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More Than A Score: The Test-Optional Movement in Higher Education

A Dissertation

Presented to the Faculty of the

College of Education and Social Work

West Chester University

West Chester, Pennsylvania

In Partial Fulfillment of the Requirements for the

Degree of

Doctor of Education

By

Lisa M. Montgomery

May 2020

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Dedication

This dissertation is dedicated to my family. It all started with you Mom and Dad bringing me into this world and demonstrating what unconditional love looks like. Everything that I am is because of both of you. I can never thank you enough for everything you have done for me in my lifetime. I love you both more than words could ever express. To my brother Christopher, we may be separated by a few years by birth but we are siblings all the same. Thank you for the continued prayers and positive vibes. You have always been there for me and I love and appreciate you always. To my cousin, Terry, I truly appreciate you keeping me in prayer and wishing me well all of my life. It has meant everything to me. To my husband of 16 years Bernard, thank you for coming into my life 20 years ago and professing, protecting, and providing for our family every day. You partner with me daily and have supported me throughout the duration of this doctoral program. I appreciate and love you for everything you've done and continue to do. To my three heartbeats - Brianna, Taylor, and Lauren, you are the lights of my life and my inspiration daily. Being your mother is the best blessing I could ever receive. I thank you for stepping up and helping out around the house enabling me to get through this program. I also appreciate your words of encouragement when I felt overwhelmed with this process. I hope I have shown you through my example the importance of education and dedication to goals you will want to reach in your lifetime. I love the three of you to the moon and back.

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Abstract

"Test optional", "test flexible," and "no tests required" are buzzwords surrounding the college admissions' process today. Getting into a college or university may require a student to submit several sets of grades and scores from either the SAT or ACT, write essays, prepare for interviews and/or complete other admission requirements. As of 2018, there are at least 1,000 accredited, bachelor-degree-granting colleges and universities that altered their admissions policy to either eliminate consideration of standardized testing scores or have moved to test optional or test-flexible admissions policies (Safier, 2017).

This qualitative mixed methods study investigated why higher education institutions are implementing test-optional policies as part of their admissions process. The answer to this question required inquiry into the decision-making processes at test-optional higher education institutions. Admissions officers answered survey questions regarding demographics, admissions materials, the rationale for implementing a test-optional admissions policy, and perceived benefits and drawbacks of their test-optional policy. Additional in-person interviews were also conducted with four admissions officers who consented through the survey. Utilizing qualitative survey and interview feedback, admissions officers identified diversity, access, and a desire to realign the admissions process with the institution's mission and values as some of the main drivers for the implementation of a test-optional admissions policy. This study provides additional insight to the existing literature encompassing the reasons why higher education institutions are choosing to adopt a test-optional admissions policy and how this decision has impacted faculty and students.

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Chapter I: Introduction

Test optional, test flexible, and no tests required are buzzwords surrounding the college admissions process today. Admission into a higher education institution is a rigorous process and may require a student to comply with several requirements during the admissions phase. Students might need to submit several sets of grades (high school GPA, Advanced Placement grades, and Honors preparatory grades), write essays, prepare for interviews, submit scores from either the SAT or ACT and complete other admission requirements. According to NACAC (2008), when higher education institutions leverage standardized testing as a critical admissions instrument, they are missing a primary opportunity to recognize scholastic ability beyond a student's high school transcript, guidance counselor recommendations, and the test scores themselves.

As of 2018, there are at least 1,000 accredited, bachelor-degree-granting colleges and universities that have altered their admissions policy to either eliminate consideration of standardized testing scores or have evolved to test optional or test flexible admissions policies (Safier, 2017). Admissions officers indicate the reasons behind the test-optional policy revolution relate to their desire for a more diverse applicant pool, a necessity to view the student holistically and because student success (at their institutions) correlates to other factors outside of test results (Allman, 2009; Wonnell et al. 2009). Test-optional admissions policies allow the student to decide if they wish to submit the SAT and/or ACT score when they apply to a higher education institution (NACAC, 2018). However, a test flexible policy provides the student with the option of which test (ACT or SAT) they choose to submit (NACAC, 2018). In 1984, for example, Bates College implemented a test-optional policy when they decided that the SAT/ACT scores were not indicative of the GPA a student achieved at their college (Furuta, 2017; Sparkman et al., 2012).

The ACT and SAT

In 1959, a University of Iowa professor named Everett Franklin Lindquist created the American College Testing exam (ACT). The ACT is a standardized multiple-choice college entrance exam with questions in four categories: science reasoning, reading, English and math (Zwick, 2002). Scores on the ACT range from 0 to 36 and content on the exam originates from curriculum topics taught from 7th through 12th grade (Zwick, 2002). Students may also take the writing portion of the test for an additional fee. The percentage of students taking the SAT declined by 20% in 19 states between 2009 and 2016 reflecting a corresponding increase in the number of students taking the ACT during that same time period (Haynes, 2016). Additionally, students in four states prefer the use of the ACT versus the SAT (i.e., Tennessee, Ohio, Illinois and Michigan) (Zwick, 2002).

The SAT, originally known as the Scholastic Achievement Test, was created by Princeton professor Carl Brigham in 1926 (Noftle & Robins, 2007). Supporters of the SAT asserted that the test measured the level of accomplishment of potential higher education students (Noftle & Robins, 2007). In 1941, however, the meaning of the term SAT changed to Scholastic Aptitude Test in conjunction with the perceived idea that the test now had the capability of measuring a student's capacity to prosper in college (Noftle & Robins, 2007). Between 1941 and 1991, several standardized test instruction courses emerged for students assisting them with boosting their scores on this test and the test was renamed the Scholastic Assessment Test (Noftle & Robins, 2007). In 1994, the SAT became known as just those three letters. Scott Jeffe, a spokesman for The College Board, stated, "The SAT has become the trademark; it doesn't stand for anything. The SAT is just the SAT and that's all it is" (Applebome, 1997). With the changes in what the SAT stands for over the years, Dr. Richard Sternberg argued:

Different reasons might be given for this shift, but the most obvious one is that neither the College Board nor anyone else is quite sure what the test measures, because it is not based on any particular scientific theory of a psychological construct but rather on a pragmatic assessment of what will predict scholastic success in college. (Sternberg, 2011, p.41)

The SAT currently consists of two sections which are evidence-based reading and writing and math. Each of these two sections are scores on a 200 - 800-point scale and the highest score a student can receive is 1600.

The Test Optional Movement

The test optional movement gained momentum back in 2001 when Richard Atkinson, then president of the University of California, attended the 2001 meeting of the American Council on Education in San Francisco, California (Epstein, 2009). During his speech at the council's meeting, Atkinson indicated the University of California considered not using ACT or SAT test results, as the school desired to view students more holistically. As a result of Atkinson's stance, the prominence of the University of California and additional clamoring for change, a new SAT became available in 2006. This new version kept the University of California on board but other colleges and universities moved to a test optional environment citing that the changes appeared to be more of the same types of questions with the addition of a writing component (Epstein, 2009). The SAT underwent changes again in 2014 and 2016. According to Epstein (2009), one of the main reasons for the change to test optional was to allow colleges and universities to increase the diversity (e.g., cultural, socioeconomic, and first generation) on their campuses (Epstein, 2009).

Researchers have provided pros and cons regarding higher education institutions moving to test-optional admission processes (Epstein, 2009). Among the benefits of moving to a testoptional admissions process are that colleges and universities notice an overall increase in applications from diverse and lower socio-economic backgrounds (Epstein, 2009; Lash, 2015). While this increase in applications demonstrates positive changes for students and the admissions process, Epstein (2009) provides a different view regarding why colleges and universities are moving to a test optional environment. Some researcher indicate that colleges and universities offer a test optional admission process to move them up in the rankings in the popular annual U.S. News & World Report's Best Colleges issue which many people utilize as part of their decision-making process for selecting colleges and universities (Robinson & Monks, 2005; Epstein, 2009; Furuta, 2017). By increasing the total number of applications but then not accepting many of those students, institutions appear to be more selective (Robinson & Monks, 2005; Epstein, 2009; Furuta, 2017). For a subset of our population of students and parents, a college or university that appears to be selective can be very appealing (Epstein, 2009). Another drawback of the test-optional admissions process is that institutions report above average SAT scores, as they are only using the scores of those who choose to submit their scores (Epstein, 2009).

Recommendations Regarding Standardized Testing

In 2008, the National Association for College Admissions Counseling (NACAC) published a document titled the *Report of the Commission on the Use of Standardized Tests in Undergraduate Admissions* which contained four suggestions for higher education institutions to consider regarding the use of these tests as part of the admissions process: (a) routinely inquire and reconsider the basis and effects of standardized testing requisites, (b) ensure higher education institutions notice any potential misappropriation of standardized testing results, (c) recognize that there will be variations in the scores between groupings of people and to constantly evaluate the use of the scores relative to the societal aspirations of higher education and (d) consider testing alternatives for the future (NACAC, 2008; Soares, 2012). The commission also argued for removing standardized testing when the use of the scores prove to no longer be useful for determining student success and/or when the admissions processes of these colleges and universities dictate that the test outcomes are not needed for various reasons (i.e., guidance of a student) (NACAC, 2008). In addition, higher education institutions are encouraged to think about different types of tests in the future for assistance with admissions decisions (NACAC, 2008).

The topic of standardized testing as an admissions requirement remains a highly-debated topic in higher education. As the number of traditional college-aged students continues to decline, admissions teams continue looking for ways to attract these students through the recruitment process. Simultaneously, students planning on attending a college or university continue preparing for and taking the ACT or the SAT through tutors, test preparation books and/or test preparation courses all of which generate additional revenue for the test taking industry.

The Business of Standardized Testing

There are two sides to the debate regarding standardized testing. On one side are supporters that perceive SAT/ACT test scores demonstrate how smart a student is and how well they can perform in higher education. On the other side of the debate are opponents who deem

the SAT/ACT test scores are inconsistent and that it is not possible to reduce what a student knows to how well they perform on a test (Stauffer, 2017). A third concern that does not receive as much attention is how standardized testing is a business (Cavanagh, 2015; Stauffer, 2017). The value of the standardized test market ranges between \$400 - \$700 million per year. The College Board a nonprofit organization that manages the SAT, showed revenue of over \$916 million on its 2016 tax documents. Of that total, they reported \$338 million in revenue from standardized testing. This revenue generates from students taking the either or both the ACT or SAT and sometimes, students are taking these tests more than once to improve their scores.

As of the 2019-20 school year, the cost of the math, reading and writing portion of the SAT is \$49.50 (College Board, 2018). Should students opt to include the essay, the cost increases to \$64.50 (College Board, 2018). Aside from the costs families pay for students to take the SAT and/or ACT, some also purchase test preparation books/manuals and pay for tutors (who can charge \$200 - \$1,000/hour) and/or send the student to test preparation courses (cost for preparation courses can range from \$500 - \$1,000). As of 2015, the amount of money parents have spent to date to prepare students for standardized testing tops \$13.1 billion (Stauffer, 2017).

Similarly, the ACT Company is the owner and administrator for the ACT, the other standardized test students can take for college admission. When students take the ACT, there are two different price structures. Students who take the test without the writing section pay \$52 (ACT, 2019) and students who take the exam with the writing component pay \$68. Currently, 1.9 million students sit for this exam which yields a minimum of \$98 million from test administration. If even 50% of the same students take the writing portion of the exam (950,000 students), there is an additional \$56 million dollars in revenue for the ACT Company. Testing assessment companies also earn millions of dollars because of their involvement in the standardized testing industry. In 2015, CTB McGraw Hill sold a portion of their testing assessment portfolio to Data Recognition Group (DRG). Each year, DRG earns upwards of \$500 million on assessments. In 2018, Houghton/Mifflin/Harcourt (now known as Riverside Publishing) sold their testing assessment business to Alpine Investors for \$140 million. In 2017, prior to the sale, Alpine's billing back to Houghton/Mifflin/Harecourt totaled \$81 million for test administration. And finally, Pearson, who also manufactures textbooks and test preparation books, earns approximately \$5 billion in profits annually.

The standardized testing industry generates profits from test administration, test preparation courses and manuals and tutors. An additional revenue stream in this industry results from field testing. According to Strauss (2019), "Millions of kids take standardized tests simply to help testing companies make better tests" (p. 3) as field testing occurs at differing times during the year for students with the purpose of sampling new and potential questions for upcoming standardized tests. Although there are school administrators and teachers who object to field testing, Commissioner MaryEllen Elia, New York State Education Commissioner stated field testing is necessary for new test creation (p.3).

Purpose and Rationale of The Study

The purpose of this study is gain context for why some institutions of higher education adopt test-optional admissions processes. In this study, I will investigate the reasons behind this movement, methods of implementation, impacts, and outcomes for test-optional institutions.

This research provides additional insight, perceived value, results, and benefits realized by higher education institutions since the implementation of test-optional policies. The 2019 year is on pace to be a record setting year for the test-optional movement with an additional 35 colleges and universities abandoning the requirement for SAT/ACT scores for an admissions decision (Jaschik, 2019). Embracing test optional policies within the realm of higher education represents a major shift in admissions standards and practices over the years. Capturing the changes in student and college/university dynamics responsible for this change is important for the field of higher education.

Problem Statement

Studies show the correlation between these test scores and a student's success at a higher education institution continues to weaken (Atkinson & Geiser, 2009; NACAC, 2018, Sparkman et al., 2012; Safier, 2017), many higher education institutions still require scores from the SAT or ACT as a mandatory component of the admissions process. When admissions officers utilize standardized test scores, the scores provide them with a consistent manner and lens for application review (Furuta, 2017). Removing use of standardized tests may place a burden on admissions offices from a time and staffing perspective (Furuta, 2017; Allman, 2009; Sternberg, 2012). This decision may also compel admissions officers to utilize individual measures by student to make an admissions decision (Furuta, 2017; Sternberg, 2012). Furuta (2017) argued that the importance of standardized testing at certain higher education institutions is decreasing, while other more prestigious and discerning institutions continue to rely on the SAT/ACT as a critical metric in their evaluations of potential students.

Students as a Total Package. According to Reason's (2014) review of Dean and Levine's book "*Generation on a Tightrope: A Portrait of Today's College Student*", one focal point for higher education institutions is the need to individualize the student experience. Reason (2014) indicated students carefully navigate the landscape between their future aspirations and the current world.

Robert Sternberg (2012), former Provost at Oklahoma State, President at University of Wyoming, and Dean of Arts and Sciences at Tufts, conducted a few different studies at higher education institutions (e.g., Yale, Tufts). These initiatives (The Rainbow Project and Kaleidoscope) utilized alternate types of tests that looked at analytical, creative and practical skills of potential higher education students. The students that participated in this project had options such as: writing short stories with titles provided as prompts, answering essay questions involving real-world scenarios, relaying stories about pictures provided or developing slogans for cartoons crafted for this exercise. Additional tests provided scenarios that the student might experience while in college and they were asked to evaluate the options offered that could lead to them successfully mastering the challenge. These types of options are consistent with Piaget's (1936) and Kolb's (1984) theory of cognitive development. These higher education institutions are offering students options based on their experiences while allowing them to also factor in learning styles/preferences. In addition, the administration at Tufts launched the Center for the Enhancement of Learning and Teaching (CELT) (Sternberg, 2012). Through CELT, members of the faculty learned how to instruct students who possessed varied education and intellectual styles. Sternberg argued, "We need to teach in all ways to all students so that at any given time, some students are capitalizing on strengths and others are correcting or compensating for weaknesses" (Sternberg, 2012, p. 11).

Furuta (2017) reviewed the concept of "student personhood". In this concept, the view of the students is as "active learners with a broad set of rights, abilities, and capacities for self-expression" (p. 238). Furuta (2017) noted that the development of student personhood continues in today's society and in some ways, takes on more importance than some of the other standard metrics utilized in higher education institutions for admission (e.g., SAT/ACT). Some colleges

and universities embrace this evolution and now view students in an all-inclusive format considering additional skills and talents students possess (Furuta, 2017).

When applying to colleges and universities in today's environment, some students show their "total self" during the admissions process and offer an array of admissions material that represent their version of their scholastic talents (Furuta, 2017). This trend is also evident in the higher education institutions themselves now providing students with an option to create their own major field of study which provides students with the option to tailor their coursework to their area of interest (Frank & Meyer, 2007). In addition, student personhood is also evident in the development of various offices and councils created at colleges and universities that seek to provide assistance to students and their evolving needs especially in the wake of a more diverse student body (Ramirez, 2016). Finally, today's students are much more inspired to create student organizations based on their specific student individualities and inclinations (Frank & Meyer, 2007; Meyer & Bromely, 2013).

Managing Admissions Applications in a Test Optional Environment. While it certainly may be the case that moving to a test-optional environment creates a less efficient process, some higher education institutions find ways to manage the admissions process and report positive results on their decision. In 2008, Wake Forest altered their admissions requirements three-fold: removed the SAT/ACT submission requirement, added a written segment to their admissions application to allow for more thought-provoking responses, and conducted interviews of over 4,000 students. For example, one type of question guided applicants to "tell us about your intellectual epiphany" (Allman, 2009, p. 169). The admissions staff wanted to send a message that four years of a student's high school experience meant more

than a four-hour exam and that these changes allow the team to engage in a holistic applicant approach to the admissions process (Allman, 2009).

Several alterations to the process of admissions occurred at Wake Forest. The admissions team, with the assistance of 14 staff members and emeritus faculty assistance, finished the interview process in 6 months and spent time focusing on talent, imagination and inquisitiveness from potential students. The Wake Forest admissions staff implemented various accommodations on campus in support of their new admissions process (e.g., trailer for in-person interviews and webcam/Skype options for those unable to travel to campus). When the process ended, the admissions team found that the SAT/ACT scores did not make a difference in those who submitted or did not submit their scores and that they could be successful with selecting a freshman class of students leveraging this process ongoing (Allman, 2009). Their goal revolved around fairness, inclusion and providing students with a chance they may not have otherwise. One applicant praised the decision citing, "You have realized that intellectual development is useless without a corresponding ethical maturation. You want me to fully develop my talents for humanity and I'd like you to be there with me when I finally do" (Allman, 2009, p. 174).

After the interview process, Wake Forest asked students why they were interested in attending the university. Feedback from students, even those with high test scores, indicated their appreciation of the university viewing them, their skills and abilities holistically and not simply reviewing them based on an SAT or ACT test score. One student was quoted, "You are really trying to understand who I am. I want to attend a school that sees me for who I am, not just a big score" (Allman, 2009, p. 172). Another student's feedback reported, "I have more to offer the world than can be accounted for numerically" (p. 176).

ACT/SAT Performance of Minority Groups. Gaps in performance on standardized testing exist between racial groups. African American, Mexican/Mexican American, Puerto Rican, Latino/Latin American students generally tend to score lower on the SAT than their White and Asian/Asian American or Pacific Islander peers (Hacker, 1992; Hedges & Nowell, 1998; Jencks & Phillips, 1998). According to Alon (2010), scores on the SAT for these students can be up to 200 points lower than that of their White and Asian/Asian American peers. When higher education institutions require standardized test scores, this can seriously impact these underrepresented minority groups' abilities to gain admission to the colleges and universities of their choice. In a study conducted with African American and Latino students and their performance on the SAT/ACT, four areas of concern exist (Walpole, et al., 2005).

The first area of concern is communication (Walpole et al., 2005). Students expressed that they did not have a clear picture of the purpose and context of the test, when it was being held, how it could impact their ability to get into college (Walpole, et al., 2005). The second theme is test preparation (Walpole, et al., 2005). Some students can attend a preparatory course in school on weekends and others do not. Students indicate that even when the class is in session, it is sporadic during the academic year (Zwick, 2002; Walpole et al., 2005). Attending one session does not properly prepare the students to take this test. Some students not able to attend a preparatory class indicate that they take sample tests available in books purchased or borrowed (Walpole et al., 2005). And finally, other students not able to attend a course or take a sample exam from a book simply have monetary challenges that preclude them from purchasing preparation courses or attending workshops (Zwick, 2001; Zwick, 2002; Contreras, 2011; Dixon-Roman et al., 2013).

The third area of concern in this study relates to test-taking strategies (Walpole et al., 2005). About 40% of the students in this study take the SAT/ACT multiple times to get the highest score possible. At the same time, these students struggle financially to pay for each administration of the test (Walpole et al., 2005). What some of these students fail to understand is that test scores (generally) do not increase by several hundred points when retaken (Walpole et al., 2005).

The fourth finding relates to concerns of anxiety and fairness. Some students view the test as unfair and think it should not matter (Walpole, et al., 2005). In one case, a student said that use of the test may not reflect their true intelligence because they could just be a bad test taker (Walpole et al., 2005). Five students in the study express fear of taking the test as a result of the pressure to get just the right score to receive admission into the college of their choice (Walpole et al., 2005; Deil-Amen & Tevis, 2010).

Continued focus on standardized testing results leads to additional repercussions in the African American community. Thomson & Allen (2012) argued that some African American and Latino students feel a sense of indifference towards standardized testing and that many of the features these students used to enjoy at school are gone and teachers are "teaching to the test (p. 220). In addition, some students (African American males specifically) experience higher dropout rates from high school than that of their White and Asian/Asian American peers (Thompson & Allen, 2012). Lastly, as a result of the discrepancies in the execution of disciplinary policies which tend to target African American and Latino children from lower socio-economic backgrounds, some students end up in "prison-like" (p. 222) schools which can ultimately land these students in the penal system (Thompson & Allen, 2012).

Research Questions and Design

The main question I plan to address in my research is: Why have many higher education admissions policies evolved to include a test-optional component for incoming students? The sub-questions I used to explore this question were:

Sub-questions:

- What was the decision-making process for schools implementing test-optional policy?
- 2. How did the higher education institutions implement the test-optional admissions policy?
- 3. What is/are policies the higher education institutions are utilizing to make an admissions decision?
- 4. What do admissions officers perceive to be the benefits and drawbacks of testoptional policies?

To answer these questions, I engaged in a mixed methods approach regarding standardized testing and the test optional movement as it related to college admissions. For the quantitative portion of the research, I sent out a survey to all the four-year degree bearing higher education institutions in the tristate area. The purpose of the survey was to obtain current information about colleges and universities that do and do not require the submission of standardized test scores as part of their admissions process. Through use of a correlational approach, I saw the working relationships within the various data captured and provided a data analysis using a codebook.

Rationale for Methods

This study involved the usage of a sequential qualitative mixed methods research design. The QUAL portion encompassed collecting responses from admissions officers at the testoptional institutions in the United States via a survey (see Appendix A). The qual portion of the study involved interviewing admissions officers through the use of 7 questions developed in advance of the interviews (see Appendix B). Additional information regarding this sequential approach is included in Chapter 3.

Survey Design

A 17-question survey was designed and sent out to admissions officers at test-optional institutions in the United States. This survey elicited demographic information from each of the test-optional institutions and also included open-ended questions regarding the perceived benefits and drawbacks of a test-optional policy and the financial implications of utilizing a test-optional policy.

Case Studies

I utilized a collective case study design to facilitate my research, following Stake's (1995) model. Stake's (1995) definition of a case study focuses on what Louis Smith (1979) identified as a "bounded system" (Stake, 1995, p. 2). A case study is a cohesive structure and may involve a single person or an entire group (Lichtman, 2013). When case studies involve an entire group, a common denominator, feature or characteristic connects the group together and supports the case study process. Stake (1995) offers four points of view regarding knowledge obtained during the case study process. The first point is that knowledge is distinct to readers because it can remind them of their own life experiences since the case is powerful, specific and "sensory" (Stake, 1995). For example, in this research study, readers may view the findings through the lens of their personal experiences with taking standardized tests and applying to college. Stake (1995) also noted that case study knowledge provides additional context and this resonates with readers because much of what is experienced is steeped in context. Thus in

reviewing the findings of this research, readers may gain a more informed context around the various experiences students have with testing and admissions. Third, case study research may provide new knowledge and information to readers and enable the development of a more informed position on the topic (Stake, 1995). Fourth, new knowledge from the case study is grounded in the group of people that readers consider when reviewing the case and they can end up leveraging these generalities to these groups (Stake, 1995). The key findings from this research may provide readers with additional context for consideration regarding the evolution of the higher education student of today and looking more holistically at a person beyond how a score informs higher education institutions of a student's ability to successfully complete their undergraduate degree.

Data Collection

Stake (1995) argued that researchers have what is identified as, "privilege and obligation" (p. 49). In this case, *privilege* means that a researcher is to focus on the things they deem valuable, and *obligation* means that the researcher should create inferences taken from those things deemed significant to clientele and associates (Stake, 1995). According to Stake (1995), data collection should be led based upon the questions the researcher seeks to answer and to ensure the researcher considers all types of data for the case study process. My research questions guided the data collection process for this study and I gathered information from various sources to inform the research process.

Stake (1995) referenced three methods of data collection which are observation, interview and document reviews. I used interviews to collect qualitative data for this study. For Stake (1995), the interview serves as the principal pathway to "multiple realities" (p.64). For this research method, Stake (1995) focused his thoughts on this topic from the researcher's perspective. He advocated for researchers to ensure they have a strategy in advance of the interview and discusses some of the pitfalls which may occur (e.g., not asking the right things, directing the participant to what the researcher would like to discuss, etc.). He warned that securing a strong interview can be a concern (Stake, 1995). When selecting participants, Stake (1995) argued it is essential that this group possess distinctive experiences and have critical narratives to share. I chose to interview admissions officers in higher education institutions who have information regarding the test-optional process for their college or university which informed my research findings. Finally, researchers are encouraged to come to the interview with a given set of questions focused on the subject matter that is important to them (Stake, 1995). In Stake's view, researchers are asked to craft their questions carefully to elicit responses that provide insight to the case (Stake, 1995). I devised questions that elicited details from admissions officers and devised questions on my quantitative survey that support the overall purpose of my research project.

Limitations

There were two main concerns regarding my research of the test-optional movement. The first was how open admissions officers would bewhen I asked specific questions about their test-optional policies and how they work for their respective higher education institution. Given that the number of college-aged students continued to decline year after year and that every college/university is basically competing every other university for the same student, I wondered how willing the admissions officers would be in sharing possible coveted information. My second concern was the tenure of the admissions officers I interviewed. If the admissions officer was relatively new, they may not have the historical information regarding what factors led to the decision to become a test-optional institution and possibly will not know what concerns the

college/university dealt with upon adoption of the policy and/or what changes had to be made to make the test-optional policy work.

Definition of Terms

SAT (also known as the is one of the standardized tests a potential higher education student can take as part of the admissions requirement for various colleges and universities. Exam participants are given three hours to complete the exam if they are taking it without the essay. If students are taking the test with the essay, they are given three hours and fifty minutes to complete it. The test has one hundred and fifty-four questions (one hundred and fifty-five with the essay). There are three sections to the exam which are Evidence-Based Reading and Writing (EBRW), Math and the Essay which is optional. The highest score a student can obtain is 1600 (Noftle & Robins, 2007; Kaukab & Mehrunnisa, 2016).

ACT (also known as the American College Testing) is another one of the standardized tests a potential higher education student can take as part of the admissions requirement for various colleges and universities. The test which gauges students' abilities in five categories. Those categories are English, math, reading, science and writing. The writing section is optional for students. Each section of the exam is multiple choice and students are given two hours and fifty-five minutes to complete the test without the writing component. If students take the written section, they are given three hours and thirty-five minutes to complete the test (Zwick, 2002; Kaukab & Mehrunnisa, 2016).

Test optional policies (TOPs), according to the National Association for College Admission Counseling, are policies that certain colleges and universities have in place which permit students to determine what type of standardized testing scores they will submit with their college/university application for enrollment. In some cases, a TOP may be that the student can decide whether or not to submit their score on the SAT or ACT. There are other options of TOPs as explained below (NACAC, 2018).

Test flexible denotes students having the choice to submit scores from other testing they have taken instead of scores from the SAT or ACT. Some of the options students can choose are the International Baccalaureate, Advanced Placement Test Scores, SAT II or Regents (NACAC, 2018).

Optional for All is the policy which allows students to determine whether or not to submit standardized test results along with their admissions application. An exception may be required for students who were homeschooled or are international students. In this case, some type of test scores are necessary (e.g., SAT, TOEFL, etc.) (NACAC, 2018).

Optional Plus involves students that do not submit standardized test scores and must add an interview or writing examples to their admissions application (NACAC, 2018).

Optional for Some denotes students who are offered options regarding what standardized test score they wish to submit while others many not have this option. For example, under an *optional for some policy*, students who would like to be eligible for scholarships or students who will be applying to certain programs (e.g., nursing, engineering, etc.) and/or out of state students may be required to submit standardized test results whereas other students are not required to provide these test scores (NACAC, 2018).

Academic Threshold involves students that achieve specific academic measures who can receive acceptance into the college/university without utilization of standardized test scores as a part of

the decision process. Examples of academic measures students can meet are class rank or GPA (NACAC, 2018).

Test blind represents students that can submit their standardized test scores but the admissions team will not utilize the scores as part of the admissions process.

College Board is a not-for-profit membership association comprised of colleges and universities, secondary schools and others (e.g., nonprofit groups) that links students to higher education achievement. The College Board is the owner of the SAT (www.about.collegeboard.org website, 2019).

Underrepresented minority this term is utilized in this study to represent minority students (i.e., African American, Hispanic, Asian, Native American, etc.). This is the current terminology utilized in higher education referring to these student groups.

Chapter II: Literature Review

In this chapter, I review the literature that supports my study including: (a) higher education acceptance practices prior to utilization of standardized testing and also how the current day admissions process works, (b) implications to higher education admissions decisions related to race/ethnicity, affirmation action, and socioeconomic factors, and (c) non-cognitive variables as a measure of student success. Also, I introduce my theoretical framework which will be used to guide my study.

College Admissions Before Standardized Testing: 1600 – 1820's

As a result of a perceived need to maintain European cultural norms, educators in colleges and universities in America structured their curriculum in a similar fashion to their European counterparts (Ali & Ali, 2010). While the official United States college admissions policy stated that students from all socioeconomic backgrounds had an opportunity to attend, accepted students tended to be white males from privileged backgrounds (Ali & Ali, 2010). In the 1600's, proficiency in Latin and Greek were prerequisites to full Harvard admission (Butts & Cremin, 1953; Arendale, 2011). In the 1700's, a student needed to have the aforementioned prerequisites in addition to being able to demonstrate proficiency on a math exam to gain admission to Yale (Ali & Ali, 2010). Given these requirements, Harvard University was the first postsecondary establishment to offer remedial studies.

In spite of the privileged backgrounds of students, there were evident gaps in proficiency in math and English. The desire to eliminate these proficiency gaps in the 1830's gave rise to the preparatory academy where enrolled students received lessons in math, physical science, philosophy and English literature (Ali & Ali, 2010). Preparatory courses existed to provide knowledge of content, not cognitive learning strategies (Arendale, 2011). However, since some students had not developed the basic skills to be successful in college courses, many colleges offered preparatory academics and remedial classes (Ali & Ali, 2010). At Iowa State College, freshmen had to be 14 and know how to read, write, and do math. Students not meeting this requirement at Iowa State found placement in the preparatory department (Arendale, 2011).

Student Evaluation

In the early 1800's, teachers evaluated their students based on questioning and observation and each school community had a "School Committee" who were tasked with visiting the school at least once per year and asking students questions (Ali & Ali, 2010). Curtis' (1967) research found that exams given to students during this period were largely oral. At this time, China was the only country that was giving written exams which then informed their admissions and advancement decisions in the civil service (Ali & Ali, 2010).

Written Versus Oral Examinations

Around 1845, major disagreements surged to the forefront in the battle of written versus oral exams. Soon thereafter, Horace Mann, former Secretary of the Massachusetts Board of Education, facilitated the movement from oral to written examinations. In 1864, Rev. George Fisher put together the Scale Book that provided examples of 'quality' in many subjects such as hand writing, spelling, math, and scripture. In 1865, state testing began at the high school level with an admissions test. As a result of the success of the high school admissions testing, testing for high school graduation and college admissions began in 1878.

Standardized Testing and College Admissions

The quality of a student's academic curriculum in high school varied throughout the United States (Ali & Ali, 2010). Difference in high school curriculum rigor coupled with a wide range of admissions criteria for higher education institutions prompted the creation of the College Board (Ali & Ali, 2010). The College Board created the College Entrance Exam Board (CEEB) on November 17, 1900 and part of this group's mission lies in altering the premise of college admission from socioeconomic status to academic abilities (Ali & Ali, 2010).

In July 1946, President Truman selected a twenty-eight person United States President's Commission on Higher Education. This commission, in conjunction with the Commission on the Financing of Higher Education, obtained outcomes from an Army General Classification Test that was taken by 10 million men and established that students with an IQ below 115 struggled to be successful in college (MacMillan, 1965). The President's Commission, however, indicated that 80% of the students already in higher education institutions had an I.Q. of 110 and higher, but recommended that the new 'line' be set at a 100 I.Q. (MacMillan, 1965). College admissions officers interpreted this to mean that those with an average I.Q. of 110 would have a good chance to be successful in higher education (MacMillan, 1965). In 1948, the American Association of University Professors referenced the following intelligence quotients for the nation (MacMillian, 1965):

Table 1

Percentage of the Nation	I.Q.	Meaning
9%	120 and up	Superior and very superior
16%	111 – 119	Bright normal
50%	91 - 110	Average

Intelligence Quotients as of 1965

Note. Adapted from "Admission to Higher Education: Quantity or Quality" by R. G. MacMillan, 1965, JA Journal of Social and Political Theory, 25, p. 60.

First 60 Years of Twentieth Century and Standardized Testing: 1900 – 1960

From 1900 – 1915, during what is known as the "pioneering phase", investigation and educational techniques evolved paving the way for standardized testing (Ali & Ali, 2010). The first textbook of educational measurement by Robert Thorndike (also known as the "father of modern educational measurement") appeared in 1903. Between 1905 – 1910, development of several other types of standardized tests (e.g., the Benet-Simon measurement used to categorize mental retardation, math, handwriting, and army alpha and beta tests) started. The Boom Period (p. 218), from 1915 – 1930, represents the birth of standardized testing for all school subjects and on June 23, 1926, the first Scholastic Aptitude Test (SAT) made its debut (Ali & Ali, 2010).

Next, is the Period of Critical Appraisal (1930-1945) and the focus on objectives as a critical assessment of the classroom curriculum. During the Period of Critical Appraisal, the first Graduate Record Exam (GRE) became a requirement for graduate students at Columbia, Harvard, Princeton and Yale in 1949. Acceptance of standardized testing throughout the United States also occurred during this time period (including the rollout of both the LSAT in 1948 and the GMAT in 1954).

Standardized Testing: 1960 – 2010

In 1965, Criterion-Referenced Testing (CRT) began. The Glossary of Education Reform (2019) defines CRT as tests and assessments that measure a student's performance against a fixed set of predetermined criteria or learning standards at specific intervals during their education. To evaluate whether or not students learn a specific body of knowledge at the elementary and secondary levels (e.g., class curriculum taught in the course, academic program or content area), teachers used CRTs. In addition, the American Psychological Association (APA) published the "Standards for Educational & Psychological Testing". Finally, the

development of the Wechsler Intelligence Scale (also known as the Wechsler Preschool and Primary Scale of Intelligence – WPPSI) by David Wechsler came into existence in 1967. The Buros Testing Manual (2012), defines WPPSI as a measurement of a child's cognitive abilities through verbal and performance tests. The WPPSI yields a score which defines a child's intellectual functioning abilities. Since its introduction in 1967, four more iterations of this scale exist.

The Creation of the College Entrance Exam Board

By the middle of the 19th century, college admissions requirements were varied among the colleges and universities and the secondary schools struggled to align their curriculum to the requirements for admissions (Beale, 2012). The Committee of College Entrance Requirements committee presented a report in 1900 after a four-year examination of admissions requirements and developed ways to ensure uniformity within the admissions process (Beale, 2012). In 1913, Kingsley discussed admissions practices from over 300 higher education institutions. The major finding indicated that students need to complete four years of high school, have recommendations from teachers, and standardized test scores for admissions consideration (Beale, 2012). Because the higher education institutions used such varied ways and means of admitting students, high schools had curriculum alignment difficulties (Beale, 2012). Since high schools struggled with curriculum alignment, the College Entrance Exam Board (CEEB) came into existence.

College Entrance Requirements

From 1946-1956, colleges admitted students based on six criteria: high school graduation, a minimum number of a set of subjects, class rank, recommendation from the school principal, a personal interview and standardized test scores. By 1960, based on a study by Berger

(1961), 75% of the admissions officers deemed the SAT was the essential item to their process. It is also important to note that during the 1960's there was a concern that admissions teams include other considerations in the admissions process (e.g., character and leadership abilities) that are not test score based. The decision to factor in environmental and non-intellective items gained praise from many people.

Admissions Practices in the 1960's

In the 1960's, as the number of higher education institutions increased, three levels of selectivity within the college applicant pool emerged. Level one consisted of the extremely highly selective higher education institutions (e.g. Stanford) who would only take one out of five applicants typically with an I.Q. score of 130 (MacMillan, 1965). The second level consisted of many of the other universities and four-year colleges not as selective as the level one schools and as many as 50% of the college applicants applied to institutions in this range (MacMillan, 1965). The third level contained the remaining two-year junior colleges who accepted one-third of the applicants considered academically "weak" (MacMillan, 1965, p.62).

Current Admissions Practices

Current admission to a higher education institutions involves the use of several factors: (a) high school GPA, (b) class rank, (c) course load and profile of the student, (d) standardized test scores, (e) formulaic processes, (f) interviews, (g) extracurricular activities, (h) letters of recommendation, and (i) affirmative action (Sternberg, 2011). Sternberg (2011) argued there are many positive reasons why admissions officers rely on GPA (e.g., past performance is indicative of future performance, easy access to the score as all high schools calculate it, and that GPA signifies a student's scholastic capability). However, institutions' use of high school GPA as an admission criteria also presents concern ranging from grade definition across various high schools to grade inflation (Sternberg, 2011).

Class rank. Class rank is a numerical representation from the top student in the class to the last student in the class based on grades. It is interpreted differently based on school size and location (Sternberg, 2011). A student ranked number one in a school from a rural area and a student ranked number one at a competitive high school can mean something different (Sternberg, 2011). Some high schools are removing the calculation of class rank which poses an issue for admissions officers that want class rank factored into their admissions decision (Sternberg, 2011).

Course load and student profile. Admissions officers in higher education not only focus on a student's GPA but also consider the quality and rigor of the classes the student takes to gauge if the courses are easy or more challenging (Sternberg, 2011). However, some schools do not offer advanced placement courses and/or at some schools, advanced courses are only available to a limited number of students.

Formulaic admissions. Formulaic admission is a process which involves combining standardized test scores with GPA and class rank that provides an overall merit score. Higher education institutions that use this method say that it provides some uniformity and objectivity (Sternberg, 2011). However, this is a very narrow method for utilization and does not reflect other non-cognitive factors (Sternberg, 2011). An additional concern is that application of this formula alone may yield a class that is very uniform in look and background (Sternberg, 2011).

Extracurricular activities. Sternberg (2011) argued that consideration of extracurricular activities as part of an admissions decision may provide additional context of a student's

disposition and who they are as an individual. Some admissions officers understand that test scores, class rank and GPA represent only represent a portion of the potential student's story and desire consideration of these activities which may speak to other assets the student may possess (Sternberg, 2011). Conversely, concerns arise regarding the overall value of extracurricular activities specifically around the link the activity may or may not have to the student's major, its bearing on the student's academic success, and the depth of the student's participation in the activity (e.g. measuring their participation).

Affirmative Action

Affirmative action, in higher education, offers those from historically underrepresented groups the opportunity to gain admission to an institution based primarily on the person's race. Opponents of affirmation action plans for college admission perceive that higher education institutions may admit someone that does not have the merits that another person might (Sternberg, 2011). In other words, a more qualified applicant may be turned away because someone else from an underrepresented minority group requires accommodation under this admissions practice (Sternberg, 2011; Pastine, 2012). There are proponents and opponents of this practice and also landmark cases of note related to affirmative action in higher education.

Court Cases and Affirmative Action

In 1978, the landmark case of Regents of University of California v. Bakke is one of the firsts to discuss. In this case, the medical school used to allocate a specific number of admitted seats to minorities. The challenger sought a judgement against the use of this practice citing a violation the 14th Amendment of the constitution and the Federal Civil Rights Act. The case resulted in a 4-4-1 decision with Justice Powell agreeing that the two-track admission system utilized at University of California – Davis was unconstitutional. At the same time, Justice

Powell supported the idea of race as a consideration to achieve diversity in higher education institutions. This consideration, however, required leveraging race in conjunction with other considerations to make an admissions decision.

In 1992, the case Hopwood v. University of Texas Law School case denounced Justice Powell's ruling saying that the use of race to achieve diversity did not constitute enough of a reason to continue using race as a factor for admission. While this case did not go to the Supreme Court, at the local level in Texas, the Attorney General considered this decision to be a ban on the practice of affirmative action.

After the Hopwood case, affirmative action bans occurred in California, Florida and Washington. California activated the affirmative action ban statewide with the passing of Proposition 209 in 1996 (Moses et al., 2009). Washington passed Initiative 200 (I-200) which banned the use of affirmative action policies at public colleges and universities while Florida's ban occurred in November 1997 when then Governor Jeb Bush signed an executive order (99-281) to cease and desist affirmative action policies across the state.

Additional states joined the ban such as Georgia, Alabama, Louisiana and Mississippi. Georgia ceased their affirmative action policies as a result of the Johnson v. Board of Regents of University of Georgia case (2001; Laird, 2005). In this case, University of Georgia had a threepronged admissions practice involving the calculation of a student's Academic Index (AI), their Total Student Index (TSI) and their Edge Reading (ER) score. Students with an AI score combined with a set score from the SAT received automatic admission. Students without this automatic admission entered into the TSI phase in which specific characteristics permit a student to receive bonus points (e.g., non-white students received .5 additional points to their scores and males received an additional .25 points towards their scores). Johnson and the other plaintiffs in this case were female and white and in each of their situations, they missed automatic admittance since they did not receive the extra total of .75 points towards their overall admissions scores. The district court entered a partial judgement in favor of the plaintiffs related to the automatic assignment of points to non-white students which in its view, severely limited the ability to factor in other diverse criteria an applicant might possess. Since Louisiana and Mississippi are linked together through the 5th circuit court, they had to adhere to the decision enacted as a result of the Hopwood case.

With the implementation of the affirmative action ban, many states started to use new policies to assist with achieving diversity on their campuses. California, Texas and Florida enacted percent plans (ranging from 4% - 10%) to guarantee admission to these states' public college system for students who graduated from high school within the appropriate top percentage of the class (e.g., Texas has a top 10% plan so the top 10% of students graduating across all of the high schools had guaranteed admission into Texas's public higher education system) (Long, 2014). Other states started to place different weightings on other attributes besides race/ethnicity that still favored minority applicants (e.g., some colleges lowered the weight placed on the SAT/ACT) (Antonovics & Backes, 2014).

In 2003, the Supreme Court heard two cases from the University of Michigan. In the first case of Gratz v. Bollinger, the University of Michigan utilized a 150-point scale to rank applicants to their law school, where minorities received an automatic 20 points during the admissions process. The lawsuit was filed on behalf of three Caucasian students who were denied admission to the law school because they were not considered to be in-state or out-of-

state minority applicants (Long, 2015). The second case regarding Grutter v. Bollinger focused on Ms. Grutter who achieved a 3.8 GPA and scored 161 on the LSAT. She did not receive an acceptance from the University of Michigan and argued that she experienced reverse racism since she was part of another cultural group which, in her view, is not automatically favored and given priority admission status. In both of these cases, the Supreme Court determined that diversity is important in higher education institutions, that race is a factor to consider along with other criteria and that University of Michigan's practice of "narrowly tailoring admissions" (p. 163) accomplished the educational benefits of diversity.

The Grutter case decision created a new process for higher education institutions regarding the consideration of race or ethnicity in conjunction with an admissions decision. Justice O'Connor stated that this decision requires universities to utilize, "good faith consideration of workable race-neutral alternatives that will achieve the diversity the university seeks" (p.27). Justice O'Connor also noted that consideration of these factors should only be in place for a set period. She anticipated that in 25 years, affirmative action policies should no longer be necessary (p. 31). Those who oppose affirmative action look at the Justice's words as justification to continue to challenge this initiative. In 2012, the U.S. Department of Education Office for Civil Rights provided additional guidance saying, "an institution may deem a raceneutral alternative as unusable or ineffective if it requires said institution to sacrifice another critical component of its educational mission." (Long, 2015; p. 164) If a university faced a dispute, they need to persuade a court that the race neutral options required too much of a cost to some of their other core policies.

Merits of Affirmative Action

A diverse student body contributes to the experiences of students from various backgrounds in a constructive manner (Pike et al., 2007). Colleges and universities need to prepare students for a diverse world. Learning about the culture, customs, and experiences of those from another race can create greater openness and understanding of diverse students (Pike et al., 2007). Research conducted in the area of affirmative action involves use of qualitative interviews, probability studies, regression models and conceptual models. For example, Pike et al. (2007) utilized data from 428 colleges and universities that participated in the National Survey of Student Engagement (NSSE). The researchers wanted to determine the merits of affirmative action and ascertain whether or not student engagement reflects that college students learn from one another and engage in activities across cultures. Their research supported the idea that there are gains in understanding diversity when students from different cultures interact with one another. In their study, completed with the use of a survey, the most notable findings of this positive engagement to support their hypothesis occurred when the higher education institution is located in an urban area and when a large majority of female students responded to their survey regarding this topic. The results also supported Justice Powell's finding which relate to the fact that a diverse student body enhances the quality of the education experience on campus. A racially and ethnically diverse student body exposes students to alternate points of view (Pike et al., 2007) These results, however, are limited to freshman and sophomore year students as junior and senior students generally tend to move off campus with those who share their belief system. Sternberg (2011) argued:

> Without diversity, the intellectual life of a campus is constricted. People may come to believe that their own point of view is the only sensible one, or even the

only one. Parents sometimes fail to realize that, when they send their children away to college, they are paying as much for the fellow students their child will meet as they are for the professors and campus facilities. (p. 70)

Underrepresented Minority Experiences

In some cases, the experiences of underrepresented students are very different than that of those of the admission officers that recruit them. In 2001, Mark Hicks (Assistant Professor of Education transformation at George Mason) and Carla Shere (College Planning Coordinator) approached NACAC and the admissions staff of Fordham University and formed a partnership with the admissions staff with a proposal to spend the next year in working seminars discussing difference, power and access among college applicants with a potential result of having enhanced admissions practices (Hicks & Shere, 2003). Hicks and Shere (2003) identified three themes admissions officers at Fordham could consider to enhance their admissions practices related to underrepresented student populations: (a) enhanced critical thinking on the topic of diversity and its impact on admissions, (b) altered mindsets and considering students as "who" versus "what", and (c) planned outreach beyond the standard list of high schools.

Critical Thinking About Diversity. Admissions officers at Fordham started thinking more critically about the differences students might have from a variety of socio-economic upbringings that are different than their own (Hicks & Shere, 2003). Specifically, admissions staff members began asking themselves questions about what they might now discover about a student that they did not consider in their past decisions (e.g., how to uncover degrees of determination in minority students, how to appreciate varying levels of excellence and readiness) (Hicks & Shere, 2003).

Regarding students who and not what. This approach is likened to William Sedlacek's (1992) research on non-cognitive variables which change how we think about success. Fordham ended up changing their interview profile form so that instead of asking about GPA, SATs scores, rank in class and extra-curricular activities, they ask potential students to: "briefly describe your most meaningful activity or experience" (Hicks & Shere, 2003, p. 54).

Planned outreach beyond the normal list of high schools. Fordham's admissions staff now aspired to diversify their recruited student body and planned a revised recruitment strategy by investigating additional recruitment opportunities and college fairs directed at minority students. The team also started planning specific visits to singular high schools with a diverse student population (Hicks & Shere, 2003). In addition, Fordham also appointed an admissions coordinator for multicultural initiatives (Hicks & Shere, 2003).

Additional study outcomes. In the second part of the study, the team embarked upon the broader implications and phenomenological ways we need to evolve the admissions process. First, the admissions officers had to realize that inviting language in a mission statement does not overrule guidelines that still control underrepresented students' ability to be admitted (e.g., standardized test scores, extra-curricular activities, etc.) (Hicks & Shere, 2003). Second, a shift in the method and attitudes of admissions officers was necessary specifically with challenging their assumptions and having the ability to get beyond the numbers (Hicks & Shere, 2003). Third, it is essential for admission officers to implement "counter-cultural shifts" (p. 56) as related to student recruitment (Hicks & Shere, 2003).

Even more, campuses need a 'from the ground up' approach to diversity (Hicks & Shere, 2003). Colleges and universities are challenged to really think about what they mean with the

phrase, "we honor diversity." There is also an opportunity for the university to engage in dialogue about its intention regarding diversity and specifically state how they will go about achieving their goals in this area.

The Rainbow Project

Dr. Robert Sternberg (2012) also engaged in research related to implementing changes to admissions processes involving standardized tests. Prior to the discussion about the Rainbow Project and outcomes, Sternberg reveals how he began a career as an admissions officer at the university he attended as an undergraduate. This university waitlisted him before he gained admissions and when he was in a position to review his admissions folder he found that the on campus interviewer said he had, "a flakey personality" (p. 7). He eventually left that job to go to graduate school and study psychology but he never forgot what he saw in that folder. When he was younger, he had anxiety and did not perform well on standardized tests so he considered himself fortunate to even have gotten into college. He finished his studies and ended up teaching at a very selective university and still felt that there might be students who are not admitted because of how they scored on standardized tests. He created a study called The Rainbow Project to test out a new approach to college admissions. This study involved the prestigious university and 1,000 high school seniors and freshmen at non-selective (community college) to highly selective colleges. Sternberg (2012) utilized essays and tests created specifically for students participating in The Rainbow Project. These evaluations measured analytical, creative and practical skills. What Sternberg (2012) described as "typical tests of intelligence" served as the measurement source for analytical skills. Multiple choice and three types of performance tasks (e.g., write an short story based on a given prompt/title) measured creative skills and additional

multiple choice options along with scenario-based prompts formed the basis for measuring practical skills (Sternberg, 2012).

There were four major results of the study. The first was that it is possible to separate creative and practical skills based on a type of performance test Sternberg (2012) created. No matter which of the three skills Sternberg reviewed, the multiple-choice questions all measured "underlying general intelligence" (p. 8). Second, this assessment increased the prediction of first year of college GPA by 50%. The third outcome involved the team's ability to reduce ethnic-group differences while simultaneously increasing the ability to predict GPA beyond the freshman year of college. The fourth outcome revealed that the students enjoyed taking these assessments much more than the normal standardized tests because they had the option of utilizing various prompts to show themselves more holistically (Sternberg, 2012).

Holistic Admissions Practices

In 2001, Dr. Richard Atkinson, former president of the University of California, attended the American Council on Education (ACE) and delivered an address in which he discussed a proposal for his university to consider removing the SAT I as a requirement for admission. Some attendees at the ACE conference took his comments to mean that he was against standardized testing in total. It was simply not true that Atkinson was anti-testing. Atkinson (2001) wanted admissions officers to be careful about the types of tests chosen for consideration in an admissions decision. He advocated for use of the SAT II test or another type of curriculum-based test (e.g., achievement test) for use in a higher education admissions decision. He also wanted to move the university away from quantitative formulas during the admissions process and to a more comprehensive evaluation of the applicants (Atkinson, 2001). Atkinson (2001) went on to discuss the belief that the SAT is tied to mental abilities and that these abilities can be measured. Modern research has not been able to support this concept. However, it is still utilized across the globe as having the ability to predict student success in their first year of college. To study this idea, Dr. Atkinson got representatives from the University of California faculty who were serving on the Academic Senate Board of Admissions and Relations with Schools (BOARS) to complete a study focused on the predictive power of these tests by comparing the SAT I to achievement tests. The conclusion from BOARS was that the achievement tests were much better predictors of student success (Atkinson, 2001).

Atkinson (2001) was a supporter of looking at an applicant holistically and he wanted the University of California to look at grades and test scores in addition to what students did with the opportunities presented to them to learn, difficulties they overcame and talents they may possess. Atkinson (2001) developed four different types of admissions proposals for admissions officers' consideration at the University of California. Atkinson's (2001) first proposal involved the establishment of a four percent plan granting students in the top four percent of their class admission to the University of California if they completed the required college preparatory classes (Atkinson, 2001). Atkinson's (2001) second proposal outlined a dual admissions program for students who may not be in the top four percent but are within the top 12.5% of their graduating class. These students would be admitted to the University of California and the community college. The idea is that freshman and sophomores complete the work for these two years at the community college and then transfer to the University of California to complete their degree. The third approach established a two-tiered admissions approach with the first tier leveraging grades and test scores as admissions criteria and the second tier focused on a range of

supplemental factors (e.g., leadership, obstacles the applicant overcame). The final proposal involved making the SAT I scores optional and move to curriculum based achievement tests.

Admissions Practices and Socieconomics

In 1954, a Supreme Court ruling banned discrimination in schools. While integration of the races ensued, African American students are still underrepresented on college campuses today and still have lower grades in academic subjects, enrollment in college and degree achievement (Carter & Wilson, 1996; Freeman, 1997, 1999; National Center for Education Statistics (NCES, 2005; Nettles, 1991; Wilson, 1998). Underrepresentation in the African American culture occurs at both the undergraduate and graduate levels (NCES 2005). There are many factors regarding why underrepresentation in persists in higher education for African American students. One factor relates to college choice among African American students. Some African American students sense access obstacles (Freeman 1997, 1999) and may not have the appropriate information about college admissions. Other African American students use "culturally specific cultural capital" (McDonough, 1997) when deciding on a college and are less likely to attend a selective higher education institution. (McDonough, 1997) In addition, some of these students may not attend their first choice of schools due to financial concerns and/or standardized test score requirements (Freeman, 1997, 1999).

Those who oppose the use of the SAT as an admissions requirement point to research from scholars at the University of California. These studies show that SAT performance as a predictor of college performance (over high school GPA) decreases drastically when SES factors are considered (Atkinson 2009; Atkinson & Geiser, 2009). Knowing that some college students hail from low SES conditions and considering some of the research, continuing utilization of these test scores as an admissions requirement gives some universities pause. Sometimes, highly-qualified, low-income students do not enroll in selective colleges (Bastedo & Jacquette, 2011; Hoxby & Avery, 2012) According to Bowen et al. (2009), when these students do enroll, they tend to be successful and graduate in very high percentages. However, there are many issues which can impact the success of a student related to SES factors. First, some of these students are not likely to even consider entering the college admission process (Cabrera & LaNasa, 2000; Hossler, 1999; Walpole, 2003). Second, there can be bias at the college level both implicit and explicit. This bias can be used against these students when it is leveraged as part of the admissions process. Third, test scores can relate to SES and when there is a major focus on the scores from standardized testing, it can limit access for students in low SES conditions. Lastly, students from low SES backgrounds are also less likely to be able to benefit from test preparation courses and/or information about assembling a solid college application (e.g., deciding on extra-curriculars to include, writing an essay). (Buchmann, et al., 2010; Holland 2014)

Admissions Practices at Highly Selective Institutions

Bastedo and Bowman (2017) argued that there is not much research on the admission practices used at highly selective colleges and universities. Admissions officers of highly selection higher education institutions are often hesitant to participate in studies about this topic which may explain why information is not readily available. In addition, there is also limited research available regarding students from low SES backgrounds attending campuses of selective colleges (Bastedo & Bowman, 2017) and their experiences.

Bastedo and Bowman (2017) conducted a study with admissions officers willing to share information about how admissions practices at highly selective higher education institutions work. The basic premise is that admissions decisions can involve bias and they wanted to know how this might play into admission decisions. In particular, this study focused on correspondence bias which the researchers defined as "the human tendency to attribute a person's decision to a person's disposition or personality rather than to the situation in which the decision occurs" (p. 68). Bastedo and Bowman (2017) determined that this bias is probably present when admissions officers are reviewing applications and evaluating high school credentials. Students attending high schools that do not have many resources do not have the option to take advanced placement or Honors courses (Attewell & Domina, 2008; Klopfenstein, 2004; Perna, 2004). Students taking these types of classes can be predictors of being admitted at selective colleges (Bastedo et al., 2016; Espenshade & Radford, 2009). These researchers posited that as a result of these types of concerns, admissions officers could be leveraging correspondence bias because they may overlook these issues and make a decision on these applicants that does not represent the student's capabilities.

To address correspondence bias, some colleges utilize an all-inclusive admissions process in which they try to identify students who made the most of the opportunities they did have in high school (Lucido, 2015; Mamlet & VanDeVelde, 2011). Having the ability to provide information to admissions officers about situational issues which may impact a student's achievements, may reduce the application of correspondence bias (Moore et al., 2010; Swift et al., 2013). Admissions officers do not necessarily know about extenuating circumstances students face (e.g., students who are still learning to speak English, students who may qualify for free lunch programs and other factors). They may attempt to find this information on-line but the data may be out of date, inaccurate or simply not available and with the demands of their schedule especially during peak admissions season, admissions officers simply do not have the time necessary to search for this additional information that may inform their decision. According to the Bastedo and Bowman (2017) study, at peak times during the admissions cycle, admissions officers review between 130 - 200 applications per week spending an average of 15 minutes per application to score the applicant.

In Bastedo and Bowman's (2017) study, they altered the quality of the applications that the admissions officers received including enough information to determine SES, standardized testing scores, AP or an Honors curriculum, and measures of poverty (e.g., students utilizing the free and reduced lunch program). Admissions officers that worked at institutions in the top three tiers of Barron's (2013) selectivity ratings participated in the study. This resulted in 311 admissions officers representing 174 higher education institutions.

The results demonstrated that with use of the additional information, students from low SES backgrounds tended to receive an offer from the selective college. The admissions officers rewarded students for their ability to succeed in spite of the fact that they attended a high school that did not have a rigorous curriculum. This study also suggests that when provided with the additional information, admissions officers read and reviewed the applications in context and viewed the information contained in the student's essay and elsewhere more favorably.

In summary, contextual information might benefit students in a lower SES situation (Bastedo & Bowman, 2017). Knowledge of these factors can lead to a more favorable admission decision and remove certain bias that exists as a part of the admissions process. There are several organizations that have the ability to supply this information (e.g., College Board, The Common Application). In addition, Gaertner and Hart (2013) developed "indexes of disadvantage" which admissions officers may utilize to inform their admissions decisions and might assist the colleges and universities in looking for trends in the data which might then lead to more proactive changes in the admissions process for students in the low SES status.

A student's ability to be successful in higher education involves many factors besides the results of the SAT or ACT. One of those variables are non-cognitive factors that all students possess and the results from studies completed (Fuertes et al., 1994; Trippi & Steward, 1998, Pike & Kuh, 2005; Kim et al., 2010; Sparkman et al., 2012; Goyken, 2017) reflect the influence non-cognitive factors can have related to a student's ability to be successful in higher education. Specifically, Pike and Kuh (2005) discussed the importance of a student's involvement on campus, their beliefs and their actions, and how these factors play an important role in their ability to achieve their goals of successfully graduating from a higher education institution. In Kuh, et al. (2006) further argued that student success is formed by events that occur prior to their arrival onto a college campus. He indicated that factors such as study skills, a student's enthusiasm and their educational experiences combine as key factors that demonstrate the student success platform.

Research Theories and Non-Cognitive Factors

There are two theories that move us further into the discussion of factors that can impact a student's ability to be successful in college that are not related to the results of a score from a standardized test. The first is the expectancy-value theory (Wigfield, 1994). With expectancyvalue theory, motivation drives a student's success. There is a positive correlation between expectation and motivation and when the level of what is expected from the student rises as related to their academic work, so does the student's motivation (Wigfield, 1994). Thus, students purposefully and freely decide to do what is necessary to achieve the desired outcome (Wigfield, 1994). The second theory is the achievement goal theory where identifying objectives or goals is of critical importance as a result of a "leading level of higher achievement" (Canfield & Zastavker, 2010, p. 94).

Differing viewpoints emerge as research continues related to the topic of student success factors in higher education. Some researchers (Kim et al, 2010; Wolfe & Johnson, 1995; Goyken, 2017; Forsyth & Schlenker, 1977) identified three categories represent a student's ability to be successful in higher education: (a) high school success, (b) socioeconomic/demographic issues, and (c) observations, attitudes, behaviors and standards. In addition to these categories, psychosocial factors, also known as personal variables, have become a focal point for researchers (Goyken, 2017). Some examples of these factors are motivation, study methods and attitude. While many psychosocial factors exist, Newton, et al. (2008) pointed out that "academic self-efficacy and confidence, strategic organization and study approach, time utilization, stress and emotional components, student involvement with college life and motivation" are some of the key factors that dictate student success in college (Newton et al., 2008, p. 95) and are the components of the College Learning Effectiveness Inventory (Newton et al., 2008).

Trippi and Steward (1998) and Fuertes et al. (1994) posited that a student's self-concept and self-appraisal is the best predictor to forecast a student's ability to be successful in higher education. Trippi and Steward (1998) and Fuertes et al. (1994) found self-concept to be most impactful for Caucasian and African American students. In the Tracey and Sedlacek (1989) study, service to the community and a truthful self-appraisal are critical factors as related to Asian American students (Adebayo, 2008). In 1993, Tinto developed an academic and social integration model in which he argued that a student needed to be fully integrated both educationally and socially for them to stay the course and successfully graduate from the institution (Sparkman et al., 2012). One of Tinto's (1993) theories was that the more students engage on campus, the more likely they are to remain and persist (Sparkman, et al., 2012). His model was also based on the premise that students needed to be dedicated to their impending occupation, their institution of higher education and to their educational goals to ultimately obtain their undergraduate degree (Sparkman et al., 2012).

In 1984, Tracey and Sedlacek developed the Non-Cognitive Questionnaire (NCQ). While originally developed to assist with addressing racial disparities during the admissions process, the NCQ is also a component of a student's ability to grow and mature as related to college success (Thomas et al., 2007). In addition, some colleges and universities utilize the NCQ as part of their admissions process and as a foundation tool within their counseling centers for advising, instruction and for student growth purposes (Thomas et al., 2007). Lastly, the NCQ is also a primary component applied for a student to secure a Gates Millennium Scholarship (Bill & Melinda Gates Foundation, 2004; Sedlacek, 2004). A primary intention for leveraging the NCQ in higher education is that it will assist admissions officers with foreshadowing a student's ability to be successful (Thomas et al., 2007).

The NCQ contains eight components which are: (a) positive self-concept, (b) realistic self-appraisal, (c) understanding of and ability to deal with racism, (d) preference for long-term goals, (e) availability of strong support person, (f) successful leadership experience, (g) demonstrated community service, and (h) knowledge acquired in a field (Thomas et al., 2007). The first component is positive self-concept, this item has been linked to achievement in higher

education consistently over time (Aspinwall & Taylor, 1992; Coopersmith, 1967; Epps, 1969). Having a positive image of oneself coupled with willpower and conviction in one's abilities assists students with being able to overcome obstacles they encounter while in college (Sedlacek, 2004). The second tenant of having a realistic self-appraisal relates to the student possessing the aptitude to know their own areas of strength as well as those characteristics about themselves that provide room for growth. The better a student is at leveraging that approach in their academic world, the more likely the student will be to utilize study habits that will make them successful and on the flip side take advantage of remedial assistance where necessary (Eshel & Kurman, 1991; Moreland et al., 1981).

Understanding and having the ability to deal with racism have been found to impact students of color with their ability to successfully incorporate themselves into a campus setting and positions these students to navigate through the higher education institution's "established system" (Tinto, 1975, p. 639). With the category of preference for long-term goals, that is closely aligned with a student's educational long-term aspirations and their ability to be patient while waiting for the fulfilment of those goals (Mischel & Ayduk, 2004). Next is the availability of a strong support person. As students make their way onto a college/university campus, that transition can be taxing. Often, students are moving away from everyone they know and it is important for them to have this support person as they seek full immersion into collegiate life (Bennett & Okinaka, 1990; Martin, 1990; Smith, 1990; Thomas, 1985).

In the Tracey and Sedlacek (1984) Non-Cognitive Questionnaire, leadership means "taking initiative and becoming involved in extracurricular activities (Thomas et al., 2007, p. 639). Within this category, there is a positive connection between students' ability to become involved in on campus activities and their GPA (Lindgren, 1973). Community involvement is also a factor in which a strong and positive correlation exists between a student's involvement in community activities and their ability to succeed in higher education (Astin, 1999; Conner, 1993; Lemley, 1991).

Richardson et al. (2012) found that "effort regulation and academic self-efficacy" are also very solid indictors that contribute to a student's ability to attain their academic goals (p. 54). Bandura (1997) further claimed, "Students who believe that they have the skills and abilities to succeed at academic tasks perform better than those with lower efficacy expectancies" (p. 359). Beliefs on the topic of efficacy and how students respond in given situations may be contingent upon prior experiences in this regard. As students look to achieve academic success and are faced with challenging situations, they can reflect a previous situation and look to develop a plan that will allow them to most effectively handle their current situation (Richardson et al., 2012). Conversely, when students encounter situations that are unfamiliar to them, they will need to devise a plan for success that is reflective of other skills/abilities they already possess (Richardson et al., 2012). Zimmerman et al. (1992) defined this as academic self-efficacy.

In the context of effort, Van Herpen et al. (2017) contend that the academic self-efficacy predictor signals student engagement in their scholastic assignments. Specifically, student engagement is about students putting forth their best efforts, being dedicated to the work they need to do to succeed, being focused and demonstrating perseverance in the face of adversity related to their school assignments (Van Herpen et al., 2017). In addition, Richardson et al. (2012) stated that students utilize effort when they are explaining either their success or failure on a task/assignment.

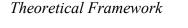
Self-determination theory (SDT) also lends itself to this discussion about the factors that make students successful in college outside the context of standardized testing (Ryan & Deci, 2000). In SDT, three factors surface that speak to a student's reasons for what drives them. The first is intrinsic motivation. Intrinsic motivation is about students completing things due to a personal interest which "fulfills feelings of competence and autonomy" (Van Herpen et al., 2017, p. 56). The second part of SDT is extrinsic motivation. Here, the student may do something that they think will guide them towards a "separable outcome" (p. 56). The final component is amotivation which Ryan and Deci (2000) defined as "behavior that lacks intentionality and a sense of personal causation" (p. 61). The example shared related to amotivation demonstrates a student simply choosing a higher education institution because there is nothing else they can consider doing at a given point in time (Van Herpen, et al., 2017). Recent studies (Guiffrida et al., 2013; Kennett et al., 2013) show that intrinsic factors have the most impact and ability to predict a student's ability for academic success.

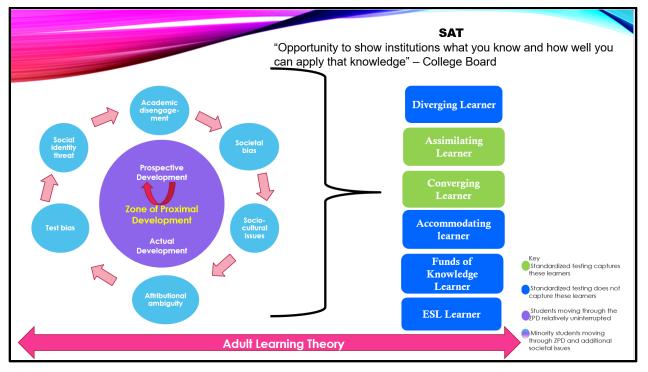
While some of the cognitive factors utilized as part of the admissions process may contribute to student success, the personal inspirations of the student and their character can provide the basis of what the student will essentially accomplish (Komarraju, et al. 2013). Certain character attributes such as conscientiousness and agreeableness (Komarraju, et al., 2013, p. 104) may manifest themselves through a student's manners in class and may impact a student's behavior in how they study, participate in class, finish their assignments and in their attendance record (Kommarraju, et al, 2013). Pintrich (2003), states "further conscientiousness is also displayed through effective self-regulatory behavior such as managing study efforts which leads to successful academic performance" (p. 671). These researchers also state that hardworking students will put forth the extra energy and take proactive steps to determine what works best for them to learn material and they will also seek input to enhance their performance on assigned classroom projects (Komarraju, et al., 2013).

The final characteristic which some researchers indicate is a very strong predictor of academic success/GPA is what Kommarraju, et al., 2013 call "academic discipline" (p. 104). They define this as the determination a student exerts with their studies and their self-concept of the hard work they put forth to achieve academically. Academic discipline is also a key element in a student's readiness to even enter a higher education institution.

Theoretical Framework

Figure 1





Note. The figure above reflects the student learning lifecycle through the ZPD. Outside of the lifecycle are additional factors that students from underrepresented minority groups may encounter while learning. The right section of the figure illustrates the various types of learners.

Vygotsky (1978) argued that the learning process for children begins on day one of their lives. Theories from Piaget in 1936 and Kolb (1984) then contribute to this discussion with the idea that knowledge is crafted when experience is changed. In many classrooms, the structure for learning is centered around behaviorism. According to Mills (1998), the main objective of behaviorism is to encourage the "scientific study" (p. 91) of the way in which people conduct themselves. This method involves performance that can be measured and witnessed, is probable and regulated and invites people to react and function in their setting to create the desired outcomes (Cooper et al., 2007). One of the scientific metrics that is a direct result of this type of environment is the result a student receives on standardized tests. The educator provides the knowledge to the student, the student receives the information (listens, memorizes and studies) and is then tested. This concept is very similar to that of the Paulo Freire banking system of education (Freire, 1970). Piaget (1936) argues that it is not accurate to presume that this type of interaction translates to learning. In classrooms where the educator/teacher is speaking and the student is taking it all in, Piaget questions if the perception of what the educator shares match what the student understands (Piaget, 1936). Therefore, in Piaget's view, the lesson the educator teaches does not always have a direct correlation to what the student comprehended (Piaget, 1936). Piaget (1936) opposed the whole behaviorism theory as a result of one of its major tenets which is that knowledge is created outside of the person trying to learn. Based on Piaget's theory here, there should be a shared role with both the student and the educator interacting in both roles (Piaget, 1936).

Piaget's (1936) Theory of Cognitive Development involves four phases titled as follows: sensorimotor, preoperational, concrete operational and formal operational. How much time a student spends in each of these phases relates back to the student's surroundings (Kamii, 1982). In the sensorimotor phase, a child is learning through senses, moving around, and by the maneuvering of items (Paciotti, 2013). The second phase is the pre-operational phase in which language development is at the forefront and children begin to put titles on objects and begin to ask for things. During this phase, a child understands the world around them from their own perspective (Paciotti, 2013). The third phase is the concrete operational phase in which children can employ their senses "in order to know" (Ojose, 2008, p. 27). In the final phase, formal operational, a child is able to, "reason on hypotheses" (Piaget, 1936, p. 177). They create new functions and processes (Piaget, 1936). By this point in Piaget's cognitive development theory, students are able to finalize and undo a process which is where the "essence of knowledge" (Paciotti, 2013, p. 107) occurs.

Vygotsky and Piaget are in unison regarding the idea that children/students gain knowledge as they build "schemata" and that learning ought to be paired with a child/student's developmental level (Paciotti, 2013, p. 107). Vygotsky, however, ntroduced the idea that community interactions and ethnic dynamics impact the time and the process of how new schemata are constructed (Paciotti, 2013). Vygotsky also uses concepts from Piaget's preoperational phase as one of the main tenets for supporting learning arguing that the evolution from distinct communication cues to internal communication cues within the psyche is essential (Woolfolk, 1998).

Vygotsky (1978) established two developmental levels. The first is the actual developmental level. He defined this as "the level of development of a child's mental functions that has been established as a result of certain already completed developmental cycles" (p. 85). Vygotsky (1978) argued that people tend to judge a child's mental development through what they can do by themselves and it is a supposition that went undisputed for over ten years.

Vygotsky (1978) invited people to think about what a child might be able to do with some guidance/leading from others. He posited that at a time when children of what's considered equivalent "mental development" (p. 86) demonstrated marked differences in their ability to learn with the assistance of a teacher, that is when there is a need to understand that the children were in fact not at the same stage intellectually and that the manner in which a child/student learns is not the same (Vygotsky, 1978). This difference represents Vygotsky's second development level which is the Zone of Proximal Development (ZPD).

Vygotsky (1978) defined ZPD as the gap in the middle of a child/student's actual developmental level (defined as trouble resolution that the child/student can handle individually) and their prospective development [defined as an issue that the child is able to work through in conjunction with a More Knowledgeable Other (MKO)]. ZPD consists of utilities that have not yet reached full development (Vygotsky, 1978). This approach provides a way to outline a student's near future along with their lively developmental state, while also permitting past achievements to be recognized as well as allowing the space for evolution (Vygotsky, 1978). The MKO (e.g. teachers, other adults, peers) facilitates the building of knowledge through "scaffolding" (Paciotti, 2013, p. 108) which includes demonstrating tasks and a providing social interaction activities which assist learners with developing additional utilities (Paciotti, 2013). As the child shows signs of mastery of these new abilities, the scaffolding dwindles. This process continues with the introduction and withdrawing of scaffolding as the learner continues to develop and increase their skills and abilities with each recurrence (Woolfolk, 1998). In the classroom, implementation of this theory requires educators to understand their students so that they can in turn offer the appropriate level of support and then slowly remove it as the student demonstrates their ability to manage independently (Pardjono, 2002).

As students continue to navigate within and out of ZPD, underrepresented minority students are also dealing with additional societal pressures. Mendoza-Denton (2014) discussed six of these factors as: (a) academic disengagement, (b) societal bias, (c) socio-cultural issues, (d) attributional ambiguity, (e) test bias, and (f) social identity threat. Academic disengagement occurs for different reasons some of which students report as boredom, simplicity, trust, and lack of stimulation (Mendoza-Denton, 2014; Lawrence & Routten, 2009; Major et al., 1998). Societal bias can also become a factor considering the prejudicial attitudes in the world as related to certain races/cultures (Mendoza-Denton, 2014). Underrepresented minority students may experience socio-cultural issues knowing that there is unequitable resource allocation, mistreatment of people of certain ethnicities and lack of expectations from the majority group (e.g., Caucasians) (Mendoza-Denton, 2014). Attributional ambiguity relates to "underground" (p.469) issues of discrimination which are much less explicit than 60 years ago. Underrepresented minorities may also encounter test bias because the scholastic setting some of them are in is drastically different from others and may also present an "environment which is psychologically not equivalent" (p. 473) (Mendoza-Denton, 2014). In addition, there are social identity threat (or stereotype threat) concerns for underrepresented minority students (Mendoza-Denton, 2014; Sacket et al., 2009). Social identity threat is a concern that a student may inadvertently reinforce a negative perception that already exists based on their performance (in this case on a standardized test) (Mendoza-Denton, 2014). This threat can cause a minority student to underperform relative to their abilities and can perpetuate the achievement gaps in performance between races (Mendoza-Denton, 2014).

Finally, is Kolb's (1984) experiential learning theory (ELT). He built this theory on the foundation of Piaget's work and others (as cited in Kolb, 1984). Specifically, he leveraged

Piaget's ideas related to cognitive development and how this is impacted by a person's life experience (Kolb, 1984). The prototype he created underscores the role that a person's life experience has in their specific learning journey (Kolb, 1984). Kolb's ELT represents an extension of Piaget's work and infuses "perception, cognition, and behavior" (Kolb, 1984, p. 21). Learning then becomes synonymous with alteration of and participation in a person's surroundings (Zijdemans-Boudreau et al., 2013). People learn from what they go through and not simply from being given direction. Kolb (1984) outlines the four parts of his "learning cycle" (Poore et al., 2014) as (a) concrete experience - in which the person takes part in some type of experience, (b) reflective observation - occurs when the person then considers the experience, (c) abstract conceptualization - in which the person contemplates their feelings and thoughts about the experience and determines if there is something else they might change to produce a better result, and (d) active experimentation - where the person leverages previous experiences to direct their actions in times to come. Kolb also acknowledges that there are various learning styles and that there is an opportunity for each person to obtain an education that is dependent upon the manner in which they comprehend (Zijdemans-Boudreau et al., 2013).

To account for the various manners in which people learn, Kolb (1984) created four learning styles and aligned these styles with learner preferences. In Kolb's (1984) view, it is necessary for a person to move through all four of these styles in order to attain an ideal education (Poore et al., 2014). Students will not necessarily leverage all of these learning styles uniformly and in most situations, they will gravitate to a couple of the styles that align with their personal learning preferences (Lisko & O'Dell, 2010). The first learning style is the diverging learner. This type of learner's preference involves having solid encounters that permit thoughtful examination (Kolb, 1984). The divergent learner tends to enjoy collaboration with others and taking part in creating suggestions (Kolb, 1984). Next is the assimilating learner who thrives through comprehending large amounts of material and then organizing it into a succinct and analytical structure (Kolb, 1984). These types of learners are affiliated with Kolb's the reflective observation portion of his learning cycle (Poore et al., 2014). Next is the converging learner who tends to be most comfortable with Kolb's abstract conceptualization description (Kolb, 1984). These types of learners are attracted to methodical assignments and dilemmas versus communal and relational situations (Zijdemans-Boudreau et al., 2013). Kolb's (1984) final learner group is defined as the accommodating learner who is aligned with the active experimentation segment of his learning cycle (Poore, et al., 2014). These learners desire active, "hands-on" opportunities (Kolb, 1984). They use "gut" (p. 116) instincts instead of reasoning and count on others to provide data instead of them and their assessment of the situation (Zijdemans-Boudreau et al., 2013; Poore et al., 2014).

Studies conducted using Kolb's ELT in the education field yield similar recommendations as mentioned above with Vygotsky's ZPD and Piaget's Cognitive Development Theory. In essence, using ELT in the classroom requires educators to align their lessons with the learning styles of their students (Baker et al.,1986). It is also necessary to infuse a certain amount of preparation, application and assessment approaches regarding the planned program for the classroom (Sugarman, 1985). Use of ELT can also assist students with comprehending their own inclinations where learning is concerned and promote the idea of the student proactively establishing their own objectives for learning the material (Kluge, 2007).

Knowledge isn't simply acquired in a classroom setting. As Kolb (1984) and Vygotsky (1978) argued, a child's learning journey begins on the first day of their lives and through the transformation of their experiences. With that framework in mind, there are also funds of

knowledge learners (Moll et al., 1992) present in classrooms who amass "culturally developed bodies of knowledge" and talents that complement the learning equation. Through extensive community and familial relationships, these funds of knowledge learners cultivate skills that support the functioning and flourishing of their households (Moll et al., 1992, p. 133). Some examples of funds of knowledge are: agricultural skills, scientific knowledge repairs and household management (e.g., budgeting, childcare, etc.). Those serving in the role of educator in funds of knowledge scenario tend to know the child in a holistic sense meaning these educators understand the various "spheres of activity" (p. 133) the child deals with daily (Moll et al., 1992). Moll et al. (1992) argued that in the classrooms, a teacher's connection with a student can appear to be one dimensional whereby they simply understand the child based on their accomplishments in a school setting. It is not typical that the classroom teacher seeks assistance from the child's community or outside resources regarding their academic development (Moll et al., 1992). In 1992, Amani and Neff conducted a research study with teachers leveraging these funds of knowledge, teachers had the opportunity to learn a tremendous amount of information about their students and their experiences outside the classroom. Moll et al. (1992) argued that the educator is the conduit between the student's life experiences, the funds of knowledge, and the school experience.

Throughout this entire student learning cycle, Knowles (1978) adult learning theory (also known as andragogy) containing six principles also plays a key role in the student as learner concept. According to Knowles (1978), when these principles are applied, adults tend to acquire more knowledge than when these principles are not applied during the learning process. The first principle involves an adult's need to comprehend and understand the reasons they need to learn about something (Knowles, 1978). The significance of this information to the adult learner

cannot simply be mentioned or suggested (Twaddell, 2019). Second, adult learners tend to desire control over their learning process (Knowles, 1978). They generally want accountability and input regarding the time, location and manner in which they learn (Twaddell, 2019). Third, adults tend to have more familiarity with life experiences (Knowles, 1978). When they are learning something new, adults generally desire to connect this new information with their life experiences thus enhancing their "self-identity" (Twaddell, 2019. P. 206). Fourth, adults are prepared to learn when a situation arises in which their ability to accomplish something requires improvement so they demonstrate enhanced proficiency (Knowles, 1978). If they have issues going on around them that may impede the learning process, new knowledge will not be accumulated (Twaddell, 2019). The fifth principle involves adults approaching a new learning situation with a specific focus on tasks or problems (Knowles, 1978). In this scenario, since adults have experiences to reference from their lives, they tend to create a focused method of learning and if they obtain new information in this mode, they will have a better result applying the new learning in their world (Twaddell, 2019). And finally, adults are inspired to learn through intrinsic and extrinsic means (Knowles, 1978). The intrinsic factors tend to boost selfesteem and assist with the actual level of accomplishment gained from the new information (Twaddell, 2019). Extrinsic factors also play a role as motivators for adults and are a necessary component in this process (Twaddell, 2019).

While Knowles's (1978) theory does specifically reference adults and this study focuses on high school seniors who are approaching adulthood, there may be some concern among those who read this dissertation about the true applicability of this theory. Knowles (1980) argued that there are some situations in which characteristics from andragogy can be leveraged within the context of adolescent learners (Davis, 2013). Now that some of our literacy scholars are uncovering the criticality of personal and communal formation of knowledge (Vygotsky, 1978), a relationship between adult and adolescent learners is now perceivable (Davis, 2013). In Knowles's (1978) adult learning theory, adults prefer self-directed learning in which they can control the pace, have life experience to attach to the new material and prefer a direct link to something they need to enhance in order to perform better at a given task/problem, researchers argue that the same is true for adolescent learners (Davis, 2013). Specifically, while adolescent students may not have a plethora of life experiences, they need to be proactively involved in their educational opportunities (O'Brien & Dillon, 2008; Sweet & Snow, 2002). Adolescent students also need a greater sense of freedom and self-selection as they navigate their education in the classroom (Smith & Wilhelm, 2002). In addition, adolescent learners tend to acquire knowledge via "social engagement and interaction" (Davis, 2013, p. 69) most specifically as they observe the learning endeavors in which they are involved as applicable and relative to their world outside the classroom (Irvin et al., 2007; Smith & Wilhelm, 2002).

In an earlier article from King (1993), the concept of "sage on the stage" (p. 30) referenced the idea that the educator is the person with the knowledge and that they transfer said knowledge to the student who in turn regurgitates it on a test. King (1993) argued that this mode of learning presupposes that students are simply hollow vessels until an educator stuffs their brains with knowledge which perpetuates the assumption that the student is a reactive versus proactive learner. King (1993) stated that a change in course is required in the K-12 environment in which the educator becomes more of the "guide on the side" (p. 30). Leveraging the adult learning theory in this context allows students more command of their learning (Lawrence & Routten, 2009). Approximately 50% of students that dropped out of high school indicated that what they learned did not relate to their lives outside the classroom and that the classroom

material was dull (Bridgeland et al., 2006). According to Lawrence and Routten (2009), including components of Knowles' (1980) adult learning theory into the curriculum is a possible option towards tackling the dropout issue. This same 2006 report illustrates six potential results of what happens when students do not graduate from high school: (a) high potential of incarceration, (b) higher levels of unemployment, (c) potential increased levels of poverty, (d) increased need for public assistance, (e) low rates of volunteerism in their communities, and (f) decreased likelihood of voting or involvement in community service issues (Bridgeland et al., 2006).

Admissions officers at test optional institutions are leveraging some of the main tenets of these theories as they make admissions decisions. This is evident throughout various articles reviewed for this research. After the recommendations from NACAC in 2008, the admissions staff at Johns Hopkins University, a private research institution, conducted research regarding their admissions processes and use of standardized test scores. Johns Hopkins already embraces the idea of an all-inclusive admissions process indicating that they purposely do not welcome students solely on the basis of quantitative metrics (Wonnell et al., 2012). The admissions office understands the value of looking at a student's ability to write, their afterschool activities and essays written as part of their evaluation process. The results of the case study led them to the conclusion that the SAT did not prove to be a major fact in selecting a freshman class, that they should truly consider the emphasis they do place on the SAT/ACT test results, and that they need to conduct even more research into additional factors that can assist them with forecasting academic achievement at their university (Wonnell et al., 2012). The admissions staff stated that they will "continue to seek to uncover academic potential in all of its manifestations" (Wonnell et al., 2012, p. 150).

Robert Sternberg conducted a few different studies at higher education institutions (such as Yale and Tufts University). These projects (The Rainbow Project and Kaleidoscope) utilized alternate types of tests that looked at analytical, creative and practical skills of potential higher education students. The students that participated in this project had options such as: writing short stories with titles provided as prompts, answering essay questions involving real-world scenarios, relaying stories about pictures provided or providing slogans for cartoons crafted for this exercise. Additional tests provided scenarios that the student might experience while in college and they were asked to evaluate the options offered that could lead to them successfully mastering the challenge. These higher education institutions are offering students options based on their experiences while allowing them to also factor in learning styles/preferences. As a result of the research conducted at Tufts, the administration opened the Center for the Enhancement of Learning and Teaching (CELT) (Sternberg, 2012). Through CELT, members of the faculty learned how to instruct students who possessed varied education and intellectual styles. Sternberg argued "we need to teach in all ways to all students so that at any given time, some students are capitalizing on strengths and others are correcting or compensating for weaknesses" (Sternberg, 2012, p. 11).

In 2008, Wake Forest altered their admissions requirements three-fold no longer requiring the SAT/ACT, added a written segment to their admissions application to allow for more thought-provoking responses, and they conduct interviews of over 4,000 students. For example, one type of question prompt added asked applicants to "tell us about your intellectual epiphany" (Allman, 2009, p. 169). Asking this type of question allows students to tap into Vygotsky's ZPD whereby they can recall when scaffolding allowed them to learn about something with the assistance of the MKO. Once this learning occurred, scaffolding is scaled

back which allows room for the student to have the epiphany. The admissions staff determined that these changes relayed the message about what a student, "really is" (Allman, 2009, p. 170). The staff wanted to send a message that four years of a student's high school experience meant more than a four-hour exam (Allman, 2009).

As mentioned above, the admissions team conducted 4,000 interviews. The process finished in six months with the assistance of fourteen staff members and emeritus faculty assistance. During the interviews, the team wanted to focus on talent, imagination and inquisitiveness from potential students. As a result of the volume of students, Wake Forest obtained a trailer and added two staff members as well as emeritus faculty to assist with the inperson interviews. They also set up a webcam/Skype options for those unable to travel to campus. When the process ended, the admissions team found that the SAT/ACT scores did not make a difference in those who submitted or did not submit their scores and that they could be successful with selecting a freshman class of students leveraging this process ongoing (Allman, 2009). Their goal revolved around fairness, inclusion and providing students with a chance they may not have otherwise. One applicant praised the decision citing, "You have realized that intellectual development is useless without a corresponding ethical maturation. You want me to fully develop my talents for humanity and I'd like you to be there with me when I finally do" (Allman, 2009, p. 174).

After the interview process, Wake Forest asked students why they were interested in attending the university. On the whole, even students with high test scores stated, "You are really trying to understand who I am. I want to attend a school that sees me for who I am, not just a big score" (Allman, 2009, p. 172). Another student said, "I have more to offer the world than can be accounted for numerically" (Allman, p. 176).

Chapter III: Methodology

There are over 1,000 colleges and universities that have chosen to implement a testoptional admissions process for incoming first-year students. To further inform the rationale behind this movement and build upon the existing research, I aimed to identify the reasons that led to institutions' implementation of such a policy and what the perceived benefits of this policy have been for their institutions and the students. Using a qualitative-only, mixed methods approach which implemented both survey and collective case study methods, I was able to capture the views of admissions officers at test-optional institutions across the United States.

In this chapter, I will provide an overview for the qualitative research approach and my use of theory in the research process. I will also describe the participants, instrumentation, analysis and coding, limitations to the methodology, and threats to the validity and reliability of the research study.

Procedures

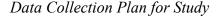
This study was approved by West Chester University's Internal Review Board (IRB), and included approval to issue a qualitative survey to all test-optional higher education institutions in the United States. Included with the survey was a description of the purpose of the study, potential risks, benefits to the participant and data protection and privacy measures including the process I followed regarding identifiable information (See Appendix A). An informed consent form, which study participants viewed prior to participating in the survey was also approved and viewed by all participants (See Appendix B). Only those with affirmative responses viewed and the opportunity to answer the 16-question survey. My IRB was also approved to allow me to interview up to six admissions officers in person or via Skype or Zoom, depending on the location of the selected higher education institutions (See Appendix C). Prior to conducting interview sessions, I read the IRB-approved script to inform participants about the study, the expected duration of the interview session, and procedures regarding data safeguards in place to ensure privacy and anonymity.

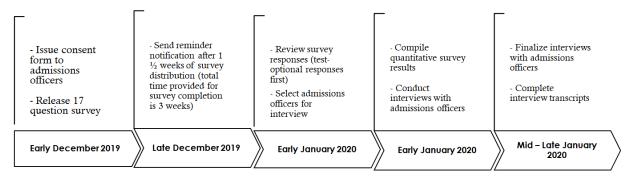
I compiled the results from the surveys and interviewed the four admissions officers that responded yes to the last question on the survey in which I asked if the participant would be willing to participate in a follow up interview. Three of the admissions officers worked at small higher education institutions (up to 3,000 students) and the remaining admission officer worked for a large higher education institution (10,000 students and up). All interviews were conducted and recorded via Zoom and a formal transcript of each interview was prepared (See Appendix B).

Data Collection Schedule

The qualitative survey and interviews are the primary data collection sources for this study. The schedule for obtaining this data is detailed in Figure 2 below.

Figure 2





Note. This chart reflects the data collection sequence for my study.

I was able to distribute the consent form along with the survey in one document to streamline the process. The survey was distributed through Qualtrics with a unique identifier assigned for each of the colleges and universities receiving the survey. As completed surveys returned, I reviewed the results and assembled a list of admissions officers willing to be interviewed as part of my study and utilized email to establish an agreed upon time for one on one interviews. I also extracted demographic data based on: (a) size of each institution, (b) number of years a test-optional policy had been in place, (c) types of materials required for admission, (d) GPA data, and (e) yield on admissions offers. Finally, I prepared transcripts of each interview conducted with an admissions officer as part of the results of my study.

A QUAL-qual Mixed Methods Decision

Qualitative research involves studying people's "lived experience" and obtaining understanding from asking questions and observing (Lincoln, 2005, p. 26). Most notably, qualitative researchers seek to answer the question of why (Lichtman, 2013, p. 7). Qualitative research may consist of personal interviews and examinations of people in their normal locales and can be multi-faceted, as it is ever changing based on what the researcher might uncover (Lichtman, 2013).

I chose to use a qualitative mixed methods design based on the central question that I sought to answer in this research – why are higher education institutions implementing test-optional policies as part of their admissions process? The answer to this question required inquiry into the decision-making processes at the higher education institutions where the participants were employed. I engaged in this study to uncover answers regarding the perceived value of evolving the admissions process to offer test-optional paths for students planning to pursue higher education. Litchman (2013) argued that a researcher can engage in qualitative research to answer a specific set of questions, and they may end up with new questions as a result. In addition, studies can conclude in which answers were ultimately provided to the

researcher but these answers will not always fit every situation that may arise in the future even when the question is the same as the one the researcher investigated (Lichtman, 2013).

For purposes of my research study, I utilized a sequential mixed-methods design that incorporated two qualitative research approaches (QUAL \rightarrow qual). The QUAL portion of my study was the qualitative survey and represented the overall foundation for my research. The qual segment of the study was the in-person interviews with admissions officers that evolved from the survey and represented a deeper identification and exploration of the research cases. According to Morse and Cheek (2014), qualitative mixed-methods research plans have two primary features: (a) the methods selected are all connected to the same purpose for the research, and (b) the findings of all the methods blend together and are reported in the written results section of the study with the 'QUAL' segment serving as the foundation of the written report and the 'qual' section providing additional context and/or illustration (Morse & Cheek, 2014). Morse (2010) argued that a researcher can conduct a mixed methods study with the use of combined qualitative methods that then function as a mixed-methods approach. Morse and Niehaus (2009) defined this type of mixed methods approach as "a complete method (core component), plus one or more incomplete method(s) (e.g., the supplementary component) that cannot be published alone, within a single study" (p. 9). The secondary component offers additional understanding within the context of the primary component, but according to Morse (2010), the secondary research method is not decoded or applied independently. Morse (2010) stated some reasons for not being able to utilize these components separately: (a) the limited sample of the secondary method, (b) the lack of depth of the supplemental method, and/or (c) the limited results obtained from this process. Generally, neither method can act as a stand-alone or independent project (Morse, 2010). This concept holds true for this particular research study, as my primary method

is a qualitative survey going out to all test-optional higher education institutions in the United States. I am also using a secondary module of discovery involving one-on-one interviews with admissions officers after survey results I compile. While each method will provide helpful insight to the overall outcomes of this study, neither component published independently provides the comprehensive results that the combination of the two methods affords.

Morse (2010) outlined characteristics of this research approach starting with her premise that an all qualitative research design is "exploratory descriptive" (p. 484). In this scenario, the completion of the primary and secondary modules occurs in succession or concurrently (Morse, 2010). I selected a research approach best suited to answer my research question: (a) in a more complete manner, (b) to acquire a different viewpoint with the use of another method of data collection, (c) to find out information from another point of examination or concept, and (d) to offer data that was previously not available through the utilization of the primary research method or to provide a response to a question which is not able to happen through the use of the core research design (Morse, 2010). In addition, Morse (2010) added that researchers utilizing research plans involving a "sequential supplemental qualitative component" decide on this method to: (a) respond to sub-questions as a result of the primary project and/or (b) advance the study in the direction of application (p. 484).

Qualitative Survey

Creswell (2015) discussed the challenges involved in creating a strong survey tool as part of a research study and recommends that researchers determine if there is an existing tool available for their data collection purposes. If there is an existing survey instrument, a researcher can consider altering the existing tool to fit the constructs of their survey (Creswell, 2015). If a survey instrument does not exist that allows the researcher an opportunity for the appropriate data collection, one may be designed for this purpose. Creswell (2015) argued that when researchers create their own instrument, they consider crafting various types of inquiries from attitudinal to complex and both open and closed-ended questions. In addition, researchers utilize the appropriate language for question clarity, ensure that participant response options are separate and do not overlap and be certain that the questions are all appropriate for every participant's response (Creswell, 2015).

Since I was unable to locate a previously-existing survey that supported the goals of this study, I designed the survey keeping Creswell's (2015) points in mind. For example, some of the questions were demographic and closed-ended to draw comparisons and differences amongst test-optional higher education institutions, while other questions on the survey were open-ended and provided an opportunity for admissions officers to specifically elaborate on their institution's specific policies, rationale, and results.

Qualitative Research History

Denzin and Lincoln (2003) identified instances of intersection in history that were critical time periods for the development of qualitative research: (a) traditional - 1900-1950, (b) modernist – 1950-1970, (c) blurred genres – 1970-1986, (d) crisis of representation – 1986-1990, (e) postmodern – 1990-1995, (f) postexperimental inquiry – 1995 - 2000, (g) methodologically contested present – 2000-2010, and the future - 2010 to present (Denzin, Lincoln, 2003, p.3). The traditional and modernist phases more often adopted the Positivists' points of view in support of the more customary forms of quantitative research (Denzin & Lincoln, 2003). In the traditional and modernist phases, the focus was on "scientific research" where only what can be seen or measured received support (Lichtman, 2013). Conversely, during the blurred genre time period, sciences dealing with humanity surged to the forefront as part of the qualitative research

process, and the researcher became known as the "bricoleur" (Denzin & Lincoln, 2003, p. 3). In the postmodern and postexperimental phases, a focus of the qualitative research movement centered around how the story was told as researchers examined different ways to compose their ethnographic research process (Denzin & Lincoln, 2003; Ellis, 2009). The future phase, which is current day, is focused on what Denzin and Lincoln (2003) call "moral discourse" and is concerned with crucial topics such as culture, gender, class and society (p. 3).

Collective Case Study Approach. Stake (1995) defined a collective case study as one in which a group of persons, places or things are included in one case study. While the singular person, place or thing provides important insight to the case study, the synchronization of these individual findings is critical to the overall outcome (Stake, 1995). In this case, gathering feedback from test-optional institutions across the United States will help inform answers to the overall question of why some higher education institutions have implemented this type of admissions policy. Since it is unlikely that one standard answer fits the rationale for all of these institutions, it is critical to obtain specific data from as many institutions as possible.

Theory in Case Study. I used Stake's (1995) collective case study method for my overall approach to this research. Stake (1995) indicated the importance of what he coined "conceptual organization" (p. 15). Within this context, Stake (1995) stated that one of the most customary ways to establish conceptual organization is through a hypothesis or hypotheses. Also included in the conceptual organization of the study are: (a) thoughts which convey what the researcher wants to know, (b) connections for the reader to what information is already understood, and (c) plans that indicate how the researcher plans to share their analysis with readers (Stake, 1995). Stake (1995) noted a preference for utilizing the researcher's quest for answers as the ultimate organization for cases. The questions about the concerns then serve as

the "research questions" (p. 16). Stake (1995) viewed the case as the top priority and places emphasis on what can be seen/observed as well as the need for the researcher to respect and maintain the "multiple realities" (p. 12) which exist during the research process.

Stake (1995) focused on developing "issue statements" (p. 19) as part of the case study, which he noted should be very specific and inclusive of the circumstances the researcher observed:

I want to draw my own attention to the disciplines of social science and the humanities that may be useful in interpreting the phenomenon. I do not want examination of the phenomenon expressed in the issue to become more important than examination of the case as a whole, but I want my examination to draw upon the best discipline-based scholarship I can provide. (Stake, 1995, p. 18)

Stake's (1995) approach values representing the case and the issues as the researcher understands it. However, Stake (1995) also warned researchers to remain cognizant about scripting their case study to fit into any predetermined structure.

Merriam's (2001) arguments regarding the use of theory throughout research supported the design of this study. Merriam (2001) stated the importance of theory in a case study through the lens of the theoretical framework. First and foremost, the theoretical framework needs to be clear and precise (Merriam, 2001). Merriam (2001) outlined that the theoretical framework originates from the researcher based on the viewpoint they bring to their case study work (Merriam, 2001). To assemble the framework, the researcher can start with answering the question Merriam (2001) posed – "What is your disciplinary orientation?", as, the answer to that question represents the way the researcher views their environment and frames the inquisitive nature that resides in each person and hence what the researcher wants to ultimately know and learn through their research (p. 45). A case study can be assembled from various standpoints, and in each scenario, the researcher can use notions and terminology affiliated with their perspective, review the available literature associated with their area of focus and express the problem their research plans to address along with the intention of the case study that relates back to the beliefs and apprehensions about the view offered (Merriam, 2001).

The selected structure for this case study has a natural pull towards the theories, notions, and explanations of a certain segment of literature (Merriam, 2001). This specific structure creates the issue of concern for the case, determines the inquiries the researcher will make, structures the plan for obtaining data, outlines examination methods, and informs the plan to decode the results (Merriam, 2001). Merriam (2001) reminded researchers that the theoretical framework impacts everything contained in the study. She offered a visual which illustrated how researchers can view the area of focus for the study can be viewed as a "set of interlocking frames" (p. 47). The largest frame represents the literature on the topic along with the researcher's specific perspective that they bring to the case (Merriam, 2001). Within this frame, the researcher is informing the reader about the literature, their specific curiosity, what information is well-known, the researcher's area of concentration, the gaps in what information is/ is not known, and why it is critical to know about the breaks in knowledge and the ultimate rationale for conducting the study (Merriam, 2001). The second frame (within the larger frame mentioned above) is reserved for the assertion of the issue serving as the focal point for the case (Merriam, 2001). The final or third frame within the larger structure contains the reason for the case (Merriam, 2001).

Setting and Participants

The participants in the survey part of the study were admissions officers from all higher education institutions (public and private) that offered four-year bachelor of science and/or bachelor of arts degrees and had a test-optional admissions process for incoming first-year students at the time of the study. These admissions officers represented United States institutions in rural, urban and suburban settings consisting of culturally-diverse populations. A variety of titles were held by the admission's officer at each higher education institution who received the survey, including: Chief Enrollment Officer, Undergraduate Director of Admissions, or Vice President for Admissions and Enrollment. Admissions officers at higher education institutions who offered test-optional admissions served as the target population for this research study because I sought answers to the question of why higher education institutions offer this type of admission for first-year students.

Inclusion and Exclusion Criteria

Naviance is a software tool utilized by many K - 12 institutions and offers information related to future career planning and selection of colleges and universities. I gathered the initial list of higher education institutions offering a test-optional policy utilized in this study from this software tool. I then reviewed the websites of each college/university on the list determining whether or not each institution fit the four-year bachelor of science or bachelor of arts degree requirement. If the college or university did not fit that criteria, that institution was excluded from the list of participants and placed in a separate file with the reason listed as to why the institution was no longer part of the participant group. While completing this process, I found that some of the colleges and universities had multiple campuses each listed as a separate institution on this report. I made the decision to target the largest campus of each of the schools with multiple locations and then excluded the remaining campuses from my list of participants. I made this decision to exclude smaller campuses because I wanted information from the campuses with the highest number of students.

As I reviewed the website for each of the higher education institutions offering a testoptional admissions policy, I obtained the names and email addresses of the senior admissions officer at each institution. In instances where the admissions officer's email contact information was not made available on the website, I used the phone number to the admissions office and made phone calls to office staff for the express purpose of acquiring the correct contact information. Making these calls and obtaining the appropriate contact information allowed me to keep these colleges and universities on the list for survey distribution.

Survey Distribution and Interview Candidates

Each survey issued to the test-optional higher education institution had a unique identifier. In addition, one of the survey questions asked each participant if they would be willing to participate in a follow up one-on-one interview. From the 11 respondents to the initial survey, I identified 4 admissions officers from across the United States to interview in order to develop a more in-depth case of their perceptions regarding their institutions' implementation of a test-optional admissions process. Using the Google maps tool, I located the institutions willing to participate in a follow up interview through GIS technology. Once I located the institution, a follow up email was released to the appropriate admissions officer for interview scheduling. In Table 2 below, demographics regarding the 11 participants are detailed:

Table 2

Survey and Interview Participant Demographics

Personal Identifier	Public/Private	Institution Size	Location Inter	view Status
Admissions officer 1	Public	15,000+ students	Midwestern region	Yes
Admissions officer 2	Private	500 – 1,000 students	Southwestern region	Yes
Admissions officer 3	Private	1,000 – 3,000 students	Northeastern region	Yes
Admissions officer 4	Public	1,000 - 3,000	Northeastern region	Yes
Admissions officer 5	Private	1,000 – 3,000 students	Southern region	No
Admissions officer 6	Private	1,000 – 3,000 students	Southeastern region	No
Admissions officer 7	Private	1 - 300 students	Northeastern region	No
Admissions officer 8	Public	3,000 – 6,000 students	Northeastern region	No
Admissions officer 9	Private	3,000 – 6,000 students	Northeastern region	No
Admissions officer 10	Private	1,000 – 3,000 students	Southern region	No
Admissions officer 11	Private	100 – 300 students	Southern region	No

Note. This table represents the survey data received for my research study from test-optional higher education institutions.

Instrumentation

Researchers utilize surveys to obtain the views, actions, or qualities of a set group of people related to their research (Creswell, 2015). The first instrument utilized for this study was a survey consisting of both quantitative and qualitative questions for response. The specific type of survey was a questionnaire consisting of 17 multiple-choice, short-answer, and extendedresponse questions issued in an electronic format via Qualtrics. The target population for this study was all test-optional higher education institutions in the United States that offer four-year Bachelor of Science or Bachelor of Arts degrees.

Knowing that I would be administrating the survey during a busy time for admissions officers, I designed the study with both open- and closed-ended qualitative questions. The closed-ended questions provided additional demographic data which assisted with comparing test-optional policies based on numerous factors while the open-ended questions allowed admissions officers a chance to expand on specific details about their test-optional admissions policies and perceived benefits.

Participant Survey

I sent the survey to admissions officers at 673 higher education institutions throughout the United States. For purposes of this research study, I developed 17 questions specifically for one admissions officer to answer at each of the test-optional institutions. This survey was the beginning of my data collection process for my study. Responses to the survey were vital and provided me with the participants for my qualitative interviews.

Semi-Structured Interviews

I elected to utilize a semi-structured interview format which allowed me the opportunity to ask follow-up questions of each of my participants as needed to provide as much insight as possible based on the participant's institutional knowledge. This idea is consistent with Stake's (1995) principles. Specifically, he encouraged researchers to come to the interview with a given set of questions focused on the subject matter that is important to them and consider providing the participant with this list prior to the interview. He further posits that researchers craft their questions carefully to elicit responses that provide insight to the case. According to his philosophy, the interview serves as the principal pathway to "multiple realities" (p. 64). Stake focused his thoughts on this topic from the investigator's perspective and advocated for researchers to ensure they determine a strategy in advance of the interview and discusses some of the pitfalls which may occur (e.g., not asking the right things, directing the participant to what the researcher would like to discuss, etc.). When selecting participants, he argued that participants ought to have distinctive experiences along with critical narratives to share. As with observations, Stake (1995) also recommended that a researcher jots down critical concepts shared by the participant within a short time after the interview concludes.

My qualitative interview questions, along with a script (See Appendix C) guided the overall interview process and each interview was conducted in a semi-structured format. I organized my questions into themes consistent with the overall question for this research study. The first couple of questions provided basic background information regarding the specific admissions process used at each of the higher education institutions and also an inquiry into why each of these college/universities made the decision to incorporate a test-optional admissions process. The next few questions I asked my participants related to a topic I wrote about in my literature review regarding non-cognitive factors that impact a student's ability to be successful in higher education to compare those responses to the detail included earlier in this dissertation. Finally, I asked each of the admissions officers to share their thoughts regarding the possibility

of eliminating the requirement all together in the future. The responses from this final question provided me with insight regarding topics that researchers may want to investigate in future research studies.

Data Analysis/Analysis and Coding Procedures

Consistent with my decision to utilize Stake's (1995) methodologies regarding case study, I also leveraged his philosophies related to the analysis portion of a case study. He posited that during the analysis portion of a case study, the researcher takes the time to pull everything out of the case study and assign meaning to all the parts. In his view, evaluation is an ongoing process that can start at any point. Stake further encouraged researchers to review their interviews, observations and documents, search for the appropriate time and place and through the combination of these things, written material is generated. He added that a researcher's time is best spent on the most critical data obtained through the data collection. Finally, Stake focused on the importance of "naturalistic generalizations". He defined these as inferences people make because of their own participation in life experiences or through indirect encounters that are beautifully assembled in a manner that makes the reader imagine these things transpired.

To assist the end reader with authentication of naturalistic generalizations, Stake (1995) offered six considerations for researchers: (a) provide explanations of things that readers generally know to assist them, (b) offer data ahead of the explanation to provide the reader with the opportunity to think through their own explanation, (c) explain the case study method utilized and how they "triangulated" (p. 87) information, (d) ensure information about the investigator becomes available for readers, (e) put forth other responses to the case study from the data collected, and (f) focus on the activities stated within the case and whether these activities were or were not observed.

Coding and Analysis

Since I am using a mixed-methods survey and case study research approach, I used Stake's (1995) ideas about extracting everything possible from the case study and assigning meaning to it. This process began with coding the data from the surveys and the interviews. Creswell (2015) defined the coding process as the way in which text is sectioned and categorized to create narratives and wide-ranging themes in the data received. In essence, the researcher reads through their data and begins to section it into certain sectors and then identifying these sectors of text with specific codes established by the researcher. During this process, the investigator determines what data will and will not be included based on the themes selected as part of the coding process (Creswell, 2015).

Creswell (2015) outlined six steps that are critical to this process: (a) understanding the broad scope of the data that was collected, (b) selecting a singular document as a pivotal focus of the coding process, (c) beginning the coding process by identifying words/phrases in the data, (d) establishing a bank of "code words" (p. 244), (e) taking the list of code words and revisiting the data to determine if additional codes are identified, and finally (f) limiting the codes to about five to seven topics.

I transcribed my interview data with the use of the constant comparative data analysis technique for the in-person interviews. Use of the constant comparative technique involved creating and linking categories through associating instances in the collected information with other instances in the data (Creswell, 2015). According to Creswell (2015), the general intent for constant comparative data analysis is to "ground the categories in the data" (p. 437). Glaser (1978) indicated that the data are shaped into "indicators" (p. 437) which are the result of information obtained from various groups of people, diverse sources, and/or from a group of

similar individuals over a period of time. Glaser (1992) also outlined three questions the investigator may ask themselves about the data collected: (a) "What is/are the focus of the data?" (b) "What classification or what attribute of what classification does the instance indicate?" (c) "What is the data showing?" and (d) "What is the social psychological process or social structural process in the action scene?" (p. 437). For the both the interviews and survey results, I used the process Creswell (2015) outlined for establishing themes. I first established five themes from the portions of the survey that allowed open-ended responses. I then utilized that set of themes as the base for reading through the interview transcripts to determine if similar themes emerged or if additional themes/codes were necessary. As a result of that process, I established three additional themes from the interview transcripts.

Limitations to the Methodology

I narrowed the focus of my research study to only include higher education institutions that offer a test-optional admissions process so that the results of my study can inform overall research in this area. However, it appeared that some admissions officers at other colleges and universities may have been reluctant to share more information about their test-optional admissions practices with me. Another limitation I encountered related to response rates from the survey, as a limited number of admissions officers returned their surveys. However, since case study served as the primary research method (specifically collective case study), persons, places and/or things were able to be combined together. According to Stake (1995), while a singular person, place or thing provides important insight to the case study, the synchronization of these individual findings is critical to the overall outcome. Thus, while I had hoped to gather information from a broader segment of admissions officers employed at test optional institutions, this collective case study represents the experiences of the admissions officers who did participate in the study. The final limitation I encountered related to the tenure of the admissions officers I interviewed. During my interviews, at least one admissions officer indicated that their tenure with their higher education institution was in excess of twenty years. As a result of this admissions officer's time in job specifically in admissions, they were able to provide quite a bit of history regarding why they implemented a test-optional admissions process. However, two of the other admissions officers I interviewed simply indicated that they were not at their respective institutions when the decision to provide a test-optional path to admission was implemented so their institutional knowledge on this topic was limited in scope. Therefore, they based their answers on information they perceived predicated the move as related to the institution's current policies and practices.

Threats to Validity and Reliability

There are concerns regarding the validity and reliability related to qualitative research. Creswell (2015) stated that researcher should implement strategies that ensure their research is truthful and reliable such as member checking or triangulation. I selected triangulation as part of my research study as a safeguard against issues related to authenticity. Triangulation involves validating data from different people, records or collection methods (Creswell, 2015). Researchers use triangulation to improve the accurateness of their study (Creswell, 2015).

Triangulation

According to Creswell (2015), triangulation is a way that researchers validate information received from various people, sources of data, and/or various data collection efforts. The researcher reviews all bases of information to locate confirmation that verifies a theme (Creswell, 2015). Researchers use this process as another form of adding more precision in their research studies since data is often extracted from multiple sources, documents and people.

Creswell (2015) argued that by using triangulation, researchers create findings that are precise and plausible.

Reliability

One of the major threats to the reliability of my data resided in the limited number of responses I received to my survey. As a result of the low response rate, I was not able to make generalizations about: (a) public or private higher education institutions using test-optional policies, (b) how test-optional policies can or should operate, or (c) conclude that all institutions consider adopting a test-optional policy. However, this threat was not critical because I utilized case study for my overall research method and investigated each higher education institution individually.

Internal Validity

The participants selected for this study were admissions officers employed at testoptional institutions within the United States. However, the tenure of these individuals at their institutions may have been a factor in their ability to answer the questions thoroughly on the survey and/or through an interview. There were participants who opted to take the survey but ended up not completing the survey questions. These incomplete surveys were not counted as part of the total surveys received for my study. I also did not experience any participants opting out of the interview process before or after interview sessions were established nor during the actual interview process.

External Validity

There is a concern about being able to generalize some of the results from this study. While test-optional higher education institutions that met the selection criteria received the survey and these institutions include both public and private colleges and universities. Public and private institutions sometimes function very differently and therefore the results provided from admissions officers at either type of institution may not be applicable to the opposite institution.

Researcher Bias

I have a long history with standardized testing at the elementary, high school and higher education levels that was not positive. Most specifically, the results of my SAT scores required me to take a remedial math course upon entry into college. Because the credits from this course did not count towards graduation, I needed to take additional credits in my final semester to be eligible for a Spring graduation, excluding the additional class that I was required to take in the summer after the graduation ceremony to earn the final Bachelor of Science degree credit. In addition, upon returning to my alma mater for a Master's degree, I took the GMAT. Since the results of the GMAT, were not satisfactory to my alma mater, I was admitted to the program as a non-matriculated student, only able to take three classes before retaking the GMAT to obtain a better score. However, after achieving an extremely high GPA through the three classes, I obtained a waiver from having to retake the GMAT. This scenario can contribute to my own personal bias regarding the necessity of these tests as it was never a positive indicator for me. To counter this issue, I asked questions on both my survey and in the interview process to obtain the pros and cons of test-optional admissions policies as well as inquiring about the drawbacks of implementing such a policy.

In addition, when my oldest daughter went through the application process for high schools, one of the requirements for her high school of choice involved taking the high school placement test (HSPT). Because she did not have high scores on her Terra Nova testing (standardized testing utilized in archdiocesan elementary and middle schools) through elementary and middle school, I placed her into a four-month tutoring program through one of the local test preparation institutions. I generally performed very well in school on my tests and wondered if I would have attended an SAT preparatory course, if the results might have been different. Because my oldest daughter also struggles with her scores on standardized tests, I provided her with specialized tutoring prior to her taking high school placement tests. She ended up getting a scholarship for the grades she achieved in elementary and middle school and for her service to her community. Her test scores remained relatively unchanged.

As a result of these experiences, I am biased towards the need for standardized testing as it hasn't ever been an accurate indicator of my scholastic abilities nor that of my children. I am an advocate for finding an alternate method for determining a person's ability for success in higher education.

Summary

In this chapter, I reviewed my overall methodology for my study including the type of research I conducted and my rationale. I also discussed which researchers' theories and methodologies aligned with my research approach and how their insight guided the investigative techniques utilized in my research. I outlined the instruments created which served as the tools utilized for obtaining the data for this study. In addition, I discussed the data analysis and coding procedures leveraged for establishing the categories and themes which created the pathway for the results of the study. And finally, I outlined limitations to my methodology as well as potential threats to validity and reliability as well as my own bias regarding standardized testing.

Chapter IV: Results

In this chapter, I outline the results of my qualitative mixed methods inquiry into the higher education test-optional movement. This study addressed the question: Why have many higher education admissions policies evolved to include a test-optional component for incoming students? Six major themes emerged from a constant-comparative analysis of data collected over an eight-week period from qualitative surveys and semi-structured interviews: (a) decision to move to a test-optional admission process, (b) implementation of test-optional admissions, (c) policies informing test-optional admissions decisions, (d) perceived benefits to test-optional practices, (e) perceived drawbacks to test optional practices, and (f) student submission options.

Decision to Move to a Test-Optional Admissions Process

Since the focus of this study related to the test-optional movement in higher education, it was critical to obtain the reasons why a college or university decided to implement a test-optional policy for admissions. The majority of my findings aligned with two main themes of diversity/access and alignment with a college/university's mission/vision/values. Some of the survey respondents indicated a variety of other reasons for the implementation of a test-optional policy as follows: (a) provide flexibility with the application process, (b) maintain competitive edge with other colleges and universities implementing this type of policy, and (c) support standard operating procedure (e.g., the institution has always been test-optional).

Diversity and Access

The main themes that surfaced throughout the survey responses and the qualitative interviews related to the fact that many of the higher education institutions implementing test-optional policies are doing so to enhance their diversity and access missions. Admissions officers who participated in this study used a broad definition of the term diversity, which was inclusive

of many factors: (a) culture, (b) geographic, (c) life experience, (d) age, and (e) ethnicity. For instance, Admissions Officer 1 noted how test-optional practices can build self-confidence for students from diverse backgrounds, "The average ACT for Hispanic students and Black students in our state is also significantly below what is deemed "college ready" so focusing on the GPA helps them believe in their preparedness" (Survey). In their interview, Admissions Officer 1 expanded on this idea, "We serve a Midwestern state with large rural and first-generation student percentages. We believe test optional helps these students feel that with effort resulting in good GPA, they are prepared for college" (Interview). Other admissions Officer 7 asserted, "We also have a desire to grow in students of color and low economic groups to benefit from this type of education and we know that SATs and ACTs are not exactly running in their favor these days" (Survey).

Another theme that emerged was the importance for students to have access to a university in their immediate geographic area. For instance, Admissions Officer 4 noted:

> For students from an under-served area, maybe they don't have a parent that can easily take off work to be able to drive to campus let alone maybe a parent with a car because not all two parent households have two cars...Being in a rural area, it's not like we have a city with a major airport that students can fly into. I'm sure there's a train station for Amtrak but it's not much of a station, it is more of a platform with a sign (Interview).

These issues are examples of the type of diversity missions test-optional higher education institutions seek to provide for potential students.

Access, in the context of this study, is also inclusive of financial access to necessary resources required to prepare for SAT/ACT testing. To prepare students to take the SAT/ACT, some high schools integrate test preparation time into their schedules or even offer courses/seminars for students to attend which may or may not carry a cost (Admissions Officer 3 Interview; Admissions Officer 4 Interview). Also, test preparation companies offer standardized testing courses students can enroll in to prepare for these tests and bookstore retailers sell test preparation books students can purchase. Some students are in positions to benefit from these options, while other students in different socio-economic, school, or household environments may not have access to these additional resources. Admissions Officer 4 cited:

> I had many classmates that could afford \$3,000 prep courses. I didn't even entertain any fantasies in my mind about asking my parents for that money absolutely not. It also depends on the school. Are they going to offer free testing support for students? There's so many factors, I think some folks in education are recognizing what those factors are (Interview).

Admissions Officer 3 concurred that students at certain high schools have access to SAT prep courses (Interview). In addition, Admissions Officer 3 shared that these students are also benefiting by taking tests that are teaching them to think in the same way as standardized tests and that a school in another area may not have focused on those issues. At Admissions Officer 3's institution, this is one of the main reasons for not penalizing those students who may fall into this category.

A common thread across all surveys and interviews was an institutional commitment to access. Admissions Officer 3 voiced, "[Our institution] is committed to access. We're very much aware of our privilege. The faculty and administration here is very committed to diversity" (Interview). Admissions Officer 8 supported this sentiment while noting their institution's commitment to "increased access and opportunity to historically underserved student populations" (Survey). Expanding on this idea, Admissions Officer 1 addressed the barriers to student access, "These higher education institutions do not support a "one size fits all" mentality. They know that there is a need to ensure as many barriers to entry are removed so that students of all cultures can thrive in higher education" (Interview). Similarly, Admissions Officer 7 summarized that work-in-progress nature of institutional access missions:

Diversity can be a lot of different factors but just students that have different backgrounds, different education and then you just open the door to more people and so we see that as a big successful point within our school and we need to do a whole lot more of it. (Survey)

In sum, participants in this study perceived their institutions' test-optional practices as progress toward their institutional diversity and access missions.

High School GPA as an Indicator

Both the interviews and surveys received for this study indicated that high school GPA is a strong determinant of a student's ability to be successful in higher education and not their score on the SAT/ACT. In a survey response, Admissions Officer 4 stated, "Institutional data showed that student persistence was closer tied to high school grade point average than test score. Therefore, the test score was an unneeded barrier in predicting success." Admissions Officer 7 added to this statement saying, "Some students simply don't test well – we believe this to be true based on univariate HS GPA analysis. Yes, the two (test and GPA) are often related and relate to student success but we have enough examples of low test/high GPA success that we feel it is more appropriate to put more weight on GPA (Survey)." Admissions Officer 4 furthered the discussion indicating that when the opportunity comes to speak with students, this admissions officer lets students know that the main item of consideration in higher education institutions are the student's grades as that is an indicator of how the student has performed academically and provides insight on how they might perform in the future (Interview). Admissions Officer 1 added that the overall academic experience carries more weight in their admissions decision than a test taken for several hours on one day of the week (Interview).

Current research supports the premise that high school GPA is a strong indicator of a student's ability to be successful in higher education (Allensworth & Clark, 2020; Syverson, Franks, & Hiss, 2018; Hiss & Franks, 2014). Hiss & Franks (2014) conducted a study entitled "Defining Promise", and when students were able to elect not to submit their test scores at 33 test-optional institutions, about 33% of the students chose this option. Students not submitting test scores graduated at a similar percentage as students who did submit test scores (only a 0.6% difference) and the GPA of those who graduated without submitting test scores only reflected approximately a 0.05 difference in their cumulative grade point average. In 2018, Syverson, Franks and Hiss (2018) collected data on the graduation rates and GPAs of submitters and non-submitters remained consistent with the results from the 2014 survey. The average GPA for students who submitted test scores was 3.40 and the average GPA for students that did not submit test scores was 3.23. This finding represented a GPA differential between the two groups of 0.10 and 0.18.

Allensworth and Clark (2020) highlighted some of the concerns that proponents of standardized testing have with the use of high school GPA. One concern reported is that the usage of grades is not a consistent measurement because there is grade inflation in high schools. In addition, teachers throughout the country have varied curricula and differences in expected results of students. These researchers posited that students having different expectations from teachers and varied curricula in high school is actually favorable as they consider higher education. It is favorable because students will experience this same situation in higher education as their professors will each have different expectations of what they anticipate a student will achieve. In addition, the curriculum will vary between these educators. Learning how to manage multiple expectations and priorities is an important skill for young adults. Allensworth and Clark (2020) added that the standardized tests (i.e., SAT/ACT) students take focus on a limited scope of abilities, specifically in math and English. In higher education, students need to possess a variety of information and proficiencies across a wide array of topics. Students can demonstrate steady effort with their ability to complete various assignments, projects, and papers day after day and month after month (Allensworth & Clark, 2020).

Attraction to University/College

Students applying to higher education institutions are in search of a good fit for themselves and their skill set. Admissions officer 1 summarized this thought while discussing the academic profile for their institution and the fact that as the academic profile increased, students with lower test scores did not see themselves as viable candidates for this institution and the administration wanted to change that idea (Interview). As potential higher education students seek this best fit institution, admissions officers perceive that returning the control to the student to best present themselves is critical. All four of the admissions officers I interviewed discussed this notion that providing the test-optional path to admissions empowers the student to represent themselves in the best academic manner possible. Admissions officer 3 discussed that their institution even encourages the student to contact the admissions staff directly if they would like to discuss whether or not the student should submit their test scores (Interview). The admissions officers from test-optional institutions that participated in this research indicated that students value the option to not take a test to obtain admission. Admissions officer 3 cited, "The students are open to it and like the idea of not needing test scores" (Survey). Admissions officer 9 and 10 furthered this notion of attraction for students with their comments about enticing different types of students to apply to their college/university and that these students appreciate the value placed on their overall academic experience versus the results of a test taken on one day (Survey). Admissions officers also discussed that embracing test-optional admissions policies can: (a) increase retention, (b) provide opportunities for students to take control of how to present themselves during the admissions process. During my examination of the data, admissions officers found that students attached value to other facets of their higher education experience. Admissions officer 7 summarized this idea sharing that students at their institution would much rather debate and discuss classroom topics versus concerning themselves with scores on tests (Survey).

Alignment with University Mission

During interviews when I asked the admissions officers why their institution decided to implement a test-optional policy, a few of the responses related to a need to recalibrate and align admissions policies with the institution's overall mission, vision, and values. Two of the admissions officers discussed the fact that not having a test-optional admissions policy was in direct violation of these core principles. Specifically, Admissions officer 2 discussed that because part of their definition related to student success involves students being able to discuss concepts and ideas on a deeper level and being able to write and communicate, the institution realized results from an SAT or ACT were not indicative of critical success factors set forth for their students (Interview). Admissions officer 1 mentioned that even though the university always had a long-standing policy for admitting students with lower test scores, they were finding that as their academic standing in the surrounding community and in the world increased, some of the same types of students they admitted in the past (i.e., good students with lower test scores) were not applying to the university because they did not see themselves being a part of that university culture (Survey). Instituting the test-optional admissions policy in this example provided the university admissions team with an opportunity to realign their access mission with the appropriate admissions policies to achieve the desired outcome of serving their community both near and far.

In one of the interview responses, Admissions officer 2 shared their unique approach to education based on how coursework is done in the classroom:

The majority of our program is focused on reading, discussion classes, and writing – even in STEM courses. Because we have this unique approach in the classroom, it is important for us to have a unique approach to the admission process. SAT/ACT scores do not tell us if you can examine a text at a deeper level, ask why, and share in rich conversations in the classroom to expand your own knowledge and the knowledge of those around you. (Interview)

Providing all students with access to higher education is important to our youth aspiring to meet goals and pave the way for their futures. Ensuring these institutions are aligning their admissions processes in a manner consistent with their original mission, vision and values can assist with attracting students to apply and pursue degrees in higher education.

Implementation of Test-Optional Admissions Practices

Implementing a test-optional policy at a higher education institution can involve a widerange of necessary activities, everything from consulting with the faculty, to implementing additional questions, to making minor changes on application materials, to enhancing the technology for students who choose to apply for test-optional admission. In some admission contexts, higher education institutions implemented test-optional admissions policies but then require their students to complete placement testing for admissions or use it to determine if other classes might be necessary to support their students. Admissions officer 10 summarized this indicating that their students take math and language placement tests and the scores on those tests receive the highest consideration for admissions to their institution (Survey). Conversely, Admissions officer 11 discussed that their institution, while test-optional, has the students take placement tests to determine whether a student needs to take additional developmental courses while at their institution (Survey).

In one example from this research, a higher education institution removed the additional supplement which included an essay question that students needed to answer. The admissions officer of this institution focused on removing as many barriers as possible and simplifying the process for students. Admissions officer 4 cited:

We're not requiring our students to write anything further in order to be considered for admission to college. We use the common application and it makes the process a little bit easier so that when a student is trying to consider us, they don't need to worry about writing any additional essays. They don't have to worry about anything else because the essay on the common application will suffice. (Interview) In two other examples, a college and a university that implemented test-optional policies completed the process with the assistance of their faculty. In the first case, Unnamed University worked extensively with their faculty and with their I/T department to establish their program. The admissions officer discussed utilizing faculty from their College of Education to develop an alternative to submitting test scores and ended up creating four short-answer questions for students' response. Faculty from the College of Education review these 150-word-or-less responses to evaluate potential admits (Admissions officer 1 Survey). Admissions officer 1 noted:

> You know, other institutions may have more buy-in issues and we just didn't have that. It was more so how can we make it work, what's it going to be, what are the best practices for [UnNamed] University and for our students? (Interview)

Once the faculty established the questions, UnNamed University's I/T department then created the technical ability for students to go in through a portal to submit these short-answer responses. Upon completion, the faculty and I/T staff expressed their pride in the university for embarking on this path. The admissions officer reported that the staff was extremely proud of their efforts to support the university with this test-optional project especially because the end result meant additional access for students (Admissions officer 1 Intereview). In a second example, a college admissions officer discussed the importance of implementing a test-optional policy for access reasons and because high schools and children are different from one another. At this institution, they focused more on holistic reviews of their applicants and their commitment to diversity and an understanding of their privilege especially the fact that the students they want to attract may not possess this same privilege. Admissions officer 3 mentioned:

This holistic review is intended to even out the playing field because what we're looking for in our incoming class is a diverse student body. We're very much aware of our privilege. The faculty and administration here is very committed to diversity. (Interview)

This college has various financial incentives for students and offers a merit award to every qualified candidate. The amount of the award varies based on weighting of GPA, strength of curriculum, and additional factors such as the school report. The school report outlines various demographics of the high school the potential student attended (i.e., number of students attending higher education institutions from the high school, school demographics).

Student Applications

I included a question on the survey regarding whether higher education institutions that offer a test-optional policy are experiencing a higher volume of applications from specific groups of students. I wanted to know if taking this action had an impact on certain groups of students. Specifically, I wanted to find out if these institutions are receiving more applications from: (a) first-generation college students, (b) underrepresented minority groups, (c) English as a second language students, and/or (d) international students. Of the institutions that answered this question, 27% of the participants cited the largest increases were seen in the enrollment of firstgeneration and underrepresented minority groups.

GPA

I asked two different questions regarding GPA of students enrolled in higher education institutions. First, I wanted to find out what their average GPA was by the end of their first year. There can be a preconceived idea that students who do not test well on the SAT or ACT may not perform well in higher education. Of the responses I received, 81% of the respondents reported that the GPA of their freshmen class at the end of their first full academic year (typically May) was between 2.6 - 3.5. I also asked what the average GPA was for students graduating from test-optional institutions. Most respondents (54%) reported the graduating GPA of their students was in the range of 2.9 - 3.1.

Application Volume

I wanted to find out if higher education institutions noticed an increase, decrease or no change in application volume upon implementing a test-optional admissions process. Results were mixed regarding the volume of applications received at test-optional institutions. Almost 55% stated that application volumes remained the same with 36% reporting an increase in applications. Only one institution indicated that admissions applications decreased since the implementation of their test-optional policy.

Policies Informing Test-Optional Admissions Decisions

I asked questions related to the overall admissions process and about what influence test scores have if a student decides to submit them as part of their application even though the scores are not required for test-optional admission. The test-optional institutions which are part of my study utilized a variety of factors to make an admissions decision through use of: (a) high school transcripts, (b) letters of recommendation, and (c) essays. Many of the institutions that responded via survey made a point to indicate that their overall admissions process is holistic. These institutions attempted to provide as many options as possible for students to demonstrate their ability to be eligible to attend their college or university and 90% of them indicated that they heavily utilize the high school GPA as a major factor in their decision to admit test-optional students. Specifically, in one of the research survey responses, Admissions officer 8 stated: "We serve a large percentage of first-gen students, and historically underserved student populations.

Many of these students have not been deemed "college bound" by their high schools and subsequently, are not prepared for standardized tests (Survey). While most of the participants required the basic materials listed above, the differences occurred in how these materials were then evaluated in order to arrive at an admission offer or decline for a potential student.

Test Scores Not Submitted

I obtained my results from one on one interviews with four different higher education institutions. At one institution, Admissions officer 2 indicated that students submit the standard documentation for admissions but only domestic students can apply as test-optional and can also decide whether or not to participate in an interview with an admissions officer. International students, however, need to submit the SAT or TOEFL and are strongly advised to participate in the interview process (Interview). During my interview with the admissions officer at Admissions Officer 4, their office divides the applications by region and each applicant receives a second reader (Interview). If the potential student applies as test-optional, the second reader definitely reviews the application a second time and if there is still some question about the student's ability to be successful at this institution, the student's application is sent to committee for the final decision. If the student is eligible for admission right away from the first reviewer, the second reader is not necessary and an admission decision of acceptance is immediately provided to the student (Interview).

Institution Admissions officer 1 operates slightly different if a student applies testoptional. In this case, a student identifies their desire to be considered for test-optional admissions as part of the online process and when the student signals this request, they are immediately taken to a separate portal. In this portal, students are required to answer four shortanswer questions which are then reviewed by members of the faculty at this institution. Reading of the answers assists the admissions team and the faculty with a better understanding of the student's motivation for attending a higher education institution and speaks to GRIT. Once the review of the short-answers has occurred, the traditional admissions process resumes including a review of the student's academic profile (Interview). At the final institution where Admissions officer 3 works, the admissions staff conducts a holistic review of the student inclusive of the standard admission materials but also engages in a Strength of Curriculum (SOC) review for students who submit their applications as test-optional. The admissions staff conducts the SOC review because of the variety and differences in academic programming offered in high schools (Interview). This admission staff is very well aware that some schools provide more test preparatory measures and classes for their students where other institutions do not. In addition, this admissions team understands that some high schools offer AP courses and Honors courses and others do not and they recognize that every student is different from one another (Interview). When the admissions staff engages in a review of a high school's SOC, they establish a fivepoint scale on which to measure the academic difficulty of the courses available at the high school and a five is the highest number an institution can receive. In cases where honors or AP courses were available and the student chose not to take the courses, the admissions team considers that the student may not be as proactive about pushing themselves into more challenging courses. It does not mean they will not admit a student for this reason but it does raise a question about the student maximizing their opportunities at the high school level (Interview).

Test Scores Submitted

Many of the admissions officers who took part in this study indicate that some students still submit their test scores as part of the admissions process. One in particular, Admissions officer 2, responded that the scores continue to assist them with their ranking in the U.S. News & World Report (Interview). When test-optional institutions receive test scores, how they factor into an admission decision varies. At this same institution, the test scores students submit may help the admissions officer make an affirmative decision if the scores on the writing and reading sections of the SAT are stronger than the writing sample provided for the essay. Admissions officers 1 and 4 were more consistent in terms of considering SAT scores as only a small fraction of the total admissions equation (Interview). At Admissions officer 4's institution, the tendency is to provide much more emphasis on the student's high school GPA citing: "The number one thing that colleges will look at are the grades. Because the reality is grades are the window into inside how the student is performing academically and how they may perform in the academic setting of college (Interview)." Admissions officer 1 supported this notion mentioning that at their university, they heavily weigh the high school GPA/performance as it is reflective of a cumulative experience through the years versus a singular session a student sits through on a given Saturday (Interview).

Financial Impacts of Test-Optional Admissions

Admissions officers make decisions regarding what students receive scholarship dollars towards their education. This was another area in which the results of my study varied. About 54% of the survey respondents indicated that students did need to submit test scores if they wished to be considered for academic scholarships. Admissions officer 5 mentioned that test scores "influence the merit award" (Survey). Three of my interview participants indicated that submission of the SAT/ACT score does not impact their scholarship decisions. These admissions officers mentioned that when test-optional policies were enacted, their senior leadership did not want to penalize students who chose not to submit their scores. These institutions wanted to ensure an equal opportunity for all applicants to be eligible for scholarship dollars (Interview). One of the interviewed admission officer's noted their college's differences with students that do and do not submit their test scores. At this institution, they have a specific set of scholars (students who achieve scores of 1220 or more) that are eligible to receive \$35,000 in scholarship money annually for 4 years (Admissions officer 3 Interview). Admissions officer 3 cited that these students demonstrate the "aptitude in testing" (Interview). However, because this institution does not want to penalize students who may be great students academically but simply did not achieve the best test scores, they also have a Z Award which is the highest merit award that can be offered to a student who is test-optional if they are within the top 5% of students in their applicant pool from an academic perspective and/or students who have SAT test scores in the mid-1300s or greater. The majority of test-optional students fall in the band of \$21,000 -\$30,000 merit recipients. For the participants in this particular study, implementation of testoptional policies has not created another barrier for students who wish to be considered for admissions in this manner. Generally, there is an equal opportunity for all students to be eligible for scholarship consideration.

Benefits of Test-Optional Practices

Many of the reasons the admissions officers offered for why their institution implemented a test-optional policy are also cited as the main benefits of this type of admission policy. While access and diversity are two of the main themes also noted as benefits, 36% of my survey respondents mentioned that implementing a test-optional admission policy provided an opportunity for different types of students to consider applying who had not considered applying before, including: (a) those in underserved populations, (b) those with different backgrounds – cultural or other, and (c) those at varying levels of academic readiness for higher education. In response to the benefits of test-optional practices, admissions officers also addressed the importance of removing unnecessary barriers to entry into higher education. These barriers can include: traveling to campus and having access to financial resources to benefit from test prep courses as well as other factors. One of the driving forces for removing barriers and implementing a test-optional admissions process was because high school GPA proved to be more indicative of how a student performed at these institutions. For instance, Admissions officer 9 shared, "Institutional data showed that student persistence was closer tied to high school grade point average than test score. Therefore, the test score was an unneeded barrier in predicting success" (Survey). Admissions officers also cited a benefit of test-optional practices as they relate to a return to the holistic admissions process and realignment with the institution's missions, vision, and values (Admissions officers 1 and 3 Interview). In addition, a few admissions officers' responses were specifically related to concerns about potential students. Admissions officer 8 mentioned implementing a test-optional admission policy helps to decrease students' test anxiety when they have to sit for exams and allows some cost savings for students when they do not have to register for the SAT/ACT (Survey). Another survey respondent, Admissions Officer 1 mentioned that students "recognize that we don't place all of our emphasis on test scores – we want to know more about their actual abilities."

Non-Cognitive Factors

In chapter II, I discussed information regarding non-cognitive factors that can impact a student's ability to be successful in higher education. This topic also surfaced as a theme during my research especially related to the topic of student success in higher education. The following factors trended in my data analysis: (a) expectancy-value theory and (b) academic and social integration.

Expectancy-Value Theory

Wigfield (1994) defined expectancy-value theory as the motivation driving a student's success. He posited that students purposefully and freely decide to do what is necessary to achieve the desired outcome (Wigfield, 1994). Recent studies (Guiffrida et al, 2013; Kennett et al., 2013) demonstrated that intrinsic factors have the most impact and ability to predict a student's capacity for academic success. In this research study, admissions officers shared their definitions of student success and many of their thoughts align with the principles in the expectancy-value theory. During my interview with Admissions officer 2, the definition of student success focused on a student's ability. In their college/university, students do not receive grades. Instead, at the end of each semester, students have a meeting with all the faculty from their courses in one room and are provided with their strengths and areas of opportunity (Interview). Admissions officer 3 supported their institution's practice in this manner sharing:

We are looking at their ability to be able to explain concepts to other students in the classroom, communicate as a group, their writing abilities, their ability to understand things at a deeper level, and they are getting very proactive feedback on how they can improve going into the next semester in those areas. (Interview)

This admissions officer added that student success is defined in terms of graduation rates, a student's use of the academic supports available at the institution, and by the enhanced academic experiences students receive with the integration of co-curricular activities (Interview). During conversations with prospective families, Admissions officer 3 makes it a special point of pride to mention the institution's high graduation rates. Meanwhile, Admissions officer 4 is also very proud of the co-curricular experiences that students have while on campus:

I think the big thing for us are the co-curricular opportunities; for example, if you are doing research with a professor, if you're doing research off-campus, an internship, study abroad (which is something that we have been recognized for as an institution as well). The majority of our students are doing some form of co-curricular learning in some ways, some experience that enriches their academic experience here. (Interview)

While conducting interviews with Admissions officers 1 and 3, their definitions of student success both involved retention and graduation rates. However, Admissions officer 1 indicated that a student's GPA is also an indicator of student success. Adding to this idea, Admissions officer 3 cited job placement as being an additional indicator of student success discussing the fact that many of their students are in their first job choice within six months of graduation (Interview).

Academic and Social Integration

Tinto (1993) developed an academic and social integration model in which he argued that a student needed to be fully integrated both educationally and socially for them to stay the course and successfully graduate from the institution. One of Tinto's (1993) theories was that the more students engage on campus, the more probable it is that they will remain and persist. I found a clear connection between the results of this study and Tinto's (1993) model. Several of the admissions officers discussed that students were thriving because of their involvement in campus activities. For instance, Admissions officer 4 cited, "I had a student – the best performer of my first-year students who was a little worried about being away from home - but she thrived, she got involved" (Interview). Further, Admissions officer 2 added that many of the experiences students have in class blend into the social side of higher education and how all students (sophomore through seniors) can assist the freshmen with the transition (Interview). Similarly, Admissions officer 1 mentioned that students have a wealth of opportunities available on campus to become involved whether they live on or off campus and that their institution wants students to create the best experiences for themselves from the plethora of activities and options available (Interview).

Non-Cognitive Questionnaire Factors

Tracey and Sedlacek (1984) developed the NCQ in support of a student's capability for growth and maturation related to success in higher education. One of the main tenets of the questionnaire relates to the availability of a strong support person. Many of the admissions officers I interviewed spoke about student support on their campuses. All of them have specific programs established to provide students with the support they need to persist through to graduation. There are varying degrees in which these programs work for students. For example, Admissions officer 2 discussed their position on grade distribution. This institution records a grade into their computer systems but what students receive from their professors is a meeting to discuss strengths and areas of opportunity (Interview). Interestingly, the faculty are called tutors and are required to know how to instruct every single type of class offered on their campus (Interview).

Admissions officer 4 discussed the establishment of both a faculty and mentor advisor that every student now has on their campus (Interview). This admissions officer indicated that the mentor advisor can be any member of the faculty, administration or the staff. In addition, this admissions officer is even participating in the program themselves having two first-year students and a transfer student. Support is provided to the students on both the academic and personal levels. Specifically, Admissions officer 4 shared: It's just really interesting to see when I step back and I take a distance view of what I'm doing with these students, it's almost as if I become another cheerleader for these students – someone else they can talk to that is not necessarily going to be about what classes are you going to register for. They can do that with their faculty advisor and they can talk about other things too I'm sure but you know the students I have I'm like you know how are you doing? Are you making friends? How is your choir going? Is your home going to be a safe place for you when you go back over the holidays? Things like that and, what students are willing to share sometimes is remarkable (Interview).

Admissions officer 3 discussed their student support model (Interview). A few years ago, the institution noticed some of the freshmen students struggling to adjust to being away from home and not doing as well on tests as they were accustomed to during their high school years. Their college devised a first-year advising model. Now, first-year students are grouped together (10 or less students) based on certain traits/commonalities and they are then required to meet with their advisor together on a weekly basis. Admissions officer 3 went further to say that providing this type of support structure for students allows them the chance to share experiences and in many situations, the students may find someone else in the group struggling with something similar. Having this first-year advising model helps students establish community. Admissions officer 3 added that it also increases retention and supports student success, specifically:

We're not seeing students who are not successful. Being a small school, there's nowhere for them to hide. You know you don't have to wait for a first alert

because students have relationships with faculty and if someone's not doing well, you know the faculty are reaching out from a place of concern and love (Interview).

These examples demonstrate a connection back to non-cognitive factors which can also assist students with thriving and persisting during their time in higher education. According to the admissions officers in this study, support from others in mentor/mentee relationships, involvement in clubs and organizations as well as first-year support programs have been vital for the success of students on their campuses.

Drawbacks to Test-Optional Admissions

While admissions officers overall had many positive points to make about how a testoptional admissions policy provided their institution with increased applications, enhanced diversity of the student body and assisted them with enhancing their mission to access, there were also some drawbacks to the policy's implementation. One of the main drawbacks the admissions officers expressed relates back to measurement. Specifically, since many students still send their test scores, admissions officers find it difficult to ignore those results when they are in the file (Admissions officers 5 and 9 Survey). Other admissions officers talked about measurement in terms of high school grades specifically referencing that it is difficult to deal with potential grade inflation and the multiple grading systems used across high schools (Admissions officers 8 and 9). In addition, admissions officer also noted a conflict with making an admission decision measuring whether or not a student will be successful from reading through essay question responses (Admissions officer 5). Admissions officer 2 added to this concern sharing: For those that struggle with our application process, asking them deep questions (when they may never have been asked to share their ideas or asked to dig deep), then we find ourselves lacking in information to assess their ability to be successful in the classroom. We have to try to measure "grit" from a small amount of information (Interview).

Admissions officers expressed other concerns, including: (a) not knowing whether or not implementation of the test-optional policy helped enrolling students (Admissions officer 7 Survey), (b) perception regarding selectivity (Admissions officer 5 Survey), (c) negative feedback from faculty who support the use of standardized testing (Admissions officer 8 Survey), and (d) concern from high school counselors about not requiring test results (Admissions officer 3 Survey).

Conclusion

In this chapter, I outlined the results from my research survey sent to the test-optional higher education institutions throughout the United States. I reviewed the findings of this study related to the decision to move to test-optional policies, implementation of those policies, policies that inform the test-optional process, benefits and drawbacks of test-optional policies, and how non-cognitive factors that also support student success in higher education. In the next chapter, I will discuss the findings of this study, interpret the results through the lens of my theoretical framework, and discuss implications for educational practice and future research.

Chapter V: Discussion

The purpose of this qualitative mixed methods case study was to understand more about why the movement to a test-optional environment is growing in higher education. This study investigated why some American colleges and universities evolved to include a test-optional component as part of their admissions process. In particular, this study focused on institutions' decisions to move to test-optional admission policies, implementation of test-optional policies, factors affecting the test-optional admissions process, and the benefits and drawbacks of these policies. In this chapter, I provide a summary of this study, a review of the connection between my theoretical framework and my data, a summary and discussion of the results, limitations, implications for practice, and suggested directions for future research.

Summary of Study

Test optional, test flexible, and *no tests required* are some of the buzzwords surrounding the college admissions process today. Getting admitted to a college or university may require a student to submit several sets of grades (high school GPA, Advanced Placement grades, and Honors preparatory grades), write essays, prepare for interviews and provide scores from either the SAT or ACT. In recent years however, some higher education institutions have decided to implement a test-optional admissions process whereby students have the option whether or not to submit their SAT/ACT test scores. Students who make the decision not to submit their SAT/ACT test scores may have supplemental admissions requirements to complete (i.e., additional short essay questions, a personal interview) for admissions consideration. As of 2018, there were at least 1,000 accredited, bachelor-degree-granting colleges and universities that altered their admissions policies to either eliminate consideration of standardized testing scores or shift to test optional or test-flexible admissions policies (Safier, 2017). Yet, the business of standardized testing continues to be a major revenue stream, exacting at least \$1.7 billion from school budgets and families (Sparkman, et al., 2012). Proponents in favor of requiring SAT/ACT scores to be submitted as part of the college admissions process often reason that test results correlate with a student's ability to be successful throughout college (Coyle & Pillow, 2008). However, Sparkman, et al., (2012) noted that the association between test scores and college success is weak at best and is only marginally supported and correlated through just the first year of college. Conversely, SAT performance as a predictor of college performance compared to high school GPA decreases drastically when SES factors are considered (Atkinson 2009; Atkinson & Geiser, 2009). The controversy that exists regarding whether or not SAT/ACT test scores are true predictors regarding a student's ability to be successful in higher education gives some universities pause in continuing to utilize these scores as part of their admission process.

In this study, I examined how test-optional admissions policies were implemented by higher education institutions in the United States. This mixed methods qualitative research design consisting of a 17-question survey released to test-optional institutions in the United States as well as 4 individual interviews with admissions officers from test-optional institutions. Data from both the survey and the one-on-one interviews informed the research question: Why have many higher education admissions policies evolved to include a test-optional component for incoming students?

In conjunction the overall research question, the following sub-questions guided this study:

 What was the decision-making process for schools implementing test-optional policy?

- 2. How did the higher education institutions implement the test-optional admissions policy?
- 3. What is/are policies the higher education institutions are utilizing to make an admissions decision?
- 4. What do admissions officers perceive to be the benefits and drawbacks of testoptional policies?

For purposes of this research study, I utilized a sequential mixed-methods design that incorporated two qualitative research approaches. The *QUAL* portion of my study was the qualitative survey and represents the overall foundation for my research, and the *qual* segment of the study were the in-person interviews with admissions officers. To provide additional findings to the existing research on this topic, I used the constant comparative method to create and link categories in the collected data (Creswell, 2015). Since my findings primarily centered around four in-depth interviews from the hundreds of test-optional higher education institutions, a case study approach was most suitable.

To obtain a more in-depth understanding of test-optional admissions policies in higher education, a 17-question survey was distributed to test-optional institutions in the United States that granted four-year bachelor's degrees. Within this survey, a follow-up question determined whether the participating admissions officer was willing to partake in a follow up interview. Four participants affirmed their interest and I interviewed all four of these admissions officers.

A review of the data I collected provided me with more insight regarding the mechanics and decision-making process involved in the adoption of test-optional admissions policies in higher education. Based on the feedback I received from admissions officers in my study, a desire to increase diversity and access for all students were two of the main drivers behind the decision to implement a test-optional admissions process. Admissions officers at the test-optional institutions included in my survey reported that they sought to expand the cultural, geographic, age, and ethnicity of their student populations. These institutions also wanted to ensure accessibility to all students, specifically those students attending high schools that: (a) are in economically challenged and rural areas, (b) have limited availability of advanced placement and honors classes, and/or (c) provide limited SAT/ACT preparation. In addition, some admissions officers indicated that the admissions officers and the faculty of their institution understand and acknowledge their privilege and wanted to be as inclusive as possible by removing as many barriers to student entry as possible.

Additional feedback from admissions officers in my study also reflected a desire to return some control to potential students to be able to present themselves in the best manner possible during the admissions process. Students applying to some of these higher education institutions are searching for the best fit based on their skill set. For some students, that best presentation is without submission of the SAT/ACT test scores. Feedback from one admissions officer (Admissions officer 4) indicated that students at their higher education institution were very appreciative of not having to submit these scores for admissions consideration. Admissions officer 4 shared that students value the significance their test-optional institution place on the overall academic experience from their years in high school.

Application of Theoretical Framework

There are three theories supported the theoretical framework for my study: (a) Vygotsky's (1978) Zone of Proximal Development (ZPD), (b) Kolb's (1984) Experiential Learning Theory, and (c) Knowles' (1984) Adult Learning Theory. These theories also demonstrate the various ways in which students learn throughout the education lifecycle.

Zone of Proximal Development

Vygotsky (1978) defined ZPD as the gap in between a child/student's actual developmental level and their prospective development. The MKO (e.g. teacher, other adult, peer) facilitates the building of knowledge through "scaffolding" which includes demonstrating tasks and a providing social interaction activities which assist learners with developing additional utilities (Vygotsky, 1978). As the child shows signs of mastery of these new abilities, the scaffolding dwindles. This process continues into the time young adults enter higher education. Some students begin their coursework journey with an idea of what they want to major in, while other students need more time to finalize that decision. Students move through their courses constantly entering and exiting the ZPD as they learn from their experiences within and outside of the classroom.

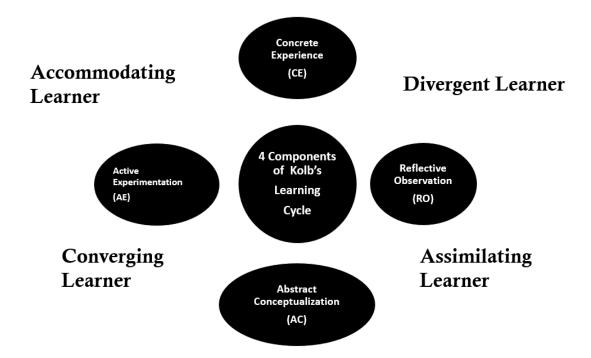
Underrepresented minority students toggle back and forth through ZPD and experience additional societal pressures that may impact their ability to be successful in higher education. Mendoza-Denton (2014) identified six of these factors as: (a) academic disengagement, (b) societal bias, (c) socio-cultural issues, (d) attributional ambiguity, (e) test bias, and (f) social identity threat. In this study, admissions directors at some test-optional institutions raised issues specifically related to societal bias, test bias, and socio-cultural issues. On the topic of societal and test bias, admissions officers shared that they are aware that standardized testing is an issue as related underrepresented minorities (Admissions officer 2 Survey), specifically that these tests "do not run in their favor" and "the average ACT for Hispanic and black students in our state is significantly below what is deemed college ready" (Admissions officer 1 Survey). Admissions officers also oft-identified socio-cultural issues as a factor in their institution's decision to move to test-optional practices. Most specifically, admissions officers commented about major differences in resources that students in certain communities may experience versus others, the emphasis that may or may not be placed on test preparation, the availability of AP and/or honors courses in certain high schools and students' ability to afford SAT/ACT test preparation courses that can cost thousands of dollars which many families are not able to afford. So, as some underrepresented minority students are moving in and out of ZPD, their ability to benefit from scaffolding with honors/AP courses or even test preparation courses/classes may be compromised because the opportunity to participate in either of these options may not be available in their communities or may be cost prohibitive. Hence, some of these students are at a disadvantage academically versus majority student groups.

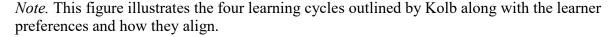
Experiential Learning Theory

Transitioning into and out of ZPD is one factor regarding how students learn. There are also different types of learners in classrooms throughout the world. Kolb (1984) outlined his theory regarding various types of learners with his experiential learning theory. Within ELT, Kolb (1984) created four learning cycles and aligned them with learner preferences. In Kolb's (1984) view, it is necessary for a person to move through all four learning cycles in order to attain an ideal education: (a) concrete experience, (b) reflective observation, (c) abstract conceptualization, and (d) active experimentation. The four learner preferences reference how students engage in the learning process and highlights various manners in which they learn. Kolb (1984) identified the learners as: (a) diverging learners, (b) assimilating learners, (c) converging learners, and (d) accommodating learners. Figure 3 reflects the alignment of the learning cycles with learner preferences.

Figure 3

Kolb's Experiential Learning Cycles and Learner Preferences





Each learning preference aligns with a learning cycle. For example, the assimilating learner thrives through comprehending large amounts of material and then organizing it into a succinct and analytical structure (Kolb, 1984). This learning preference is affiliated with Kolb's reflective observation portion of the learning cycle (involves considering experiences). The converging learner enjoys methodical assignments and dilemmas versus communal and relational situations. Converging learners align with Kolb's abstract conceptualization (involves contemplating thoughts and determining if something can change to produce a better result) description.

The converging learner and the assimilating learner may be able to perform well on standardized tests and this ability was still valued in my study. During my interview with Admissions officer 3, some of their scholarship dollar decisions are based on students demonstrating that they can perform well on the SAT/ACT. Admissions officer 3 cited, "The [X] scholarship is for students who show the aptitude in testing to receive a significant scholarship." In addition, when I asked the question about potentially removing the SAT/ACT requirement in the future, Admissions officer 3 added that their college would not consider completely removing standardized testing from their admissions process because "for some students, it helps them". Admissions officer 4 contributed to this discussion stating, "If they [students] haven't done well in high school and they're a good test taker, it shows their aptitude. So, one set of scores might pair well with a certain GPA or a certain course selection, so it really just depends on the student."

Some of the other admissions officers I interviewed discussed more of an alignment with the two other learning preferences and cycles in Kolb's (1984) model. The diverging learner prefers having solid encounters that permit thoughtful examination and these types of learners align with the concrete experience (person takes part in some type of experience) portion of his learning cycle. Within this learning preference, students enjoy collaborating with others and taking part in creating suggestions (Kolb, 1984). The accommodating learner is connected to Kolb's (1984) active experimentation segment (leverage previous experiences to direct their actions) of the learning cycle. Accommodating learners prefer active, hands on opportunities when they are learning. They use gut instincts instead of reasoning and count on others to provided data instead of them. The diverging and accommodating learners and their learning preferences are still present in higher education institutions today. I found evidence of the value that admissions officers placed on these learners, for instance, Admissions officer 2 noted, "We are looking at their ability to be able to explain concepts to other students in the classroom, communicate as a group, their writing abilities, their ability to understand things at a deeper level." Admissions officer 2 went on further to add, "The students lead the conversation in every class. They have more of a voice here than I think I have seen on any of the college campuses I've been on." Similarly, Admissions officer 1 shared, "We are just focused on students asking big questions, examining everything in their life, everything they have been taught, and being forced to learn with people who are different from them."

Evidence of the importance of diverging and accommodating learners was also present in responses I received to the question of how higher education institutions define student success. While some admissions officers focused more on basic definitions of student success (i.e., graduation and retention rates), others discussed more about the experiences students had on their campus which supports their success. Specifically, Admissions officer 4 shared, "The majority of our students are doing some form of co-curricular learning in some ways, some experience that enriches their academic experience here." Admissions officer 2 spoke about their institution not providing students with grades, and rather students have a conference with their professors to receive both positive and constructive feedback to enhance their performance in class (Interview).

The converging learner and the assimilating learner can be captured in the realm of SAT/ACT testing. These types of learners enjoy obtaining information and organizing it into certain analytical structures and they utilize methodical steps for processing. Accommodating and diverging learners tend to be more reflective, enjoy hands-on experiences and working with others to support them through the learning process. Given some of the key characteristics of the accommodating and diverging learners and how they are best engaged in the learning cycle, standardized testing is not currently geared towards these specific learning preferences. These

tests are taken by individuals without any opportunities for these types of students to engage with others and/or to reflect on those types of learning situations.

Adult Learning Theory

The final piece of my theoretical framework related to the work of Malcolm Knowles (1978) and the adult learning theory (also known as andragogy). While there are six principles that comprise and ragogy as a whole, I found the closest ties to his second principle of adults wanting control over their learning process and the third principle involving the use of life experiences to which students attach the new knowledge. Returning control to students during the admissions process was a major theme I uncovered from the surveys and interviews with the admissions officers. Admissions officer 4 discussed that having the test-optional policy empowered students to choose whether to submit their scores based on their perceptions of how the scores represent their academic abilities. Admissions officer 1 explained that their institution provides a similar experience for their students to identify the point in the admissions process when they wish to be considered for test-optional admissions. Once the student makes this decision, the university then built a process around students making that decision to continue on with the admissions process seamlessly. Admissions officer 3 shared that they encourage students to contact the admissions office if they are having difficulty deciding whether to send test scores. In this case, this admissions officer expressed that they are willing to discuss students' personal situations and advise them accordingly, leaving the final decision about test score admission in the hands of the student.

According to Knowles (1978), when adult learners are learning something new, they want that new learning to connect to their life experiences which in turn heightens their selfidentity. Admissions officers shared with me how life experiences with their students impacts overall academic development. Admissions officer 2 stated, "And we found that a lot of times our unique student population were not the type to do well on standardized tests and would rather debate their understanding of the topic for an hour instead of answering questions." Given that the admission officer notes that classes at this specific university are typically discussion-based and that students typically direct the discussion, students here are demonstrating their desire to have what they learn relate back to their own life experiences. According to this admissions officer, professors at their institution are considered tutors and add to the conversation as necessary. This is another example of students demonstrating their desire for self-direction, their need to know why they need to learn something and to be able to utilize their life experiences to as the springboard for new information/learning. This institution's use of professors as tutors also harkens back to Vygotsky's (1978) idea of scaffolding whereby the professors are utilized as needed to enhance the learning process providing knowledge/clarity as needed. At another college, Admissions officer 3 indicated that there is an advising model structured for their firstyear students and they assign students to groups based on having something in common so they can get together weekly and can provide one another support whether its related to coursework, exams, or other shared experiences. This advising model employs Kolb's (1984) ELT (specifically for diverging and accommodating learners) and Knowles's (1978) adult theory regarding students using their life experience to direct new learning. Because students are also supporting one another through their discussions on how they are dealing with different campus issues, Knowles's (1978) adult learning theory also applies as students may emerge from these weekly meetings being more prepared to learn how to do something better than before. This scenario also supports another one of Knowles's (1978) principles regarding adult learners being

ready to move into their next learning experience with a problem-centered focus because of what they learned others may be doing in similar situations.

Summary and Discussion of Results

I began this study with the overall question of why higher education institutions were implementing test-optional policies for admission. Some of the main themes identified were provided from admissions officers on both the surveys collected and through the interview process conducted. The findings from this research were organized based on sub-questions related to the following topics: (a) decision-making process, (b) implementation of test-optional policies, (c), (d) admissions decision, and (e) benefits/drawbacks.

Decision-Making Process in Moving Toward Test-Optional Practices

The first sub-question was, "What was the decision-making process for schools implementing test-optional policies?" The three main themes I obtained from all four admissions officers for implementing a test-optional policy at their higher education institution related to diversity, access and removal of barriers. In some instances, the higher education institution's admissions officers indicated the decision to offer a test-optional admissions policy occurred to ensure that students from all backgrounds were encouraged to apply for admission. In other cases, admissions officers recognized that every student and every high school is different and that access to academic courses, test preparation, and testing centers varies widely.

These findings are consistent with themes in the literature surrounding the topic of diversity and access. Specifically, Hicks and Shere (2003) conducted a research study and one of the critical findings was that admissions officers evolve their thought process to students as "who" not "what". Hicks and Shere (2003) challenged admissions officers to consider other mechanisms that could be used to investigate a student's determination beyond an examination

of test scores. Additional results of their research revealed a need for admissions officers to begin thinking more critically about the overall topic of diversity and outreach to students beyond the standard high school recruitment lists. More recently in 2020, Northern Illinois University (NIU) announced that for their Fall 2021 class, they are moving to a test-blind (no test results will be reviewed or required) admissions process, even for the University Honors Program. NIU is seeking a more diverse student body along with a commitment to access. The University President, Lisa Freeman stated, "It reflects our efforts campus-wide to eliminate unnecessary and biased barriers throughout a student's educational path" (King & Kunzer, 2020. p. 1).

The desire to support diversity and access missions in higher education led the institutions in this study to reflect on their current practices and a determination was made to alter admissions processes as a first step towards meeting this goal. Next, I review the process the institutions in the study used to implement their test-optional admissions policy.

Implementation of Test-Optional Practices

The second sub-question was, "How did the higher education institutions implement the test-optional admissions policy?" The implementation of test-optional policies involved different factors at different institutions. At some institutions, simple modifications were made to applications to allow students to select test-optional admission consideration. At two of the colleges in this study, the faculty were heavily involved in either the creation of questions that test-optional applicants answer or in the implementation of the program as whole at their institution. In some instances, institutions that implemented a test-optional policy also required their students to take a placement test as part of the admissions process or to determine if the student needs any remedial courses as part of their schedule.

Implementing a test-optional policy at a higher education institution requires planning, preparation and buy in from all levels within the institution. The test-optional institutions in this study reported overall strong support with this initiative from the administration to the alumni to the faculty. As mentioned, faculty at a couple of the institutions were heavily involved with the implementation of the test-optional policy and expressed their pride to the admissions officers at being part of this movement. These institutions simply concerned themselves with how they were going to make the policy work and ensure that students were not penalized as part of the test-optional process. Thinking through how to make the test-optional admissions policy work for their institutions connects well with Atkinson's (2001) research when he was at the University of California and conducted research centered around a holistic admissions process. As a result, their institution adopted four different policies to accommodate various groups of students.

Admissions Decisions at Test-Optional Institutions

The third sub-question was, "What is/are the policies the higher education institutions are utilizing to make an admissions decision?" I obtained answers to this question from in-person interviews and since the focus of this research was test-optional admissions processes, the results were focused on the admissions process without test scores. Each of the higher education institutions has their own process for admitting students. However, across the institutions, the high school transcript is the one consistent application item students are required to submit. Some of the other institutions add essays, letters or recommendation, interviews and/or transcripts for honors/AP courses for admissions consideration. The admissions formula may also be different if a student is applying without their test scores. For example, in one of this study's institutions, high school GPA is weighted differently in the admissions formula when applicants do not provide test scores.

Admissions officers at test-optional institutions conduct holistic reviews of admissions applications from students. These officers perceive value in looking at a student's transcripts, letters of recommendation, essays and/or possibly an interview. A portion of admissions officer's review of prospective students' applications at test-optional institutions involves an evaluation of non-cognitive elements such as grit, persistence, and effort. Earlier in this study, I discussed how non-cognitive factors can affect student success in higher education. Kuh, et al. (2006) argued that student success is formed by events that occur prior to a student's arrival onto a college campus. He indicated that factors such as a student's study skills, enthusiasm, and educational experiences combine as key factors of student success. In some of the instances where students are asked to complete short answer essay questions when they decide to apply test-optional, it gives them the opportunity to show how some of these factors have assisted them through life experiences and have prepared them for higher education.

Benefits and Drawbacks to Test-Optional Admissions

My fourth sub-question was, "What do admissions officers perceive to be the benefits and drawbacks of test-optional policies?" The two main benefits of test-optional admissions policies identified in this study are access and diversity. Implementing test-optional policies has provided these higher education institutions an opportunity to appeal to students that may not have considered applying in the past. This group of students can include: (a) first-generation students, (b) under-represented minority students, and (c) varying degree of academic readiness students. Admissions officer 7 noted that implementing a test-optional policy assisted the institution with "opening the door for students who would not have applied previously to now consider it" (Survey). Admissions officer 4 added to that thought indicating what had changed on their campus was what a typical student might look like saying, "There is no typical student." (Interview)

Feedback during this study also indicated that removing barriers was also a benefit of the decision to implement test-optional policies. Barriers can include the type of area students live in (i.e., rural, urban, suburban) or the type of high school students attend (i.e., high schools with AP and honors classes versus those who do not have these types of courses) or family structure or financial constraints. Admissions officer 4 discussed their institution's desire for students to be able to persist through to graduation and that this can be achieved when barriers are removed from the admissions process (Interview). Admissions officer 3 contributed to the discussion about removing barriers talking about being focused on access and making sure students from under-represented communities are arriving at their institution poised for success (Interview). Admissions officer 1 added that access has always been part of their institutions mission and so it was important to align admissions policies with their mission, vision and values (Interview).

Although the institutions were extremely positive overall about the implementation of test-optional policies, the main drawback mentioned was measurement and a student's ability to be successful in higher education (Admissions officer 9 Survey; Admissions officer 1 Interview; Admissions officer 1 Interview; Admissions officer 5 Survey; Admissions officer 11 Survey). In one case, Admissions officer 8 indicated that a drawback was now the need for students to take placement tests instead of the SAT/ACT (Survey).

The literature related to our history with standardized testing and the importance of measuring things in society so there is a concrete and definitive result/answer has been prevalent

for many years. Dating back to the 1700's, students entering higher education were required to be proficient in Latin and Greek and demonstrate additional competence through achieving specific scores on math and English exams. Horace Mann, a former Secretary of the state board of education in Massachusetts, also known as the "father or standardized testing" captured the importance of measurement when speaking about having something that everyone can view:

When the examination is by printed questions and written answers, a transcript of the state and condition of the pupils' minds is taken and carried away, for general inspection. It is open to all; instead of perishing with the fleeting breath that gave it life, it remains a permanent record." (Mann & Fowle, 1839, p. 334)

These same tensions exist when discussing quantitative and qualitative research. Lichtman (2013) defined quantitative research as establishing an inquiry, locating studies that are related to your inquiry, determining a premise, setting up experiment, reviewing the data collected and sharing the results. Much of this process focuses on scientific method and this method is primarily driven by figures and data (Lichtman, 2013). Qualitative research, on the other hand, involves studying people's "lived experience" (Lincoln, 2005, p. 26). Qualitative research is about obtaining understanding from asking questions and observing. Qualitative research seeks to answer the question – why (Lichtman, 2013 p. 7). In recent years, there has been a marked improvement in the respect given to the field of qualitative research (Lester, O'Reilly, 2015). Qualitative research is now part of some programs of study at higher education institutions and many books and periodicals exist detailing the types of qualitative methods researchers can utilize. Yet, at the same time, qualitative research is still not seen as being equivalent to that of quantitative research (Lester, O'Reilly, 2015; Denzin, Lincoln, 2003). Denzin and Lincoln (2003) argue that some of those in both the political and scientific fields view this type of research as "soft" (p. 2), half-baked, or even experimental in nature (Denzin & Lincoln, 2003).

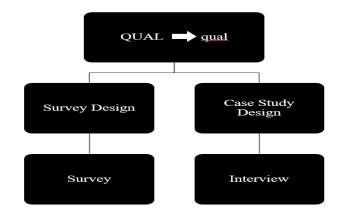
Limitations of Study

As with any study, there were limitations in methodology, analysis and generalizability. The use of the qualitative mixed-methods approach, Dedoose, and the constant comparative method allowed me to minimize these limitations.

Limitations in Methodology

In this study I employed a qualitative mixed methods approach which drew from both survey and case study designs. For the survey design, I developed a 17-question survey which was sent out to test-optional, four-year degree granting institutions in the United States. For the case study segment of the study, I utilized Zoom interviews with four admissions officers at four different higher education institutions. See Figure 4 for a graphical representation of the methods used in this study.

Figure 4



Mixed Methods Design

Note. This figure depicts the mixed methods design utilized in this study.

The established timeframe for this study was brief with a seven-week data collection period. In that time, I collected 11 surveys and conducted 4 interviews via use of Zoom. The survey was released to admissions officers in December 2019 during their peak time of processing incoming admissions applications for the upcoming 2020-2021 academic year. December is also a month in which many holidays are celebrated and people take time off which may have impacted the number of surveys I received. Since it was a very busy timeframe, I sent out reminders to all admissions officers after the first two-week period reminding them to complete the survey at their earliest convenience. I also proactively established communication via email with the admissions officers who agreed to participate in the follow up interviews to secure dates for our discussions. While it would have been better to receive a larger selection of participants, the qualitative designs I selected allowed me to obtain feedback from two different data sources and I was able to establish consistent themes throughout the use of both methods.

The admissions officers interviewed were selected based on affirmative responses to the survey question asking if participants would be willing to participant in a follow up in-person interview. Five admissions officers answered affirmatively to this question however, only four admissions officers were interviewed. Multiple attempts were made to establish contact with the fifth admissions officer however, follow up communication was not received and I had a small window of time in which to complete the interview process.

Limitations in Analysis

I utilized Dedoose as the tool to synthesize the findings of my qualitative data. Use of the Dedoose tool affords researchers the opportunity to review data and categorize those findings into themes. Data can then be viewed across each theme in total enabling the researcher to capture applicable quotes and/or specific phrases that best represent the overall findings. To establish the themes, I utilized the constant comparative method. This technique involves crafting and connecting categories by linking instances in data with other correlating examples (Creswell, 2015). Since themes were established prior to the collection of the data, it is possible that I may not have identified a potential theme. However, use of the constant comparative method allows for the opportunity to add themes along the way as data is analyzed and I did establish supplemental themes during this process.

Limitations in Generalizability

As stated, I received a smaller than anticipated sample of surveys from admissions officers. There were not enough completed surveys from a particular type of higher education institution (i.e., public versus private) to make overall generalizations about test-optional admissions policies for either type of institution. However, the qualitative, mixed methods nature of this particular study allowed for me highlight and develop specific cases of admissions officers at institutions with test-optional admissions practices.

Implications for Educational Practice

In this study, the main reason for higher education institutions implementing test-optional admissions policies related to a desire to diversify the student population and provide access to students who may not have considered applying to higher education in years past. Admissions officers at institutions adopting test-optional policies are leveraging institutional data, changing population demographics, and faculty to implement changes to empower potential students to apply by presenting the best version of themselves based on their perceived strengths. In some instances, that strength is the score received on the ACT/SAT for other students, it is having the opportunity to write about or discuss experiences that have shaped their lives and desire to obtain a higher education degree.

Higher education institutions that are currently not offering a test-optional admissions process may want to review more recent data surrounding the test-optional movement as each week, additional institutions are implementing test-optional admissions processes. In addition, non-test-optional institutions may consider examining how they are using the scores from the SAT/ACT in their admissions decisions – are students being considered as who instead of what? More recent research demonstrates that use of the HS GPA is a more accurate depiction of a student's ability to be successful in higher education (Allensworth & Clark, 2020; Sparkman, et al., 2012) versus ACT/SAT test scores. In addition, the United States population is becoming increasingly diverse each year while the number of higher education students is decreasing and many institutions find themselves competing for the same student. If higher education institutions have an access mission and vision along with a commitment to increase diversity on their campuses, implementation of a test-optional process might be a consideration.

Implications of Future Educational Research

Going forward, there may be some targeted studies that can be completed to add to the findings of this research study. First, replicating this study during a different time of year may allow for a higher response rate to the survey, possibly allowing for a wider range of respondents. If a larger group of responses were obtained, the researcher may be abe to make more generalizations regarding test-optional policy implementation based on participant demographics (i.e., public versus private higher education institutions).

Second, a researcher could conduct some focus groups with employers to obtain more information about the types of skills they are looking for in their new hires. This research could take place along a multitude of industries but perhaps look at a few industries that are generally math and science related versus client service and management roles. Once the researcher obtained skill set requirements from potential employers, the researcher might then work with higher education institutions to answer the question: "What skills are we developing in students to be ready for full-time jobs?"

Third, since non-cognitive factors in student success was a theme in my research findings, I would recommend a current study be conducted to look at GRIT, (Duckworth & Quinn, 2009) persistence, effort, thriving and empowerment and whether or not students perceived these factors to be critical in their ability to be successful in higher education.

Fourth, I suggest an ethnographic study with recent higher education graduates that utilized a test-optional admissions policy to determine how they fare in the workplace. I would wonder how prepared they perceive themselves to be and whether or not the non-cognitive skills they have developed are now helping or not helping them in the workplace.

Finally, I would recommend continued research (case study) with some of the more recent public and private large colleges and universities (15,000 or more students) that have recently implemented test-optional admissions policies to determine the benefits and drawbacks they experienced. It may be feasible that publicizing the results of this case study might assist additional admissions officers to begin the conversation with their administration to determine how implementing a test-optional policy at their institution might work.

Conclusion

The purpose of this study was to determine why higher education institutions are implementing test-optional policies for admissions. Through my research, I found the two main reasons for implementing test-optional policies related to increasing diversity and access. As the United States becomes more and diverse, the number of students of college age (generally 18 – 22) is also declining. Many public and private institutions find themselves vying for the same student when it is time for the student to make a decision about which institution to attend. Research has demonstrated that relying heavily on the results of standardized tests (SAT/ACT) may not be the most accurate measure to determine a student's ability to be successful in higher education. Use of the high school student's high school GPA in many situations has shown to be a more accurate measure of student success. Higher education institutions might consider implementing a test-optional admissions policy to support their diversity and access missions, as was a major theme from the admissions officers in this research study.

Today's college students are expressing interest in customizing their majors and tailoring their experience to what they need. Students are empowered to make more decisions for themselves as related to higher education and their future job prospects. According to the admissions officers in this study, students appreciate having the option to submit or not to submit their test scores based on how they perceive these scores will represent their academic abilities. As additional higher education institutions continue implementing test-optional admissions policies, these institutions demonstrate their desire to meet students where they are.

This study is not meant to suggest that higher education institutions simply eradicate standardized testing as an admissions requirement. Some students are strong test takers and do perform well on these tests and are also very successful in higher education. However, there are issues of test bias, access, equity, and quality of some of our high schools that may inhibit certain students from being able to obtain a specific goal score on the SAT/ACT. Higher education institutions can level the playing field by implementing a test-optional admission policy in an effort to provide an equal opportunity for all students going forward.

References

- ACT (2019). Retrieved from: <u>https://www.act.org/</u>.
- Adebayo, B. (2008). Cognitive and non-cognitive factors affecting the academic performance and retention of conditionally admitted freshmen, *Journal of College Admission*, 200, 15– 21.
- Ali, A., & Ali, U. (2010). Educational measurement and testing historical perspectives. *Journal of Educational Research 13*(2), 216-222.
- Allensworth, E.M., & Clark, K. (2020). High school gpas and act scores as predictors of college completion examining assumptions about consistency across high schools. *Educational Researcher*, *XX(X)*, 1-14. https://doi.org/10.3102/0013189x20902110.
- Allman, M. (2009). Going test-optional. In J. Soares (Ed.), *SAT wars* (pp. 169 176). Teachers College Press.
- Alon, S. (2010). Racial difference in test preparation strategies a commentary on shadow education american style test preparation the sat and college enrollment. *Social Forces*, *89*(2), 463-474. <u>https://doi.org/10.1353/sof.2010.0053</u>
- Antonovics, K., & Backes, B. (2014). The effect of banning affirmative action on college admissions policies and student quality. *Journal of Human Resources*, 49(2), 295-322. <u>https://doi.org/10.3368/jhr.49.2.295</u>
- Applebome, P. (1997, April 2). Insisting it's nothing creator says its SAT not S.A.T. *The New York Times*. <u>https://www.nytimes.com/1997/04/02/us/insisting-it-s-nothing-creator-says-sat-not-sat.html</u>

- Arendale, D. R. (2011). Then and now: The early years of developmental education. *Research* and *Teaching in Developmental Education*, 27(2), 58-76.
- Aspinwall, L.G., & Taylor, S.E., (1992). A longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. *Journal of Personality and Social Psychology*, *63*, 989–1003.
- Astin, A. W. (1999). Student involvement: a developmental theory for higher education. *Journal* of College Student Development, 40, 518–529.
- Atkinson, R. (2001). Standardized tests and access to American Universities.
- Atkinson, R (2004). Achievement versus aptitude in college admissions. In Zwick, R. (Ed.), *Rethinking the SAT The Future of Standardized Testing in University Admissions* (pp. 15-23). Routledge.
- Atkinson, R. C. (2009, April). The new SAT: A test at war with itself. In annual meeting of the American Educational Research Association, San Diego, CA.
- Atkinson, R., & Geiser, S. (2009). Reflections on a century of college admissions tests. *Educational Researcher*, 38(9), 665-676. https://doi.org/10.3102%2F0013189X09351981
- Attewell, P., & Domina, T. (2008). Raising the bar: Curricular intensity and academic performance. *Educational Evaluation and Policy Analysis*, *30*(1), 51-71.
- Baker, R.E., Sion, J.R., & Bazeli, F.P. (1986). An assessment of the learning style preferences of accounting majors. *Issues in Accounting Education*, 4, 1-11.

Bandura, A. (1997) Self-efficacy: the exercise of control. Freeman.

Barron's. (2013). Profiles of American colleges 2013 (30th ed.). Barron's Educational Series.

- Bastedo, M. N. & Jacquette, O. (2011). Running in place: low income students and the dynamics of higher education stratification. *Educational Evaluation and Policy Analysis*, *33*, 318-339. <u>https://doi.org/10.3102/0162373711406718</u>
- Bastedo, M. N., Howard, J. E., & Flaster, A. (2016). Holistic admissions after affirmative action:
 Does "maximizing" the high school curriculum matter?. *Educational Evaluation and Policy Analysis*, 38(2), 389-409.
- Bastedo, M. N., & Bowman, N. A. (2017). Improving admission of low ses students at selective colleges results from an experimental simulation. *Educational Researcher*, 46(2), 67-77. <u>https://doi.org/10.3102/0013189X17699373</u>
- Beale, A. V. (2012). The evolution of college admission requirements. *The Journal of College Admission*, 15(3), 20-23.
- Bennett, C., & Okinaka, A. M. (1990). Factors related to persistence among Asian, Black,
 Hispanic, and White undergraduates at a predominantly White university: Comparison
 between first and fourth year cohorts. *The Urban Review*, 22(1), 33-60.
- Berger, A.B. (1961). How the college admissions officer views counselor recommendations. *Vocational Guidance Quarterly*, 9, 256.
- Blume, G. H., & Long, M. C. (2014). Changes in levels of affirmative action in college admissions in response to statewide bans and judicial rulings. *Educational Evaluation* and Policy Analysis, 36(2), 228 – 252. <u>https://doi.org/10.3102/0162373713508810</u>

- Bowen, W. G., Chingos, M. M., & McPherson, M. S. (2009). *Crossing the finish line: Completing college at America's public universities*. Princeton University Press.
- Bridgeland, J. M., Dilulio, J. J., & Morison, K. B. (2006). The silent epidemic: perspectives of high school dropouts. Civic Enterprises.
- Buchmann, C., Condron, D. J., & Roscigno, V. J. (2010). Shadow education, American style: Test preparation, the SAT and college enrollment. *Social forces*, *89*(2), 435-461.

Buros Testing Manual (2012). Retrieved from <u>https://www.ux1.eiu.edu/~glcanivez/Adobe%20pdf/Publications-</u> Papers/Canivez%20(2014)%20Buros%20MMY%20WPPSI-IV%20Review.pdf

- Butts, R. F., & Cremin, L.A. (1953). A history of education in american culture. Holt, Rinehart & Winston.
- Cabrera, A. F., & La Nasa, S. M. (2000). Understanding the college-choice process. *New directions for institutional research*, 2000(107), 5-22.
- Cahalan-Laitusis, C., Mandinach, E. B., & Camara, W. J. (2003). The impact of flagging on the admission process. *The Journal of College Admission*, 181, 18-25.
- Canfield, C., & Zastavker, Y. V. (2010, October). Achievement goal theory: A framework for implementing group work and open-ended problem solving. In 2010 IEEE Frontiers in Education Conference (Fie) (pp. S1C-1). IEEE.
- Carter, D. J., & Wilson, R. (1996). Minorities in Higher Education. 1995-96 Fourteenth Annual Status Report.

Cavanaugh, S. (2015, February 4). It's a \$1.7 billion testing market but it's a \$600 billion ed. System. *Edweek Market Brief*. <u>https://marketbrief.edweek.org/marketplace-k-12/its_17_billion_testing_market_but_its_a_600_billion_ed_system/</u>

College Board (2018). https://blog.collegeboard.org/how-much-does-sat-and-sat-subject-test-cost

- Conger, D. (2015). High school grades, admissions policies, and the gender gap in college enrollment. *Economics of Education Review*, 31, 123-130 https://doi.org/10/1016/j.econedurev.2015.03.003
- Conner, R. I. (1993). The effect of selected variables on African-American student persistence.
- Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). Applied behavior analysis.
- Coopersmith, S. (1967). Studies of self-esteem. Scientific American, 218, 96 106.
- Coyle, T.R., & Pillow, D.R. (2008). SAT and act predict college gpa after removing g. *Intelligence*, *36*(6), 719 – 729. <u>https://doi.org/10.1016.j.intell.2008.05.001</u>
- Creswell, J. (2015). Educational research: planning, conducting, and evaluating quantitative and qualitative research. Pearson.

Curtis, S.J. (1967). History of Education in Great Britain. University Tutorial Press, Ltd.

- Davis, H.S. (2013). Discussion as a bridge: strategies that engage adolescent and adult learning styles in the postsecondary classroom. *Journal of the Scholarship of Teaching and Learning*, *13*(1), 68-76.
- Deil-Amen, & R., Tevis, T. (2010). Circumscribed agency the relevance of standardized college entrance exams on low ses high school students. *The Review of Higher Education*, *33*(2),

141-175. https://doi.org/10/1353/rhe.0.0125

- Denzin, N. & Lincoln, Y. (2003). The discipline and practice of qualitative research. In N.Denzin, & Y. Lincoln (Eds.), *Strategies of Qualitative Inquiry*. Sage Publications.
- Duckworth, A. L., & Quinn, P. D. (2009). Development and validation of the Short Grit Scale (GRIT–S). *Journal of personality assessment*, *91*(2), 166-174.
- Ellis, C. (2009). Telling tales on neighbors: Ethics in two voices. *International Review of Qualitative Research*, 2(1), 3-27.
- Epps, E. G. (1969). Motivation and academic achievement of negro americans. *Journal of Social Issues*, 29, 169–203.
- Epstein, J. (2009). Behind the SAT optional movement. *The Journal of College Admission*, 204, 9–19.
- Eshel, Y., & Kurman, J. (1991). Academic self-concept, accuracy of perceived ability, and academic attainment. *British Journal of Educational Psychology*, *61*, 187 196.
- Espenshade, T. J., & Radford, A. W. (2009) *No longer separate, not yet equal: Race and class in elite college admission and campus life.* Princeton University Press.
- Forsyth, D. R., & Schlenker, L. (1977). Attributing the causes of group performance: Effects of performance quality, task importance and future testing. *Journal of Personality*, 45, 220-236. doi:10.1111/j.1467-6494.1977.tb00148.x
- Frank, D. J. and Meyer, J. (2007). University expansion and the knowledge society. *Theory and Society*, *36*(4), 287 311.

Freeman, K. (1997). Increasing African Americans' participation in higher education: African

American high school perspectives. The Journal of Higher Education, 68, 523-550.

Freemean, K. (1999). Our kind of people: Inside American's black upper class. Harper Collins.

- Freire, P. (1968). Banking system of education. Found at: <u>http://www.umsl.edu/~alexanderjm/The%20Banking%20Concept%20of%20Education.p</u> df
- Fuertes, J. N., Sedlacek, W. E., & Liu, W. (1994) Using the sat and noncognitive variables to predict the grades and retention of Hispanic students. *College Student Affairs Journal*, 14, 30 – 36.
- Furuta, J. (2017). Rationalization and student school personhood in U.S. college admissions the rise of test optional policies, 1987 to 2015. *Sociology of Education*, 90(3), 236-254. <u>https://doi.org/10.1177/0038040717713583</u>.
- Gaertner, M. N., & Hart, M. (2013). Considering class: College access and diversity. *Harvard Law and Policy Rev.*, 7, 367.
- Gates, B. and Gates, M. (2004). Retrieved from: <u>https://www.gatesfoundation.org/Media-</u> <u>Center/Press-Releases/2004/12/Strengthening-National-Network-of-Early-College-High-Schools</u>

Glaser, B. (1978). Theoretical sensitivity. Advances in the methodology of grounded theory.

Glaser, B. G. (1992). *Emergence vs forcing: Basics of grounded theory analysis*. Sociology Press.

Glossay of Education Reform. Retrieved from https://www.edglossary.org/

- Goyken, A. (2017). Personal factors predicting college student success. *Eurasian Journal of Educational Research*, 69, 93 – 112. <u>http://doi.org/10.14689/ejer.2017.69.6</u>
- Guiffrida, D. A., Lynch, M. F., Wall, A. F., & Abel, D. S. (2013). Do reasons for attending college affect academic outcomes?: a test of a motivational model from a self-determination theory perspective. *Journal of College Student Development*, 54, 121 139. https://doi.org/10.1353/csd.2013.0019.
- Hacker, A. (1992). Education ethnicity and achievement. *Two nations black, white, separate, hostile, unequal* (pp. 134-147). Scribners.
- Haynes, C. (2016). The big business profitability of the nonprofit college board (Backgrounder No. 183). <u>http://www.ncpathinktank.org/pdfs/bg183.pdf</u>
- Hedges, L. V., & Nowell, A. (1998). Black–white test score convergence since 1965. In C.Jencks & M. Phillips (Eds.), *The Black–White test score gap* (pp. 149-181). Washington, DC: Brookings Institution Press.
- Hicks, M. A., & Shere, C. (2003a). Toward reflective admission work: nNw directions. *The Journal of College Admission*, 178, 44-58.
- Hicks, M. A., & Shere, C. (2003b). Toward reflective admission work: new directions. *The Journal of College Admission*, 179, 6-13.
- Holland, M. M. (2014). Navigating the road to college: Race and class variation in the college application process. *Sociology Compass*, 8(10), 1191-1205.
- Hossler, D. (1999). Effective admissions recruitment. *New directions for higher education*, *108*, 15-30.

- Hoxby, C. M., & Avery, C. (2012). The missing" one-offs": The hidden supply of high-achieving, low income students (No. w18586). National Bureau of Economic Research.
- Irvin, J.L., Buehl, D.R., & Klemp, R.M. (2007). *Reading and the high school student: strategies* to enhance literacy. Allyn & Bacon.
- Jaschik, S. (2019, August 12). 3 more colleges go test optional. *Inside Higher Ed.* <u>https://www.insidehighered.com/admissions/article/2019/08/12/record-year-colleges-going-test-optional</u>
- Jencks, C., & Phillips, M. (1998). The Black-white test scope gap: Why it persists and what can be done. *The Brookings Review*, *16*(2), 24-27. <u>https://doi.org/10.2307/20080778</u>.
- Kamii, C. (1982). Number in preschool and kindergarten: Educational implications of Piaget's theory. National Association for the Education of Young Children, 1834 Connecticut Avenue, NW, Washington, DC 20009.
- Kaukab, S.R., Mehrunnisa, S. (2016). History and evolution of standardized testing a literature review. *International Journal of Research*, *4*(5) 126-132.
- Kennett, D. J., Reed, M. J., & Stuart, A. S. (2013). The impact of reasons for attending university on academic resourcefulness and adjustment. *Active Learning in Higher Education*, 14, 123 – 133. <u>https://doi.org/10.1177/1469787413481130</u>.
- Kim, E., Newton, F.B., Downey, R.G., & Benton, S.L. (2010). Personal factors impacting college student success: constructing college learning effectiveness inventory (CLEI). *College Student Journal, 44*(1), 112-125.

- King, A. (1993). From sage on the stage to guide on the side. *College Teaching*, *41*(1), 30-35. <u>https://doi.org/10.1080/87567555.1993.9926781</u>
- King, J., Kunzer, J. (2020, January 29). NIU removes use of standardized test sores for 2021 applicants. NIU Newsroom, p. 1-3). <u>https://newsroom.niu.edu/2020/01/29/niu-removes-use-of-standardized-test-scores-for-2021-applicants/</u>
- Klopfenstein, K. (2004). The advanced placement expansion of the 1990s: How did traditionally underserved students fare? Education Policy Analysis Archives, 12, 68.
- Kluge, A. (2007). Experiential learning methods, simulation complexity and their effects on different target groups. *Journal of Educational Computing Research*, *36*(3), 323-349.
- Knowles, M. (1978). Andragogy: Adult learning theory in perspective. *Community College Review*, 5(3), 9-20. <u>https://doi.org/10.1177/009155217800500302</u>
- Knowles, M. (1980). The modern practice of adult education: *From pedagogy to andragogy*. Association Press.
- Kolb, D. (1984). Experiential learning experiences as the source of learning and development. Prenctice-Hall.
- Komarraju, M., Ramsey, A., Rinella, V. (2013). Cognitive and non-cognitive predictors of college readiness and performance role of academic discipline. *Learning and Individual Differences*, 24, 103 – 109. <u>https://doi.org/10.1016.j.lindif.2012.12.007</u>
- Kuh, G. D., Kinzie, J. L., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). What matters to student success: A review of the literature (Vol. 8). Washington, DC: National Postsecondary Education Cooperative.

Laird, B. (2005). The case for affirmative action in university admissions. Bay Tree Pub.

- Lash, Jonathan (2015, September 21). Results of removing standardized test scores from college admissions. <u>https://www.hampshire.edu/news/2015/09/21/results-of-removing-</u> <u>standardized-test-scores-from-college-admissions</u>
- Lawrence, A. & Routten, M. (2009). Adult learning theory and dropout prevention. *Journal of Cross-Disciplinary Perspectives in Education*, 2(1), 14-24.
- Lemley, E. Y. (1991). Effects of selected extracurricular involvement on persistence in a churchrelated university.
- Lester, J. N., & O'Reilly, M. (2015). Is evidence-based practice a threat to the progress of the qualitative community? Arguments from the bottom of the pyramid. *Qualitative Inquiry*, *21*(7), 628-632.
- Lichtman, M. (2013). Introduction and overview of the field. In D. McDaniel, M. Koraly, L.
 Larson, & G. Treadwell (Eds.), *Qualitative research in education a user's guide*. (pp. 49-95). Sage Publications.
- Lincoln, Y. (2005). Revolutions in qualitative research from just experience to experiencing justice. *Journal of Thought*, 40(4), 25-40.
- Lindgren, H.C. (1973). Leadership and college grades. *Journal of Social Psychology*, 90, 165–166.
- Linn, R. L. (2001). A century of standardized testing controversies and pendulum swings. *Educational Assessment*, 7(1), 29-38. <u>https://doi.org/10.1207/S15326977EA0701_4</u>

- Lisko, S.A., O'Dell, V. (2010). Integration of theory and practice experieiential learning theory and nursing education. *Nursing Education Perspectives*, *31*, 106–108.
- Long, M. (2015). Is there a workable race-neutral alternative to affirmative action in college admissions. *Journal of Policy Analysis and Management*, *34*(1), 162 183. <u>https://doi.org/10.1002/pam.21800</u>
- Lucido, J. A. (2015). How admission decisions get made. In Hossler, D. & Bontrager, B. (Eds.), Handbook of strategic enrollment management (pp. 147-173). Jossey-Bass.
- MacMillan, R.G. (1965). Admission to higher education: quantity or quality. *A Journal of Social and Political Theory*, *25*, 57-63.
- Major, B., Schmader, T. (1998). Coping with stignma through psychological disengagement-10.
 In J. Swim & C. Stangor (Eds.), *Prejudice the target's perspective* (pp. 219-241).
 Elsevier Inc. http://doi.org/10.1016/B978-012679130-3/50045-4
- Mamlet, R., & VanDeVelde, C. (2011). *College admissions: From application to acceptance, step by step.* Three Rivers Press.
- Mann, H., & Fowle, W. B. (1839). *Common school journal* (Vol. 1). Marsh, Capen, Lyon, and Webb.
- Martin, O. L. (1990). The College Milieu for the 1990s: Increasing Black Student Retention Rates on White Campuses. [Paper presented at the Annual Meeting of the American Educational Research Association, Boston, MA, April 1990].
- McDonough, P. M. (1997). *Choosing colleges: How social class and schools structure opportunity*. Suny Press.

Mendoza-Denton, R. (2014). A social psychological perspective on the achievement gap in standardized test performance between white and minority students: Implications for assessment. *The Journal of Negro Education*, 83(4), 465-484. https://doi.org/10.7709/jnegroeducation.83.4.0465

Merriam, S. (2001). *Qualitative research and case study applications in education*. Jossey-Bass.

- Meyer, J., & Bromley, P. (2013). The worldwide expansion of organization. *Sociological Theory*, *31*(4), 366 – 389.
- Mills, J.A. (1998). Control a history of behavioral psychology. *The birth of psychological behaviorism* (pp. 23 55). New York University Press.
- Mishel, W., & Ayduk, O. (2004). Willpower in a cognitive-affective processing system: the dynamics of delay of gratification. In R.F. Baumesiter, & K.D. Vohs (Eds.), *Handbook of self-regulation: research, theory, and applications* (pp. 99 – 120). Guilford.
- Moll, L., Amanti, C., Neff, D. & Gonzalez N. (1992). Funds of knowledge for teaching: using a qualitative approach to connect homes and classrooms, *Urban Education*, 29(4), 443-470. <u>https://doi.org/10.1177/0042085995029004005</u>.
- Moody, J. (2019). A guide to the changing number of US universities. US News & World Report. <u>https://www.usnews.com/education/best-colleges/articles/2019-02-15/how-many-</u> <u>universities-are-in-the-us-and-why-that-number-is-changing</u>
- Moore, D. A., Swift, S. A., Sharek, Z. S., & Gino, F. (2010). Correspondence bias in performance evaluation: Why grade inflation works. *Personality and Social Psychology Bulletin*, 36(6), 843-852.

- Moreland, R., Miller, J., & Laucka, F. (1981). Academic achievement and self-evaluations of academic performance. *Journal of Educational Psychology*, *73*, 335 344.
- Morse, J. M., & Niehaus, L. (2009). *Mixed method design: principles and procedures*. Left Coast Press.
- Morse, J. M. (2010). Simultaneous and sequential qualitative mixed method designs. *Qualitative Inquiry*, *16*(6), 483-491. <u>https://doi/org/10.11771077800410364741</u>

Morse, J. M. & Cheek, J. (2014). Introducing qualitatively driven mixed methods designs. *Qualitative Health Research*, 25(6), 731-733. https://doi.org/10.1177/1049732315583299

- Moses, M. S., Yun, J. T., & Marin, P. (2009). Affirmative action's fate: Are 20 more years enough? Education policy analysis archives, 17, 17.
- Nankervis, B. (2014). Economic-based affirmative action in college admission. *Journal of College Admission*, 225, 6-11.
- National Association for College Admissions Testing. (2008). Report of the commission on the use of standardized tests in undergraduate admission. Arlington, VA. Retrieved from https://files.eric.ed.gov/fulltext/ED502721.pdf

National Center for Education Statistics (2005). https://nces.ed.gov/pubs2005/2005094.pdf

Nettles, M. T. (1991). Racial similarities and differences in the predictors of college student achievement. *College in Black and White: African American students in predominantly White and in historically Black public universities*, 49-63.

- Newton, F.B., Kim, E., Wilcox, D., & Beemer, N. (2008). Administration and scoring manual for the college learning effectiveness inventory (CLEI). Kansas State University, Manhattan.
- Noftle, E., Robins, R. (2007). Personality predictors of academic outcomes big five correlates of gpa and sat scores. *Journal of Personality and Social Psychology*, 93(1), 116-130. <u>https://doi.org/10.1037/0022-3514.93.1.116</u>
- O'Brien, D. G., & Dillon, D. R. (2008). The role of motivation in engaged reading. In K. A.
 Hinchman, & H. S. Thomas (Eds.), *Best practices in adolescent literacy instruction* (pp. 78-96). Guilford Press.
- Ojose, B. (2008). Applying Piaget's theory of cognitive development to mathematics instruction. *The Mathematics Educator*, 18(1), 26 - 30.
- Paciotti, K. (2013). The handbook of educational theories. In B. Irby & G. Brown & R.L. Alecio
 & S. Jackson (Eds.), *Cognitivism* (pp. 105 115). Information Age Publishing, Inc.
- Pardjono, P. (2002). Active learning: the dewey, piaget, vygotsky, and constructivist theory perspectives. *Jurnal Ilmu Pendidkan*, 9(3), 163 - 178. https://doi.org/10.17977/jip.v9i3.487
- Pastine, I. & Pastine, T. (2012). Student incentives and preferential treatment in college admissions. *Economics of Education Review*, *31*, 123-130.
- Perna, L. W. (2004). Understanding the decision to enroll in graduate school: sex and racial/ethnic group differences. *The Journal of Higher Education*, 75(5), 487-527.
- Piaget, J. (1936). The psychology of intelligence. London: Routledge.

- Pike, G. R., & Kuh, G. D. (2005). A typology of student engagement for American colleges and universities. *Research in higher education*, *46*(2), 185-209.
- Pike, G. R., Kuh, G. D., & Gonyea, R. M. (2007). Evaluating the rationale for affirmative action in college admissions direct and indirect relationships between campus diversity and gains in understanding diverse groups. *Journal of College Student Development*, 48(2), 166 182. https://doi.org/10.13353/csd.2007.0018
- Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology*, 95(4), 667-686. <u>https://doi.org/10.1037/0022-0663.95.4.667</u>
- Poore, J., Cullen, D., & Schaar, G. (2014). Simulation-based interprofessional education guided by kolb's experiential learning theory. *Clinical Simulation in Nursing*, 10(5), 241 – 247. https://doi.org/10.106/j.ecns.2014.01.004
- Ramirez, F. O. (2016). Socially embedded American university–Intensification and globalization. *Unpublished Working Paper, Stanford School of Education*.
- Reason, R.D. (2014). Generation on a tightrope a portrait of today's college student. *Journal of College Student Development*, 55(3), 335 336.
- Richardson, M., Abraham, C., Bond, R. (2012). Psychological correlates of university students' academic performance a systematic review and meta-analysis. *Psychologic Bulletin*, *138*(2), 353 – 387. <u>https://doi.org/10.1037/a0026838</u>

- Robinson, M., Monks, J. (2005). Making sat scores optional in selective college admissions a case study. *Economics of Education Review*, 24, 393-405. https://doi.org/10.1016/j.econedurev.2004.06.006
- Ryan, R. M., & Deci, E. L., (2000). Self-deetermination theory and the facilitation of intrinsic motivation, social development, and wellbeing. *American Psychologist*, 55, 68 – 78. https://doi.org/10.1037/0003-066x.55.1.68
- Sackett, P.R., Kuncel, N. R., Beatty, A. S., Rigdon, J. L., Shen, W., Kiger, T. B (2012). The role of socioeconomic status in sat grade relationships and in college admissions decisions. *Psychological Science*, 23(9), 1000 – 1007. <u>https://doi.org/10.1177/0956797612438732</u>

Safier, Rebecca (2017, August 2). Complete guide: Colleges not requiring SAT scores.

https://blog.prepscholar.com/the-complete-guide-to-sat-optional-colleges.

- Sedlacek, W. E. (1996). Employing noncognitive variables in admitting students of color. *New Directions for Student Services*, *1996*(74), 79-91.
- Sedlacek,W. E. (2004) *Beyond the big test: Noncognitive assessment in higher education.* Jossey-Bass.
- Smith, C. N. (1990). A study of the relationship between living environment press and retention of freshman pledges in fraternities at Oregon State University (Thesis).: Oregon State University. Retrieved from

https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/nv9355360

- Smith, L. (1979). An evolving logic of participant oberservation, educational ethnography, and other case studies. In Shulman, L. (Ed.), *Review of research in education* (pp. 316-377).
 F.E. Peacock.
- Smith, M., & Wilhelm, J. (2002). *Reading don't fix no chevy's: Literacy in the lives of young men*. Heinemann.
- Sparkman, L., Maulding, W., Roberts, J. (2012). Non-cognitive predictors of student success in college. *College Student Journal*, *46*(3), 642-652.

Stake, R. (1995). The art of case study research. Sage Publications.

- Stauffer, R. (2017, April 28). The business of standardized testing. Huffington Post. https://www.huffpost.com/entry/the-business-of-standardi b 9785988
- Sternberg, R. J. (2011). How we got here: The traditional college application. In R. Sternberg (Ed.), *College Admissions for the 21st Century* (pp. 35 70).
- Sternberg, R. (2012). College admissions beyond conventional testing. *Change: The Magazine of Higher Education*, 44(5), 7 13. <u>https://doi.org/10.1080/00091383.2012.706534</u>
- Strauss, V. (2019, June 7). Millions of kids take standardized tests simply to help testing companies make better tests. *The Washington Post*. <u>https://www.washingtonpost.com/education/2019/06/07/millions-kids-take-standardizedtests-simply-help-testing-companies-make-better-tests-really/</u>
- Sugarman, L. (1985). Kolb's model of experiential learning: touchstone for trainers, students, counselors, and clients. *Journal of Counseling and Development*, 64(4): 264-268.
 <u>https://doi.org/10.1002/sres.858</u>

- Sweet, A.P. & Snow, C. (2002). Reconceptulaizing reading comprehension. In C.C. Block, L.B. Gambrell, and M. Pressley (Eds.), *Improving comprehension instruction: rethinking research, theory, and classroom practice* (pp. 17-53). International Reading Association.
- Swift, S. A., Moore, D. A., Sharek, Z. S., & Gino, F. (2013). Inflated applicants: Attribution errors in performance evaluation by professionals. *PLoS One*, *8*(7).
- Syverson, S.T., Franks, V. W., & Hiss, W. C. (2018) *Defining access how test-optional works*. <u>https://www.nacacnet.org/globalassets/documents/publications/research/defining-access-report-2018.pdf</u>
- Teehan, S. (2016, March 5). New SAT paying off for test prep industry. Boston Globe. <u>https://www.bostonglobe.com/business/2016/03/04/new-sat-paying-off-for-test-prep-industry/blQeQKoSz1yAksN9N9463K/story.html</u>
- Thomas, J. H. (1985). *Affiliation and retention at a selected land grant university* (Doctoral dissertation, West Virginia University).
- Thomas, L., Kuncel, N., Crede, M. (2007). Noncognitive variables in college admissions the case of the non-cognitive questionnaire. *Educational and Psychological Measurement*, 67(4), 635 – 657. <u>https://doi.org/10.1177/0013164406292074</u>
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition*. University of Chicago Press.
- Tracey, T. J., & Sedlacek, W. E. (1984). Noncognitive variables in predicting academic success by race. *Measurement and Evaluation in Guidance*, *16*(4), 171-178.
- Tracey, T. J., Sedlacek, W. E. (1989). Factor structure of the non-cognitive questionnaire-

revised across samples of black and white college students. *Educational and Psychological Measurement*, *49*, 637-648.

- Trippi, J.W. & Steward, B. (1998). The relationship between self-appraisal variables and the college grade performance of black freshmen. *Journal of College Student Development*, 30(6), 484-491.
- Thompson, G. L., Allen, T. G. (2012). Four effects of the high stakes testing movement on African American k-12 students. *Journal of Negro Education*, 81(3), 218-227. <u>https://doi.org/10.7709/jnegroeducation.81.3.0218</u>
- Twaddell, J. (2019). Educating parents about vitamin k in the newborn using Knowles' theory of adult learning principles as a framework. *Critical Care Nursing Quarterly*, 42(2) 205(3). https://doi.org/10.1097.CNQ.00000000000256
- Van Herpen, S., Meeuwisse, M. Hofman, W.H., Severiens, S., Arends, L. (2017). Early predictors of first-year academic success at university pre-university effort, pre-university self-efficacy, and pre-university reasons for attending university. *Educational Research* and Evaluation, 23(1-2), 52 – 72. <u>https://doi.org/10.1080/13803611.2017.1301261</u>
- Vygostsky, L. (1978). Mind in society. In M. Cole, V.J. Steiner, S. Scribner & E. Souberman (Eds.), *Interaction between learning and development* (pp. 79 105).
- Walpole, M. (2003). Socioeconomic status and college: How SES affects college experiences and outcomes. *The Review of Higher Education*, *27*(1), 45-73.
- Walpole, M. (2006). Emerging from the pipeline: African American student's socioeconomic status and college experiences and outcomes. *Research in Higher Education*, 49(3), 237 255. <u>https://doi.org/10.1007/s11162-007-9079-y</u>

- Walpole, M., McDonough, P.M., Bauer, C., Gibson, C., Kanyi, K., & Toliver, R. (2005). This test is unfair: Urban African American and Latino high school students' perceptions of standardized college admission tests. *Urban Education*, 40(3), 321-349.
 https://doi.org/10.1177/0042085905274536
- Wigfield, A. (1994). Expectancy value theory of achievement motivation: A developmental perspective. *Educational Psychology Review*, 6(1), 49 – 78. <u>https://doi.org/10.1007/BF02209024</u>
- Wilson, R. (1998). African American participation in higher education. In K. Freeman (Ed.),
 African American culture and heritage in higher education research and practice.
 Praeger.
- Wolfe, R.N., & Johnson, S.D. (1995). Personality as a predictor of college performance.
 Educational & Psychological Measurement, 55, 177-185.
 https://doi.org/10.1177/0013164495055002002
- Wonnell, T. Rothstein, C. Latting, J. (2009). SAT wars. In J. Soares (Ed.), *Predictors of academic success at a highly selective private research university* (pp. 137 150).
- Woolfolk, A.E. (1998). Educational psychology. Allyn and Bacon.
- Zijdemans-Boudreau, A., Moss, G., Lee, C. (2013). The handbook of educational theories. In B.
 Irby, G. Brown, R.L. Alecio, & S. Jackson (Eds.), *Experiential learning theory* (pp. 115 125). Information Age Publishing, Inc.
- Zimmerman, B. J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American*

Educational Research Journal, 29, 663 – 676.

https://doi.org/10.3102/00028312029003663.

Zwick, R. (2002). Is the SAT a wealth test. Phi Delta Kappan, 84(4), 307-311.

Appendix A: Participant Survey Questions

Please select one response by completing the following sentence. My college/university is:

Public Private

1. How long has your college/university had a test-optional admissions policy? Less than 1 year 1-3 years 4-6 years 7-10 years

10 years or greater

- 2. How many students are enrolled at your college/university? 1-300 301-500 501-1,000 1,001-3,000 3,001-6,000 6,001-10,000 10,001-15,000 15,001 and greater
- Please check all the options of test scores that students can submit. SAT ACT AP Scores SAT Subject Scores High School GPA Other: please indicate
- Since implementing a test-optional admissions process, has your college/university seen an increase in applications from any of the following groups? (Check all that apply) First-generation college students
 Underrepresented minority groups ESL students
 International students
- 5. What criteria do you utilize to make an admissions decision? (Check all that apply)

Personal interview	
Essay	
High school GPA	
Class rank	
Honors course grade(s)	
Other – please state	

6. What do you perceive to be the benefits of implementing a test-optional admissions process? Please be as specific as possible in your response.

- 7. Have admissions applications increased or decreased since implementing a test-optional admissions policy?
- Increased Decreased Remained the same
- 8. What is your yield on admissions offers?

< 10% 10% - 20% 21% - 30% 31% - 40% 41% or higher

9. What is the average GPA of your first-year students by the end of the spring semester of their first year?

1.0 - 1.5	1.6 - 2.0	2.1 - 2.2	2.4 - 2.5	2.5 - 2.8
2.9 - 3.1	3.2 - 3.5	3.6 or higher		

- 10. Why did your college/university implement a test-optional admissions policy? Please be as specific as possible in your response.
- 11. What feedback has your college/university received from students regarding your testoptional admissions process?

12. What is the	e average GPA	A of your students at gr	aduation?	
1.0 - 1.5	1.6 - 2.0	2.1 - 2.2	2.4 - 2.5	2.5 - 2.8
2.9 - 3.1	3.2 - 3.5	3.6 or higher		

- 13. What do you perceive to be the drawbacks of implementing a test-optional admissions process? Please be as specific as possible in your response.
- 14. If a student chooses to submit their SAT/ACT scores, how do these scores factor into the admissions/financial aid decision versus when a student chooses not to submit their test scores?
- 15. What are the financial implications to adopting a test-optional admissions policy? Please be as specific as possible in your response.
- 16. Would you be willing to participate in a follow up interview? *This interview would take no more than 45 minutes.*

Yes

Appendix B: Qualitative Research Questions

"Good morning/afternoon! My name is Lisa Montgomery and I am currently a candidate in the Ed.D. Program. I am conducting a research study regarding the test optional movement in higher education. I am seeking your feedback as part of this process so that I can submit my dissertation. This is the final product required for me to graduate in May 2020.

I will ask you questions and the interview will last approximately 45 minutes. Please note that I will be recording your responses to each of the questions. Your responses will be kept in the strictest of confidence. Your name nor your institution's name will be included in my data analysis and will be kept in the strictest of confidence. Responses will be kept in a locked office in the Philips Memorial Building and will be documented in a password protected file on my computer. All responses and records will be destroyed within three years following the completion of this dissertation research.

- 1. What is the admissions process for your college or university?
- 2. Why did your college/university adopt a test optional admissions policy?
- 3. How does the student's score on the SAT/ACT inform your admissions decision?
- 4. How is student success defined at your college or university for students?
- 5. What is the general experience of your freshmen in their first year of college (academically and socially)?
- 6. What changes have you noticed in student success since your college/university moved to a test optional admission policy?
- 7. Do you think your college/university might consider removing the standardized testing requirement altogether? Why or why not?

Appendix C: IRB Approval



Office of Research and Sponsored Programs | West Chester University | Wayne Hall West Chester, PA 19383 | 610-436-3557 | www.wcupa.edu

TO: Lisa Montgomery & Heather Schugar FROM: Nicole M. Cattano, Ph.D. Co-Chair, WCU Institutional Review Board (IRB) DATE: 11/20/2019 <u>Protocol ID #</u> 20190702C-R1

Project Title: More Than A Score: The Test Optional Movement in Higher Education - REVISION

Date of Approval for Revision/Amendment**: 11/20/2019

Expedited Approval

The submitted amendment/revision to this previously approved expedited study does not elevate the study risk. As a result, the amendments are approved for implementation. Any revisions to this protocol that are needed will require approval by the WCU IRB. Upon completion of the project, you are expected to submit appropriate closure documentation. Please see www.wcupa.edu/research/irb.aspx for more information.

Any adverse reaction by a research subject is to be reported immediately through the Office of Research and Sponsored Programs via email at *irb@wcupa.edu*.

Signature:

1. Cuto

Co-Chair of WCU IRB

WCU Institutional Review Board (IRB) IORG#: IORG0004242 IRB#: IRB00005030 FWA#: FWA00014155

West Chester University is a member of the State System of Higher Education

Appendix D: Informed Consent and Assent

Project Title: More Than A Score: The Test Optional Movement in Higher Education

Investigator(s): Lisa Montgomery; Heather Schugar

Project Overview:

Participation in this research project is voluntary and is being done by Lisa Montgomery as part of her Doctoral Dissertation to add more knowledge to the current research regarding why many higher education institutions have adopted a test-optional admissions process. Your participation will take about 15-20 minutes to complete the online survey. In-person interviews will take 45 minutes. There is a minimal risk of admissions officers being reluctant to discuss their admissions processes in detail with the researcher given the fact that the researcher also works in higher education. This research is contributing to the overall understanding of the usage or nonusage of standardized test scores as a part of a student's admission process to a university or college. For you as the participant, your participation in this research will provide additional understanding about the overall test-optional movement in higher education.

The research project is being done by Lisa Montgomery and Dr. Heather Schugar as part of their Doctoral Dissertation to add more knowledge to the current research regarding why many higher education institutions have adopted a test optional admissions process. If you would like to take part, West Chester University requires that you agree and sign this consent form.

You may ask Lisa Montgomery any questions to help you understand this study. If you don't want to be a part of this study, it won't affect any services from West Chester University. If you choose to be a part of this study, you have the right to change your mind and stop being a part of the study at any time.

1. What is the purpose of this study?

- add more knowledge to the current research regarding why many higher education institutions have adopted a test optional admissions process
- 2. If you decide to be a part of this study, you will be asked to do the following:
 - o complete an online survey and potentially take part in an in-person interview
 - This study will take 15-20 minutes to complete the online survey. In-person interviews will take 45 minutes of your time.
- 3. Are there any experimental medical treatments?
 - o No
- 4. Is there any risk to me?
 - Possible risks or sources of discomfort include: admissions officers being reluctant to discuss their admissions processes in detail with the researcher given the fact that the researcher also works in higher education
 - If you become upset and wish to speak with someone, you may speak with Lisa Montgomery
 - If you experience discomfort, you have the right to withdraw at any time.

5. Is there any benefit to me?

• Benefits to you may include: contributing to the overall understanding and research related to the usage or non-usage of standardized test scores as a part of a student's admission process to a university or college.

6. How will you protect my privacy?

- The session will be recorded.
- In-person interviews will be conducted with two to three admissions officers. These in-person interviews will be recorded on a device. Interviews will then be transcribed for use in the final dissertation.
- Your records will be private. Only Lisa Montgomery, Dr. Heather Schugar, and the IRB will have access to your name and responses.
- \circ Your name will **not** be used in any reports.
- Records will be stored:
 - in a locked cabinet in Philips Memorial Room 203, which will also be kept locked.
 - Password Protected File/Computer
- Pseudonyms will be utilized for all participants. All appropriate ethics and confidentiality measures will be taken to ensure the privacy of all participants is maintained.
- Records will be destroyed Three Years After Study Completion

7. Do I get paid to take part in this study?

o No

8. Who do I contact in case of research related injury?

- For any questions with this study, contact:
 - **Primary Investigator:** Lisa Montgomery at 610-436-6974 or lmontgomery@wcupa.edu
 - Secondary Investigator: Heather Schugar at 610-738-0507 or hschugar@wcupa.edu
 - Faculty Sponsor: Heather Schugar at 610-738-0507 or hschugar@wcupa.edu

9. What will you do with my Identifiable Information?

• Identifiers might be removed from the identifiable private information and after removal, the information may be used for future research studies or distributed to another investigator for future research studies without additional informed consent from you or the legally authorized representative.

For any questions about your rights in this research study, contact the ORSP at 610-436-3557.

I, ______ (your name), have read this form and I understand the statements in this form. I know that if I am uncomfortable with this study, I can stop at any time. I know that it is not possible to know all possible risks in a study, and I think that reasonable safety measures have been taken to decrease any risk. Subject/Participant Signature Date:_____

Witness Signature Date:_____