyze the data. Nominal predictor variables were transformed into dichotomous dummy variables for analysis.

Methodology

Population

The target population for this study were students at two HBCUs. Both institutions are located on historic land in the southern United States[1]. Institution A has

[1] Sources for institutional information were redacted for privacy purposes.

an average combined undergraduate and graduate student population of 2,000 and 122 full-time faculty. The demographics of students attending the institution A are 68% female, with a student body of primarily Black students (91% Black, 1% White, and 8% other races: Hispanic, Asian, American Indian, Hawaiian, and international undefined). Fall enrollment at Institution A averages about 500 first-year students annually.

Institution B has an average combined undergraduate and graduate student population of 3,700 and 145 faculty. The demographics of students attending Institution B are 56.33% female, with a student body of primarily Black students (79.7% Black, 9.49% Hispanic, 3.82% two or more races, 3.79% White, 0.218% American Indian, 0.191% Asian, and 0.0273% other Pacific Islanders). Fall enrollment at Institution B averages about 1,200 first-year students annually.

Sampling Strategy

The sample was based on first-year students registered for the introduction to college course at Institution A for Spring 2021 and at Institution B for Fall 2021. An email was sent to all first-year students informing them of the study and asking for their participation. Those who agreed to participate received a link to the survey, Inventory of Academic Advising Functions-Student Version, to complete.

Sample size refers to the number of participants required to conduct a study (Salkind, 2010). Logistic regression was the method used to estimate a range for this study's sample size. In calculating the sample size of logistic regression, four parameters were input into G*Power: (a) effect size, (b) alpha, (c) power, and (d) the number of predictor variables. The effect size is the average strength of the outcome in the

population (Wiedmaier, 2017). Alpha ranges from 0 to 1.0 and measures the variables' reliability in an index (Vogt, 2005). Power is the rejection of the null hypothesis because the alternative hypothesis is proven to be true (Wiedmaier, 2017).

G*Power Version 3.1.9.6 (Faul et al., 2007) was used for a logistic regression model to calculate the sample size for Research Questions 1 and 2. Logistic regression accounted for the continuous and categorical predictor variable (persistence intention, measured with a 6-point Likert-type scale) and the dichotomous criterion variable (actual persistence; Laerd Statistics, 2022). Two tails and binominal X distribution was selected. The binominal distribution was selected because the outcome would be dichotomous criterion variables, and two tails were selected. The odds ratio was calculated using the U.S. Department of Education's figure of 65% retention of first-time degree-seeking undergraduates at HBCUs in the 2017 cohort (2020b, NCES).

Institution A's retention rate for the 2017 cohort was in the low 50th percentile. Institution B's retention rate for the 2017 cohort was in the mid 60's percentile. The study included 19 participants from Institution A, while there were 76 participants from Institution B. Therefore, the null hypothesis ($H_0 = 0.35$) and the alternative hypothesis ($H_1 = 0.65$) were used to calculate an odds ratio of 3.44. The odds ratio states that students without advisement are 3.44 times more likely not to persist at an HBCU. For significance criterion (α) 0.05, and power (1–β err prob) as 0.80, *R* square (R^2 other X) 0, and X parm TT = 0 calculated a minimum sample size estimation of 88. By changing the power to .99, the *z* test calculated the maximum sample size at 202. The probability that this study had an 80% chance of being statistically significant to 99% increased the

sample size to a maximum of 202. Therefore, the range of 88 to 202 was used as the estimated sample size for this study. The goal was to collect data from 145 students (the average of the sample size range of 88 to 202). The actual sample size was 95; 19 from Institution A and 76 from Institution B.

Recruitment, Participation, and Data Collection

Participant recruitment began after approval by the institutional review board at Walden University (approval number 06-08-21-04080116). Freshman students were sent a participation invitation via email. The informed consent form was embedded in SurveyMonkey as the first question in the survey. Students indicated consent by clicking "yes" or "no." Students who selected no were exited from the survey. Students who agreed to participate in the study answered 10 questions rating their advising experience on a 6-point Likert-type scale (1 = *not important or not satisfied*, 6 = *very important or very satisfied*). They also had the option to not respond to specific questions or complete the survey. There were no incentives for completing the survey.

Demographic information from the HBCU registrar offices identified the freshman students who received email invitations. Codes were used to protect the students' identities. After the next term began, academic status (students who persisted or did not persist) data were obtained from the registrars' offices. A follow-up email was sent to all students informing them that the study had ended and thanking them for their participation. All participants will receive a summary of study results.

Instrumentation

The Inventory of Academic Advising Functions-Student Version (J. M. Allen & Smith, 2008; J. M. Allen et al., 2013; Smith & Allen, 2006, 2014) was used to gather data on academic advising modality, academic advising, self-assessed academic advising learning outcomes, and intended student persistence to the next term. See Appendix A for this instrument. The survey instrumentation was created and validated by Smith and Allen (2014) based on 30 years of advising literature and partnerships with faculty and professional advisors who agreed that the expected academic advising learning outcomes were appropriate and sufficient expectations of students.

The instrument has been used previously in several studies. One is Smith and Allen (2006), which included a population of 11,979 and a sample size of 2,193 undergraduate students at a research-based urban university. Another was Smith and Allen (2014), which had a population of 107,740 students from two community colleges and seven universities and a 26.7% response rate. J. M. Allen et al. (2013) reported the population from students attending two community colleges and five public institutions with bachelor degree programs. The total population was 9,104 students (7,172 pretransfer students, 1,932 posttransfer students; J. M. Allen et al., 2013).

The instrument's content validity was supported by consulting with professional and faculty advisors, graduate students in a student services degree program, and reviewing over 30 years of advising literature (Smith & Allen, 2006). J. M. Allen et al. (2013) reported the instrument as valid using confirmatory factor analysis (CFA). To test the instrument's validity, CFA was used to test the correlation of the five-factor model

(integration, referral, information, individuation functions, and shared responsibility) of advising function importance (J. M. Allen et al., 2013). The instrument was found to be valid based on the statistical data from CFA of the five-factor model: .2 statistical fit, degree of freedom = 45, significance $p < .001$, comparative fit index of .95, goodness-of-fit index of .95, and a room mean approximation of .07.

The Inventory of Academic Advising Functions-Student Version has eight academic advising learning outcomes that students are expected to learn during academic advising sessions (Smith & Allen, 2014). Students used a 6-point Likert-type scale (*Strongly Disagree* to *Strongly Agree*) to rate their agreement with the learning outcomes on each question. These eight items can be combined into an Academic Advising Learning Outcomes subscale. Smith and Allen (2014) reported a Cronbach's alpha of .74 for this subscale. Cronbach's alpha coefficient is used to measure the reliability of the consistency of the responses to questions in an instrument that has more than one possible element (Wiedmaier, 2017). A Cronbach's alpha greater than .70 is considered acceptable because the error of measure would be low in the questions being measured (Statistics Solutions, 2020). Smith and Allen also noted that the survey has statements associated with Tinto's (1993) conceptual work and empirical work by Braxton et al. (1997) on student commitment and retention.

The Inventory of Academic Advising Functions-Student Version has questions concerning academic advising learning outcomes, advising modalities, academic advising, and the student's intent to persist at the institution until graduation. Intention to persist was used as the criterion variable for analyzing Research Question 1 and one of

two variables in a correlation for analyzing Research Question 2. Therefore, the survey was sufficient instrumentation for examining student self-assessed knowledge learned through academic advising, academic advising (advised or not advised), and the advising modality's predictive relationship with student persistence. Smith and Allen granted written permission (see Appendix B) to use and modify the survey instrument to replace the response option of "Fax" with "Video conferencing (Skype, Zoom, WebEx, other)."

Criterion Variables

Students' actual persistence to the next term was gathered from the institutions' records offices. Therefore, student persistence to the next term was measured as a dichotomous variable (i.e., yes or no response). Data on intention to persist were collected from the survey responses to Question 4. This item was dummy coded (0, 1).

Predictor Variables

There were three predictor variables for RQ1. The first predictor, academic advising modality, was measured by Question 2 on the survey and recoded to binary (0 = face-to-face, 1 = video conferencing).The next predictor, academic advising or not advised, was measured by Question 1 on the survey and recoded to binary (0 = not advised, 1 = advised). The third variable was a scale variable consisting of eight Likert-type items measuring self-assessed academic advising learning outcomes: knows requirements, understands how things work, knows resources, understands connections, has an educational plan, values advisor–advisee relationship, supports mandatory advising, and has significant relationships, included in the Inventory of Academic Advising Functions-Student Version. Question 7, which asks if students know what they

must do, reflected the predictor variable knows requirement. Question 8, which asks if students understand the requirements of different departments, reflected the predictor variable understands how things work. Question 10, which asks if students have the knowledge to solve challenges and overcome barriers, reflected the predictor variable knows resources. Question 9, which asks if students have connected the learned knowledge about their chosen careers and goals, reflected the predictor variable understands connections. Question 3, which asks if students believe it is important to connect with someone on campus as an advisor, reflected the predictor variable values advisor–advisee relationship. Question 6, which asks if students believe that they should be required to meet with an advisor, reflected the predictor variable supports mandatory advising. Question 5, which asks if students have developed meaningful relationships with faculty or staff, reflected the predictor variable has significant relationship. These questions can be combined into a single scale variable by analyzing the mean (Smith & Allen, 2014).

Data Analysis Plan

SPSS Version 27 was used to analyze the data. For Research Question 1, logistic regression was used to compute the coefficients' statistical significance associated with the predictor variables. Academic advising modality (electronic or face-to-face) was dummy coded (0, 1), academic advising (advised/not advised) was also dummy coded (0, 1), and the criterion variable students' intention to persist was dummy coded (0, 1). Students' actual persistence (RQ2) was coded as Yes = 1 and No = 0. The self-assessed academic advising learning outcome variable was coded using a 5-point Likert-type scale

with 1 = *not satisfied/important* and 5 = *very important/satisfied*. The eight items were combined into one variable and the mean of the variable analyzed.

For Research Question 2, logistic regression was used to test the relationship between students' persistence intention and actual persistence. Students' actual persistence, the criterion variable, was dummy coded as Yes = 1 and No = 0. Students' persistence intention, the predictor variable, was on a 5-point Likert-type scale with "I plan to graduate from (institution)": 1 = *strongly disagree* and 5 = *strongly agree*. A predictive discriminant analysis was also conducted to show how many students were predicted to drop out or persist. The predictive discriminant analysis compared the number of students who actually persisted to the next term to the number of students who withdrew.

Threats to Validity

Population and bias are two areas to consider in reducing threats to validity (Krawczyk et al., 2019). A threat to external validity is reduced by ensuring that the correct group is invited to participate in the study. Only students with freshman status were asked to participate in the present study. Each HBCU's office of student records was asked to provide evidence of student status to ensure that only these students were invited. Participant recruitment took place during the spring term; data were collected during the summer term. Since the summer term is the lowest enrollment time, it was essential to ensure that the majority of students were present on campus. However, few students were on campus due to COVID-19, and the survey was extended through the summer. The threat to internal and external validity was reduced by inviting students to

participate in the study based on the institution's advisement timeline. Using the institutional advising calendar ensured that all students had adequate time to be advised and reduced the chances of issuing an instrument to students who had not been advised based on the institutions' timeline.

Lastly, my family and I are HBCU alumni. I ensured our prior experiences at an HBCU were not reflected in this study. I minimized bias by ensuring I did not overstate or emphasize the data outcomes based on prior experiences. I used SurveyMonkey and SPSS to gather and analyze the data. Using other sources and systems to analyze data minimizes bias and threats of validity in research (Pannucci & Wilkins, 2010). Taking the steps detailed here ensured that no outside sources influenced the present study's outcomes.

Ethical Procedures

Participant recruitment began after approval by the institutional review board at Walden University (approval number 06-08-21-04080116) and at the participating HBCUs. A list of all email addresses of first-year students was requested from the HBCUs. An email was sent to all first-year students informing them of the study and asking for their participation. In the same email requesting for student participation, the informed consent form was embedded in SurveyMonkey as the first question in the survey. Upon consenting to participate in the study, students received a link to the survey, Inventory of Academic Advising Functions-Student Version, to complete. All participants and the institution's identity were concealed using numerical codes. Participant identities were encrypted with numerical codes.

The population was college-age students 18 years of age or older who could provide legal consent to participate in the study. To ensure all participants met the age requirements, I asked the records offices to exclude all minors from their freshman student lists, therefore eliminating ethical concerns regarding the participants being legally able to consent to study participation. Students who refused to participate were immediately exited from the study. If a student accepted the invitation but withdrew from the institution before completing the survey, the survey was not added to the data analysis. Students were not contacted after they withdrew from the institution.

All data and information on all students and the participating HBCU were kept confidential at all times. The only people with access to the data were my dissertation committee, the participating HBCUs' appointees, and myself. The information and data were stored securely on a password-protected computer, will be retained for 5 years per Walden University's requirements, and will be destroyed after this period.

Summary

The purpose of this study was to examine the relationship that academic advising modalities and academic advising learning outcomes may help with student persistence to the next term at two HBCUs. I conducted a quantitative correlational design study and used binary logistic regression to analyze the statistical significance in predicting the intended and actual student persistence. In Chapter 4, I present a summary of the data collected and the study's statistical results.

Chapter 4: Results

The purpose of this study was to examine the relationship between academic advising modalities, academic advising (advised or not advised), self-assessed academic advising learning outcomes, and student persistence at two HBCUs. Research Question 1 examined academic advising (advised or not advised), academic advising modality (electronic or face-to-face), and self-assessed academic advising learning outcomes (knows requirements, understands how things work, knows resources, understands connections, has an educational plan, values advisor–advisee relationship, supports mandatory advising, and has significant relationships) as predictors of a student's persistence intention to the next term at two HBCUs. Research Question 2 examined whether students' persistence intentions could predict their actual persistence to the next term at two HBCUs. For Research Questions 1 and 2, the null hypotheses were:

$H_0$1: There is no relationship between academic advising modality, academic advising (advised or not advised), and self-assessed academic advising learning outcomes when predicting a student's persistence intentions to next term at two HBCUs.

$H_0$2: Student persistence intention does not predict actual persistence to the next term at two HBCUs.

How data were collected and analyzed is detailed in this chapter.

Data Collection

Data for this study were collected via SurveyMonkey from Institution A, beginning on June 24, 2021, and ending on August 16, 2021, and from Institution B, beginning on September 27, 2021, and ending on November 11, 2021. At the end of the

Spring 2021 term, all of Institution A's students (N = 488) were emailed an invitation for the survey for the study. In the Fall 2021 term, all of Institution B's students (N = 1,298) received the survey invitation for this study from the institution. Of the 1,786 students who were invited to participate in the survey, 128 responses were received between the two institutions, for a response rate of 7.17%. The response rates were 4.10% from Institution A and 6.78% from Institution B.

All students were classified as freshmen at their institution when invited to participate in the study. Institution A's students enrolled during Spring 2021 were invited to participate at the beginning of the Summer 2021 semester. The study continued through the summer of 2021 but ended before the drop-and-add period of the participant's first semester as a sophomore in Fall 2021. Institution B's students were invited to participate in the study in Fall 2021. In Fall 2021, the survey for Institution B's students ended once the minimum threshold for participants was achieved.

Enrollment data from Spring 2021 to Fall 2021 were reported by Institution A's registrar on September 20, 2021. Enrollment data from Fall 2021 to Spring 2022 were reported by Institution B's registrar on January 31, 2022. Using two different institutions to recruit participants in two different terms is discussed in Chapter 5's limitations section.

There were two discrepancies in data collection. The first discrepancy was with the original intention to use one HBCU (Institution A) to conduct this study. A delay in the approval process to begin research with Institution A caused students to receive their first email invitations at the beginning of the Summer 2021 term instead of the Spring

2021 term. Most students at Institution A had left to go home during the summer. Low student count on campus caused limited access to email or a lack of diligence to check the institution's email during the summer term, yielded low participant participation, and caused the need for a second institution to be invited to participate in this study.

The second discrepancy occurred as an input error in the setup of the survey instrument, Inventory of Academic Advising Functions-Student Version, in SurveyMonkey. The original questions from the survey instrument and the sample questions attached to the consent form showed the 6-point Likert-type scale. The questions the students filled out in SurveyMonkey were on a 5-point Likert scale.

No information concerning the participants' demographics was collected. Therefore, each institution's general demographic information was assumed to apply to the sample in this study. Institution A's student population is primarily Black (91%). Institution B's population consists of 79.9% Black students. Student populations at both institutions are primarily female (Institution A, 68%; Institution B, 56.33%). Based on NCES (2020a) race data, both institutions are representative of the population of HBCUs. HBCUs averaged as low as 76% Black student population in 2020 (NCES, 2020a). The female population was reported at 60% in 2020 enrolled in HBCUs (NCES, 2020a).

Results

There are seven statistical assumptions for logistic regression models (Laerd, 2022):

1. The dependent variable is dichotomous.
2. There are one or more continuous or ordinal independent variables.

3. There is independence of observations.
4. The categories of dependent variable and independent variables are mutually exclusive and exhaustive.
5. There should be a linear relationship between continuous independent variables and logit transformation of dependent variable.
6. There is no multicollinearity.
7. There are no significant outliers, leverage points or highly influential points.

Assumptions 1 through 4 were met based on the study design. Assumption 5 (the linear relationship for the continuous variables with the logit transformation of the dependent variable) was met based on the procedure described in Laerd (2022; see Table 1) where the added variable of the interaction effect of the continuous scale score (self-assessed academic advising learning outcomes) and the log transformation of the scale score was not significant. Assumption 6 (no multicollinearity) was met by examining the VIF statistics. Assumption 7 (no outliers and influential points) was met after finding no casewise outliers associated with the model. This combination of assumption testing suggested the assumptions for this binary logistic regression model were adequately met. Table 1 supports Research Question 1.

Table 1

*Testing the Linearity Assumption for the Scale Score in the Model (*N = *95)*

Variable	*B*	*SE*	*p*	*OR*	95% CI	
					Lower	Higher
Advising modality[a]	–1.12	0.66	.09	0.33	0.09	1.19
Advising (advised or not advised)[a]	0.01	0.63	.99	1.01	0.29	3.44
Advising learning outcomes	–26.10	23.14	.26	0.00	0.00	231[b]
Scale x log transformation	11.89	9.81	.23	146,064.66	0.00	32[c]
Constant	39.93	38.08	.29	218[d]		

Note. Full model: χ^2 (4, N = 95) = 16.16, p = .003. Base classification rate: 83.2%. Final classification rate: 84.2%. Cox & Snell R^2 = .156 and Nagelkerke R^2 = .262.

[a]Coding: 0 = *No*, 1 = *Yes*.

[b]This value had six zeroes.

[c]This value had 12 zeroes.

[d]This value had 16 zeroes.

Table 2 shows the frequency counts for selected variables. Students attended either Institution A or Institution B. Sixty-three percent reported receiving academic advising. When students received advisement, the most common forms were videoconferencing (35.8%), email (27.4%), and face-to-face (22.1%). Eighty-three percent reported planning to graduate.

Table 2

*Frequency Counts for Selected Variables (*N = *95)*

Variable	*n*	%
Received academic advising		
Yes	60	63.2
No	35	36.8
Primary advising source		
Phone	12	12.6
Email	26	27.4
In person (face-to-face)	21	22.1
Videoconferencing (Skype, Zoom, WebEx)	34	35.8
Other	2	2.1
Plan to graduate		
Yes	79	83.2
No	16	16.8

Table 3 shows the descriptive statistics for select items from the self-assessed academic advising learning outcomes, sorted by highest rating. These ratings were based on a 5-point metric: 1 = *Strongly Disagree* to 5 = *Strongly Agree*. The highest agreement was for Question 5, It is important to develop an advisor/advisee relationship with someone on campus, $M = 4.67$. The least agreement was for Question 3, I have had at least one relationship with the faculty or staff member at my institution that has had a significant and positive influence on me, $M = 3.82$. The Cronbach alpha reliability coefficient for the seven items, without Item 4 (the dependent variable), was $\alpha = .72$. Cronbach's alpha greater than .70 is considered acceptable (Statistics Solutions, 2020).

The measured error would be low in the questions being measured with a Cronbach alpha greater than .70.

Table 3

*Descriptive Statistics for Selected Items Sorted by Highest Rating (*N = *95)*

Item	*M*	*SD*	Low	High
5. It is important to develop an advisor/advisee relationship with someone on campus.	4.67	0.51	3	5
9. I understand how my academic choices at my university connect to my career and life goals.	4.52	0.60	2	5
4. I plan to graduate from my university.	4.40	0.86	1	5
6. There should be mandatory academic advising for students.	4.24	0.82	2	5
7. I know what requirements (e.g., major, general education, other university requirements) I must fulfill in order to earn my degree.	4.23	0.90	1	5
10. When I have a problem, I know where at my university I can go to get help.	4.09	0.97	1	5
8. I understand how things work at my university (timelines, policies, and procedures with regard to registration, financial aid, grading, graduation, petition and appeals, etc.)	4.05	0.99	1	5
3. I have had at least one relationship with a faculty or staff member at my university that has had a significant and positive influence on me.	3.82	0.99	1	5

Note. Ratings reflect a 5-point metric: 1 = *Strongly Disagree* to 5 = *Strongly Agree*.

Answering Research Question 1

Research Question 1 was: To what extent, if any, do academic advising modality (electronic or face-to-face), academic advising (advised or not advised), and self-assessed academic advising learning outcomes (knows requirements, understands how things work, knows resources, understands connections, has an educational plan, values

advisor–advisee relationship, supports mandatory advising, and has significant relationships) predict a student's persistence intention to the next term at two HBCUs? To answer this question, Table 4 shows the logistic regression model predicting intent to persist to the next term. The overall model was significant, χ^2 (3, N = 95) = 14.448, p = .002. This model was estimated to account for between 14.1% and 23.7% of the variance in the student's persistence intention. The base classification rate was 83.2%; the final classification rate was also 83.2%. The base classification rate is based on no other information provided in the study and predicted that 83.2% of students would persist to the next term at two HBCUs. The final classification rate was 83.2% using the logistic regression model. After removing outliers, the prediction remained at 83.2% for persisting to the next term.

Analysis showed that academic advising (advised or not advised) and academic advising modalities did not significantly predict student persistence intention (p > .05). Inspection of the individual odds ratios showed the self-assessed academic advising learning outcomes scale to be positively related to the student's persistence intention, *OR* = 7.82, p = .002, 95% CI (2.08, 29.30). The *OR* (7.82) meant that the likelihood of persistence went up 7.82 times for every 1-unit increase in the scale score (self-assessed academic advising learning outcomes).

These findings show that the probability of persisting to the next term is likely to happen based on self-assessed academic advising learning outcomes. Academic advising modality (p = .10) and academic advising (advised or not advised, p = .90) were not found to be significant. The findings in this table support Research Question 1.

Table 4

*Logistic Regression Model Predicting Intent to Persist (*N = *95)*

Variable					95% CI	
	B	*SE*	*p*	*OR*	Lower	Higher
Advising modality[a]	–1.08	0.66	.10	0.34	0.09	1.23
Advising (advised or not advised)[a]	0.08	0.63	.90	1.08	0.31	3.71
Advising learning outcomes	2.06	0.67	.002	7.82	2.08	29.30
Constant	–6.52	2.73	.02	0.00		

Note. Full model: χ^2 (3, N = 95) = 14.44, p = .002. Base classification rate: 83.2%, final classification rate: 83.2%. Cox & Snell R^2 = .141 and Nagelkerke R^2 = .237.

[a]Coding: 0 = *No*, 1 = *Yes*.

Table 5 shows the predictive discriminant analysis table. Inspection of the table shows a negative outcome correct classification rate of 12.5% and a positive outcome correct classification rate of 97.5%. The model had a 12.5% success rate in predicting students who would not persist to the next term. Also, the study had a 97.5% success in predicting those who would persist to the next term. This table supports Research Question 1.

Table 5 shows that there was insufficient information about the students who did not persist to accurately predict them not persisting, such as did the student ran out of student loan money, academic status (probation or not on probation), plans to move to another area or state, or family issues. This combination of findings provided support to reject the null hypothesis (see Tables 4 and 5).

Table 5

*Predictive Discriminant Analysis Table for Research Question 1 (*N = *95)*

Actual result	Predicted		Correct %
	No	Yes	
Dropped out	2	14	12.5
Persisted	2	77	97.5

Note. Base classification rate: 83.2%. Overall correct classification rate: 83.2%.

Answering Research Question 2

Research Question 2 was, To what extent, if any, do students' persistence intentions predict students' actual persistence to the next term at two HBCUs? To answer this question, Tables 6 and 7 show the logistic regression models predicting intent to persist using either the Likert scale rating or the dichotomous variable as the prediction variable. The data provided by the registrars' offices reflected a combined actual persistence to the next term at 95.6%.

For Research Question 2, the logistic regression model showed the overall model was significant, χ^2 (1, N = 91) = 8.10, p = .004. This model was estimated to account for between 8.5% and 28.1% of the variance in intention to persist. The base classification rate was 95.6%. The final classification rate was 96.7%. The base classification rate is based on no additional information provided in the study then the study can predict that 95.6% of students will actually persist to the next term at two HBCUs. The final classification rate after the data were collected determined the outcome to be 96.7%.

Inspection of the individual odds ratio showed it to be significant, *OR* = 3.97, *p* = .01 (see Table 6). The OR (3.97) showed that the likelihood of persistence went up 3.97 times for every 1-unit increase in the scale score (intent to persist). The probability of predicting student persistence to the next term is likely to happen based on the student's intent to persist. Table 6 supports Research Question 2

Table 6

*Logistic Regression Model Predicting Persistence Based on Likert Rating (*N = *91)*

Variable					95% CI	
	B	*SE*	*p*	*OR*	Lower	Higher
"I plan to graduate from my university" (Likert)[a]	1.38	0.54	.01	3.97	1.38	11.35
Constant	–2.23	1.88	.24	0.11		

Note. Full model: χ^2 (1, *N* = 91) = 8.10, *p* = .004. Base classification rate: 95.6%. Final classification rate: 96.7%. Cox & Snell R^2 = .085 and Nagelkerke R^2 = .281.

[a]Ratings based on 5-point metric: 1 = *Strongly Disagree*, 5 = *Strongly Agree*.

Table 7 shows the predictive discriminant analysis table. Inspection of the table shows a negative outcome correct classification rate of 25% and a positive outcome correct classification rate of 100%. Data analysis showed that 25% of the students were correctly classified as students who would not persist to the next term, and 100% of those who persisted were correctly classified. The findings provided support to reject the null hypothesis (see Tables 6 and 7).

Table 7

*Predictive Discriminant Analysis Table for Research Question 2 (*N = *91)*

Actual result	Predicted		Correct %
	No	Yes	
Dropped out	1	3	25
Persisted	0	87	100

Note. Base classification rate: 95.6%; overall correct classification rate: 96.7%

Summary

Survey data from 95 students (19 from Institution A and 76 from Institution B) were used to examine the relationship between academic advising modalities, academic advising, and self-assessed academic advising learning outcomes has on student persistence to the next term two HBCUs. The intent was to examine the relationship between the predictor variables of academic advising modalities, academic advising, and self-assessed academic advising learning outcomes and the criterion variables of intent to persist and actual persistence. Research Question 1 (prediction of intent to persist) received support with Self-Assessed Academic Advising Learning Outcomes (p = .002) being the only significant predictor. Research Question 2 (prediction of actual persistence) also received support. Overall, 96.7% were correctly classified, with 1 of 4 dropouts correctly classified. In Chapter 5, I compare these findings to the literature reviewed for this study, draw conclusions and implications, and suggest a series of recommendations.

Chapter 5: Discussion, Conclusions, and Recommendations

Like other institutions, HBCUs face challenges in achieving student retention goals. However, when compared to overall postsecondary institution retention rates, HBCUs tend to average 10% below the national average (NCES, 2019). In 2020, HBCU retention of 65.7% for full-time first-time degree-seeking undergraduates was 8.8% below the national average of 75.9% (NCES, 2022). Although HBCUs retention rates increased by 1.3% yearly from 2018 to 2020, while the national average increased by 0.2% per year in the same time frame (NECS, 2019, 2022) the retention rate from first to second term still lags behind the national average.

The purpose of this quantitative correlational study was to examine the relationship between academic advising modalities, academic advising (advised or not advised), self-assessed academic advising learning outcomes, and student persistence at two HBCUs. Correlational analysis with logistic regression was conducted to determine the statistical significance in predicting intended and actual student persistence. A logistic regression model was used to analyze the statistical significance of the relationships of academic advising modalities and academic advising learning outcomes to student persistence to the next term at two HBCUs.

The findings in this study support findings in previous research. Prior research has shown that academic advising positively correlates to student persistence and can impact an institution's persistence rates (DeLaRosby, 2017; Yonker et al., 2019). The present study's findings suggest that a 1-point higher score on the self-assessed academic advising outcomes scale resulted in a student being 7.82 times more likely to intend to

persist than those who scored 1 point lower. Question 5 in the self-assessed academic advising learning outcomes, “It is important to develop an advisor/advisee relationship with someone on campus” (see Table 3 in Chapter 4), showed the highest level of agreement for the items for self-assessed academic advising learning outcomes. Academic advising modalities (electronic or face-to-face) and academic advising (yes/no) did not statistically significantly predict students’ persistence intentions to the next term at the two HBCUs. Of the three variables in Research Question 1, self-assessed academic advising learning outcomes was the only significant predictor of persistence.

Analysis of the findings also showed that a student’s intention to persist can predict actual persistence to the next term. For every 1-unit increase in intent to persist, actual persistence increased by 3.97 (see Table 6). The student’s intention to persist (p = .01) to the next term is statically significant in predicting the actual student’s persistence. Findings from this study suggest that 25% of dropouts were accurately predicted, but overall, the model had 96.7% correct classification.

Interpretation of Findings

Prior research confirms the present study’s finding that self-assessed academic advising learning outcomes can predict a student’s intention to persist. Campbell and Nutt (2008) found a positive correlation between academic learning outcomes and student persistence. Hart-Baldridge (2020) and He and Huston (2017) found that learning outcomes are affected by the student’s relationship with the academic advisor. Table 2 shows that the students agreed it is important for students to develop relationships with advisors.

Similarly, prior research has shown that minority students need to identify with a community and be received into institutions fostering inclusive environments that influence student integration and persistence (T. Allen & Stone, 2016; Hunter et al., 2019; Trent et al., 2020; Williams & Johnson, 2019). Hunter et al. (2019) concluded that academic advising helps students identify with a community. In my study, a student's need to connect with the institution was achieved through academic advising and demonstrated in the student's self-assessed academic advising learning outcomes. This was confirmed in this study in that students' self-assessed academic advising learning outcomes were proven to statistically significantly predict the student's intention to persist.

Prior research has shown a positive correlation between academic advising and student persistence (DeLaRosby, 2017; Yonker et al., 2019). Fosnacht et al. (2017) found that advising influenced student persistence when students met with advisors an average of two times. In the present study, academic advising (not advised or advised one time per year) was not statistically significant. The present study focused on academic advising simply occurring or not, while other research focused on multiple advising sessions (more than one).

During the 2020–2021 academic year, social distancing guidelines resulting from the COVID-19 pandemic forced all higher education institutions to integrate technology and use electronic academic advising modalities (Hu, 2020). Cross (2018) found that online advising positively affects student persistence in online programs, while Steel (2018), Schaffling (2018), and Gaines (2014) found that students preferred face-to-face

academic advising sessions. Although all institutions began using more video conferencing, email, and phone conferencing than face-to-face sessions during the COVID-19 pandemic, 63.2% of academic advising was conducted electronically in the present study. However, the present study's findings disconfirmed the contention that academic advising modalities (video conferencing, email, phone, or face-to-face) impact student intent to persist.

Academic advising has been found to have a positive effect on student retention in previous research (He & Huston, 2017). Prior research at PWIs and community colleges has shown positive outcomes from relationships with advisors and student connections with their institutions (Johns et al., 2017; Thomas, 2017; Varney, 2012). These positive connections have yielded positive student persistence outcomes. Smith and Allen (2014) connected the impact of academic learning outcomes on developing relationships between academic advisors and students. By extending the knowledge on students connecting with their institutions through self-assessed academic advising learning outcomes the present study showed the awareness and effect self-assessed academic advising learning outcomes have on student persistence.

Institutional academic and social systems are integration and retention pathways for students (Tinto 1975, 2006). In studying why students do not persist in college, Tinto (1975) examined how the inability to integrate academically and socially can lead to withdrawal from a college. Tinto's belief that a student's lack of connecting with the institution can lead to withdrawal is consistent with the present study's findings for Research Question 1. Tinto (2017a) found that students must feel a sense of belonging to

a group, place, or person to successfully integrate into an institution. Although academic advising modalities (electronic and face-to-face) and academic advising (yes or no) were not found to have statistically significant predictive values for persistence intentions in the present study, the findings supported the study's theoretical framework; specifically, that self-assessed academic advising learning outcomes having an impact on student persistence.

Ajzen's (1991, 2011) theory of planned behavior focuses on predicting a person's intentions to achieve the desired behavior through behavioral controls. The desired behavior is more than likely to be achieved when a person intends to accomplish the behavior (Ajzen, 1991). Findings from this study showed that a student's intention to persist leads to actual persistence. Findings in the present study showed that the resources, knowledge, and relationships available to students through academic advising, academic learning outcomes, and a student's intent to persist predicted the student's intention and actual ability to persist.

Limitations of the Study

Beyond the generalization of using two HBCUs in the southern United States, one public and one private, there were some additional limitations. This study was limited to first-year students at two HBCUs. Because of COVID-19, study recruitment and data collection were limited by access to email.

Institution A's participants did not receive the first email invitation until June 24, 2021. Therefore, Institution A's first-year students from 2020–2021 received their first email invitation to participate in the study during the summer after their first year. There

was no tracking system to determine if the students opened and read emails once they left Institution A. Because of the late submission of the email invitation to the participants, Institution A accounted for only 19 of the 95 participants in this study.

Because of low participation from the Spring 2021 term at Institution A, Institution B was asked to participate in the study. Institution B's participants were invited to complete the Inventory of Academic Advising Functions-Student Version in the Fall 2021 term. Prior research found that fall to spring term (89.11%) student persistence is lower than spring to fall (90.63%) student persistence (Mortagy et al., 2018). In the present study, Institution A's student persistence of 100% (Spring 2021 to Fall 2021 term) is slightly higher than Institution B's student persistence of 95% (Fall 2021 to Spring 2022). The limitation exists because the study was not conducted during the same term for both institutions.

Another limitation is that discriminant analysis was excellent at predicting a student's actual persistence but did not predict dropout very well. Predicting dropout was not part of Research Question 2. By not specifically targeting issues that cause dropout, the limitation of the discriminant analysis not predicting dropout very well limits the practical implications to fostering persistence. The Inventory of Academic Advising Functions-Student Version survey was designed to identify self-assessed academic advising learning outcomes, academic advising frequencies (advised or not advised), and persistence. The survey was not designed to predict dropout. Therefore, the prediction of student persistence through academic advising made the instrument appropriate for this study.

Recommendations for Further Research

Based on this study's results, I recommend further quantitative research on self-assessed academic advising learning outcomes and student intention to persist. I grouped the self-assessed academic advising learning outcomes items into one variable. By studying the individual items of the self-assessed academic advising learning outcomes, future research could identify if one item has more of an effect on the self-assessed academic advising learning outcome, student intention to persist, and actual persistence. The data gathered may help institutions build and strengthen advisor–student relationships and allow institutions to collect more information on the items that compose the self-assessed academic advising learning outcome variable. Obtaining more information on the knowledge students gain while enrolled may provide a better understanding of student intention and actual persistence.

A mixed methods study could provide qualitative and quantitative data on the self-assessed academic advising learning outcome's individual item effects on students' intent to persist to the next term. The present study did not provide a qualitative viewpoint or data on the effect individual items of the self-assessed academic advising outcomes have on students' intent to persist to the next term. Also, a mixed methods study would disaggregate the combined self-assessed academic advising outcomes to facilitate examining which individual outcome is most important to persistence. Such research would provide students' perceptions of academic advising provision at their institutions.

The mixed method research may provide feedback to the institution on how effective the academic advising is and which items in the self-assessed academic advising outcome to affect the students receiving the services. The institution may use the data to adjust its academic advising policies and procedures to offer more effective resources and programs. A post-COVID-19 pandemic qualitative study, researching the academic advisors' perceptions of advising programs compared to students' perceptions of the advising processes could provide institutions data on student satisfaction, key areas that may or may not affect student retention, and data suggesting changes to academic advising policies and procedures.

Further research could focus on how academic advising modalities may have created barriers, strengthened the student-to-advisor relationship, or given students more advising modality choices. This type of research would allow for more focus on student and institution perceptions of the importance and impact that academic advising relationships have on academic advising, student persistence, retention, and graduation. Such research would need to be longitudinal to gather enough data concerning the impact student-to-advisor relationships have on student persistence, retention, and graduation. A longitudinal study would allow expanding the research past one term in the first year of college and gathering data over multiple semesters and collegiate years. A longitudinal study could be conducted 4 to 6 years or through the participant's graduation.

Implications for Higher Education Practice

This study's results showed that self-assessed academic advising learning outcomes significantly predicted students' intent to persist at two HBCUs. This study

provided statistical data relevant to the academic advising profession that could be used to implement programs, systems, and activities that foster environments centered on building or strengthening student-to-advisor relationships. Among this study's implications for postsecondary institutions is the recommendation to aid institutions whose retention averages are below the national average of 75.9% (NCES, 2022). By analyzing their academic advising outcomes and strengthening their academic advising and self-assessed academic advising learning outcomes, institutions could increase persistence in their students.

Studying self-assessed academic advising learning outcomes may help to predict dropout intention. A Likert scale number of less than 3 could be compared to the registrar's list of dropouts. Suppose study outcomes show that dropouts have Likert scale numbers of less than 3. In this case, the institution could conclude that the self-assessed academic advising learning outcome item predicts student dropout. Therefore, the institution could use the data to improve institutional culture or academic advising processes and procedures.

The findings from this study may be helpful to higher education institutions in promoting positive social change. By promoting factors that foster student persistence, HBCUs may be able to increase their persistence rates, thereby strengthening their financial positions and increasing the number of college graduates among communities of color. This study's results provided information on the impact that academic advising may have on persistence. The findings may help institutions make necessary changes to foster environments that build relationships with students and motivate students to

persist. The longer students persist and are retained, the more an institution is strengthened financially.

Conclusion

Retention is a challenge for all higher education institutions. The national average for student retention in 2020 was 75.9% (NCES, 2022). However, HBCU average student retention in 2020 was 67.1% (NCES, 2022). All institutions are searching for ways to improve or maintain their student retention averages. How institutions address student retention challenges varies. How each institution handles the challenges vary based on demographics, student needs, barriers, and institutional missions.

Academic advising has been thoroughly studied, and its effects on student retention thoroughly examined. The present study's focus was on examining the relationship between academic advising and student persistence through the theoretical frameworks of Tinto's (1975) student retention model and Ajzen's (1991) theory of planned behavior. This study focused on three critical areas of academic advising that filled a gap in the literature on academic advising: whether students are advised or not, advising modalities, and self-assessed academic advising learning outcomes. The findings showed that academic advising (advised or not advised) and academic advising modalities (electronic or face-to-face) were not statistically significant regarding a student's intent to persist to the next term. However, self-assessed academic advising learning outcomes were a significant predictor of student persistence to the next term. The implications of this finding are impactful enough to suggest that institutions should

review their academic advising policies and implement strategies and policies to improve student-to-advisor relationships and institutional culture.

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Appendix A: Inventory of Academic Advising Function Student Version

Inventory of Academic Advising Function

Student Version

1. Which of the following best describes where at *Name of Institution* **you get your PRIMARY academic advising, i.e., the advising you consider most central to your academic progress? (Choose one)**

 I have not received academic advice from faculty or staff at *Name of Institution**

 List should include all places at the institution where students might receive advising. Options might refer either to actual persons or to offices where students could interact with faculty or professional advisors.

 Other (please specify)

If you selected other, please specify

_____

2. How do you access your primary source of advising, i.e., the advising you consider
most central to your academic progress?
 Phone

 Email

 In person (face-to-face)

□ Video conferencing (Skype, Zoom, Web Ex, other)

3. I have had at least one relationship with a faculty or staff member at *Name of Institution* **that has had a significant and positive influence on me.**

□ 1 Strongly Disagree
□ 2
□ 3
□ 4
□ 5
□ 6 Strongly Agree

4. I plan to graduate from *Name of Institution***.**

□ 1 Strongly Disagree
□ 2
□ 3
□ 4
□ 5
□ 6 Strongly Agree

For the next series of questions, indicate your level of agreement.

5. It is important to develop an advisor/advisee relationship with someone on campus.

□ 1 Strongly Disagree
□ 2
□ 3
□ 4
□ 5
□ 6 Strongly Agree

6. There should be mandatory academic advising for students.

□ 1 Strongly Disagree
□ 2
□ 3

□ 4
□ 5
□ 6 Strongly Agree

7. I know what requirements (e.g., major, general education, other university requirements) I must fulfill in order to earn my degree.

□ 1 Strongly Disagree
□ 2
□ 3
□ 4
□ 5
□ 6 Strongly Agree

8. I understand how things work at *Name of Institution* **(timelines, policies, and procedures with regard to registration, financial aid, grading, graduation, petition and appeals, etc.)**

□ 1 Strongly Disagree
□ 2
□ 3
□ 4
□ 5
□ 6 Strongly Agree

9. I understand how my academic choices at *Name of Institution* **connect to my career and life goals.**

□ 1 Strongly Disagree
□ 2
□ 3
□ 4
□ 5
□ 6 Strongly Agree

10. When I have a problem, I know where at *Name of Institution* **I can go to get help.**

□ 1 Strongly Disagree
□ 2
□ 3
□ 4

□ 5
□ 6 Strongly Agree

_____

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Appendix B: Permission Granted to Use Instrument

From: Janine Allen <[redacted]
Sent: Monday, March 30, 2020 2:02 PM
To: Amanda Holmes <[redacted]
Subject: Permission to use survey instruments

Amanda,

This email message is to confirm that you have our permission to use in your research both the student and advisor/faculty versions of the Inventory of Academic Advising Functions. We ask only that you credit us for having development the survey instruments.

Cordially,

Janine Allen and Cathleen Smith
--

Janine M. Allen, Ph. D.
Professor Emerita
Graduate School of Education
Portland State University

[redacted]