Determining First-Year College Students' Capacity for Active Engagement in Their Own Learning

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DETERMINING FIRST-YEAR COLLEGE STUDENTS’ CAPACITY FOR ACTIVE ENGAGEMENT IN THEIR OWN LEARNING

A Dissertation
Presented to
The Faculty of the Educational Leadership Doctoral Program
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Doctor of Education

By
Jan Duvall

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DETERMINING FIRST-YEAR COLLEGE STUDENTS' CAPACITY FOR ACTIVE ENGAGEMENT IN THEIR OWN LEARNING

Date Recommended October 23, 2018

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Cheryl O. Davis 11/15/18
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In loving memory of my friend, mentor, and WKU mom: Freda Mays.

Thanks for all the love, support, and encouragement!

“I got this girl!”
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I have a passion for learning, and this dissertation was another educational and personal goal that I dreamed of completing. It seems like this process began a long, long time ago, perhaps on a whim or as a challenge. Along the way, my dissertation topic has changed and questions have been rewritten, numerous times. Regardless, my passion for personal and professional success has not waivered, though perhaps rerouted at times.

As a child, I was fascinated by how my daddy could add numbers in his head and come up with right answers without a pencil and paper. I admired my mom’s passion for helping others. Despite the fact that neither completed high school, they wanted to provide educational opportunities for my siblings and me. They encouraged us to always work hard and respect our teachers. I am grateful for the fountain of love, faith, and character they helped me build.

My husband, Greg, has witnessed my stress, frustration, doubt, and determination. When I lost my job, he reminded me to take this time and complete this dissertation and focus on me. He is a hard-working man who shows his love through his acts more so than his words. He is loyal and has always been there when I needed him at my most challenging times. Thanks for putting up with me when I know at times it was tough!

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Dr. Burch, thank you for spending countless hours helping me improve, grow, learn, and succeed. I always leave meeting with you feeling re-energized, more confident, and encouraged to take on the next challenge. You have supported me through personal and professional challenges. You have been a sounding board and a wonderful mentor. You have been authentic, challenging, generous, and compassionate. I truly appreciate you and I have enjoyed our time together!

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Along the way, I have met some wonderful classmates who have made classes interesting and fun. I am thankful I shared this time with each of you! For the incoming doctoral students, I recommend lots of patience, and dedication to this EDD program. There will be days when you may feel like giving up, but you’ve got this!
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First-year students are at a higher risk of dropping out of college; therefore, student retention and success are at risk. The purpose of this study is to find statistically significant differences among five demographic variables: (1) first college semester hours earned; (2) first college semester GPA; (3) ACT composite score; (4) high school GPA; and (5) first-generation college students and the 10 Learning and Study Strategies Inventory (LASSI) subscales: Anxiety, Attitude, Concentration, Information Processing, Motivation, Selecting Main Ideas, Self-Testing, Test Strategies, Time Management, and Using Academic Resources, to better determine how to help students be more successful.

The LASSI instrument was the chosen tool for research because of its ability to assess strengths and weaknesses for students in the college environment and the value of courses.

Nine significant relationships were found among the five demographic variables and four of the LASSI subscales: Motivation, Selecting Main Ideas, Time Management, and Test Strategies. Students who entered college with higher high school GPA still needed support systems to enable their success and persistence in college, especially in the subscale of Motivation. The ACT composite middle range of 16-18 showed a need for support in the subscales, Motivation, Selecting Main Ideas, and Test Strategies. For first semester GPA (middle range 1.48-2.40), students were in the most need of
improvement in Motivation, Selecting Main Ideas, and Time Management, whereas students taking the 16-18 hours were in the most need of improvement in Selecting Main Ideas and Time Management.
CHAPTER I: INTRODUCTION

For most traditional age college students, starting college can be exciting, challenging, and overwhelming. Students enter a new environment where they learn to make decisions, manage time, and adjust to new living and learning environments. For many students, college is their first time away from home without adult supervision. They may become distressed by the loss of personal support systems, experience homesickness, or struggle to fit in. They must learn to adjust to a new physical setting while also acclimating to a flexible time table and courses schedule. Throughout these adjustments, students may become misplaced or disconnected. Motivation and active engagement may become problematic, as students often are uncertain about their futures.

First-year students are at a higher risk of dropping out of college, which is concerning for universities who are struggling with academic retention. These students often lack the ability and self-regulation to adjust to academic scheduling, time management, and strategic learning. Independence, scheduling adjustments, and a new sense of freedom are foreign to many first-year students. They have been removed from predictable routine high school schedules and teacher reminders, and have been placed into an environment of academic and personal freedom. This environment requires that they take ownership of attending class, completing assignments, and caring for their personal well-being.

This population of students needs to develop dynamic strategic learning skills that will help them solve problems, make decisions, execute ideas, modify plans, and evaluate outcomes (Marschalko & Szamoskozi, 2017). Strategic learning involves developing a vast array of behaviors and activities to ensure students understand course
materials, retain new information, develop new methods to process ideas and skills, and make connections between new and prior learning.

**Purpose of the Study**

The purpose of this study is to examine the degree of first-year students’ strategic learning capacity in relation to situational variables that influence academic preparedness and performance. The overall anticipated outcome of this research is to learn more about what motivates strategic learners to persist in college, and how various factors and demographics may affect future classrooms and other student support systems.

**Research Questions**

Research Question 1: What is the overall relationship of the selected five demographic variables and the 10 LASSI subscales that measure student learner capacity?

Research Question 2: To what extent do significant differences exist within the selected demographic variables on the various LASSI subscales?

**Significance of the Study**

The population of first-year students has a higher risk of dropping out of college. The first year of college is the most critical during which students make the decision to either persist or to abandon their studies. For the first time, many of these students have experienced freedom from structured school schedules and paternal guidance. They have the academic freedom to schedule classes, work, exercise, and socialize at times that are convenient for them. However, many first-year students lack strategic learning skills.
Framework

Many of today’s first-year students lack strategic learning skills that may help them with academic preparation and optimum classroom performance. According to the Learning and Study Strategies Inventory (LASSI), students are affected by anxiety, attitude, concentration, information processing, motivation, main idea selection, self-testing, test strategies, time management, and the use of academic resources (Weinstein, Palmer, & Acee, 2016). Today’s first-year students are from a generation that knows of the war on terror and social media as a primary communication source. Technology has always existed in their world, and many may lack the skills to challenge themselves in reasoning, reading, and writing assignments. Research for them, in their minds, may be limited to on-line sources, as they may lack the skill set to use academic resources or the confidence to ask for help. Communication is limited, and expectations are set based on their previous educational experiences. Students’ previous learning styles are no longer being catered to, as they are expected to learn strategies that will help them experience a variety of classroom environments (McDaniel, 2014).

Background

Strategic learning provides students with a competitive advantage to outperform their classmates by approaching activities differently, improving their approaches to problem solving, and working with complex ideas. Strategic learning is “a process to generate continuous renewal in times of constant change” (Sloan, 2006, as cited in Moon & Ruona, 2015, p. 660). Often students lack the techniques, procedures, or rules that will help them acquire, interpret, store, and retrieve information (Day & Elksnin, 2005). Some
students may have the ability to apply a strategy but lack the knowledge of when and how to use it.

The use of strategies involves preparation, experience, and reevaluation. There are multiple layers in strategic learning which help students achieve personal growth—where they thrive under various conditions and create insight from uncertainty. Expectations are challenged, and beliefs are tried. When students are committed to learning, there is a greater likelihood of active involvement in learning and developing learning strategies.

Students who develop a variety of strategic learning skills are more independent learners, but they need instructors to prepare them to attack the content. With guidance, students can become independent learners who will “guide their own learning and problem solving” (Day & Elksnin, 2005, p. 157). Students learn how to select information from the content they feel is important to acquire and understand, then this new information is integrated into prior learning and ultimately connected to new course materials (Developing Strategic Learners, 1981). Day and Elksnin (2005) shared that “peers who can provide examples of successful performance based on strategy implementation can often convince other students to try learning strategies” (p. 160).

Students need a collection of strategies to be academically successful in a variety of content areas. They must know how to put these strategies into action. Once they employ these strategies, they better understand how to interpret tasks, set goals, and evaluate. Strategies help students build essential cognitive processes which lead to a better understanding of college content (Simpson & Nist, 2000). Improved skills lead to engaged students and continuous academic preparedness and success. Learning strategies
can equip students with the approaches and techniques they need to become successful lifelong learners (Day & Elksnin, 2005).

Faculty play a role in helping students develop strategic learning skills by developing a rapport with students, encouraging students to open up about their academic concerns and performance. Communication in and out of the classroom is important to foster student enthusiasm and learning. Students are more likely to open up about failure, performance, tutoring, or the need to remain in the course (Mansson, 2016). Teachers play a huge role in the academic drive of students.

Ultimately, great teaching is something that one lives; it is not something that one does through rewards and incentives. By focusing on the talents, passions, and natural curiosities of one’s students, teachers inspire students to share with the world the music that lies within them. (Secretan, 2005, as cited in Bowman, 2007, p. 86)

Teachers are leaders who are essential to student learning and strategy development. They can encourage individual students to take ownership of learning by “involving students in the learning process, responding positively and praising students, promoting mastery learning, providing stimulating challenges, and evaluating the task rather than the student” (Dev, 1997, as cited in Albrecht, Haapanen, Hall, & Mantonya, 2009, p. 24). There are various instructional strategies that faculty members can use to get students motivated in the classroom and interested in all the university has to offer. Faculty can introduce students to the “wealth, diversity, and scale, and scope of what lies ahead [for them at the university]” (Jessup-Anger, 2011, p. 102). Teacher and student relationships are important.
Student relationships and learning are nurtured within the classroom environment. A warm environment facilitates learning and increases student preparedness and performance. Teachers who incorporate goals and acknowledge contributions stimulate student success, effort, challenges, and performance as a part of the natural learning process (Lai, 2011). Through maintaining a diverse classroom environment, teachers incorporate various strategies to support intrinsic motivation. Students will grow academically when instructors connect to prior learning or experiences, create opinions about the subject, find value in the topic, and develop deeper interest about the subject (Albrecht et al., 2009). Student strategies are improved by increasing expectancy of success and providing opportunities for successful learning and effective feedback (Guilloteaux & Dornyei, 2008).

Teacher enthusiasm, action, and expertise also play an important role in student academic preparedness and performance by increasing student interest and excitement. Rapport between teachers and students helps create a learner-friendly environment and supportive atmosphere, which increases learning inside the classroom. According to O’Ferrall, Green, and Hanna (2010), “Research indicates that teachers’ actions in their classroom have twice as much impact on student achievement as assessment policies, community involvement, or staff collegiality; and a large part of teachers’ actions involve the management of the classroom” (p. 24). Teachers can create a motivated learning environment, but they cannot force students to be motivated (Daniels, 2010).

Teachers who take an active role in getting to know their students personally, establish specific goals and model positive behaviors that increase student inspiration and build effective classrooms. They use interventions, closeness, avoid punishments, and
build assessments and tasks that lead to academic success and bonding (O’Ferrall et al., 2010). They understand how to be empathic and help students feel understood. These teachers take the time to acknowledge student skills and their hard work. Often teachers feel as if they are competing for the attention of students’ time and attention. The digital age of social media, helicopter parents, close ties to family, interactive technology, and entertainment communication are obstacles to student learning and success (Crone & MacKay, 2007).

Other factors influence students in higher education, such as the need to belong, self-worth, value of academic tasks, self-efficacy, and autonomy (Martin & Dowson, 2009). Students need to have a purpose and to feel respected. They need to yearn to do what they need to do for the service of something that is larger than themselves (Sellers, Dochen, & Hodges, 2015). Students who attend universities experience interaction and engagement with students from different races, ethnic backgrounds, and religions. They experience academic freedom and independence from parents and high school schedules. It is important to “minimize the importance of monetary gains” (Rudow, 2013, para. 11) and focus on methods that can increase academic preparedness and performance to retain students so they can fulfill their academic, personal, and professional goals.

**Methodology**

A struggle exists to keep students enrolled and persisting in the college setting, especially students who are underprepared or lack an understanding of college and all it entails. In order to learn more about incoming, first-year students, a survey was given to a sample of this population to learn more about the challenges of student readiness, strategies for enhancing readiness, and assessing readiness. Feedback from this survey
may serve as helpful in understanding the academic preparedness and performance of this often under-equipped population.

**Population**

The sample includes those students who completed their first semester and were attending their second semester of college. Students who enrolled in University Experience, Literacy, and English courses may not have been included in the research depending upon whether they took the course during their first semester. A mixed variety of undergraduate majors at a medium-size state university located in the South are included in the research.

**Data Collection**

Student demographic information was collected from the university’s department of Institutional Research. The sample includes incoming first-year students. Demographic data were collected by gender, age, declared major, socioeconomic status, high school GPA, Pell Grant eligibility, first semester GPA, first semester hours earned, first-generation status, and ACT composite score.

**Instrument**

With Institutional Review Board (IRB) approval, a random set of students from this population was given the electronic LASSI assessment. This instrument is intended to gather and identify information about student learning, study practices, anxiety, concentration, information processing, motivation, selections of main ideas, self-testing, test strategies, time management, use of academic resources, and attitudes. Responses can assist the university in implementing strategies, methods, and techniques intended to get students actively involved in their own individual learning (Weinstein et al., 2016).
LASSI is an important tool to aid in academic success and is equally important to determining student academic preparedness, academic performance, and retention.

According to Weinstein et al. (2016), the definitions of the subscales on the LASSI are as follows:

1. Anxiety “assesses the degree to which students worry about school and their academic performance”;
2. Attitude “assesses students’ attitudes and interests in college and achieving academic success”;
3. Concentration “assesses students’ ability to direct and maintain their attention on academic tasks”;
4. Information Processing “assesses how well students can use imagery, verbal elaboration, organization strategies, and reasoning skills as learning strategies to help learn new information and skills. These strategies are also used to build bridges between what students already know or believe and what they are trying to learn and remember”;
5. Motivation “assesses students’ diligence, self-discipline, and willingness to exert the effort necessary to successfully complete academic requirements”;
6. Selecting Main Ideas “assesses students’ thinking skills for identifying important information for further study from less important information and supporting details”;
7. Self-Testing “assesses students’ use of comprehension monitoring techniques, such as reviewing or paraphrasing, to determine their level of understanding of the information or skill to be learned”;

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8. Test Strategies “assesses students’ use of both test preparation and test taking strategies”;
9. Time Management “assesses students’ use of time management principles and practices for academic tasks”; and
10. Using Academic Resources “assesses students’ willingness to use different academic resources such as writing centers, tutoring centers and learning or academic support centers, when they encounter problems with their coursework or performance.” (pp. 8-9)

Approval was obtained from the co-authors of this inventory to incorporate it into the data collected for this research. They have requested that the researcher provide them with an abstract of the completed research, along with approval to use the abstract in their LASSI promotions.

The LASSI has proven to be reliable and valid, as well as a unique research instrument. The LASSI is a “10-scale, 60 item assessment of students’ awareness about and use of learning and study strategies related to skill, will and self-regulation components of strategic learning” (Weinstein et al., 2016, p. 6). The instrument was used to help students develop greater awareness of their academic strengths and weaknesses.

The immediate feedback provided students with areas they need to improve upon, such as skills, attitudes, motivations, and belief systems. It also helped in identifying areas in which students need interventions and prescriptions for remediation and/or student support services. This tool is helpful in the development of workshops, assignments, projects, and other class activities that could enhance student learning and growth. As an evaluation tool, it could be used to assess the success of student support or
intervention programs or coursework. The final results of this survey were collected and analyzed for the purpose of sharing this information with other university stakeholders invested in active learning, student success, engagement, and retention.

The data were collected by sending letters of invitation through campus mail to invite students to attend a “meet and greet.” At the meet and greet, the students learned about the dissertation project and were given the opportunity to participate. They were allowed time to network with other students while sharing light refreshments. After signing the IRB permission form, the survey was given in a reserved computer lab where students completed the survey and immediately received feedback of their results.

Students also had the opportunities to participate in the survey during allotted class time provided by instructors or to complete the survey at the Learning Center on campus. The survey was administered by the researcher, who requested each student participant to sign an IRB approved participation form. Each student participant also was provided with directions on how to complete the survey. The researcher assigned each student an identification number to be eligible for a drawing of a $200 gift card. Once the survey was completed, the students had the option to review and print the results, or review the results through an emailed link.

Upon final collection of the data, the data were processed by the H & H Publishing Company information technology department. All indicators were removed that could identify student participants by name or student identification number associated with the university.
Analysis of Data

Quantitative

This quantitative study used the variables of the selected class of first-time, full-time, first-year students with high school GPA, first semester GPA, first semester hours earned, first-generation student, and ACT composite to codify responses to the LASSI survey. The LASSI was used to collect information from the students to check for understanding of 10 assessment categories and to obtain feedback regarding their strategic learning skills. The data of those who meet the desired criteria were collected with the assistance of the university Institutional Research staff.

Treatment of Data

The data were analyzed using Statistical Analysis Software (SAS). To address Research Question one, each LASSI scale was be contrasted to the five demographic variables: (1) first college semester hours earned, (2) first college semester GPA, (3) ACT composite score, (4) high school GPA, and (5) first-generation college student status. This process was designed to provide a manageable method for investigating the relationship of demographic variables and the LASSI subscales.

For Research Question two, Chi-square Analysis was utilized to investigate the relationship of the five demographic variables and each of the LASSI subscales. The distribution of response in each of the subscale categories (lower, middle, and higher) was contrasted to each of the demographic variable categories.
Limitations and Delimitations

This study was limited to first-time freshman students who attended the university in the fall of 2017 and returned in the spring of 2018 who met the described criteria established in the data collection and analysis process.

Definition of Terms

The following terms were used within this study and are provided here for clarification.

*Academic success* is the ability to achieve good grades and learn new information that leads to earning a college degree that makes students competitive in the job environment.

*College readiness*, as defined by Strayhorn (2014), is the “acquisition of the knowledge and skills a student needs to enroll and succeed in credit-bearing, first-year courses at postsecondary institutions” (p. 973).

*First-generation student*, as defined by the Western Kentucky University (2016), “is a student who comes from a family where neither parent graduated from college with a bachelor’s degree.”

*Motivation*, as defined by Sellers et al., (2015), is “the ability to activate through mindsight those thoughts and feelings and willpower to initiate, direct, and sustain behaviors that can lead to chosen goals” (p. 129).

*Retention* is to keep or to hold in place such as students staying semester-to-semester.

*Self-efficacy* is “judgments of how well one can execute courses of action required to deal with prospective situations” (Bandura, 1982, as cited in Lai, 2011, p. 7).

*Strategic learners* are students who “construct their own means, and in the process, become aware of their own thinking” (Kizlik, 2018).
Strategic learning is a “three-stage informal learning process of thinking strategically – preparation, experiences, and reevaluation” (Sloan, 2006, as cited in Moon & Ruona, 2015, p. 660).

University Experience is a three-hour credit course that is for first-year, transfer, or returning adult students. This course is developed to help students learn about campus and the resources available on campus. It introduces students to “critical thinking, information literacy, academic and career development, and successful student practices” (University Experience, 2016).

Summary

Chapter I provided an overview of the purpose of the study, its significance, framework, background, and methodology of the strategic learner from feedback from incoming first-year students who participated in a Learning and Study Strategies Inventory. Chapter II presents literature regarding challenges of student readiness, strategies for enhancing student readiness, and an assessment of student readiness as it relates to strategic learners.
CHAPTER II: REVIEW OF THE LITERATURE

Introduction

This chapter previews a number of factors that affect college student readiness, academic preparedness, and academic performance of first-semester college students, as well as retention. This study explores areas of challenges related to student readiness, strategies for enhancing student readiness, and factors influencing student readiness. The literature review shares research on ideas, techniques, and feedback that are useful for the instructor, university, and, most notably, the student.

Challenges of Student Readiness

As students transition from high school to college, they bring experiences and prior learning. However, if these students have had little instruction on knowledge and context building, academic success may not occur. Nevertheless, “the number of students attending college for the first time is expected to increase by 16% by the year 2020” (Hussar & Bailey, 2013, as cited in Williams & Armstrong, 2017, p. 26).

Regardless of increased enrollment, students need time to adjust to the new learning environment, instructor expectations, and course requirements. This is a critical time for incoming students, as they are learning their academic identity and entering an era of ongoing transition. “Somehow—through osmosis perhaps, students must find that secret in order to become successful, but there is precious little explicit guidance” (Tinberg, 1997, as cited in Williams & Armstrong, 2017, p. 22). Guidance is crucial as students make the transition to the college experience.

Seidman (2006) stated, “Do not recruit students to your campus who will not be successful unless you are willing to provide programs and services to help overcome
deficiencies” (p. 17). Many of these students are not college ready and are therefore less likely to earn a college degree without academic and social support. Students should be primed for college starting at the primary, secondary, and higher levels of education. However, findings by Royster, Gross, and Hochbein (2015) indicated that the trajectory for the highest year of college readiness is in the eighth grade. This also correlated with parent education levels and college preparatory course enrollment. Yet, there seems to be a disconnect from secondary education to higher education in college readiness. For example, in 2011, “Only 25% of the class of 2011 who took the ACT exam demonstrated college readiness in all four subjects” (Royster et al., 2015, p. 208). Only 19 of 100 high school students were considered college ready for higher education. This is troubling, as more and more employers now require education beyond high school, and retention is an ongoing issue in the college system. The lack of college readiness becomes a challenge for faculty.

Instructors have expectations that students can draw conclusions, interpret results, support research, and analyze sources (Conley, 2007). Yet, students are not accustomed to the faster pace of college and the profound differences between high school and college, nor do they have the skills required to meet instructor expectations. They are familiar with a slower pace and teacher-guided practices. In college, students have to explain what they learned and be independent, self-starting learners who understand when to seek help from others.

Students have moved into an environment where reading and writing assignments have increased and they are expected to clarify and provide evidence of sources. Students now have to support materials based on resources instead of opinions. They have to
actively engage in the learning process as an individual and not under the guided practice to which they were accustomed. “For these students, learning has been reduced to a form of sleepwalking, requiring no deep mastery or understanding” (Mirel, 1999, as cited in Conley, 2007, p. 24).

Information is missing from the high school curriculum. Collaboration and communication are essential in helping middle and high school teachers obtain the tools to help all students become college ready. Conley (2007) suggested the alignment of course syllabi across departments, senior seminars, expectation handouts, pace of the class increased, candid feedback, and development of cognitive skills to increase college readiness. There is missing content in the high school environment that hinders student readiness. For example, Language Arts classes should expand vocabulary and analysis skills. By doing so, they are building upon content which may lead to increased writing abilities.

Students have expectations about participating in the college learning environment; however, many of them do not understand the enrollment process or the importance of being academically prepared. Academic success is challenged if students do not understand the rigorous coursework required of them. Students who have limited understanding, poor academic preparedness, and unrefined strategic learning skills have a higher risk of dropping out of college during the first year than upperclassmen.

For students to be college ready and retained, they should be able to master cognitive strategies, content knowledge, academic behaviors, and contextual skills. Many researchers who have reviewed these approaches found that many students do not
have adequate academic skills to be successful in the four-year college setting. Yet these approaches have been helpful in determining college readiness.

Students struggle. They lack cognitive strategies that involve the thinking process of analyzing, clarification, problem solving, and reasoning. They do not recognize that content knowledge is the ability to master course materials such as engaging in texts, reading comprehension, manipulating numbers, and drawing conclusions. Contextual skills are skills students need to obtain admission to college, receive financial aid, and understand the college culture (Strayhorn, 2014). Without prior knowledge, guidance, or support, students will not master the enrollment process.

Other challenges of college readiness include essential skills. Learning requires that students be able to reason, read, and interpret. However, most students do not understand how to apply previous knowledge to real-world situations, analyze, evaluate, and explain. Using Bloom’s taxonomy, Dynan, Cate, and Rhee (2008) believed that students who are college ready should know how to ask appropriate questions, identify resources, use those resources, and answer the questions they create in the learning process. By developing self-directed skills, students could increase their readiness with mindfulness and practice.

Just as important to student success, mastering strategies, and essential skill, is social and cultural capital (Cates & Schaefle, 2011). Without engagement with others, students struggle to fit into the college setting. They may feel lonely and loneliness leads to the desire to return home. They feel disconnected and overwhelmed. They often isolate themselves from others, which creates a greater desire to leave school. Social engagement is as essential as understanding the cultural norms and expectations of college. By
developing and understanding norms and expectations, students learn to manipulate the college setting and find where they best fit.

Consequently, it is important that high school graduation requirements align with the expectations of colleges. The challenge of this alignment is the need for collaborative conversations that help students understand and develop college knowledge. This requires a comprehensive approach that includes legislators, policymakers, employers, families, programs, and policy development. All of these stakeholders perform roles that are essential to leading students to the path of college readiness.

Legislators and policymakers can take these challenges and warrant procedures that share common objectives. They may improve the need through funded programs to help ensure all students are college ready. Through their services, they can build a foundation of knowledge that helps students and families understand the college process and college environment. The policies can be influenced by the community and employers who share their expectations of future needs and skills (Hooker & Brand, 2010). Students need the tools and learning strategies to enable them to be independent learners of content.

**Strategies for Enhancing Student Readiness**

The college experience should start with secondary students developing college strategies and goals. Students can plan for their future college readiness by setting short- and long-term smart goals. Those goals may include learning more about the college setting, recognizing the importance of a college degree, gaining perceptions and expectations about college, and preparing academically for college admission (Radcliffe
& Bos, 2013). Collaboration and networking within the high school setting and the higher educational institute is essential to the future success of these first-year students.

Campus visits are a great way for students to learn more about the college environment. Students can use these visits as opportunities to write about the experience while walking and exploring the campus. During the visit, the students may stop at academic tutoring centers to learn more about available support services designed to improve their success and develop areas where they might need improvement. Along with visits to academic tutoring centers, students may have the opportunity to interact with college students on campus by attending a college class, engaging in campus life, and learning about the value of a college degree (Radcliffe et al., 2013).

Incoming students also should take advantage of other valuable campus services that help with college admission and readiness. Many students may have come from homes where parents are unfamiliar with the enrollment or financial process but have the desire for their children to attend college. Helpful campus services can lead students in the planning, processing, and understanding of the college enrollment and financial aid processes.

To further prepare for college, students should take advanced classes within the high school setting that challenge their abilities and skills, as many are not accustomed to rigorous coursework. Many students do not enroll in classes above their basic diploma requirement. Although about 80% of teens “believe a college degree is important to advancing their career goals,” (Finn, 2017, p. 136), below 40% of high school students are ready for college coursework.
Many of these students require remedial or developmental classes, which decreases successful enrollment into credit-bearing courses. Regardless of how much is invested in the academic support and aid for these underprepared students, approximately 17% of students needing remedial or developmental classes will graduate from college (Finn, 2017). Some colleges have implemented the strategy of not enrolling students who are unprepared or have raised their enrollment standards. The honest opinion exists that college is not for all. Although not a popular choice, refusing entrance would save students’ and tax payers’ money, but enrollment possibly would decline.

Students desire a good life, and colleges want retention. According to Finn (2017), “a society full of college graduates is apt to be not just wealthier, but healthier and more stable than one populated by dropouts and people with only K-12 schooling” (p. 134). The prospect of employment increases with some college, and more so with those who obtain a bachelor’s degree.

Hence, a college degree does not guarantee a job; in fact, economists estimate, “By 2020 the United States could face a shortfall of 14 million workers who have the knowledge and skills needed to compete for middle-income jobs in a global economy” (Carnevale & Desrochers, 2003, as cited in Callan, Finney, Kirst, Usdan, & Venezia, 2006, p. 3). However, a college degree does provide opportunities for an improved lifestyle and personal growth. Through goal planning and career assessment, students can increase their academic preparedness and performance toward a college degree by participating in career interviews, research projects, internships, and apprenticeships. With these tools, students can strategize and measure their needs by engaging in workshops while developing soft skills. Those soft skills illustrate their reliability,
collaboration, and communication needs for success. By utilizing the college culture and resources, their chance of academic performance and academic preparedness increases (Tchorzynski, 2017).

The secondary diploma should indicate students are college ready and have the knowledge and skills to master college. Still, high school students seeking enrollment in college “must navigate a maze of disconnect curricula and assessments that are reinforced by state policies that themselves are unconnected and often at cross purpose with each other” (Callan et al., 2006, p. 4). This creates barriers for those students who attempt to prepare for college. It is critical that secondary and postsecondary educational systems work together and unite with a common set of goals. The alignment of coursework and assessments between secondary and higher education is crucial to improving college readiness.

There should be a better understanding of how prepared high school students are for college, because most states cannot identify and analyze completion rates for students entering college. Without this data, it is difficult at best to identify intervention programs. Transcript analysis, college and career-prep courses, assessment of graduation requirements, entry requirement awareness, and rigorous instruction are methods suggested by Santelises (2016) for preparing students to be college ready.

The assessment of high school graduation requirements allows schools to track alignment with requirements of colleges. Also equipping educators with college admissions requirements helps to lead students to diverse pathways. With graduation and admission requirements, teachers can develop coursework that is rigorous and engaging. Instruction can be implemented through practice. The Seven Principles of Good Practice
are strategies used to get and keep students actively engaged in learning” (Chickering & Gamson, 1997, as cited in Cross, 2005).

The practices include student-faculty contact, cooperation among students, active learning, prompt feedback, time on task, high expectations, and respects diverse capacities (Chickering & Gamson, 1997, as cited in Cross, 2005). Students need quality interaction with teachers both in and out of the classroom. When students feel engaged and heard, they respond and actively connect in the learning process. They feel a sense of teamwork and ownership in the learning process, especially when they are given feedback and challenged with high expectations. Each student has his or her unique contribution to share. Learning must be taken seriously, and instructors need to know what makes students thrive.

What should colleges do? According to Tinto (2014b), focus should be on the classroom and increasing student success. The classrooms are the foundations where classes take place one course at a time. It is the place where students meet, engage, and learn. For many, it may be the only place where students engage with other students. Tinto said colleges should “connect academic support to the classroom and ensure that it is contextualized to the specific demands of the classes in which students seek to learn and succeed” (p. 4). He recommended supplemental instruction, courses that are linked, learning communities where more support is offered, and that no student should go through the first year alone.

Tinto (2014b) suggested, “Colleges and faculty invest in frequent assessment of student classroom performance and use the resulting data to further assist students” (p. 4). These shared data allow the tracking of needed support systems and placement of early
warning systems. Because early warning systems are not used early enough, technology web-based assessment with “predictive analytics” (Tinto, 2014b, p. 4) allows early detection to be sustained in more classrooms.

Other strategies include cooperative, problem, and project-based learning where students are engaged in learning and competition. This promotes social and academic support while shared learning occurs. Courses that extend beyond the physical classroom by using these strategies and technology enable more students to become engaged in the learning process. Blended and/or hybrid classrooms are other methods that incorporate student engagement, social and academic learning by using various communication tools. “As for students, it is one thing to expect improvement; it is another to provide the types of support community colleges need to address the needs of the students they serve” (Tinto, 2014b, p. 4).

On average, more than half of students who enroll take up to six years to obtain their degree. It is critical that colleges retain students as well as promote retention campus wide. It requires a commitment on behalf of the university to invest in resources, incentives, and rewards to enhance student retention. These strategies should lead to high expectations for student academic preparedness and performance. By providing feedback and engaging students in social and academic environments, students are more likely to persevere, learn, and achieve graduation. Active learning and high expectations lead to student learning and retention (Tinto, 2013).

First-year students should be exposed to college resources as early as possible so they know how to use them effectively and efficiently. Students intend to use academic assistance or learning centers, but by years-end only half of them have actually utilized
such resources (Kuh, 2007). Academic advising should provide clear and consistent information to students; they need guidance to move forward in their academic career. Tinto (2014b) stated, “Gaining and maintaining momentum is key to student completion” (p. 1). More colleges are moving students through the college process to check for intermediate points of achievement to track graduation and degree completion. Colleges are making sure that students are finishing developmental courses, if needed, on time, earning expected credit hours in a specific time frame and reaching degree completion.

Not all students are able to stay on track, especially those who need developmental coursework. The first year of college is a crucial period during which students acquire skills to help them learn and grow. Colleges should ask how they can structure the first year to promote academic preparedness and performance. To help move these students along, advisors are placing students into credit-bearing courses scheduled with a skills course. With this support system in place, students develop learning strategies that help them move forward quickly (Tinto, 2014a) and increase their academic success. Another strategy is to use cohorts along with accelerated learning.

Cohorts are “groups of people who stay together from beginning to end of a program and who grow through the process while developing community and support, experiencing essentially the same stimulus material and challenges of the work environment” (Sapon-Shevin & Chandler-Olcott, 2001, as cited in Fenning, 2004). Typically, cohorts are divided into three types: closed, open, and fluid. In the closed cohort the same students take coursework together. Open cohorts allow students to take classes that are not a part of the cohort program. The fluid cohort allows students to drop or join as they please (Fenning, 2004).
Students who participate in the cohort strategy and programing feel included and respected. There is a sense of community where students’ confidence improves and they are encouraged to explore new ways of thinking. Students have more desire to engage, learn, and create new knowledge in a caring and emotionally safe environment. Mentoring becomes a part of the learning environment and a way for others to measure learning. Overall student attitude is more positive toward the course materials and learning outcomes, and retention improves.

The University Experience course is another helpful strategy for incoming students. Tinto (1999) suggested that connecting this class to other subjects on campus creates a community of learning. This course covers a broad range of strategies for transitioning into college. Active involvement, active listening, and note-taking are critical skills for academic preparedness and performance. University Experience focuses on developing skills, networking, making campus connections, and building a learning foundation that students can carry forward through their college career.

There are strategies that can be implemented into the educational environment to retain students. Students should receive comprehensive information on all facets of a program from admission to degree completion. Support programs should be in place for all students. This includes tracking students, providing feedback, clear course requirements, and faculty support (Burkholder et al., 2013). Early warning systems, prior assessment, and student support services are important to student retention.
Factors Affecting Student Readiness

According to Weaver and Qi (2005), “The most powerful source of influence on student learning appears to be students’ interpersonal interactions, whether with peers or faculty” (p. 576). Today’s college students have attended high school classes where teachers are encouraged to teach to the test to achieve academic success. Testing has not improved education, but it has lowered the quality of education that students need to be successful in the college setting (Koca, 2016). Incoming, first-generation students lack knowledge about the college structure and educational costs. They also face the challenge of transitioning from high school into higher education. These challenges often influence whether they leave the four-year institution at the end of the first year (Pascarella, Pierson, Wolniak, & Terenzini, 2004). These challenges also are affecting student retention, attrition, self-motivation, and other factors.

Today’s college students face other life priorities such as family issues, financial concerns, and personal needs. Crone and MacKay (2007) viewed college as another “acquisition to be made rather than a process in which you engage” (p. 18). There is an expectation that students will go to college, but students often “forfeit deeper engagement in academic research” [p. 18] to work in retail. Students have not learned to make education a priority and have not made the true connection to college because of their prior experiences.

College students need “multifaceted approaches and activities that are relevant and meaningful to students to help heighten and maintain their motivation to participate, persist, and learn” (Morgan & Moni, 2007, as cited in Walter, 2014, p. 3). Students need to feel that they are in control of successes and failures and have a personal interest in
their academic success (Lai, 2011). Students need to be held accountable for their academic success; however, they may lack the strategic learning skills and determination to study, flourish, and obtain that desired college degree.

According to Koca (2016), “motivation is more important to a child’s education than any other single factor, including the teacher’s skill/experience, classroom resources, and so forth” (p. 5). Intrinsic and extrinsic motivators can influence student success as well as autonomy, self-efficacy, positive relationships, personal choices, classroom environment, and relatedness. Motivation as defined by Sellers et al. (2015) is “the ability to activate through mindsight those thoughts and feelings and willpower to initiate, direct, and sustain behaviors that can lead to chosen goals” (pp. 129-130). Academic motivation is a huge part of strategic learning and is affected by internal and external factors. Students need the motivation or mastery to get better at something that can change their lives, such as a college education.

Students come from a secondary learning environment where the teacher decides what will be taught and read, designs course activities, and controls the evaluation process. Within the college classroom setting “professors talk almost 80% of the time,” whereas “only about 10 in 40 students participate in discussions, and typically, just 5 of these dominate the discussion” (Fischer & Grant, 1983, as cited in Weaver & Qi, 2005, p. 570). Although students view teachers as experts, students desire autonomy or a sense of control. They strive to feel connected to the class and university. Clear instruction helps students understand what they need to accomplish and the confidence to complete the task (Daniels, 2010).
Strategic learning occurs when students can make choices in their own learning. According to Dansereau (1969), “Motivation is intrinsic when there is a natural relationship between task and goal; it can be effective when the learner sees this natural relationship” (p. 111). Choices allow students to develop ownership over learning, which leads to increased motivation. When students experience intrinsic motivation, they develop increased engagement. Patrick, Hisley, and Kempler (2000) shared that students often were motivated by “achievement test scores and report card grades, amount and breadth of reading, object recognition and recall, text recall and comprehension, creativity, and positive emotions in school” (p. 218). Students are motivated by awards and reward systems and may lose their own intrinsic motivation to learn.

Students who are self-regulating create a study plan; practice time management; utilize study guides; and often experience greater preparedness, performance, and decreased stress (Struthers, Perry, & Menec, 2000). Self-regulating students may actively monitor their skills and learning styles that enhance academic success. Students may incorporate motivational strategies as well as cognitive, metacognitive, and behavioral strategies into their learning environments (Paulsen & Feldman, 2005). Students may use strategies that change dull assignments or tasks into games, or other stimulating methods to make learning more interesting or to add value to the topic (Hidi & Harackiewicz, 2000). By enhancing their desire to learn and by retaining interest in the course, they could develop critical thinking skills and effective communication skills (Pelton, 2014). Students might become more self-efficient.

Self-efficacy offers students the opportunity to improve academic performance. Self-efficacy “is an individual’s confidence in his or her ability to organize and execute a
given course of action to solve a problem or accomplish a task” (Bandura, 1982, as cited in Lai, 2011, p. 7). This primes students for positive learning experiences, task completion, and academic modification, which lead to a sense of belonging, increased personal confidence, and persistence (Thomas et al., 2009). Students begin to feel a sense of control over success or failures.

Along with self-regulation and self-efficacy, autonomy is extremely important to student motivation. It fosters students’ needs by giving them the choice of owning their actions, nurtures intrinsic drive, and involves them in activities that align with their values and interests (Rudow, 2013). Choice encourages students to stay motivated in a subject or activity. When students are actively engaged, they gain motivation through autonomy by achieving higher GPAs, and they are more likely to stay in college. These students are more persistent and focused than other students and tend to steer clear of too much socializing (Jaschik, 2013).

Schwartz (2014) said, “Treat students like adults. If the students feel like they’re worth it, they’ll act more like adults” (para. 3). Students want to experience ownership in their learning. They enjoy projects and activities that get them actively engaged in learning. Hands-on tasks allow students to interact while also learning how to collaborate with others. Collaboration is a leadership skill that can be challenging yet encourages students to work cohesively as a team or learn to be a team through communication. Learning from mistakes is a part of teamwork and offers members the chance to learn and grow from those mistakes. They can articulate what changes need to be made the next time and find humor from the experience. The learning experience opens the door to evaluation. Students share meaningful feedback to improve and grow. Mistakes,
collaboration, and feedback are all a part of skill building and making connections to skills that are important to students’ lives.

Students want to know that teachers care. They want teachers involved in the learning journey. “High expectations and strong support from teachers are crucial” (Schwartz, 2014, para. 13). Students feel validated and motivated when teachers make them feel valued. They appreciate teachers who give them control over their learning, which generates long-term, stable interest. Students should be allowed to make decisions that are simple and complex (Albrecht et al., 2009). Decisions include classroom activities, how to approach projects, or how to assess the final product. Students who feel in control of their own decisions, ideas, and work create methods to express learning in their own unique ways (Lai, 2011). Teachers can help with student motivation by simply saying “thank you,” recognizing students’ actions and behaviors, fostering positive expectations, providing prompt feedback, putting a human face on opportunities, being a source of self-motivation, and offering new perspectives.

Along with the classroom environment, teacher enthusiasm, and relationships, there are other factors to consider that affect student preparedness and performance. Class size, age, gender, emotions, informal or formal classrooms, prior performances, and confident or passive personalities appear to be factors that affect student learning (Weaver & Qi, 2005). The overall layout of the school down to the class size can affect the student population, grouping of students, and class schedules. “It is important to start identifying such students early in their academic careers, because programs aimed at high schoolers often come too late. Loss of motivation can begin at an early age; unless it is addressed it compounds itself” (Manzo, 2008, as cited in Usher, 2012, p. 2).
With loss of motivation and external influences, students deal with many challenges that come from within. Anxiety greatly affects student learning, overall well-being, and finances. Students are paying more for college than in the past (Hurst, Baranik, & Daniel, 2012). With the ever-increasing cost of college and financial pressure, students also are working to supplement their income while trying to survive the demands of studying, exams, transition to college, and personal and family issues.

Relationships are a common stressor for college students. They are anxious about parental expectations, parental role change (such as divorce or loss of a loved one), and overwhelming loneliness. They often are expected to help with home finances for parents who are struggling. Some students have their own children to care for while attending school, which adds to the anxiety of academic success. These relationships also include friends, significant others, and peers they leave behind at home.

Along with anxiety from relationships, test anxiety is another form of anxiety that many students experience. Students are afraid of negative assessment and failure (Fernandez-Castillo & Caurcel, 2015). Test anxiety can affect the student’s thinking and performance in working memory, concentration, and attention. Incoming first-time, first-year students have less experience with mastering these skills than upperclassmen and need to work on improving concentration.

In the age of technology, students are easily distracted by the convenience of cell phones and technology-based applications. There is a lack of focus or concentration. Concentration means “focusing all your attention on a single subject” (Concordia College, 2018, para. 2). Students can develop this skill by learning to focus on
assignments through practice and repetition. They need to learn how to tune out internal and external distractions.

External distractions may include noise, lighting, and physical setting. Students should practice different methods to find in which conditions they are most comfortable. Study lounges may offer too many interruptions, so it is better to select an area where traffic is light and quiet. Some students prefer to study with music. Concordia College (2018) suggested trying to read a passage in the quiet area and then one with music to see what is remembered. Another suggestion is to listen to music without words or use a fan for the white noise to divert other distractions.

Lighting and the physical setting also are important for concentration. Natural light is best for studying. Students who study under artificial light should try to eliminate glare with sufficient lighting to avoid eye strain and to improve concentration. Students who study in their rooms should avoid studying on the bed; maintain a comfortable temperature; and collect all items needed to study such as books, highlighters, or other materials in advance of a study session.

Internal distractions often come from anxiety, daydreaming, hunger, fatigue, or motivation. Anxiety can be reduced by talking with another about concerns or by journaling. Daydreaming can be addressed by jotting down items as they come to mind and addressing them at another time. To keep hunger and fatigue at bay, students should eat regular meals, avoid sugary snacks, and sleep between seven and nine hours per night. Breaks during study sessions are helpful to break up the routine and to engage in movement. Increased activity and exercise benefit mental and physical well-being (Concordia College, 2018).
Information processing and selection of main ideas are key components of student understanding and academic growth. Information processing involves strategies to help students learn. Students should find strategies to retain information that can be used currently and in the future. Strategies may involve studying during the day, which frees up the evenings for exercise, social events, or relaxing. Students often use online strategies to gather and collect information for study to reach their search objectives. Those students, like the population used for this study, have grown up in the digital age where the Internet is a common part of their environment. Students may prefer to use “search engines, websites, books, online databases and journals” (Lee, Paik, & Joo, 2012, para. 6). Accessibility is a concern, as is ease of use and convenience.

Experts can aid in student learning. Those experts include professionals, librarians, and institutional repositories where students interact with human resources who can help them make better selections, offer advice, feedback, and comparisons of strategies (Lee et al., 2012). Students also should seek advice from instructors, advisors, and tutoring centers where they have hands-on experiences with specifically trained professionals.

Along with information processing, students need to identify and select the main idea of course content. Many students do not know that the main idea is the “point of passage, minus all the details. It is the concept the author wants to communicate to the readers about the topic” (Roell, 2018, para. 3). The main idea is a topic sentence that provides the reader with an overview of the paragraph. Details support the main idea and should be relevant and provide a framework for future content. A good strategy is to read
the content and briefly describe it in fewer words than the author used. It is critical that students understand what they are reading and how to use it when preparing for testing.

Testing is one of the many methods that instructors use to check for knowledge and understanding. However, not all students are good test takers, and some lack strategies on how to prepare for quizzes and exams. There are many techniques that students can use to help improve their test-taking strategies and self-testing techniques. Suggestions include using different highlighters, writing summaries, explaining content to another student, answering the questions at the end of the chapter, taking practice exams, creating outlines, writing in margins of books, taking notes, generating flashcards, forming study groups, and creating their own test (Wallis, 2017). Other helpful methods include sitting in the front of the class, maintaining good posture, and obtaining eye contact with the instructor.

Students also should develop friendships in class, learn how to code reading materials, organize notes, identify major headings, and pull key points from graphs and/or charts (Petty, Super, & Bryant, 2013). Another method highly recommended is the practice of retrieving knowledge. “Students can really benefit from testing themselves as they study by using something as simple as flashcards” (Neubert, 2009, para. 2). It is important to not eliminate material because the student may feel he/she has obtained the information. Practicing the recall of information helps produce gains in learning and long-term retention of the materials. Those students who use testing and self-testing strategies are “generally successful academically, so this shows how powerful the illusion can be” (Neubert, 2009, p. 9). Students who work to develop these skills also should work to improve time management techniques.
With new-found freedom, of this sample of students, comes the need to learn how to manage time and use academic resources on campus. Time management is an essential skill to be an effective and efficient learner. Developing a consistent process will become habit and become a part of the student’s daily routine. A planner is a helpful time management tool. All activities can be scheduled into the planner, including fixed items such as classes, work, meals, sleep, group meetings, showers, family/friend time, or other activities that students do each day/week (Saint Mary’s College, 2018). Planners can help students budget time for fun or exercise to stay healthy and to block off time for homework and study. When a task is completed, check it off. Students also should include items that were accomplished that were originally scheduled to track how the week progressed and to plan for the next week and reflect to see if there was procrastination.

Other tips include using hidden time, such as sitting at an appointment. Use this time to make to-do lists, study flashcards, review most difficult classes first, visualize, take a break, and hydrate. Above all, students need to be resilient. There are times that perseverance will be difficult and optimism will weaken. This is the time to push through and use inner commitment to push forward. When time management is challenging, there are numerous student resources on campus.

Students may resist seeking help, as they may see it as a loss of independence or failure. However, there are many student-focused centers on campus to help with student success and to provide much needed support. Tutoring or writing centers are staffed with high-achieving peer tutors who are knowledgeable and prepared to help. Other support
centers may offer more specialized help in specific areas such as math, chemistry, languages, or various subjects (Nelson, 2018). Resources are not limited to academics.

An academic advisor is a valuable resource for students who are struggling to decide what major to declare. Advising provides students with one-on-one help on their specific major needs, as well as the opportunity to network one-on-one. An advisor may be a faculty member or academic professional. He or she can direct students academically and share other valuable resources on campus, such as spiritual services. Many universities offer spiritual support that helps to get students engaged in campus events as the students settle into new life at school (Nelson, 2018).

Other services include counseling services where a student has the freedom to discuss personal issues in a confidential and secure place. Perhaps students need help deciding a major or seeking employment; career services are available to help students understand how to develop a resume, practice for an interview, dress appropriately, or obtain an internship so they can learn more about their chosen career path (Nelson, 2018).

Hands-on and electronic resources also are available to students. Campus libraries are stocked with numerous study materials with enthusiastic staff who enjoy sharing their research skills. The staff also can help with electronic scholarly search engines available on line through the university’s libraries if students are willing to learn to navigate and explore. Students may feel too overwhelmed to deal with detailed searches, and this affects attitude.

With the adjustments first-year college students experience, they have expectations about their ability to perform to meet the requirements of coursework, as well as those who support them in their academic adventure. Attitude plays a part in
students’ interest of academic success. Successful students can develop positive attitudes by showing their competence, self-confidence, and caring selves. Attitude is shown through “words, tone of voice, actions, reactions, facial expressions, mannerisms, and body language” (Roth, 2008, para. 3). Students with a can-do attitude and interest in academic success will thrive in the college learning environment.

**Summary**

This review has focused on college student readiness, academic preparedness, and academic performance for first-time, first-year students in a university setting. Chapter III explores the overview of the problem, study design, study method, and validity and reliability of the instrument.
CHAPTER III: METHODOLOGY

Introduction

The current generation of students has known war on terror and the Great Recession. They live in a time where technology is a top priority, and they do not know a time where there was no social media. They witnessed the election of the first African American man as President. This generation also greatly influences marketers’ choices who want to fulfill their needs. These students absorb information quickly and lose interest just as fast (Williams, 2015). They are not as academically prepared as they believe they are.

McDaniel (2014) shared that “despite educators” (p. 83) good intention (or perhaps because of them), students have arrived on college campuses without sufficient preparation for what college-level academics will require from them.” These students are overwhelmed by the intense amount of materials they must read for courses. They use communication that is brief and limited to 140 characters, which is misaligned with instructor expectations that they should be able to reason, read, and write to advance and improve their critical thinking skills. These students need to develop learning strategies that challenge them to approach academics in stages and show improved growth throughout the process.

The research conducted in this study included a quantitative approach utilizing a Learning and Study Strategies Inventory (LASSI), which is a “10-scale, 60-item assessment of student awareness about and use of learning and study strategies related to skill, will, and self-regulation components of strategic learning” (Weinstein et al., 2016, p. 6). The results of this survey provided feedback to students to help them develop
strategic learning skills that guided them to academic preparedness and performance. This research, in relation to the demographic variables, was designed to benefit the stakeholders of the university who would better understand these students’ needs for academic success and retention.

**Overview of the Problem**

This sample of students has a higher risk of dropping out of college. The first year of college is the most critical year during which students choose to stay or leave. For the first time, many of these students have experienced personal freedoms from structured school schedules and paternal guidance. They have the academic freedom to schedule classes, work, exercise, and socialize at times that are convenient for them. However, first-years students may lack strategic learning skills.

The purpose of this study was to examine the relationship between first-year students’ strategic learner capacity and four selected demographic variables typically used to estimate academic preparedness and performance of students less likely to graduate from college.

**Research Questions**

The research questions included in this study were as follows:

Research Question 1: What is the overall relationship of the selected five demographic variables and the 10 LASSI subscales that measure student learner capacity?

Research Question 2: To what extent do significant differences exist within the selected demographic variables on the various LASSI subscales?
Population

Institutional Research provided the researcher with a file of the students requested based on race, age, gender, ethnicity, socioeconomic status, grant eligibility, first-generation, high school GPA, first semester GPA, ACT composite, major, first semester hours earned, and campus address. The data file contained contact information of those first-year students who enrolled in the fall of 2017, and who also returned in the spring of 2018. The total number of students who met these criteria was 2,122. Of this total, a first-time, first-year population of approximately one half, representing 997 students, were randomly selected to receive a letter by campus mail inviting them to a “meet and greet” to learn about the research project. These students also received a reminder email inviting them to participate.

Data Collection

The data collection, through the “meet and greet,” began on February 15, 2018, and ended on February 28, 2018, after a total of only 12 students attended over four scheduled dates (2/15, 2/19, 2/27, 2/28). After the students agreed to participate and signed proper approval forms, they were taken to a computer lab where they logged into the survey using the instructions provided by the researcher. Each student was assigned an ID number for participation in a gift card drawing. The completed LASSI survey data were compiled by H & H Publishing’s Information Technology Department, which is the company that holds the copyright for LASSI. LASSI’s IT department agreed to remove any identifiers once all surveys were completed.

After experiencing a lack of response and low turnout of only seven students from the first two efforts to recruit participants (2/15 and 2/19), on February 23, 2018, the
researcher amended the request to IRB. The researcher asked to amend the methodology to include meeting students in designated classes or student activities/events, rather than depending on students’ self-inclined response. The amendment was approved on February 27, 2018.

To help increase participation, the researcher also spoke with instructors to see whether they were willing to share their class time so the researcher could have more access to students within the target population at the students’ convenience. Beginning February 28, 10 instructors in different courses allowed students to participate in the survey by using a computer lab at the location of the students’ class. The sample of students who participated in this survey was not typical of the total population of this first-year class, making this a sample of convenience. Student participants also agreed and signed the proper paperwork before completing the survey. After meeting with 17 classes, the researcher collected an additional 160 surveys, resulting in 172 students who constituted the final data file compiled by the LASSI IT department. The surveys were completed by March 29, at which time 172 student data files were collected, representing 17% participation of the invited target population. The number of participants was higher than expected by the data processor and researcher. The data file was requested from LASSI’s IT department that removed any identifiers and subsequently sent the data in an Excel spread sheet to the researcher.

Statistical Analysis System (SAS 9.50) was used to examine the data for this study to answer the two research questions. For RQ1, the five demographic variables were compared to the LASSI subscales to determine whether a relationship existed among the demographic variables and the 10 LASSI subscales. For Research Question
two, Chi Square was utilized to find the significance of the comparisons of each LASSI scale to the five demographic variables.

**Instrument**

The instrument used for data collection was the LASSI. This diagnostic and prescriptive instrument scored 10 different scales in the areas of strategic learning: Information Processing, Selecting Main Ideas, Test Strategies, Anxiety, Attitude, Motivation, Concentration, Self-Testing, Time Management, and Using Academic Resources. According to Weinstein et al. (2016), this instrument helped students have a greater understanding of the strengths and weaknesses in their learning process. It helped identify areas where students could benefit from university resources. The instrument provided feedback to campus resources and faculty on how to better help them focus on developing strategic learning skills and interventions to help students focus toward academic success and retention.

The LASSI was administered online with a user name and password assigned by the researcher. The LASSI was not a timed assessment, and students took 5 to 10 minutes to complete the questions. The students were asked to select from one of five responses to the items presented: “not at all typical of me,” “not very typical of me,” “somewhat typical of me,” “fairly typical of me,” and “very much typical of me.” The survey consisted of 64 questions, with the last four, being introspective, not scored. The questions were grouped by five different questions and scored based on the 10 scales. Students were provided with a LASSI student report that included a chart visually displaying how they scored. Each score was broken down and interpreted for the student. The immediate feedback provided students with their areas of strengths and suggestions
on what they could do to improve in the weaker areas. It should be noted that “approximately half of the items use reverse scoring to reduce response bias” (Weinstein et al., 2016, p. 12).

The LASSI legend denotes scores above the 75th percentile, between the 75th and 50th percentiles, or below the 50th percentile. Students who scored in the 75th percentile scale did not need to work to improve that particular area. For those who scored in the 75th to 50th percentiles, there was a need to consider how to improve in this area and what strategic learning skills were needed to heighten their academic preparedness and performance. Those who scored in the lower 50th percentile needed applicable knowledge and skills to increase their success in these areas, especially in the academic setting (Weinstein et al., 2016).

**Validity and Reliability of Instrument**

The study utilized the third edition of the LASSI. It was originally created in 1982 as a Cognitive Learning Strategies Project at the University of Texas in Austin (Weinstein et al., 2016). There was a need for assessment of underprepared students in the college environment. The instrument was created to address strengths and weaknesses in the college setting, as well as the effectiveness of courses. The tool was tested by expert judges who narrowed the contents to focus more on strategic learners versus items that did not relate to how students study. The developers ran a pilot test to determine clarity and eliminate redundancy. The instrument was narrowed again, and a second pilot test was conducted. Field tests were continued over a two-year period when the scales were reduced into clusters found on today’s LASSI assessment. The LASSI was given to additional students, scores were compared and factors and scales were validated. The
assessments were used at more than 30 colleges and universities who found the assessment useful (Weinstein et al., 2016).

The second edition format began modification in 1997, when questions were both enhanced and expanded. The change included the addition of more depth into cognitive areas, web usage, further explanation of the scales, better balance in the number of questions for each scale area, and expanded use geographically. It was pilot tested again with a larger population of students in 1998. Modifications continued, and the instrument was again pilot tested (Weinstein et al., 2016).

The LASSI survey currently used is now in its third edition. The focus of this addition was to narrow testing time, move to an online version, and provide students with clearer wording of the questions. The creators continuously monitor the LASSI and provide opportunities for professionals to give feedback or share experiences with other users. The current edition was field tested at 23 different institutions in various geographic areas (Weinstein et al., 2016). There is a continued focus on the integrity of the instrument.

Summary

The data for this study were collected from second-semester, first-year students who enrolled in the fall of 2017 and returned in the spring of 2018. The instrument used for assessment was the LASSI. Analysis of data from the survey used a quantitative approach based on a 10-scale, 60-item assessment for measuring strategic learners’ abilities. The findings of this survey are presented in Chapter IV.
CHAPTER IV: RESULTS

Introduction

The purpose of this study was to examine the relationship between first-year students’ strategic learner capacity and five selected demographic variables that are typically used to estimate academic preparedness and performance of students less likely to graduate from college. Strategic learner capacity was measured by the Learning and Study Strategies Inventory (LASSI). The LASSI is composed of subscales that evaluate 10 areas of strategic learning: anxiety, Attitude, Concentration, Information Processing, Motivation, Self-Testing, Test Strategies, Time Management, Using Academic Resources, and Selecting Main Ideas.

LASSI subscale scores were reported in three broad percentile ranges: 0-50, 50-75, and 75-100. LASSI classified students who scored in the 0-50 percentile range as those “needing to improve their skills to avoid serious problems succeeding in college.” Students who scored in the 75-50 percentile range were described as those who “should consider improving strategies in those areas,” and those who scored above the 75th percentile were described as students who “do not need to give a high priority to improving strategies in those areas” (Weinstein et al., 2016, p. 36).

Research Questions

To address the purpose of this study, two research questions were developed:

Research Question 1: What is the overall relationship of the selected five demographic variables and the 10 LASSI subscales that measure student learner capacity?
Research Question 2: To what extent do significant differences exist within the selected demographic variables on the various LASSI subscales?

**Presentation of Study Findings/Data Results**

The potential population for this study was composed of all first-time, first-year students who entered college in the fall of 2017 and returned in the spring of 2018. The population included female and male students who were at least 18 years old. Of the 2,122 first-year students eligible to participate in this study, approximately 50% were randomly selected for participation. A total of 172 ultimately agreed to participate, which represented a response rate of 17%.

Each participating student was assigned a random number for logging into the LASSI survey site. After students completed the questionnaire, the LASSI Information Technology department provided the individual results to the researcher. The LASSI results were then merged with demographic data provided from the university’s Office of Institutional Research.

The demographic variables included gender, first generation, high school GPA, ACT composite, first semester GPA, and first semester hours earned. The demographic variables are displayed in Tables 1 through 6.

Table 1 reports the gender of study participants. Of the 172 students who participated, 88 (51.46%) were female and 83 (48.54%) were male. Table 1 summarizes these data.
Table 1

*Gender of Study Participants*

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>88</td>
<td>51.17</td>
</tr>
<tr>
<td>Male</td>
<td>83</td>
<td>48.25</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
<td>.58</td>
</tr>
<tr>
<td>All</td>
<td>172</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 2 represents the demographic variable, first-generation student. Of the 172 participating students, 97 were not first-generation students, whereas 71 identified as a first-generation student. Seventy-one students (46%) reported being first-generation. Three elected not to identify or failed to answer the question. Table 2 summarizes these data.

Table 2

*First Generation Student Participants*

<table>
<thead>
<tr>
<th>First Generation</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>98</td>
<td>56.98</td>
</tr>
<tr>
<td>Yes</td>
<td>71</td>
<td>41.27</td>
</tr>
<tr>
<td>Unknown</td>
<td>3</td>
<td>1.75</td>
</tr>
</tbody>
</table>

Four additional demographic variables were utilized to examine the 10 LASSI subscales. These frequently-cited variables better analyze how students perform during the early semesters of their college careers (Sawchuk, 2017). These demographic
variables are (1) high school GPA, (2) ACT composite, (3) first semester GPA, (4) and first semester hours earned (see Table 3).

Table 3

Demographic Variables of Study Participants

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>No Data</th>
<th>Minimum Value</th>
<th>Maximum Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School GPA</td>
<td>171</td>
<td>2.93</td>
<td>.54</td>
<td>1</td>
<td>1.84</td>
<td>4.00</td>
</tr>
<tr>
<td>ACT Composite</td>
<td>165</td>
<td>18.57</td>
<td>4.18</td>
<td>7</td>
<td>11.00</td>
<td>35.00</td>
</tr>
<tr>
<td>First Semester GPA</td>
<td>162</td>
<td>2.44</td>
<td>1.05</td>
<td>10</td>
<td>.20</td>
<td>4.00</td>
</tr>
<tr>
<td>First Semester Hours Earned</td>
<td>163</td>
<td>11.95</td>
<td>3.92</td>
<td>9</td>
<td>1.00</td>
<td>18.00</td>
</tr>
</tbody>
</table>

As reported in Table 3, the average high school GPA was 2.93, which is lower than 3.31 for the total first-time, first-year student body at the university, according to the Institutional Research office. The average ACT composite score was 18.57 for this demographic variable, compared to 22.83 of the total first-time, first-year students. First semester GPA was 2.44 for the participants and 2.64 for the total first-year student class. The average first semester hours earned was 12, which was the same for the total incoming class, according to Institutional Research.

To gain insight into the relationship of each of the demographic variables and the subscales, a frequency distribution of each variable was performed. These distributions were then arranged lowest to highest and separated into three levels. This resulted in the grouping of each student’s demographic variables into three categories: lower (lower third of distribution), middle (middle third of distribution), and upper (top third of distribution). Separating the variables in this manner provided a convenient way to
examine each of the subscales in terms of student characteristics on the demographic variables.

Table 4 reports the grouping of the demographic variable, first semester hours earned, using the three-level grouping technique. Forty-six students or (28%) earned one to nine hours. Thirty-three (20%) earned 10 to 12 hours. Eighty-four (52%) passed 13 to 18 hours. Table 4 summarizes these data.

Table 4

First Semester Hours Earned by Grouping

<table>
<thead>
<tr>
<th>First Semester Hours Earned Grouping</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower third (1-9 hours earned)</td>
<td>46</td>
<td>28.22</td>
</tr>
<tr>
<td>Middle third (10-12 hours earned)</td>
<td>33</td>
<td>20.25</td>
</tr>
<tr>
<td>Upper third (13-18 hours earned)</td>
<td>84</td>
<td>51.53</td>
</tr>
<tr>
<td>All</td>
<td>163</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Data for nine students were not available.

Table 5 reports the grouping of the demographic variable, “first semester GPA,” using the three-level technique. The lower group was represented by a GPA of 0.20-1.47, the middle group was 1.48-2.40, and the high group was 2.41-4.00. The breakdown provided an overview of differences in first semester GPA. Forty-four (27%) earned an overall GPA score of 0.20-1.47. Fifty (31%) earned an overall GPA of 1.48-2.40. Sixty-eight (42%) earned an overall GPA of 2.41-4.00. Table 5 summarizes these data.
Table 5

*First Semester GPA by Grouping*

<table>
<thead>
<tr>
<th>First Semester GPA Grouping</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower third (0.20-1.47 GPA)</td>
<td>44</td>
<td>27.16</td>
</tr>
<tr>
<td>Middle third (1.48-2.40 GPA)</td>
<td>50</td>
<td>30.86</td>
</tr>
<tr>
<td>Upper third (2.41-4.00 GPA)</td>
<td>68</td>
<td>41.98</td>
</tr>
<tr>
<td>All</td>
<td>162</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Note:* Data for 10 students were not available.

Table 6 reports the grouping of the demographic variable, ACT composite, of those students who took the ACT in high school using the three-level technique. The lower grouping for ACT composite was 11-15, the middle was 16-18, and the high was 19-35. Thirty-nine (24%) scored between 11 and 15. Sixty (36%) scored in the 16-18 range. Sixty-six (40%) scored in the 19 to 35 range. Table 6 summarizes these data.

Table 6

*ACT Composite Scores*

<table>
<thead>
<tr>
<th>ACT Composite Scores</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower third (11-15 ACT)</td>
<td>39</td>
<td>23.64</td>
</tr>
<tr>
<td>Middle third (16-18 ACT)</td>
<td>60</td>
<td>36.36</td>
</tr>
<tr>
<td>Upper third (19-35 ACT)</td>
<td>66</td>
<td>40.00</td>
</tr>
<tr>
<td>All</td>
<td>172</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Note:* Data for seven students were not available

Table 7 reports the grouping of the demographic variable, high school GPA, using the three-level technique. The low group included 1.84-2.53, the middle range was 2.54-3.02, and the upper group was 3.03-4.00. The low group of 1.84-2.53 contained 51
(30%). In the middle group, 51 (29%) scored 2.54-3.02. The remaining 70 (41%) scored 3.03-4.00. Table 7 summarizes these data.

Table 7

*High School GPA*

<table>
<thead>
<tr>
<th>GPA - HS</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower third (1.84 -2.48 high school GPA)</td>
<td>51</td>
<td>29.82</td>
</tr>
<tr>
<td>Middle third (2.54-3.02 high school GPA)</td>
<td>50</td>
<td>29.24</td>
</tr>
<tr>
<td>Upper third (3.03-4.00 high school GPA)</td>
<td>70</td>
<td>40.94</td>
</tr>
<tr>
<td>All</td>
<td>172</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Note:* Data for one student were not available.

Research Question 1 asked: What is the overall relationship of the five selected demographic variables and the 10 LASSI subscales that measure student learner capacity? To address RQ1, each LASSI subscale was contrasted to the five demographic variables under investigation. This process provided a manageable method for investigating the relationship of variables and the subscales. Tables A.1 through A.10 display each LASSI scale contrasted to the demographic variables. For layout and spacing purposes, these tables are found in Appendix A.

Table A.1 reported how participants scored on the LASSI Anxiety subscale by each of the five variables. LASSI defines the Anxiety scale as “assesses the degree to which students worry about school and their academic performance” (Weinstein et al., 2016, p. 8). The demographics of the students in the most need (scores in the 0-50 percentile range) of assistance in dealing with anxiety were:

1. Students who took 13-18 hours in their first semester
2. Students with a first semester GPA in the upper third (2.41-4.00)
3. Students with an ACT Composite of 16-18, followed closely by those who scored in the 19-35 range
4. Students with a high school GPA in the upper third (3.03-4.00)
5. Students who were not first-generation college students

Table A.2 reported how participants scored on the LASSI Attitude subscale by each of the five variables. LASSI defines the Attitude scale as “assesses students’ attitudes and interests in college and achieving academic success” (Weinstein et al., 2016, p. 9).

The demographics of the students in the most need (scores in the 0-50 percentile range) of assistance in dealing with attitude were:

1. Students who took 13-18 hours in their first semester
2. Students with a first semester GPA in the upper third (2.41-4.00), followed closely by students in the middle third (1.48-2.40)
3. Students with an ACT composite of 16-18
4. Students with a high school GPA in the middle third (2.54-3.02), followed closely by students in the upper third (3.03-4.00)
5. Students who were not first-generation college students

Table A.3 reported how participants scored on the LASSI Concentration subscale by each of the five variables. LASSI defines the Concentration scale as “assesses students’ ability to direct and maintain their attention on academic tasks” (Weinstein et al., 2016, p. 9).

The demographics of the students in the most need (scores in the 0-50 percentile range) of assistance in dealing with concentration were:
1. Students who took 13-18 hours in their first semester
2. Students with a first semester GPA in the middle third (1.48-2.40), followed closely by students in the upper third (2.41-4.00), as well as students in the lower third (0.20-1.47)
3. Students with an ACT composite of 16-18, followed closely by the upper third (19-35)
4. Students with a high school GPA in the upper third (3.03-4.00), followed closely by students in the lower third (1.84-2.48), then students in the middle third (2.54-3.02)
5. Students who were not first-generation college students

Table A.4 reported how participants scored on the LASSI Information Processing subscale by each of the five variables. LASSI defines the Information Processing scale as “assesses how well students can use imagery, verbal elaboration, organization strategies, and reasoning skills as learning strategies to help learn new information and skills” (Weinstein et al., 2016, p. 8).

The demographics of the students in the most need (scores in the 0-50 percentile range) of assistance in dealing with information processing were:

1. Students who took 13-18 hours in their first semester
2. Students with a first semester GPA in the upper third (2.41-4.00), followed closely by students in the middle third (1.48-2.40)
3. Students with an ACT composite of 16-18, followed closely by the upper third (19-35)
4. Students with a high school GPA in the upper third (3.03-4.00), followed closely by students in the lower third (1.84-2.48) and students in the middle third (2.54-3.02)

5. Students who were not first-generation college students

Table A.5 reported how participants scored on the LASSI Motivation subscale by each of the five variables. LASSI defines the Motivation scale as “assesses students’ diligence, self-discipline, and willingness to exert the effort necessary to successfully complete academic requirements” (Weinstein et al., 2016, p. 9)

The demographics of the students in the most need (scores in the 0-50 percentile range) of assistance in dealing with motivation were:

1. Students who took 13-18 hours in their first semester
2. Students with a first semester GPA in the middle third (1.48-2.40)
3. Students with an ACT composite of 16-18
4. Students with a high school GPA in the upper third (3.03-4.00) and in the lower third (1.84-2.48), followed closely by students in the middle third (2.54-3.02)
5. Students who were not first-generation college students

Table A.6 reported how participants scored on the LASSI Selecting Main Ideas subscale by each of the five variables. LASSI defines the Selecting Main Ideas scale as “assesses students’ thinking skills for identifying important information for further study from less important information and supporting details” (Weinstein et al., 2016, p. 8).

The demographics of the students in the most need (scores in the 0-50 percentile range) of assistance in dealing with selecting main ideas were:
1. Students who took 13-18 hours in their first semester
2. Students with a first semester GPA in the middle third (1.48-2.40), followed closely by students in the upper third (2.41-4.00), then lower third (0.20-1.47)
3. Students with an ACT composite of 16-18
4. Students with a high school GPA in the upper third (3.03-4.00)
5. Students who were not first-generation college students

Table A.7 reported how participants scored on the LASSI Self-Testing subscale by each of the five variables. LASSI defines the Self-Testing scale as “assesses students’ use of comprehension monitoring techniques, such as reviewing or paraphrasing, to determine their level of understanding of the information or skill to be learned” (Weinstein et al., 2016, p. 10).

The demographics of the students in the most need (scores in the 0-50 percentile range) of assistance in dealing with self-testing were:

1. Students who took 13-18 hours in their first semester
2. Students with a first semester GPA in the upper third (2.41-4.00)
3. Students with an ACT composite of 16-18, followed closely by the upper third (19-35)
4. Students with a high school GPA in the upper third (3.03-4.00)
5. Students who were not first-generation college students
Table A.8 reported how participants scored on the LASSI Test Strategies subscale by each of the five variables. LASSI defines the Test Strategies scale as “assesses students’ use of both test preparation and test taking strategies” (Weinstein et al., 2016, p. 8).

The demographics of the students in the most need (scores in the 0-50 percentile range) of assistance in dealing with test strategies were:

1. Students who took 13-18 hours in their first semester
2. Students with a first semester GPA in the middle third (1.48-2.40)
3. Students with an ACT composite of 16-18
4. Students with a high school GPA in the upper third (3.03-4.00), followed closely by students in the middle third (2.54-3.02), then students in the lower third (1.84-2.48)
5. Students who were not first-generation college students

Table A.9 reported how participants scored on the LASSI Time Management subscale by each of the five variables. LASSI defines the Time Management scale as “assesses students’ use of time management principles and practices for academic tasks” (Weinstein et al., 2016, p. 10).

The demographics of the students in the most need (scores in the 0-50 percentile range) of assistance in dealing with time management were:

1. Students who took 13-18 hours in their first semester
2. Students with a first semester GPA in the middle third (1.48-2.40) and upper third (2.41-4.00)
4. Students with a high school GPA in the upper third (3.03-4.00), followed closely by students in the middle third (2.54-3.02), then students in the lower third (1.84-2.48)
5. Students who were not first-generation college students

Table A.10 reported how participants scored on the LASSI Using Academic Resources subscale by each of the five variables. LASSI defines the Using Academic Resources scale as “assesses students’ willingness to use different academic resources such as writing centers, tutoring centers and learning or academic support centers, when they encounter problems with their coursework or performance” (Weinstein et al., 2016, p. 10).

The demographics of the students in the most need (scores in the 0-50 percentile range) of assistance in dealing with using academic resources were:

1. Students who took 13-18 hours in their first semester
2. Students with a first semester GPA in the upper third (2.41-4.00), followed closely by the middle third (1.48-2.40)
4. Students with a high school GPA in the upper third (3.03-4.00)
5. Students who were not first generation college students

Research Question 2 asked: To what extent do significant differences exist within the selected demographic variables on the various LASSI subscales? To address this
question, Chi-Square analyses were performed on each of the 10 LASSI subscales contrasted to the five demographic variables under investigation (see Appendix A, Tables A1-A10). The distribution of responses in each of the subscale categories (lower, middle, and upper) were contrasted to each of the variable categories.

Due to the multiple comparisons made for each of the subscales with the five variables, the 0.01 level of significance was utilized for all Chi-Square analyses rather than 0.05. Of the 50 comparisons made, nine were found to be statistically significant. (see Table 8).

Table 8

*Significant Chi-Square Results of LASSI Subscale Categories and Selected Demographic Variables*

<table>
<thead>
<tr>
<th>LASSI Subscale</th>
<th>Demographic Variable Found To Be Significant</th>
<th>Appendix Table Reference</th>
<th>Chi-Square Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>None</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Attitude</td>
<td>None</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Concentration</td>
<td>None</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Information Processing</td>
<td>None</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Motivation</td>
<td>First semester GPA</td>
<td>A.5</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>ACT composite</td>
<td>A.5</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>High school GPA</td>
<td>A.5</td>
<td>0.004</td>
</tr>
<tr>
<td>Selecting Main Ideas</td>
<td>First semester hours earned</td>
<td>A.6</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>First semester GPA</td>
<td>A.6</td>
<td>0.006</td>
</tr>
<tr>
<td></td>
<td>ACT composite</td>
<td>A.6</td>
<td>0.001</td>
</tr>
<tr>
<td>Self-Testing</td>
<td>None</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Test Strategies</td>
<td>ACT composite</td>
<td>A.8</td>
<td>0.001</td>
</tr>
<tr>
<td>Time Management</td>
<td>First semester hours earned</td>
<td>A.9</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>First semester GPA</td>
<td>A.9</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Using Academic</td>
<td>None</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 8 reports the relevance to which LASSI subscale differences existed between Motivation, Selecting Main Ideas, Test strategies, and Time Management, which were found to be statistically significant when compared to the selected demographics of first semester hours earned, first semester GPA, ACT composite, and high school GPA. First-generation college students were not statistically significant in any of the LASSI subscales. For Motivation, there was a statistically significant difference of less than .01 on three of the selected demographics:

1. First semester GPA
2. ACT composite
3. High school GPA

Selecting Main Ideas had a statistically significant difference of less than .01 on three of the selected demographics:

1. First semester hours earned
2. First semester GPA
3. ACT composite

Test Strategies had a statistically significant difference of less than .01 on one selected demographic:

1. ACT composite

Time Management had a statistically significant difference of less than .01 on two selected demographics:

1. First semester hours earned
2. First semester GPA
Summary

The Statistical Analysis System (SAS 9.5) software was used to examine the data for this study to answer two research questions. For RQ1, the five variables of first semester hours earned, first semester GPA, (3) ACT composite score, high school GPA, and first-generation college student were compared to the LASSI subscales to determine whether a relationship existed among the variables and the 10 subscales. LASSI subscales were reported in three broad percentile ranges: 0-50, 50-75, and 75-100. Overall, students who took 13-18 hours and had an ACT composite score between 16-18, and who scored in the upper third of the high school GPA range of 3.03-4.00, were in the most need of assistance in the 10 subscales.

For RQ2, Chi-Square analysis was utilized to find the significance of the comparisons of each subscale to the five variables. Relationships were found in four of the selected demographics: first semester hours earned, first semester GPA, ACT composite, and high school GPA, when compared to Motivation, Selecting Main Ideas, Test Strategies, and Time Management. The results of the findings are discussed in Chapter 5.
CHAPTER V: DISCUSSION

Many first-time, first-year students are not academically prepared for college. For the first time in their lives, the college experience offers independence and academic freedom. They are immersed into a new living and learning environment where they are able to make their own decisions and are accountable for their actions. However, many of these students lack the skills and strategies to be successful. They are at a greater risk of dropping out of college.

These students need to develop dynamic strategic learning skills that will help them solve problems, make decisions, execute ideas, modify plans, and evaluate outcomes (Marschalko & Szamoskozi, 2017). Strategic learning involves developing a vast array of behaviors and activities to ensure students retain course materials, learn new information, develop new methods to process ideas and skills, as well as make connections to new and prior learning.

For this study, the researcher sought to examine academic preparedness and performance of students who were at high risk from dropping out of college during their first year. This study utilized five prominent demographic variables to consider in the relationship to the strategic learning capacity of first-year students. The LASSI instrument consisting of 10 subscales that measure student learner capacity was used to determine these relationships.

Research Questions

Research Question 1: What is the overall relationship of the selected five demographic variables and the 10 LASSI subscales that measure student learner capacity?
Research Question 2: To what extent do significant differences exist within the selected demographic variables on the various LASSI subscales?

Of the 2,122 first-year students who enrolled in the fall of 2017 and returned in the spring of 2018, 172 completed the LASSI, an electronic survey instrument. The LASSI is a “10-scale, 60-item assessment of students’ awareness about and use of learning and study strategies related to skill, will, and self-regulation components of strategic learning” (Weinstein et al., 2016, p. 6). Motivation, thoughts, behaviors, attitudes, and beliefs are the focus of successful learning in postsecondary education. These factors can be changed through educational interventions or enhanced through learning strategies and programming.

The data of the 172 students who completed the LASSI were processed by Statistical Analysis System (SAS 9.5) software to answer the two research questions regarding five demographic variables. The demographic variables included first semester hours earned, first semester GPA, ACT composite, high school GPA, and first-generation college student. These demographics were contrasted to 10 the LASSI subscales: Anxiety, Attitude, Concentration, Information Processing, Motivation, Selecting Main Ideas, Self-Testing, Test Strategies, Time Management, and Using Academic Resources. The LASSI subscales were reported in three percentile ranges: 0-50 (need to improve skills to avoid serious problems succeeding in college-most need of improvement), 50-75 (consider improving strategies for these scales), and 75-100 (do not have a high priority to improving strategies in these areas).
Summary of Findings

Research Question 1 sought to establish the overall relationship of the selected five demographic variables and the 10 LASSI subscales that measure student learner capacity. The relationship between the 10 subscales and the five variables was mixed. For ease of discussion, the scales for each variable are presented with each demographic variable described in Table 9.

Table 9

Demographic Variables and LASSI Percentile Ranges

<table>
<thead>
<tr>
<th>First Semester Hours Earned</th>
<th>First Semester GPA</th>
<th>High School GPA</th>
<th>ACT Composite</th>
<th>LASSI Percentile Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower 1-9</td>
<td>0.20-1.47</td>
<td>1.84-2.48</td>
<td>11-15</td>
<td>0-50 (most need)</td>
</tr>
<tr>
<td>Middle 10-12</td>
<td>1.48-2.40</td>
<td>2.54-3.02</td>
<td>16-18</td>
<td>50-75 (consider improving)</td>
</tr>
<tr>
<td>Upper 13-18</td>
<td>2.41-4.00</td>
<td>3.03-4.00</td>
<td>19-35</td>
<td>76+ (no priority)</td>
</tr>
</tbody>
</table>

Each demographic variable is described as follows:

1. First-Generation

   No LASSI subscale identified first-generation students in need of improvement in any category.

2. High School GPA

   Nine of 10 LASSI subscales identified upper GPA (3.03-4.00) students as the ones in most need for improvement. The single subscale that did not identify students needing improvement was the subscale of Attitude.
3. ACT Composite

Nine of 10 LASSI subscales identified students in the middle ACT composite range (16-18) as the ones in most need for improvement. The single subscale that did not identify students needing improvement was the subscale of Time Management.

4. First Semester College GPA

Five of 10 LASSI subscales identified students in the upper first semester GPA (2.41-4.00) range as the ones in most need for improvement. These subscales were Anxiety, Attitude, Information Processing, Self-Testing, and Using Academic Resources. The remaining five subscales of Concentration, Motivation, Selection of Main Ideas, Test Strategies, and Time Management identified students with the middle (1.48-2.40) range of first semester GPA as the ones in most need for improvement.

5. First Semester Hours

All 10 LASSI subscales identified students in the middle first semester hours (10-12) range as the ones in most need for improvement.

Research Question 2 considered the extent to which significant differences existed within the selected demographic variables on the various LASSI subscales. Chi-Square analysis was performed on each of the 10 LASSI subscales and the five demographic variables under investigation. Significance was determined to be at the 0.01 level. Nine significant relationships were found among the five variables and four of the subscales.
1. Subscale: Motivation

Three of five demographic variables were significantly different for the Motivation subscale.

A. First semester GPA

Significantly more students in the middle GPA (1.48-2.40) range fell in the lower third category (most need of improvement).

B. ACT composite

Significantly more students in the middle ACT composite (16-18) range displayed differences in the lower third category (most need of improvement).

C. High School GPA

Significantly more students in the lower (1.84-2.48) and upper GPA (3.03-4.00) range were displayed in the lower third category (most need of improvement).

2. Subscale: Selecting Main Ideas

Three of the five variables were significantly different for the Selecting Main Ideas subscale.

A. First semester hours earned

Significantly more students in the upper hours earned (13-18) range displayed differences in the lower third category (most need of improvement).

B. First semester GPA

Significantly more students in the middle GPA (1.48-2.40) range displayed differences in the lower third category (most need of improvement).

C. ACT composite
Significantly more students in the middle ACT (16-18) range displayed differences in the lower third category (most need of improvement).

3. Subscale: Test Strategies

One out of five variables was significantly different for the Test Strategies subscale.

A. ACT Composite

Significantly more students in the middle (16-18) range displayed differences in the lower third category (most need of improvement).

4. Subscale: Time Management

Two of five variables were significantly different for the Time Management subscale.

A. First semester hours earned

Significantly more students in the upper hours earned (13-18) range displayed differences in lower third category (most need of improvement).

B. First semester GPA

Significantly more students in the middle GPA (1.48-2.40) range displayed differences in lower third category (most need of improvement).
**Discussion and Observations of Findings**

Perhaps one of the most interesting details the findings revealed was that first-generation student status does not appear to be a differentiating factor in the relationship to better understanding student learning capacities and other areas needed to succeed. Those students who were not first-generation students indicated the most need of help in all areas of the findings.

Students with higher high school GPAs appeared to show high need for improvement in nine areas of the LASSI subscales; however, the only one that was statistically significant was Motivation. Interestingly, students with higher GPAs appeared to enter the first year self-satisfied that their attitudes were in line to be successful. It was notable and puzzling as to what happens to the higher level high school GPA students that would cause them to have higher need for support in Motivation than the other subscales.

The only group in which Motivation was significantly different was in the middle ACT group (16-18). Two other subscales showed significant differences for the middle ACT group: Test Strategies and Selecting Main Ideas. Motivation is a very challenging strategic learning capacity to modify. However, Test Strategies and Selecting Main Ideas are learning capacities that can be taught with resulting improvement. When it is known in which strategic learning capacity a student needs help, it is much easier to provide support to address that particular need.

It is interesting to note that students in the middle ACT group (16-18) saw themselves as needing improvement at a high level in all of the LASSI learning components except Time Management. Looking further, Time Management appeared to
be most needed by those who were enrolled in the greatest number of semester hours and those in the middle range (1.48-2.40) of first semester GPA. This may suggest that being enrolled in more credit hours might increase students’ need for Time Management and, also, that students in the middle first semester GPA range might seek Time Management assistance as a way to improve their grades.

In relation to first semester GPA, students in the upper GPA (2.41-4.00) of the five subscales, who identified most need for improvement, showed no significant differences among any of the subscale learning components. However, students who identified in the middle range (1.48-2.40) of first semester GPA showed a significant difference among learning components, including Motivation, where the need for improvement for these students was significantly different based on their GPA. Also showing significant differences for this group were the subscales of Selecting Main Ideas and Time Management.

When looking at the variable showing number of first semester hours earned, students in the middle range (10-12) showed the most need for improvement in all 10 subscales. Of the learning areas in which the most need for improvement was expressed by student participants, there were significant differences in the areas of Selecting Main Ideas and Time Management.

**Thoughts on Utilization of Findings**

It was anticipated that this study would be helpful in learning more about incoming first-year students in terms of their strategic learning capacity in order to help them persist and be successful. With this knowledge, it may be possible to determine meaningful ways to support students’ needs in the classroom and through student support
systems. These findings suggest a number of potential applications for supporting students and enhancing retention.

A plan of action for improving student learner capacity, for incoming first-year students and those in the most need, might include attending all classes and taking advantage of academic and counseling services offered. Students should consider actively participating in coursework, creating new relationships through social interaction, learning how to set goals, finding personal time, using a planner, taking notes, and practicing problem-solving techniques in order to become independent strategic learners. Academic resources that might help improve student high school GPA include tutoring services, group study sessions, and teacher interventions. Students could meet with academic advisors, faculty mentors, and other support staff to take better advantage of resources.

High schools might consider collaborating with universities to create ACT study programs and workshops to help immerse students in the learning environment while networking with other college students. By actively participating, students may engage in true college experiences and campus life. With the goal in mind to emphasize the importance of ACT scores, students who actively participate in the college setting can learn from other students how these scores may influence their enrollment in courses and the importance of taking the assessment seriously.

It could be helpful to channel students who struggle with college GPA into counseling sessions and support groups, as well as finding activities where they share a common interest with others. Students who are involved with campus life often find they enjoy the camaraderie and social interaction with others, which may help them cope with
personal anxiety and unproductive attitudes. Often students are overwhelmed with information overload. They might consider trying to focus on a limited number of items and separating items into smaller groups. Visual aids also are helpful in organizing and processing information. Structured environments in which students are studying with classmates and practicing quizzing each other may be helpful in improving student GPA. Students could practice re-writing items covered in class and take better advantage of academic resources on campus.

As noted in the Motivation subscale, students who struggle with their GPAs and ACT scores might have benefitted from setting goals, developing statements that echo personal beliefs, sharing the statements with others, creating study routines, practicing skills that need improving, and facing fears. Taking practice exams, participating in ACT workshops, and learning techniques to improve Time Management and reading strategies could improve student learner capacity. Students might attend summer classes, work individually with instructors, retake classes, use planners, and study as other ways of increasing strategic learning capacities.

As referenced in the Selecting Main Ideas subscale, students who struggle with first semester hours earned, GPA, and ACT scores might practice improving listening skills, writing down important details from lessons, summarizing what was discussed in class or text and writing it down, practicing quizzes, asking what the point of the reading is, and talking with others in class. They also may review the first sentences of paragraphs, headings, chapter summaries, and review key terms. They could ask questions about the content, search for the topic sentence, select key terms or ideas, and review tables of contents and headings.
As indicated in the Test Strategies subscale, students who struggle with ACT scores may be directed to spend more time preparing for the ACT. They may elect to take the ACT more than once to improve scores. They might work on Time Management during testing by learning how to skim long passages and look for key concepts. Purchasing an ACT prep book may be a good investment, as well as the devotion of a significant amount of time reviewing items that were missed on practice exams. ACT prep courses or workshops may be beneficial in aiding in the improvement of composite scores.

As presented in the Time Management subscale, students who took 13 or more hours and struggled with their first semester hours may consider such interventions as arriving early to class, taking detailed notes, developing a study routine, focusing on staying healthy, utilizing a planner, finding time for self, and asking for support from others.

Administering the LASSI to individual classes may benefit the faculty teaching these students. The faculty could have a descriptive profile of students in their particular classes and might construct curriculum to help students be better prepared and possibly improve their academic performance.

With flexible curriculum criteria, the faculty may cultivate student confidence and increase strategic learning skills. Teachers may try to establish a routine that engages students at the center of the learning process. Through varied instruction and flexible teaching pace, instructors could maximize classroom management and allot time for debates, small group discussions, and interactive projects. Along with this flexibility,
instructors may deliver tips for passing the classes or assemble visual materials to stimulate active listening and engagement.

Recommendations for application also may include providing students with a course calendar that overviews the layout and varied due dates of assignments, which may not overlap with other midterms or projects. Instructors could provide students with study guides, lecture notes, handouts of topics, examples of assignments, sample test questions, and papers. Along with the paper examples, writing tips, research methods, problem solving, and lab procedures and tips could greatly benefit the students in understanding how to complete assignments. Overall, the instructor should consider being transparent about how to succeed in the course and discuss how students can best utilize time management.

Instructors also could offer workshops to students who would like to spend additional time honing their skills, which may allow students more time to ask more questions. Together as a team, the instructor and students may establish goals to meet during the course of the semester. The instructor could encourage the students to create a daily journal in which the students can reflect on the course lecture and content.

**Recommendations for Further Study**

Considering the relationships between the various demographic variables and strategic learner capacities is certainly one way to help first-year students improve their first-year retention. Conducting this study revealed a number of compelling questions that deserve further study in relation to strategic learner capacity and student retention. For example, at what point during the student’s high school studies are these respective
strategic learning capacities addressed, and how can they be accessed earlier and further developed?

How do strategic learner capacities of beginning first-year student compares with students who have successfully completed their sophomore year? This would provide an opportunity to better understand which strategic learner capacities appear to have made the most difference in student success. It would be important to also gather student perception data on what they believe was most helpful in their persistence.

If these strategic learner capacities do, in fact, influence students’ persistence rates, it would seem important that university student support programs and faculty be more intentional in utilization of strategic learner information. What are the best practices for achieving this intentionally that have the potential for increasing student retention? The LASSI would be a useful tool to utilize to improve student success after discovery of students at academic risk.

**Limitations**

After limited student response to the “meet and greet” invitations, the researcher worked with instructors who, as a majority, taught a sample of students who were underprepared and most likely not college ready. The sample of students who participated in this survey was not typical of the total population of this first-year class. A larger sample of the 2,122 students may have yielded an outcome representative of the total population. In order to better understand this population of students, the survey should have been replicated and given to a more random sample of students.
Researcher Reflections

Of the many goals that are a part of the mission of a university, none are more important than providing learning experiences that enable student success. Declining retention rates are a matter of utmost concern, and failure to successfully address this reality will threaten the loss of our most valuable resources, our students. Assessments such as the LASSI are an investment in the future of college students and their academic success. Studies have proven that the selected demographics of high school GPA, first semester GPA, first semester hours earned, and ACT composite are predictors of college success. Learning more about what helps a student thrive and succeed is a payoff that will benefit all stakeholders of a university, especially the college student. Helping students prosper is a long-term investment in their future and the future success of the university.

The results of this study should prove beneficial to university stakeholders and for informing academic support systems. They could help instructors develop and create course resources designed to enhance students’ skills and engagement. The results of this research and the use of the LASSI could be a useful aid in academic advising and study support programs. The overall goal of this research was to learn more about what motivates strategic learners to persist in college and to discover how these factors and demographics can be implemented into future classrooms and other student support systems. Most important, students were provided with valuable information to better understand how they could improve their strategic skills and abilities that would lead them to college success and a thriving future.
REFERENCES


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### APPENDIX A: LASSI Subscales by Five Demographic Variables

**Table A.1**  
Number of Participants Scoring in LASSI Anxiety Subscale by Demographic Variable

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>First semester hours earned</th>
<th>First semester GPA</th>
<th>ACT composite</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Lower 1/3</td>
<td>Middle 1/3</td>
</tr>
<tr>
<td>All</td>
<td>n</td>
<td>%</td>
<td>n</td>
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<tr>
<td>0-50%</td>
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<td>50-75%</td>
<td>50</td>
<td>29.07</td>
<td>1</td>
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<td>76+%</td>
<td>12</td>
<td>6.98</td>
<td>1</td>
</tr>
<tr>
<td>All</td>
<td>172</td>
<td>100.00</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>High school GPA</th>
<th>First-generation</th>
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<tbody>
<tr>
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<td>Lower 1/3</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>0-50%</td>
<td>110</td>
<td>63.95</td>
</tr>
<tr>
<td>50-75%</td>
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<td>29.07</td>
</tr>
<tr>
<td>76+%</td>
<td>12</td>
<td>6.98</td>
</tr>
<tr>
<td>All</td>
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</tbody>
</table>
Table A.2

*Number of Participants Scoring in LASSI Attitude Subscale by Demographic Variable*

<table>
<thead>
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<th>ACT composite</th>
</tr>
</thead>
<tbody>
<tr>
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<td>No</td>
<td>Lower 1/3</td>
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</tr>
<tr>
<td></td>
<td>n</td>
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<td>10.47</td>
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<td>172</td>
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<table>
<thead>
<tr>
<th></th>
<th>High school GPA</th>
<th>First-generation</th>
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</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
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<td>%</td>
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<td>18</td>
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Table A.3
Number of Participants Scoring in LASSI Concentration Subscale by Demographic Variable

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<th>ACT composite</th>
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<td></td>
<td>n</td>
<td>%</td>
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Note: Seven missing
Table A.4
Number of Participants Scoring in LASSI Information Processing Subscale by Demographic Variable

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<td>76+%</td>
<td>20</td>
<td>11.63</td>
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<table>
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Table A.5
Number of Participants Scoring in LASSI Motivation Subscale by Demographic Variable

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</tr>
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<tr>
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<td>n %</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
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<td>1 0.58</td>
<td>41 23.84</td>
<td>39 22.67</td>
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Table A.6

Number of Participants Scoring in LASSI Selecting Main Ideas Subscale by Demographic Variable

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Table A.7

Number of Participants Scoring in LASSI Self-Testing Subscale by Demographic Variable

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| High school GPA              | No | Reply    | 1.84-2.48| 2.54-3.02 | 3.03 - 4.00 | No | Reply    | No | Yes |
| All                          | n  | %        | n        | %        | n  | %        | n        | %        | n  | %        | n        | %        |
| 0-50%                        | 99 | 57.56    | 1        | 0.58    | 28 | 16.28    | 31       | 18.02    | 39 | 22.67    | 1        | 0.58     |
| 50-75%                       | 46 | 26.74    | 0        | 0       | 13 | 7.56     | 15       | 8.72     | 18 | 10.47    | 0        | 0        |
| 76+%                         | 27 | 15.70    | 0        | 0       | 10 | 5.81     | 4        | 2.33     | 13 | 7.56     | 2        | 1.16     |
| All                          | 172| 100.00   | 1        | 0.58    | 51 | 29.65    | 50       | 29.07    | 70 | 40.70    | 3        | 1.74     |

90
### Table A.8

**Number of Participants Scoring in LASSI Test Strategies Subscale by Demographic Variable**

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Number of Participants Scoring in LASSI Time Management Subscale by Demographic Variable

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Table A.10

Number of Participants Scoring in LASSI Using Academic Resources Subscale by Demographic Variable

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APPENDIX B: IRB Approval

DATE: January 22, 2018
TO: Jan Duvall, EDD
FROM: Western Kentucky University (WKU) IRB
PROJECT TITLE: [1181149-2] Determining First Year College Students Capacity for Active Engagement in Their Own Learning
REFERENCE #: IRB 18-238
SUBMISSION TYPE: Amendment/Modification
ACTION: APPROVED
APPROVAL DATE: January 22, 2018
EXPIRATION DATE: January 22, 2019
REVIEW TYPE: Expedited Review

Thank you for your submission of Amendment/Modification materials for this project. The Western Kentucky University (WKU) IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. Please use the appropriate reporting forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

This project has been determined to be a Minimal Risk project. Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of January 22, 2019.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Paul Mooney at (270) 745-2129 or irb@wk.edu. Please include your project title and reference number in all correspondence with this committee.
APPENDIX C: LASSI Assessment Questions

LASSI 3rd Edition

1. Even when study materials are dull and uninteresting, I manage to keep working until I finish.
2. When it is difficult for me to complete a course assignment, I do not ask for help.
3. I try to find relationships between what I am learning and what I already know.
4. I find it hard to stick to a study schedule.
5. In taking tests, writing papers, etc., I find I have misunderstood what is wanted and lose points because of it.
6. I concentrate fully when studying.
7. When I am struggling in one or more courses, I am too embarrassed to admit it to anyone.
8. When I decide to study, I set aside a specific length of time and stick to it.
9. During class discussion, I have trouble figuring out what is important enough to put in my notes.
10. To help me remember new principles we are learning in class, I practice applying them.
11. When it comes to studying, procrastination is a problem for me.
12. If I am having trouble with a writing assignment, I seek help from resources available at my college such as the writing center, learning center, or tutoring center.
13. I find it difficult to maintain my concentration while doing my coursework.
14. I only study the subjects I like.
15. When preparing for an exam, I create questions that I think might be included.
16. I have difficulty identifying the important points in my reading.
17. When work is difficult, I either give up or study only the easy parts.
18. To help me learn the material presented in my classes, I relate it to my own general knowledge.
19. There are so many details in my textbooks that it is difficult for me to find the main ideas.
20. I review my notes before the next class.
21. I have difficulty adapting my studying to different types of courses.
22. I translate what I am studying into my own words.
23. I put off studying more than I should.
24. Even if I am having difficulty in a course, I can motivate myself to complete the work.
25. My mind wanders a lot when I study.
26. I stop periodically while reading and mentally go over or review what was said.
27. I am not comfortable asking for help from instructors in my courses.
28. I feel very panicky when I take an important test.
29. I have a positive attitude about attending my classes.
30. When I study for a test, I have trouble figuring out just what to do to learn the material.
31. Even if I do not like an assignment, I am able to get myself to work on it.
32. I would rather not be in school.
33. I set goals for the grades I want to get in my classes.
34. When I am taking a test, worrying about doing poorly interferes with my concentration.
35. I try to see how what I am studying would apply to my everyday life.
36. I have trouble understanding exactly what a test question is asking.
37. I worry that I will flunk out of school.
38. To help make sure I understand the material, I review my notes before the next class.
39. I do not care about getting a general education, I just want to get a good job.
40. I find it hard to pay attention during lectures.
41. I try to relate what I am studying to my own experiences.
42. I dislike most of the work in my classes.
43. I review my answers during essay tests to make sure I have made and supported my main points.
44. When studying, I seem to get lost in the details and miss the important information.
45. I do not put a lot of effort into doing well in my courses.
46. If I find that a course is too difficult for me, I will get help from a tutor.
47. I am very easily distracted from my studies.
48. It is hard for me to decide what is important to underline in a text.
49. To check my understanding of the material in a course, I make up possible test questions and try to answer them.
50. Even when I am well prepared for a test, I feel very anxious.
51. I set aside more time to study the subjects that are difficult for me.
52. I test myself to see if I understand what I am studying.
53. Courses in certain subjects, such as math, science, or a foreign language, make me anxious.
54. I end up “cramming” for every test.
55. When I listen to class lectures, I am able to pick out the important information.
56. When I am studying, worrying about doing poorly in a course interferes with my concentration.
57. I do poorly on tests because I find it hard to plan my work within a short period of time.
58. If I get distracted during class, I am able to refocus my attention.
59. In my opinion, what is taught in my courses is not worth learning.
60. When I do not understand how to use a method or procedure presented in one of my courses, I ask another student to teach me so that I can do it on my own.
61. I need a college degree to fulfill my ambitions.
62. My personal relationships interfere with my college responsibilities.
63. The cost of my education is a major concern.
64. In the last hour, I decided to change an aspect of my study routine.