

GUIDING UNDERPREPARED STUDENTS TO SUCCESS IN HIGHER EDUCATION

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Abstract

Students are entering institutions across the country unprepared to meet the demands of higher education. While Kansas is above the national average for students prepared for higher education, only twenty-nine percent of Kansas seniors are considered “prepared” for college in the four determined benchmark areas, compared to the twenty-five percent national average (ACT, 2012). With this statistic, ACT indicates that only one fourth of students complete high school requirements in such a way that leads to success post-graduation. Students are not ready for the expectations of higher education, and as a result this population is less likely to succeed. Further, development opportunities targeted at underprepared students are largely unsuccessful at reaching the population. This report looks at the unprepared student population, the role of higher education, and the projected future for underprepared students in higher education. In an effort to encourage holistic development and successful support initiatives, recommendations for higher education practices and research are discussed.

Table of Contents

Dedication.....	vi
Chapter 1 - Introduction.....	1
Chapter 2 - Understanding “Underprepared Students”.....	3
A Brief History of Underprepared Students.....	3
Defining “Underprepared” and “Academic Readiness”.....	5
Readiness Indicators.....	8
“Preparedness” and Test Scores.....	10
Characteristics of the Underprepared Student Population.....	11
Underprepared Students’ Understanding of Learning.....	13
Motivation for Enrollment.....	15
Chapter 3 - Current Initiatives in Higher Education.....	16
First-Year Courses.....	16
Remedial Coursework.....	17
Institutional Impact.....	19
Impact on Students.....	19
Adjunct Coursework.....	21
Reading Skill Programs.....	23
Initiatives Outside the Classroom.....	24
Summer Bridge Programs.....	25
On-Campus Housing.....	25
Learning Communities.....	26
Chapter 4 - Underprepared Students’ Perceptions of Higher Education.....	29
The Downside of “College for All”.....	31
Chapter 5 - Recommendations.....	34
Recommendations for Practice in Higher Education.....	34
Student Development Theories to Consider.....	34
Tinto’s Theory of Student Departure.....	34
Astin’s Theory of Involvement.....	35

Challenge and Support.....	36
Holistic Student Development.....	37
Developmental Programs.....	37
CARE Program.....	38
CHANCE Program.....	38
Aid in Transition.....	39
High School-Higher Education Relationship.....	40
Involving Parents.....	41
Study Skill Development.....	41
Advising for Success.....	42
Recommendations for Research.....	43
Improving Remedial Coursework.....	44
Defining Factors of Readiness.....	44
Underprepared Students and Motivation.....	45
Programs and Initiatives.....	45
Chapter 6 - Summary.....	47
References.....	48

Dedication

In dedicating this paper, I would like to say thank you to my parents, Randy and Alice Gruber, for their unconditional love and support. Thank you for helping me through graduate school and for encouraging me when I thought I would never finish! Without the two of you, I would not be where I am today, and for that I am forever grateful.

Chapter 1 - Introduction

As today's students are preparing to graduate high school, one of the most common questions they hear is, "So where are you going to college?" Teenagers are told that attending college is important, even expected. Additionally over the past couple of decades, the majority of Americans have become convinced that a bachelor's degree, at a minimum, is mandatory for a good job (Rosenbaum, Stephan, & Rosenbaum, 2010). Educators across America have responded by suggesting that every teenager go to college. Between 1970 and 2000, enrollment in higher education has expanded at an average rate of 1.98 percent annually. However, the national average of students' reading comprehension skills has essentially remained the same (Cox, Friesner, & Khayum, 2003). As a result, the number of underprepared students entering higher education has increased significantly.

Many institutions have since begun developing and expanding the services offered to assist underprepared students (Cox et al., 2003). However, it is uncertain if services offered have been as effective as hoped. Rosenbaum et al. (2010) found that fewer than half of the high school seniors enrolling will actually reach their goal of obtaining a bachelor's degree. Students labeled as low-achievers are even less likely, with less than twenty percent earning bachelor's degrees. Eighty percent of high school seniors who plan to enter higher education but are not adequately prepared fail to earn a degree in the following eight to ten years (Rosenbaum, 2011).

Higher education enrollment rates have increased nationally from fifty-one percent in 1975 to sixty-nine percent in 2007 (Porter & Polikoff, 2012). But when comparing this to the decrease in college readiness during that time, it looks far less impressive. Does enrollment in higher education really help an underprepared student? College readiness and level of

preparedness have become hot topics of discussion in higher education. While students are considered underprepared academically, their needs entering higher education extend beyond the classroom (Wilmer, 2008). This report seeks to answer the following questions: (a) Who are the underprepared students? (b) How has higher education been a part of underprepared student success? (c) Do effort and motivation of underprepared students play a role in their success? (d) What is the future for underprepared students in higher education?

Chapter 2 - Understanding “Underprepared Students”

A Brief History of Underprepared Students

The idea of readiness and attempting to determine if students are indeed ready for higher education is not a new topic. In fact, the discussion began nearly fifty years ago when in 1967, Stanley and Porter researched the correlation of students’ aptitude scores with their subsequent college grades (as cited in Porter & Polikoff, 2012). Since then, the push for all students to attend college has developed.

In the last fifty years, administrators and political leaders across the nation have publicly stated their desires to increase student achievements. They demanded increased high school graduation rates, higher levels of college readiness, and a higher percentage of higher education degree completion (Barnes & Slate, 2013). As a result, increasing high school academic rigor to prepare students for further education has been at the forefront of movements by educational and political stakeholders. National legislation and federal policies have mandated public schools since 1950, resulting in the federal government acquiring a powerful hand in the direction of public education.

An early political involvement in the educational system occurred in 1958, when the National Defense Education Act (NDEA) pumped large sums of money into schools to improve education. This came as a result of the Soviet Union launching Sputnik and led to the federal government playing a direct role in America’s education (Barnes & Slate, 2013). The next big move occurred in 1983, with the formation of the National Commission on Excellence in Education. President Reagan presented the country with ‘A Nation at Risk,’ a report indicating that American security and prosperity were slipping away because of the weak American educational system (as cited in Barnes & Slate, 2013). Reagan used this report as fuel for his

reelection campaign suggesting a future economic downfall and assuring the American people that he would change the education system. Another major federal government impact on higher education was the No Child Left Behind (NCLB) Act of 2001. The implementation of the act was intended to lead to better academic outcomes for all students and to close the gap between middle and upper socio-economic status white students and their urban and rural low socio-economic counterparts. NCLB has “drastically changed the climate and culture of public education by utilizing high-stakes standardized test scores as the primary measure of student living and student quality (Barnes & Slate, 2013, p. 3). However, increasing the number of students considered proficient in a subject area without actually ensuring that they are prepared for the future only adds to the issue of students not truly being prepared for life after high school, specifically higher education (American Diploma Project, 2004). Further presenting diplomas to students who pass standardized tests but are unprepared for the demands they will meet in the real world will weaken the effectiveness of NCLB as well as “support for the educational system itself” (American Diploma Project, 2004, p. 5).

Intended or not, the influence of politics on education has created a “stifling, ineffective, one-size-fits-all college readiness agenda” (Barnes & Slate, 2013, p. 2). Policymakers, in partnership with corporate America and the media, have “reduced the quality of education to standardized test scores that allow comparisons of students across state and international boundaries, which appeals to our society’s need for simplistic, yet sometimes misleading info, thereby strengthening the one-size-fits-all mentality” (Barnes & Slate, 2013, p. 4). Today, the Common Core state standards are in place to guarantee all graduating high school seniors are “college ready” (Bausmith & Barry, 2011, p. 175).

Retention percentages have not always been of interest in higher education. *The Paper Chaser*, a movie released in 1973, showcased the attitude of the university in regards to retention. “Look to the left of you. Look to the right of you; by the end of the semester, one of you will be gone,” a professor told his class (Malik, 2011, p. 17). Dating back to 1911, the Carnegie Foundation suggested that institutions provide opportunities for freshmen to discover their identities. Retention of students, especially academically underprepared students, was not of interest at that time. With funding dollars now tied to retention and graduation rates, the success of underprepared students is of great concern.

Defining “Underprepared” and “Academic Readiness”

It is not uncommon for students to be eligible for higher education, meaning they have met the basic admissions requirements, and yet not be prepared to succeed in higher education (Sparkman, Maulding, & Roberts, 2012). While academic readiness and college preparedness have been popular research topics recently, universally accepted definitions of “readiness” and “preparedness” do not exist. Because no universally accepted definitions exist, “readiness” and “preparedness” are used interchangeably in the research. The National Assessment Governing Board (2009) distinguishes between the two:

Preparedness represents the academic knowledge and skill levels in reading and mathematics necessary to be qualified for placement into a job training program (for the workplace context) or into a credit-bearing entry-level general education course that fulfills requirements toward a two-year transfer degree or four-year undergraduate degree at a postsecondary institution (for the college context). Academic preparedness is separate and different from college readiness because, in addition to academic skills, readiness encompasses behavioral aspects of individual performance related to success,

and these additional attributes are not measured by NAEP [National Assessment of Educational Progress]. Examples of readiness characteristics include persistence, time management, interpersonal skills, and knowledge of the context of college. (p. 3)

By this definition, students who fall short of the academic and skill expectations would be considered underprepared. Existing research also uses preparedness to describe a student's holistic ability to succeed in higher education.

“Many definitions of readiness include non-cognitive and non-academic facets, such as student work ethic or determination, parent or family resources, and student personality and persistence” (Porter & Polikoff, 2012, p. 397). Leonard (2013) suggests that college readiness also includes student choice and personality, as well as their family and other social networks. Continuing to look outside the classroom, a student who is truly ready for higher education is one who can understand the culture of higher education and the established social and academic norms of the institution (Conley, 2008). While it is argued that many factors exist in the holistic preparation of a student for college, when identifying factors for research, definitions often focus only on indicators of academic performance such as test scores, class rank, and grade point averages (Porter & Polikoff, 2012). This occurs because academic information is tangible and can be more readily included in a standardized assessment. Students' high school grade point averages do reflect some non-cognitive factors and therefore can be indicators of student retention (Komarraju, Ramsey & Rinella, 2013). Komarraju et al. (2013) suggested that standardized test scores are satisfactory gauges of future performance in higher education. Still, no “best indicator” has been agreed upon. Sparkman et al. (2102) report that ACT scores and high school grade point averages are completely unrelated and in no way indicative of college success. Sullivan and Nielsen (2013) noted the best indication of college readiness thus far is in-

class performance while Singell and Waddell (2010) suggest that in-class performance and test scores are insignificant when predicting college performance.

Underprepared students can also be referred to as “at-risk.” At-risk is described as students whose academic skills fall below the skill level deemed necessary for successful completion of college and who do not have the necessary college readiness skills (Sherwin, 2012). These students are considered at risk because they are at a high level of risk to drop from enrollment in the university. Because they are not adequately prepared for the challenges they will face in college, mainly studying and learning information, they are less likely to complete degree requirements, thus making them “at risk” of dismissal or voluntary leave from the institution (Sherwin, 2012). A subset of this student population is referred to as “high risk” students, because while they are academically underprepared, other factors make them even less likely to be retained in higher education (Malik, 2011).

Annually, ACT reports on high school seniors’ readiness to enter higher education or a career post-graduation. ACT defines college and career readiness as “the acquisition of knowledge and skills a student needs to enroll and succeed in credit-bearing first-year courses at a post-secondary institution (such as a two- or four-year college, trade school, or technical school) without the need for remediation” (ACT, 2012, p. 2). Conley (2003, 2008) adds to this definition that students who are prepared would succeed in any true freshman general education course at an accredited post-secondary institution and be equipped to continue on to a major in a specific subject area. Success must also be further defined in determining college readiness. Oftentimes, success is defined as students completing entry-level college courses “at a level of understanding and proficiency that makes it possible for the student to consider taking the next course in the sequence or the next level of course in the subject area” (Conley, 2008, p. 4).

Readiness Indicators

“What must students know and be able to do in order to succeed in entry-level university courses? It is a difficult question because admissions requirements only hint at what is actually expected once students reach college” (Conley, 2003, p. 8). Regardless of how one chooses to define college readiness, research literature indicates it is illogical to assume that readiness has one universal standard (Porter & Polikoff, 2012). College readiness is not a dichotomous variable but rather a continuum in which students range from well-prepared to underprepared for their enrollment in higher education (Barnes & Slate, 2013). To truly identify and study college readiness, it is imperative that a study determines gauges of “readiness” (Porter & Polikoff, 2012). The definition of a student’s readiness depends greatly on the difficulty of the gauges selected. Definitions of college readiness also differ greatly in the rigidity of their gauges, from acceptance to college meaning college ready all the way over to expecting a student to succeed in college in order to be defined as college ready. The “middle ground” in this continuum would suggest that a student could be academically ready for higher education, but still may not succeed due to non-academic factors (Porter & Polikoff, 2012).

The chief indicator used currently for college readiness is students’ freshmen grade point averages (Porter & Polikoff, 2012). A successful first year in higher education is fundamental to collegiate success and degree completion. Additionally, these grade point averages are most often reported automatically by schools and reported in a common 4.0 metric scale. Freshman year provides a basis to compare one student to another fairly and requires the institution to track just one year of data (Porter & Polikoff, 2012).

Additionally, college readiness is evaluated with students’ high school grade point averages and/or class ranks. This is a concerning standard as no common metric and definition exists across the nation’s high schools (Porter & Polikoff, 2012).

A third college readiness predictor commonly used is the completion of a pre-determined standard of curriculum requirements. Experts determine a specific course load to be necessary for students to be successful in college (Porter & Polikoff, 2012). By completing these requirements, students are granted acceptance into college, assuming they are likely ready for higher education.

From a long-term perspective, readiness can again be indicated differently. Readiness can be evaluated five to seven years after a cohort enrolls in higher education, allowing researchers to include other indications of readiness. Researchers can look at degree completion rates, whether or not students graduate on time, and their cumulative college grade point averages. While this can be beneficial in narrowing down college readiness, other factors exist in degree completion (Porter & Polikoff, 2012).

Each year, ACT releases a report predicting the readiness of students for college and careers using the definition discussed previously. The 2012 report indicated that, nationally, only one-fourth of high school graduates were prepared for college in all four subject areas (ACT, 2012), indicating that the number of underprepared students entering higher education is a larger population than expected. ACT sets test score benchmarks for determining preparedness of graduating seniors: a minimum score of eighteen for English, twenty-one for reading, twenty-two for mathematics, and twenty-four for science (ACT, 2012). Roughly twenty-eight percent of high school graduates did not meet a single ACT College Readiness Benchmark (ACT, 2012). This has decreased from the 2004 report, when forty-two percent of graduating seniors were prepared for college education (Wilmer, 2008). Students may have developed adequate test-taking skills, but they are still not prepared to be successful in higher education academics (Barnes & Slate, 2013).

“Preparedness” and Test Scores

For simplicity and as mentioned, college preparedness is often reduced to a student’s grade point average and standardized test scores. Regardless of the factors that indicate whether or not a student is actually prepared to succeed in higher education, institutions across the nation determine admittance by test scores. Students who meet or exceed the target score are accepted to the institution, while those who fall below may be provisionally accepted, but are likely denied admittance. While these tests can gauge a student’s academic ability, they are not perfect; approximately thirty percent of students completing a placement test are misplaced in terms of academic aptitude (Sullivan & Nielsen, 2013). Admissions decisions are too “high-stakes” to be determined simply by test scores. The authors of one popular standardized placement test discourage the use of test scores in admissions decisions. Within the Accuplacer technical manual, College Board (2003) states, “in no case should they be used for admissions” (p. A-2). Using these tests to determine acceptance or rejection can negatively affect all students, especially those who are underprepared. If a student succeeds in meeting the lowest score necessary for higher education, but is not “college and career ready” as defined by ACT, the student is likely set up to fail in higher education.

Further, the tests employed nationally to ascertain students’ readiness were not designed for these purposes. The SAT was originally designed to measure aptitude. While SAT test authors thought this to be positively correlated with subsequent academic achievement, that was not the original designation of the exam (Porter & Polikoff, 2012). The ACT was created to encourage curriculum reformation in America’s high schools by testing students on educational concepts developed and performed in high school and college (Porter & Polikoff, 2012). Further, these measures of preparedness for college do not effectively communicate to students and those

who educate them what is really necessary in order for students to truly be prepared to succeed in college (Conley, 2008).

With the discussion of test scores also comes the topic of “ability to benefit.” This term, coined by the United States Department of Education in 2001, provides a guideline for determining incoming students’ eligibility for financial aid based on a high school diploma or G.ED. and a minimum score on a placement test (Sullivan & Nielsen, 2013). Some administrators have considered moving their institution’s acceptance standards to be equivalent with minimum ability-to-benefit scores. Manchester Community College (MCC) was one of these institutions. For MCC, this change would have denied admission to forty-four percent of their African-American population, forty-one percent of the Hispanic student population, and seventeen percent of white students attending MCC. Sullivan and Nielsen (2013) looked further into the test scores and ability-to-benefit statistics and found no definite minimum score at which students could not benefit from enrolling in higher education. As discussed in previous sections, many characteristics of underprepared students make them members of minority groups on campus. As a result, these students add to the diverse campus culture. Denying admission to these students not only decreases enrollment numbers, but it also decreases the diversity of the college campus.

Characteristics of the Underprepared Student Population

College is the point at which society begins to expect young people to act as adults instead of children (Conley, 2008). More often than not, these young people are not equipped to transition smoothly from high school to a postsecondary classroom (Malik, 2011).

Underprepared is a label given to a student population that is quite diverse in terms of socioeconomic status, high school academic performance, standardized test scores, age, and

emotional health who enroll in two- and four-year institutions across the country (Wilmer, 2008). Underprepared students have “a host of personal issues ranging from self-consciousness and isolation to concerns about financial or family matters to unrealistic choices about classes and majors” which serve as obstacles for degree completion (Wilmer, 2008, p. 10). Challenges of self-efficacy, motivation, and confidence challenge underprepared students and can deter academic success (Wilmer, 2008). Nonacademic factors such as motivation, level of self-confidence, and attitude are increasingly more important in terms of student success for underprepared students (Fowler & Boylan, 2010). Their weaker academic skills are further thwarted by personal factors such as struggles transitioning, medical issues, and family obligations. They find it more challenging to connect to higher education’s academic environment, have undefined goals, lack academic direction, and often times have similar needs, at least non-cognitively, to first-generation and minority students (Wilmer, 2008).

McCabe’s study as cited in Wilmer (2008) provided some other characteristics of the underprepared student population. The student population is comprised of more females than males; students of different ages with “more than half over the age of 24; as often, but not always, being financially disadvantaged; as being primarily white, although a greater proportion of the Hispanic and African American students attending college are underprepared” (McCabe, cited in Wilmer, 2008, p.8). Some are married, some single; some are parents, some are not (Wilmer, 2008). Looking at the characteristics of underprepared students, one might notice that this student population does not seem all that different, at least demographically, from the more traditional, prepared student enrolling in college today. The differences lie within their understanding of the expectations of and preparation for higher education; prepared students completed more science, math, and foreign language courses in high school. Underprepared

students fully anticipate failing at least one class while in college and know that completing college will take more time (Wilmer, 2008). The amount of time they plan to spend in college is also significantly different; underprepared students plan to be in college for fewer years than more prepared students. Because underprepared students expect to fail classes and yet do not plan to extend their time in college to account for retaking courses, many settle for an associate's degree instead of pursuing a bachelors' degree (Wilmer, 2008).

A common perception is that underprepared students are not aware that they are less prepared for college than their classmates. Wilmer (2008) challenges that notion. Underprepared students reported a lower "academic ability, intellectual self-confidence, and emotional health" than students who are prepared for college (Wilmer, 2008, p. 9). However, the research found no significant differences between prepared and underprepared students' opinions of their competitiveness, physical health, sociability, leadership ability, or artistic talent (Wilmer, 2008). What really sets the students apart, however, is a lack of non-cognitive needs being met (Wilmer, 2008). If dismissed from higher education due to poor academic performance, underprepared students are less likely to return than their more prepared classmates (Singell & Waddell, 2010). For those who do remain enrolled in higher education, most underprepared students never leave the "at-risk" list during their college career.

Underprepared Students' Understanding of Learning

Cole, Goetz, and Willson (2000) found that underprepared students lack an advanced understanding of learning; they have an immature view of learning and the nature of knowledge. The authors did not specifically tie findings to theory, but in terms of Perry's Theory of Intellectual and Ethical Development, one could argue that underprepared students likely enter college at a very early position on the development continuum. Underprepared students likely

see the world dichotomously, believing that only professors have the right answers, and that knowledge is simply gaining factual information (Evans, Forney, Guido, Patton, & Renn, 2010). Not only do the professors have all the knowledge, but they are also believed to always be right—meaning no need to question a fact or think about an issue more critically. The danger here is that if underprepared students believe that only the professors can know the right answers, they are at a disadvantage in terms of obtaining knowledge. Because they do not believe their classmates' opinions or understandings of the content to be valid, they would be less likely to join a study group or ask a peer for assistance on homework. If underprepared students will not ask for assistance from their professors or reach out to peers, they are likely to fail. It will be important to assist these students in moving from duality, believing only the professors could have the right answers, to relativism, where all opinions can have value and students can critically evaluate what they are learning. A move towards relativism will also assist with a commitment to learning. Underprepared students believe that if learning does not occur quickly, it will not occur (Cole et al., 2000). As a result, they can easily be discouraged in completing an assignment or studying for a test in a subject area they have not yet mastered.

A further issue impacting learning is that students enter college unprepared to be independent, self-regulated learners (Cukras, 2006). While Cukras was not specifically referring to underprepared students, these implications are increased in the underprepared student population, recognizing that this lack of preparation stacks another obstacle against their success. In high school, they were not expected to teach themselves or to take personal responsibility for their education. They are not initially prepared to motivate themselves. Self-regulated learners are defined as “metacognitively, motivationally, and behaviorally active participants in their own learning” (Cukras, 2006, p. 194). This is a further disadvantage for underprepared students, and

combined with a lower understanding of learning suggests further reasoning that underprepared students struggle to persist. If they truly believe learning must happen quickly, then they are unlikely to keep working at a class they find difficult or a degree they do not believe they are progressing towards.

Motivation for Enrollment

According to Sullivan and Nielsen (2013), attending college decreases a person's tendency to request state assistance and can also improve the quality of life for American citizens and save taxpayer dollars. However, the reasoning behind students' enrollments can have a significant impact on their success in college, especially those who are underprepared. Some students enroll in higher education at the encouragement of parents who did not complete college and would like to see their children complete that goal. If this is the only reason a student enrolls, they are likely to struggle in higher education, especially if they are underprepared. A personal reason for attending college can help underprepared students develop the motivation necessary to succeed in higher education (Heany & Fisher, 2011). Students whose reasons for attending college related to a future career or a desire to further their education were fifty-five to sixty percent likely to be retained. Less focused individuals claimed to enroll in college for non-personal reasons such as "college is simply the next step after high school" or their "parents wanted [them] to come" or non-academic reasons "I wanted the social experience" (Heany & Fisher, 2011, p. 73). These students were zero to thirty-three percent likely to return to higher education the following year.

Chapter 3 - Current Initiatives in Higher Education

With retention of students becoming a priority in the 1980s, institutions began implementing student support programs (Sherwin, 2012). These programs were mainly targeted at students considered underprepared for higher education and included tutoring, study skill classes, academic warning, and probationary semesters. As time progresses, these programs have increased in number and improved in content. By 2002, ninety-four percent of four-year institutions offered a first-year seminar course for freshmen (Sherwin, 2012). Komarraju et al. (2013) suggests that the use of training programs and workshops geared to “develop academic discipline” (p. 108) can enhance underprepared students’ education, specifically in skills such as goal setting, time management, and study strategy development. Most often, programs to develop such academic skills are implemented during students’ freshman year, in an effort to help them not only transition to the university, but also begin a path of academic success.

First-Year Courses

Requiring students to attend an orientation day prior to or in conjunction with registering for classes has been proven effective in providing students the early connections of an academic and social support network at the institution (Fowler & Boylan, 2010). While Fowler and Boylan (2010) support the use of a mandatory orientation in order to familiarize students with their new home, the researchers also suggest that transitional support is needed past one day of orientation. They suggest first-year transition courses as an effort to improve the retention of students, specifically those underprepared for higher education. “A first-year transition course goes beyond the orientation and assists in the integration of students into both the intellectual and social aspects of college life” (Fowler & Boylan, 2010, p. 3). Further, these courses can connect underprepared students to beneficial campus resources and help students understand their

learning style. First-year transition courses add to the network developed at orientation and encourage students in the direction of majors of best fit for them. Additionally, first-year transition courses can keep the student focused on their academic and personal goals as they shift from the high school environment to college (Fowler & Boylan, 2010). Nonacademic factors discussed earlier can be addressed in first-year transition courses as these classes serve as a “safe space” for students not only to learn, but also to feel more connected to the institution.

Additionally, first-year courses exist to assist students in understanding the relevance of coursework. These courses, referred to as first-year seminars, are paired with one or two introductory-level courses and are capped at lower class size than most introductory courses. The faculty member assigned to this class helps build connections and explain relevance of the coursework, while students within the community are networking with classmates and faculty (Chism, Baker, Hansen, & Williams, 2008). Indiana University-Purdue University Indianapolis (IUPUI) found first-year seminars to be so successful that they are now required for all first-year students (Chism et al., 2008). First-year seminars at IUPUI were directly tied to a six percent increase in retention of first-year students (Chism et al., 2008). While Chism et al. did not share results for underprepared students specifically, it would seem that first-year courses would be of great benefit for underprepared students. Further, the six percent increase in retention could likely be related to underprepared students receiving much needed attention in connecting to the institution.

Remedial Coursework

The majority of incoming freshmen will need remedial assistance in college; fifty-three percent of college students complete at least one remedial course during their college careers (American Diploma Project, 2004). Remedial or “developmental” courses are courses designed

to assist underprepared students in transitioning to college-level coursework by remedying basic skill and subject deficiencies they bring to college (Cox et al., 2003). Critics of remedial coursework express concerns of the financial burden for both the student and the institution as well as the education validity of remedial courses; however remediation is necessary for most students, as indicated by the fact that more than half of all college students will complete remedial coursework (American Diploma Project, 2004; Johnson & Stevens, 2006). If a student's skill level does not match the lowest level expected for anticipated success in a particular subject area, the student will likely enroll in remedial coursework (Sherwin, 2012). Ideally, these courses encourage students to improve and prepare students for advanced courses without negatively impacting their grade point averages (Sherwin, 2012). However, studies indicate that while remedial coursework may help students develop, it is rarely enough to remove students from the "at-risk" list (Sherwin, 2012).

Across the nation, remedial courses typically fall into two different categories, skills based or strategy based. Courses that are designed from a skills-based perspective follow a diagnostic-compensatory model where the primary focus of the coursework is strictly practice of a specific skill, be it English, math, or science (Saumell, Hughes, & Lopate, 1999). Strategy-based remedial coursework, on the other hand, teaches study skills alongside remediation for a subject, allowing students opportunities to learn reading and study strategies to aid them for success in other subject areas as well. Regardless of methods for educating these students, all too often the skills gained from remedial coursework are not transferred to application outside that classroom. Students have gained the knowledge necessary to complete the course, but typically have a "mechanical" understanding of subject matter (Saumell et al., 1999).

Institutional Impact

A major issue, from an institutional perspective, is that remedial coursework can be very expensive. A study completed in Ohio found that public institutions were spending more than fifteen million dollars to provide roughly 260,000 credit hours of high school level courses to freshmen and an additional 8.4 million dollars to offer these same courses to older students (Bettinger & Long, 2009). Bettinger and Long (2009) estimated that total remedial coursework at public institutions across the nation costs more than one billion dollars each year. Yet it seems unfair to not provide remedial coursework to students who obviously need it. At the end of the Fall 2001 semester, California State University dismissed more than 2,200 students because they had failed basic math and English courses. This dismissal accounted for about seven percent of that year's freshman class (Bettinger & Long, 2009). Because of the poor reputation and financial concerns associated with remedial coursework, some four-year institutions are considering phasing out their remedial courses (Cox et al., 2003).

The fact of the matter is almost sixty percent of community college students need remedial coursework in at least one subject area (Deil-Amen, 2011). Community colleges that enroll more minority and low-income students report more than seventy-five percent of their students enrolling in necessary remedial work (Deil-Amen, 2011). Furthermore, less than one-fourth of students who need remedial coursework in three or more subject areas will persist and earn a degree (Wilmer, 2008).

Impact on Students

The most challenging part of remedial coursework is determining whether the courses really help or hurt the student. Evidence exists to support both sides, but no true conclusion has been reached (Cox et al., 2003). Many freshmen enrolled in remedial coursework recall their

high school courses being more academically rigorous and believe the remedial work is a waste of their time, deterring them from graduating on time (Saumell et al., 1999). For underprepared students, remedial coursework can lead to questions of their identity as college students. As underprepared students fill their course schedules with remedial classes, they decrease the number of college level courses in which they can enroll, resulting in these students feeling like they are not being treated as college students, at least academically (Deil-Amen, 2011). However, they are still expected to graduate in a timely manner and be prepared for the next courses in which they enroll. Some underprepared students refuse to admit their academic shortcomings and avoid enrolling in remedial courses in an effort to prevent a decrease in their self-esteem (Cox et al., 2003).

According to Bettinger and Long (2009), students who complete remediation courses are more likely to continue their education and less likely to transfer to a less selective or lower-level institution. Furthermore, students who complete necessary remediation coursework are more likely to graduate than underprepared students who do not take remedial courses (Bettinger & Long, 2009). Specifically, English and math remedial courses increase the likelihood of overall academic success while also increasing the probability that an underprepared student will complete a degree within four to six years (Amey & Long, 1998; Bettinger & Long, 2009). The knowledge gained in these remedial courses seems vital to student success in other courses (Amey & Long, 1998).

On the other side of the argument, Deil-Amen (2011) noted little difference in the college completion rates of underprepared students who enroll in remedial coursework versus those who do not. Further, students participating in remedial coursework are often victims of low motivation and low self-concept and have significantly lower expectations for themselves and

their education (Sherwin, 2012). “Rather than increasing graduation prospects, remediation is often the first step to dropping out” (Leonard, 2013, p. 184). The National Center for Education Statistics (1996) report showed that freshmen who were enrolled in remedial coursework were actually less likely to continue their education at that institution. Bettinger and Long (2009) were quick to point out that the NCES study did not factor in students transferring to other institutions, nor did it control for the ability of the individual students enrolled in remedial coursework. Rather than seeing these students as only underprepared academically, higher education professionals need to recognize that these students are often holistically underprepared.

Helpful or not, remedial coursework is by no means a “fix all” for underprepared students. According to Cole et al. (2000), “Merely tooling students with reading and learning strategies may not be enough to facilitate academic success” (p. 70).

Adjunct Coursework

Cox et al. (2003) recognized factors that lead to underprepared student success in higher education. These students identified as “successful” develop and keep an organized study routine complete with study skill strategies. While they see their professors as experts in the subject area, successful underprepared students also take personal responsibility for their education. As discussed, underprepared students are often also lacking necessary study skills and strategies in order to be reach the success levels Cox et al. described. This indicates the need for adjunct coursework in higher education.

The concept of creating additional courses to tie connections between subjects is not all that unusual, but arguably could be a better direction for developmental courses for students not fully prepared for basic credit courses in math, English, or reading. Adjunct courses can offer a variety of lessons to students, but the majority focus on teaching study and learning strategies

(Simpson & Rush, 2011). Adjunct courses are offered in conjunction with university-required courses, such as chemistry, in which students are known to struggle. The adjunct coursework offered at Texas Women's University were offered outside of regular class time as part of a college assistance program (Caswell, 1991). The coursework combined subject-specific content with holistic learning strategies. Instead of teaching generic study strategies, adjunct course instructors determine what study skills will provide the greatest benefit to students enrolled in the course (Simpson & Rush, 2003).

In the courses offered at Texas Women's University, all students considered to be underprepared received a specific invitation to participate in these courses, but attendance was not mandated—students referred themselves to these classes (Caswell, 1991). At the end of the semester, faculty reviewed the success of the program, stating that grades of 'A,' 'B,' and 'C' would be considered successful, while 'D's and 'F's were not. The participants were compared to the rest of the underprepared student population who did not participate. Eighty-one percent of participants were successful versus just thirty-seven percent of non-participants. While fifteen percent of the participants were still unsuccessful, they identified themselves as inconsistent attenders (Caswell, 1991). Most of the "unsuccessful" participants attended less than one fourth of the sessions offered to them. In the study completed by Simpson and Rush (2003), eighty percent of students reported they believed their enrollment in the adjunct study strategy courses had a positive impact on their grades. Another ten percent indicated their enrollment helped "somewhat" with their grades. While the survey was limited to students who chose to respond, enrollment in adjunct coursework was linked with better classroom performance. Less than seven percent of the underprepared students who enrolled in adjunct coursework earned grades lower than a 'C' that semester, compared to the seventeen percent of underprepared students who

did not enroll in adjunct coursework. Adjunct coursework can provide “the cognitive, metacognitive, and self-regulatory processes essential to students’ academic success” (Simpson & Rush, 2003, p. 147.)

Reading Skill Programs

“Reading deficiency is the biggest roadblock to underprepared students’ success in college” (Cox et al., 2003, p. 171.) As a result, it is imperative that institutions intending to enroll underprepared students provide opportunities to help them overcome this shortcoming. These underprepared students will first have to conquer their reading deficiencies and then keep up with the fast pace of college academics. Cox et al. (2003) further established indicators of long-term success for underprepared readers. First, these students must seek help in decreasing the gap between their reading abilities and the reading level necessary for higher education. Secondly, the degree to which they choose to apply skills learned in developmental courses will determine their success in bridging the gap. Finally, a continued use of skills learned to further increase reading comprehension throughout college is a necessity for college success (Cox et al., 2003).

The study completed by Cox et al. (2003) highlighted two successful alternative initiatives to traditional remedial curriculum. The first is to offer reading skills courses as credit-bearing courses, which could count as elective courses towards degree completion. Offering credit for such a course provides the necessary incentive for students to not only enroll in the course but also to put forth the effort necessary to succeed. Oftentimes, students enrolling in remedial coursework for no credit will not apply the effort to succeed because the course has no direct and immediate impact on their grade point average (Cox et al., 2003). A second option, arguably more beneficial, is to develop reading skills courses that are combined with curriculum of an introductory-level core class. Students enrolled in this type of coursework would have

direct examples and a specific subject area to begin applying the skills gained in reading coursework. Additionally, the course would not only count as credit, but because it is connected to a core class, it will likely be credit in a course required for most majors offered at the institution (Cox et al., 2003). Reading skill improvement programs are implemented to decrease or completely erase the shortcomings that keep underprepared students from succeeding in higher education. Immediate success of these programs can be measured in students receiving, at minimum, passing grades in their college-level coursework. In the long run, these courses lead to student success in the form of degree completion. Underprepared readers entering higher education who enroll in and successfully complete a reading skill development course “experience significantly greater success in college over the long term compared to similarly underprepared students who either do not take, or do not pass, such a course” (Cox et al., 2003, p. 189).

Initiatives Outside the Classroom

Research indicates that development programs for underprepared students that only occur in the classroom are simply not enough (Malik, 2011). Classroom success can be attributed to combined efforts of academic and social involvement. No matter how well developed or successful a first-year program is, participation in that program by itself is not enough to help underprepared students over the obstacles they face. Combining first-year programs with relationship building and social activities, underprepared students have a greater likelihood of college success. Integration of several programs to encourage student success increases underprepared students’ social integration and overall college satisfaction levels. First-year seminar programs, independent of all other initiatives, had no significant impact on the lives of underprepared students in comparison to other underprepared students who chose not to

participate in the first-year seminar courses (Malik, 2011). These programs can begin as early as the summer before a student enrolls in higher education and continue through an underprepared student's freshman year.

Summer Bridge Programs

Institutions across the country have implemented summer bridge programs, intending to help underprepared students transition from high school to higher education (McCurrie, 2009). Designed to introduce first-year students to college, these retention initiatives vary in topic and length and are designed to give underprepared students a jump-start to the academic and social load ahead (McCurrie, 2009; Suzuki, Amrein-Beardsley, & Perry, 2012). Because underprepared students often require more basic-level coursework than their classmates, summer bridge programs can serve to level the playing field in terms of skills brought to college when classes start in the fall (Suzuki et al., 2012).

On-Campus Housing

One of the most effective retention efforts for underprepared students is residence life (Oguntoyinbo, 2011). Living in the residence halls can effectively connect students to the university and encourage them to take an active role in their education (Oguntoyinbo, 2011). Dr. Adam L. Rockman, Vice President of Student Affairs at Queens College, stated, "Research has shown that students who live on campus tend to have higher GPAs and graduate sooner than those who do not live on campus" (quoted by Oguntoyinbo, 2011, p. 8). While eighty-three percent of off-campus students re-enroll in their university the following year, an outstanding ninety-five percent of first-year students living on campus are retained to their sophomore year (Oguntoyinbo, 2011). Further, students housed on-campus report higher levels of satisfaction with their college experience and attribute this to their on-campus housing experiences.

Involvement in a residence hall can also provide purpose and a peer group for underprepared students. This involvement can decrease the likelihood of underprepared students feeling overwhelmed, increase their engagement in the university, and as a result, lead to higher academic performance (Oguntoyinbo, 2011). This is further enhanced with the establishment of learning communities.

Learning Communities

Similar to a freshman interest group, these communities are often centered on majors and/or common interests for students (Oguntoyinbo, 2011). Learning communities began as early as the 1920s and resurfaced in the 1960s and then again in the late 1980s, each time looking more like the learning communities seen today (Zhao & Kuh, 2004). By the 1980s, learning communities were supported by higher education administration as a result of growing acknowledgement of the need for students to engage in educationally enriching activities both inside and outside of the classroom. Learning communities were recognized as an opportunity to provide purposeful student engagement and encourage students to higher levels of learning and personal development.

Learning communities have contributed to increased academic effort of underprepared students and fostered other developmental growth such as social tolerance and openness to diversity (Zhao & Kuh, 2004). The purpose of learning communities is to build relationships. In learning communities, students are immersed in a peer group of like-minded individuals and invited to engage with faculty on a deeper level (Sherwin, 2012). Involvement in learning communities has also been directly linked to richer academic and social experiences, and as a result enhanced student perceptions of themselves and their abilities as well as the higher education environment (Zhao & Kuh, 2004). During their first few weeks of school, students

determine how seriously they will pursue a college education (Johnson & Stevens, 2006). As the newness of attending college and the unrealistic expectations of college life fade into reality, many freshmen begin feeling disappointed and even overwhelmed with the difficulty of higher education (Johnson & Stevens, 2006). While these realities are challenging enough to overcome by themselves, they are added on to the other already existing obstacles for underprepared students. Learning communities can provide a community for students to work through these feelings, as they develop their self-identities in an academically focused environment (Zhao & Kuh, 2004). Learning communities also provide opportunities to enhance students' understanding of core curricular concepts, thus increasing engagement and retention of these students (Sherwin, 2012).

Learning communities are designed for two different types of student connections. First, learning communities provide a multi-disciplinary education approach, allowing students to connect ideas from different fields. Secondly, through social interactions students are linked to a niche community within the larger institutional community (Zhao & Kuh, 2004). Students in learning communities are enrolled in at least two of the same courses, providing a significant amount of time for students to participate in shared intellectual experiences. Cross-disciplinary training can occur as faculty can use examples and develop assignments to apply their subject area to other courses students are enrolled in. Further, a "sense of community" is developed through frequent social and academic connections amongst students in the learning community (Zhao & Kuh, 2004, p. 116).

Learning communities can be further divided into four different categories: classroom, curricular, student-type, and residential (Zhao & Kuh, 2004). Classroom learning communities make the classroom the center of a student community integrating group processes and

cooperative learning experiences into the subject matter. Curricular learning community participants enroll in at least two courses of similar theme as a group, providing academically focused camaraderie to students in the community. Student-type learning communities are “specifically designed for targeted groups,” (Zhao & Kuh, 2004, p. 116) including but not limited to academically underprepared students, honors students, and students with a special interest. Finally, residential living communities house students enrolled in at least two common courses close to one another to increase the likelihood of academically focused interactions outside the classroom. Learning communities create safe spaces for students to apply their classroom learning and academic engagements as well as social experiences to the development of their worldview (Zhao & Kuh, 2004).

Chapter 4 - Underprepared Students' Perceptions of Higher Education

In higher education, there seems to be this mantra that students fail because they are academically underprepared, when in reality, that is just one of many factors. Students who struggle academically attribute their failures to a multitude of causes such as major illness, problems at home, working too many hours, and no motivation to complete coursework or attend class (Sullivan & Nielsen, 2013). Of students surveyed, only four percent reported being completely underprepared for college and six percent attributed their failure to “academic problems.” Higher education must understand that other factors exist in determining student success; standardized placement tests cannot account for student characteristics like drive, self-discipline and determination. Sullivan and Nielsen (2013) stated, “Course pass rates and percentages of students who reach critical milestones provide only one very limited way to assess this complex issue” (p. 324).

The persistence and preparedness of students can be influenced by internal characteristics they have developed before enrolling in college (Barbatis, 2010). Barbatis (2010) sorts these characteristics into the following categories: “sense of responsibility, goal orientation, resourcefulness, determination, cultural and racial self-identification, and faith” (p. 19). Looking specifically at mathematics courses, significant relationships exist between “beliefs and cognition, motivation, and academic achievement” (Pyzdrowski, Sun, Curtis, Miller, Winn, & Hensel, 2013, p. 533).

Students' expectations of higher education can also play a role in their academic readiness. Today's media paints a picture of higher education that does not line up with the reality of college. As discussed, college is often not the same as students' expectations, both

inside and outside the classroom. Not knowing what to expect and adapting to new teaching methods can impact the success of students in higher education.

Contrary to the popular misconception, most first-year college students work in groups inside and outside class on complex problems and projects and make class presentations. They are not simply lectured to. At the same time, they are expected to be independent, self-reliant learners who recognize when and how to seek help from professors, students or other sources. (Conley, 2008, p. 5)

Faculty members indicate this underpreparedness extends outside the classroom in that students spend only about half the necessary time studying in order to prepare for class (Conley, 2008). In several recently completed studies, researchers have expressed concerns about students' decreased learning due to not being engaged in assignments (Pyzdrowski et al., 2013). Conley (2003) points out the importance of time management and states, "College level study often takes more time than students are prepared to spend" (p. 21). Even students recognize that they are not prepared for higher education. "Approximately forty percent of recent graduates report key gaps in their preparation" (Levine, 2007, p. 17). In a nationwide survey, at both selective and open-admissions institutions, faculty indicated almost universally that incoming students are not prepared for the academic expectations of higher education (Conley, 2008). They struggle with problem formation and problem solving; reasoning, argumentation, and proof; interpretation; and other critical thinking strategies and skills.

It is evident that far fewer students are prepared for higher education when evaluated in more categories than simply their courses taken and high school grade point averages (Conley, 2008). "Students in our nation's high schools are earning diplomas, but they are graduating without the knowledge, skills, and meta-cognitive strategies needed to be successful at post-

secondary institutions” (Barnes & Slate, 2013, p. 1). Improving the persistence of underprepared students is positively correlated with increasing diversity in higher education as well as career-development opportunities for these students (Heany & Fisher, 2011).

The Downside of “College for All”

While research is presented for both college and career readiness (e.g., ACT annual reports), society has started to simply see college readiness. Career is deemphasized and “college” is synonymous with “bachelor’s degree” (Barnes & Slate, 2013). The issue here is that college may not be the best fit for every student, but because of the “college-for-all” mentality, schools are encouraging and directing all students toward college. This further hinders pre-college student development as the college-for-all agenda decreases variability in coursework, placing all students on one narrow path—a path that leads only to higher education. Educators are teaching to the tests, both for NCLB standards and what they believe will be on college readiness exams (e.g., ACT, SAT).

College-for-all encourages students to raise their personal plans and enroll in higher education. While this may seem positive, it actually can be very detrimental to students. The college-for-all push discourages high school students from considering other options for their futures, namely associate’s degrees, technical and trade schools, and other potential careers (Rosenbaum, 2011). College-for-all may lead to more effort in the high school classroom, but it keeps students from identifying more realistic options that may have better payoffs and provide greater probabilities of success (Barnes & Slate, 2013; Rosenbaum, 2011).

With the concept of college-for-all comes the need for open admissions. Some institutions are opening the doors to almost any student who requests access, but by lowering expectations of students, the need for effort also decreases (Rosenbaum, 2011). Ninety-five

percent of public two-year institutions offer open-access admissions, and as a result, enroll over one third of students in higher education (Maue, 2012). Knowing that they will be accepted to an institution, college-bound seniors do not feel compelled to compete for admissions or demonstrate a high level of academic achievement. Students suppose high school efforts are irrelevant to their future careers, obviously decreasing the amount of effort they put forth (Rosenbaum, 2011). As a result, open-admissions institutions will be expected to offer remedial coursework in order to prepare these students to succeed in higher education (Maue, 2012).

Additionally, the pressure placed on students to then succeed in higher education can quickly become too much, especially for those who were already unlikely to succeed (Rosenbaum, 2011). While raising students' plans to enroll in higher education, students are often uninformed of the other expectations for entering college. They are not provided clear information about the realistic incentives of high school effort or probabilities of their success in college. For example, they are not informed about placement tests required at most colleges, meaning they likely do not understand how important it is to succeed in their high school courses to avoid remedial coursework in college (Rosenbaum, 2011). Students setting a goal of enrolling in higher education and their ability to attain that goal start as early as seventh grade (Cabrera, Deil-Amen, Prabhu, Terenzini, Chul, & Franklin, 2006). Nearly 90 percent of eighth graders expect to complete some education after high school, be it college or technical training (American Diploma Project, 2004). Almost two-thirds of their parents believe college is a necessary next step for their children (American Diploma Project, 2004). By planning for college attendance prior to or during junior high, students create a better path for themselves in terms of securing the necessary resources to reach that goal (Cabrera et al., 2006). Rosenbaum (2011) makes it clear, "Lofty plans are nice, but they are not sufficient" (p. 116). While college for all

leads to higher enrollment numbers, it does so by also increasing the number of underprepared students entering higher education.

Chapter 5 - Recommendations

Recommendations for Practice in Higher Education

Initiatives found to be most successful in retaining underprepared students require these students to apply for the developmental program they find interesting (Singell & Waddell, 2010). Research by Caswell (1991), Cox et al. (2003) and Simpson and Rush (2003) also supports the value of student responsibility in program participation. It is reasonable to believe that a student who self-selects into a program will benefit from it, as the student clearly recognizes his or her need. If an application is necessary for involvement, the issue then becomes that not all students will select to help themselves by enrolling (Malik, 2011). Obviously, those who are open to development opportunities and other initiatives are better directed for success. Students who seek networking and community opportunities become more rooted in the institution and, as a result, are more likely to return the following year (Singell & Waddell, 2010). Singell and Waddell's research indicates a direct tie to theories of student development, which should be used as a foundation for successful program development.

Student Development Theories to Consider

In order to determine what initiatives would be most beneficial for addressing the needs of underprepared students, it is important to understand relevant theories and how they are applied to underprepared students. It stands to reason that the relevance and value of initiatives is clearer when such initiatives are rooted in theory.

Tinto's Theory of Student Departure

Tinto's theory of student departure indicates that the more integrated a student is within higher education, the lower the likelihood that the student will leave the institution before completing a degree (Sparkman et al., 2012). Tinto (1988) highlighted the need for all students to

integrate into the social environment. This need for a social network is even greater for underprepared students. Because these students are already less likely to be retained, it is imperative that the institution create a community in which they feel connected and encouraged to succeed. Initiatives for underprepared students should provide opportunities for community building, encouraging underprepared students to create their own networks. These networks can provide not only social interactions, but also the necessary motivation to persist in higher education. “To be successful in the pursuit of a degree, students need to achieve a level of commitment to their career, academic goals, and the institution as well” (Sparkman et al., 2012, p. 643)

Astin’s Theory of Involvement

Barbatis (2010) refers to Astin’s theory of involvement as he suggests that the concept of learning be broadened to include non-cognitive educational needs, like citizenship and self-efficacy. Astin (1999) defined involvement as “the amount of physical and psychological energy that the student devotes to the academic experience” (p. 518). Persistence of students can be directly correlated to involvement, while a student withdrawing from higher education can be linked to a lack of involvement in the institution (Maue, 2012). Connecting to Tinto’s theory, Astin’s theory further supports the need to build a community and encourage appropriate and academic institutional involvement for underprepared students. Astin’s theory requires students to play an active role in creating the right quantity and quality of involvement to engage themselves in higher education (Maue, 2012). For underprepared students, it is important to encourage involvement that will be beneficial to their academic success. For example, an organization that is directly tied to their major or department could be beneficial as the students they will interact with can also be in the same study groups or serve as resources. Creating an

environment that adds value to their education will be vital, both in helping encourage the student to remain a part of the institution, but also in providing some assistance in overcoming the obstacles underprepared students will face.

Challenge and Support

Though programming exists to encourage underprepared students towards college success in ways that they are accustomed, program content is often watered down (McCurrie, 2009). While many programs for underprepared students are designed to support the students, few truly provide the challenge that students need in order to effectively transition to higher education. These programs successfully assist students and encourage them to retain information, yet students do not take responsibility for their own educational success (McCurrie, 2009). Despite being underprepared, students need challenge and support. They need to set higher goals for themselves and feel supported to reach those levels of success. Students taking action for themselves results in less need for additional programming after their freshman year (Evans et al., 2010).

When students feel accepted by peers and faculty and are engaged in their curriculum, they are more apt to achieve their goals (Sherwin, 2012). For this reason, applying challenge and support to underprepared student programming can help students conquer negative the self-concept they likely brought with them to college (Sherwin, 2012). As programs and services (e.g., learning communities and specific study skill development programs) are developed to engaged underprepared students, higher education personnel must remember to not only provide support, but also to challenge the students to take personal responsibility for their education. These initiatives must be environments where students feel safe and encouraged, but also pushed to reach outside of their comfort zones.

Holistic Student Development

The most successful programs, measured by improvement of retention and advancement of underprepared students, are those that seek holistic development of students (Sherwin, 2012). These programs do not focus on one specific area of development such as academics, but rather approach the student from multiple angles of student development. This is important, not just from the development standpoint, but also from a recruitment standpoint. By focusing on holistic development, an underprepared student may become interested in the program because of one specific opportunity, but may benefit from the program because of a different developmental initiative. As discussed, the needs of an underprepared student extend outside the classroom, so it would be most beneficial to design initiatives that benefit the whole student. Connecting also to Astin (1999) and Tinto's (1988) theories, the most effective programs for retaining underprepared students are those that align underprepared students' education experiences with university expectations (McCurrie, 2009).

Developmental Programs

Developmental programs are an excellent application of holistic student development. However, as discussed, the underprepared students who are likely in greatest need of these programs are unlikely to enroll in them. For this reason, institutions should connect enrollment in higher education to enrollment in programs designed for the development of underprepared students. Students who do not meet admissions requirements but are provisionally accepted to the institution should be required to complete these development programs. Further, students who do meet admissions requirements, but are still on the lower end could benefit from enrollment in developmental programs. For example, a student with a composite ACT score high enough to grant admission to the institution may have one or more subject-area scores below the

cut-off. As discussed in the remedial coursework section, students needing remedial work, especially in reading, are not set up to succeed in higher education without assistance. CARE and CHANCE are two such programs that should be used as models and modified to fit the needs of the institution and the students enrolled there. These programs are unique in that students are still accepted to the university, but they are also directly enrolled in a program and community that encourages their success in a more direct and intensive way.

CARE Program

Florida State University administration created the CARE program for students who are traditionally less prepared to succeed in higher education. The Center for Academic Retention and Enhancement (CARE) has lower admission standards than the traditional university standards, but requires students who meet additional specific requirements. In doing so, CARE initiates contact between underprepared students and resources available on campus as well as people who can be influential and helpful during their college careers (McCurrie, 2009).

CHANCE Program

The Counseling Help and Assistance Necessary for a College Education (CHANCE) program at Northern Illinois University (NIU) provides underprepared students the resources to succeed in higher education. The program admits students who fail to meet at least one of the admission criteria for the university, thus preventing their acceptance to NIU (Johnson & Stevens, 2006). CHANCE provides “ongoing retention-based counseling services such as individual academic counseling, tutoring, financial aid counseling, special workshops, courses to enhance academic skills, and other services to enhance academic success” (Johnson & Stevens, 2006, p. 47). As of 2006, when Johnson and Stevens completed their research, the CHANCE program had graduated more than 3,000 students.

Aid in Transition

Social and academic opportunities provided by the institution have been shown to effectively engage students in the environment of higher education and aid in the transition from high school to college (Oguntoyinbo, 2011). Underprepared or not, students need support from their institution to ease the transition to higher education. Orientation is an excellent initial connection to the university, but students need further assistance in the transition to their new home (Fowler & Boylan, 2010). Similar to a learning community, these transitional programs connect underprepared students not only to the institution but also to a peer group can be beneficial in their retention. As in Tinto (1988) and Astin's (1999) theories, connection to a peer group and to the university is an effective way to motivate students to persist in higher education. Programs that place students in small, well-defined groups are an effective way to improve retention (Singell & Waddell, 2010). By providing both classroom experiences and facilitating peer group development, administrators can create and guide underprepared students to success, even past students' expectations of themselves (Oguntoyinbo, 2011).

An important focus for student success in higher education is for a student to find his or her fit—the group in which they belong. Schlossberg's (1989) theory of mattering and marginality identifies a student's need for a peer group. The peer group is the circle in which students feel they matter to the rest of the group. Because underprepared students may be marginalized and disassociated from the general student population, freshman interest groups make sense to help these students find “their crowd” of companions and peer support. Creating transitional groups or involving students in learning communities, these needs of underprepared students can be met. These groups are based on unique, yet shared interests of freshmen (Singell & Waddell, 2010). This can create an almost automatic peer group, one where a common bond already unites members, be it similar interest or background.

High School-Higher Education Relationship

Higher education should use high school assessments (e.g., NCLB and other nationally mandated exams) to determine admission of students to college (American Diploma Project, 2004). By doing so, higher education can better encourage high schools to be providing students the necessary education and experiences to be prepared for post-secondary education. The current process, ensuring acceptance to students at or above a specific grade point average or at a top percentage of their graduating class, prevents higher education from encouraging high school curriculum reform (Porter & Polikoff, 2012).

Additionally, colleges need to provide information to high schools about the academic performance and preparedness of their graduates in college (American Diploma Project, 2004). If students from one particular high school are not prepared to succeed in a particular subject area, the high school should be informed so that adjustments can be made for the success of future students.

High school educators need to be knowledgeable of the proficiencies necessary for graduates to be considered college and career ready. “Teachers need to have deep knowledge of both the content they are teaching and how students learn that content” (Bausmith & Barry, 2011, p. 174). For decades, improving the effectiveness of teachers has been suggested as the best approach to improving student preparedness. Yet little has been done to improve professional development opportunities for teachers (Bausmith & Barry, 2011). Enhancing professional development for educators could improve high school instruction across the nation to better align with standards of college and career readiness.

Finally, high school academic standards need to be aligned with the skills and knowledge that will be required of their graduates for college and career success (American Diploma Project, 2004). Students should not be permitted to graduate if they are not actually prepared to

succeed post graduation. Providing a diploma to students who do not meet the standards or possess the skills expected of someone with a high school diploma does not help anyone—the school or the student.

Involving Parents

Barbatis (2010) also suggests creating programs involving parents and families to assist students in their collegiate endeavors. Parents are becoming far more involved in the student experience in higher education, so involving them in the retention efforts of their son or daughter could be an effective strategy. Regardless of the institution’s response, parents will remain involved in the day-to-day events of their students’ lives. Parents can either be working alongside the institution to develop the student or distracting and even sometimes preventing students from gaining development opportunities. “Effective college readiness strategies should address more than just the high school student, but include the family, counselors, and other relevant social networks” (Leonard, 2013, p. 188). Parents could sign up for (or automatically be added to) email lists highlighting involvement and developmental opportunities available to students—from clubs and organizations to tutoring and study skills workshops. By receiving the encouragement to attend from both their institution and their parents, underprepared students may be more interested in attending and invested in their personal growth.

Study Skill Development

As noted in earlier sections, many students enter higher education unprepared to self-regulate their learning. Students also likely have not developed study habits that will be effective in higher education. Both of these issues become of greater concern when engaging underprepared students who have other obstacles to overcome. Therefore, a course assisting

students in developing successful study habits could be a positive experience for underprepared students.

According to Cukras (2006), implementing a study plan and learning to self-monitor progress have been the most effective strategies underprepared students to become self-regulated learners. These two strategies, when tested, consistently correlated with test score performance. “Monitoring” means students are able to self-determine their current level of knowledge and then examine their progress towards mastery of the material. The development of a study plan means underprepared students gain the ability to select the best strategies for learning class material, rather than memorizing large quantities of information the night before an exam. Further, they are capable of monitoring and gauging how well they are learning with their current strategies (Cukras, 2006).

The facilitation of study skills development could be implemented in another transitional course or as part of a developmental program. It could also be taught as adjunct coursework, allowing students to directly apply the skills that they are learning to a difficult course or a class in their area of study.

Advising for Success

While academic advising is already offered to students in higher education, greater emphasis should be placed on improving academic advising for underprepared students. The relationship between an underprepared student and his or her advisor is one of the most crucial university connections (Sherwin, 2012). Advisors play a vital role in the success and development of college students. Fowler and Boylan (2010) add that the relationship between a student and his or her academic advisor “can be the single biggest factor in increasing student retention” (p. 3). Academic advising is not limited to selecting courses for the following

semester. The advisor-to-student relationship is often the first and arguably most important connection a student has to the university (Sherwin, 2012).

While several models exist for academic advising, the most effective models in terms of working with underprepared students are developmental academic advising and intrusive academic advising (Fowler & Boylan, 2010). Developmental academic advising makes the student's goals the primary focus as a relationship develops between the student and the advisor. The advisor is concerned with the long-term goals the student has set, rather than focusing on giving the student all the "right answers" in the short term. In developmental academic advising, the advisor's goal is to see growth in the student, using their relationship to establish and work towards career and academic goals. Further, the advisor desires to instill an understanding of life after college deep within the student. Intrusive academic advising is a much more hands-on approach. The advisor in this model is actively involved in the student's day-to-day concerns. An established structure and defined meeting times and dates allows the advisor opportunities to step in and encourage the student at the first sign of academic struggle. In this model, the advisor does not have to wait for the student to reach out but rather can proactively assist the student (Fowler & Boylan, 2010).

Recommendations for Research

"Because limited research has been conducted to date concerning how to most effectively serve the underprepared population, determination of which programs and services should be eliminated, retained, or enhanced is difficult" (Amey & Long, 1998, pp. 3-4). Though this article was written over ten years ago, there is still not a clear indication from research as to which programs are most effective and which programs should be discontinued. Therefore, the underprepared student population in higher education should be a central focus of research in

higher education. Research should answer questions of what factors make a student underprepared, what motivates underprepared students to enroll in higher education, and what programs and initiatives will be most beneficial to the underprepared student.

Improving Remedial Coursework

As seen with the mixed reviews of remedial coursework, simply patching one piece of a student's academic record will not make one a successful student. There is a great need for a holistic focus; "developmental education [that] treat[s] the whole person, rather than focusing on individual skills" (Wilmer, 2008, p. 12). From the time a student applies to an institution to the point of graduation, it is the institution's responsibility to both challenge and support students, not just in the classroom, but also through their entire development.

While remedial coursework has been the method of overcoming academic shortcomings, higher education lacks certainty that remedial coursework truly benefits the student and the institution. Further research should be done to answer the following questions: a) Is remedial coursework helpful? b) What reform(s) should be made to ensure remedial courses are a positive stepping-stone for underprepared students? c) What better developmental options exist and could they be effectively implemented in higher education?

Defining Factors of Readiness

Further research should be completed in regards to what factors actually determine student readiness—both cognitive and non-cognitive. Effectively measuring degrees of readiness can lead to more accurate identification of and, as a result, attention to "problem areas" for underprepared students entering higher education. These students could stand to gain substantially from "various training, coaching, and mentoring programs" (Komarraju et al., 2013, p. 108). Not all underprepared students are lacking in the same skills and knowledge. While it

would be impossible to create programs that were customized to fit each individual student, the more that is known and understood about readiness factors, the greater the likelihood that higher education can more accurately assist students overcoming obstacles.

In terms of improving retention data for institutions, a framework of true readiness factors could radically change admissions standards and the students enrolled in higher education. If certain factors can be linked with increased likelihood of dropping out or dismissal, more accurate assistance could be offered to these students, or maybe admissions requirements would exclude them from enrollment.

Underprepared Students and Motivation

As factors of readiness become more accurately defined and a more specific group becomes designated as underprepared students, research should be done to determine what makes these students underprepared. Obviously, using the factors one could understand what academic or non-cognitive shortcomings the student has, but what can the lack of readiness be attributed to? Do students lack motivation to succeed? As mentioned, many underprepared students recognize they are not equipped to succeed in higher education (Levine, 2007; Wilmer, 2008). Research should focus on what factors bring these students to enroll in higher education and what motivates them to succeed. It would be beneficial to understand what factors lead some underprepared students to great success in higher education while others do not reach degree completion.

Programs and Initiatives

While many programs exist and provide sufficient data to suggest the program's success in assisting underprepared students, there are no universal programs or initiatives for helping underprepared students overcome the obstacles they face in higher education. This is in no way

suggesting that a one-size-fits-all program will work for every underprepared student, but rather that a formula or set of criterion could be developed to ensure that institutions are funding and facilitating the right opportunities for the maximum outreach and preparation of underprepared students.

Chapter 6 - Summary

With societal encouragement of “college for all” and the continuation of increasing enrollment, the number of underprepared students in higher education will only continue to increase. In order for higher education to serve this population while improving institutional retention rates, the underprepared student population must be better identified and developed in higher education. College may not be for every student, but the current definitions of prepared and college readiness do not effectively define the population of students ready to succeed in higher education. If Americans continue to believe that college truly is for every student, then reform must occur—both in higher education and the preparation of students for higher education. Institutions cannot continue to serve the underprepared student population as they have in the past and expect to increase retention rates. Should higher education choose to not provide additional support to underprepared students, the admissions requirements for higher education should be reevaluated and likely increased to better determine the population of students who are truly “college ready.” However, it has been suggested that all students, prepared or not, can benefit from enrollment in higher education (Sullivan & Nielsen, 2013). Regardless of the determined admissions requirements, it is the duty of each institution to provide the necessary support to encourage the success of all students admitted to that institution. Students then should be given the opportunity as well as the responsibility of using the support to benefit them and enhance their college experience. By further understanding this student population and what motivates them to both enroll and persist in higher education, underprepared students will be better integrated and served in higher education.

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