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Technology's Impact on the Learning Experience of At-Risk Digital Natives

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TECHNOLOGY'S IMPACT ON THE LEARNING EXPERIENCE OF AT-RISK DIGITAL NATIVES

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This study examines the impact of technology on at-risk digital natives who have transitioned from high school to college, at a regional campus of a Midwestern Pennsylvania University. While the term digital native has become widely used by technology commentators, the author has introduced a new term, "at-risk digital natives," to the world of academia and information communication technology. An "at-risk digital native" is defined as a subset of the digital native generation who is at-risk of failing or withdrawing from college due to numerous social and learning challenges, yet were born after 1980, and are considered experts in the use and manipulation of technology and social media.

A secondary focus of the research study is students in transition from high school to college, as the researcher acknowledges this period as a crucial time in a college student's life. Therefore, the researcher uses an existing five-week motivational seminar, designed to assist at-risk students as they transition from high school to their first year of college. For this study, a technology component was added to one version the seminar, and twenty students are divided into two groups, where one group participated in a traditional classroom environment and the second group participated online.

The researcher found that overall, at-risk digital natives preferred face-to-face interaction to an online learning experience. At-risk digital natives have varying needs that do not necessarily have a digital component, and while they may be experts at using social media and technologies to

function daily, there remains a desire for face-to-face interaction or the traditional lecture-style delivery. As a result of this study, educators and information communication technology commentators will have the task of meeting the needs of at-risk digital natives, and balancing the need for face-to-face interaction with their propensity for the use of technology.

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CHAPTER 1

INTRODUCTION

"Tell me and I forget. Teach me and I remember. Involve me and I learn."

~ Ben Franklin

Our society has become increasingly dependent upon technology; having a major impact on almost everything we do, from how we make and consume products to how we interact with others and access information. The emergence of technology, specifically cellular phones, the Internet, and computers, has placed a plethora of opportunities to gather information at society's fingertips. Information and communications technologies are making their way into our daily lives and continuing to grow by leaps and bounds (Friedman, 2005).

It is difficult to avoid the pervasiveness of technology. Studies show that among the population affected by the growth of information and communication technologies are young, college-aged students. There are many studies that suggest that college-aged students are among the highest users of information and communication technologies (Jasper & Lan, 1992; Lee, 2006; Morgan & Cotton, 2003; Perry, Perry, & Hosack-Curlin, 1998; Thomee, Eklof, Gustafsson, Nilsson & Hagberg, 2007).

The impact that technology has had on the field of education is becoming more evident; from middle schools to colleges and universities, we are seeing a significant shift in education and the way it is delivered to students. Researchers have found that our middle school students are fascinated with 21st century technology. Young adults ranging from ages 11 to 14 spend approximately 230% more time using computers for non-school related activity; and researchers have found that 21st century technology is meeting the needs of this age group (Rideout, Foehr. &

Roberts, 2010). In higher education, colleges and universities must begin to examine the idea of altering the ways in which they interact with students in order to keep up with the demands of constantly changing technology. Today's higher education institutions are under constant pressure from external forces to reflect the changing landscape of U.S. society (Torres, 2007). Some commentators have suggested that because students are familiar with technology, it has influenced how they prefer to receive information. For example, today's technology-savvy students prefer instant access to information, have a low tolerance for lecture-style learning, and expect that technology will be used during instruction (Barnes, Marateo, & Ferris, 2007; Oblinger & Oblinger, 2005; Philip, 2007). Researchers have found that students have already incorporated communications technology into their personal lives and "research suggests that college students are actively participating in the remarkable growth of online digital video content." (Smith & Caruso, 2010, p. 57).

Meeting the needs of a more technology-savvy generation is a challenge that educators currently face. Additionally, there are demands for curriculum revisions to meet the needs of today's students (Skiba & Barton, 2006). Likewise, educators of today's generation of students are impacted by technology, as there is pressure to keep up with the demands of a new generation of learners called "digital natives," a term coined by technologist Marc Prensky (Selwyn, 2009). Therefore, examining technology's use in the classroom and its impact on performance is essential.

According to Prensky (as cited in Selwyn, 2009), digital natives are the generation of youth, born since 1980, who have an innate confidence with using new technologies, such as the internet, cellular phones, video games. They have "spent their entire lives surrounded by and using computers, videogames, digital music players, video camcorders, cell phones, and all the other toys and tools of the digital age" (Prensky, 2001a, p. 1). By using the abundance of technology

available to them, young college-aged adults are processing information differently than those of yesteryear. Prensky maintains that the digital culture and environment in which these digital natives have grown up has changed the way they think; he asserts that our technology-filled society, as well as the amount of technology used today, has impacted how they process information, which is fundamentally unique compared to college students in the past. Consequently, Prensky is adamant that there has been a physical change in the brains of digital natives that is unique from the brains of students born before 1980 – termed "Digital Immigrants" (Prensky, 2001b).

Other scholars have conducted research to corroborate Prensky's, and agree that today's generation has been submerged in a new way of living and learning, with technology being the focal point. Donald Tapscott, author of *Grown up Digital – How the Net Generation Is Changing Your World*, developed a thesis providing details about the "high-tech" activities and expectations of the "net generation" that were born between 1977 and 1996. He references them as growing up "bathed in bits" (Tapscott & Williams, 2008, p. 47). Similar to Prensky, Tapscott believes that the brains of digital natives are different, as stated in an interview with Allan Gregg on "Allan Gregg in Conversation." According to Tapscott, digital natives watch less TV, have a better active working memory, are interactive, and are capable of multitasking when using technology. He also suggests that today's generation has become technology mentors to an older generation (Allan Gregg in Conversation, 2009).

While digital natives are having an impact on our society, they are also influencing our colleges and universities. There are a growing number of digital natives who are both proficient with, and considered experts of, today's technology, yet are finding it challenging to transfer their technological ability into an academically successful experience as they transition into their first

year of college. We must establish a foundation to better understand this group of individuals, termed by this researcher as "at-risk digital natives." Therefore, there will first be a focus on defining at-risk students and their needs in a higher education setting.

Institutions of higher learning are admitting students both from varying backgrounds, and with different academic abilities (Laskey, 2004). This has resulted in an influx of students who may not possess the skills or the persistence necessary to be successful at the college level (Hetzel & Laskey, 2001). Researchers report that approximately one-third of all students entering college in the United States need remediation (Byrd & MacDonald, 2005). According to McCabe (2000), 41% of students entering community colleges and 29% of all students entering traditional four-year institutions are under-prepared in at least one basic skill, e.g. reading, writing, mathematics. Moreover, it has been estimated that over two million U.S. college students take developmental courses at their colleges or universities each year (Saxon, Sullivan, Boylan & Forrest, 2005).

A significant amount of research conducted has provided information about the needs of at-risk students as well as the factors leading to their success. Tinto (1993), one of the leading researchers of at-risk students, maintained that campuses should support the development of resilient students, thus enhancing both retention and graduation by providing effective academic advising. He views advising as a major component of the academic, social, and personal support programs necessary to help students meet their learning needs. One key to many of the recent movements in higher education is the intention to increase students' involvement in their own academic experiences (Tinto, 1975; Astin, 1975, 1984; Fleming, 1985). Involvement has translated as a key element in student success, satisfaction, and retention. One particular type of involvement is working on campus. In research involving over 41,000 students nationwide, Astin (1975) verified differences in persistence between students who engage in part-time campus

employment and students who are unemployed. He concluded that part-time employment aids in student persistence (Astin, 1975).

While research exists on or about factors that impact student success such as peer to peer advising, on-campus employment, and involvement, there is little research on how the most intrusive phenomenon in our society today, technology, impacts at-risk, first year students in higher education. Historically, at-risk students have been identified by a number of indicators, from their GPA and SAT scores, to their economic background, to family make up; these indicators tend to determine the admissions status of many at-risk students. According to Chen and Kaufman (1997), this population has many characteristics to help educators identify them. Often these students are of low socio-economic status, from single parent families, have older siblings who have dropped out of school, have changed schools multiple times, have an average grade of "C" or lower from sixth to eighth grade, and may have repeated a grade. However, for the sake of this research study, both SAT score and GPA, and whether those figures met the institutional standards, were used to identify students as being at-risk.

To date, very few studies have been conducted on at-risk adult learners and the assistance of technology (Nicol & Anderson, 2000); yet at-risk students have been the subject of many studies, and more is known about that particular population. However, despite the ubiquity of technology, few studies have been conducted to date that would further identify the characteristics and subsequent needs of at-risk digital natives in our colleges and universities. Consequently, this study examined at-risk digital natives and determined whether technology would positively influence their learning experience, as they transition to their first year of college, specifically in three areas: motivation, persistence, and academic performance.

Despite at-risk digital natives' proficiency with technology on college and university campuses, they often arrive with considerable academic needs that are important to address for their overall success. In spite of their proficiency in the digital world, the fact remains that these at-risk digital natives are, in many cases, academically underprepared. This presents a significant challenge to college educators. For this new generation of learners, the traditional teaching methods used in the classroom may need to be reconsidered. Research shows that traditional teaching methods are the least effective strategies for imparting information (Lovelace, 2005).

Today's students – kindergarten through college – represent the first generations to grow up with this new technology. Currently, research shows that the average college graduate has spent less than 5,000 hours reading; while they have spent 10,000 hours playing video games, and 20,000 hours watching TV. We now see that computer games, email, the Internet, cell phones, and instant messaging are requisite parts of their lives (Prensky, 2001a).

These major changes in students' experiences present a challenge to educators who remain "digital immigrants." Digital immigrants were born before 1980 and typically do not possess the same innate technological skill set as digital natives; additionally they are finding it difficult to effectively educate the new generation of digital natives (Palfrey, 2008). Teaching courses in higher education presents a number of challenges and there are many factors that affect the success of the teaching process, such as the attention of audience, the experience of the instructor, as well as the environment. According to Ozkan (2011), traditional teaching styles such as conference, chalk and chalkboard are still popular; however, depending on the course type and available technology, adoption of new modes of teaching is unavoidable. For example, courses such as information technology and computer programming require a computer laboratory and practice lessons (Ozkan, 2011).

Problem Statement

Many students who enter a college or university drop out before degree completion. The Lumina Foundation, a private foundation designed to increase the opportunity for success for Americans in postsecondary education, estimated that 60% of "students at public institutions fail to complete degrees within five years, and half of these students leave during their freshman year" (as cited in Twigg, 2009, p. 147). According to Tapscott (2009, p. 123), one-third of all Americans drop out before they finish high school. Consequently we see that dropping out begins on the secondary education level for some. The Policy Center on the First Year of College at Brevard College in North Carolina found that the first year of college is the most critical to a student's success and to completing their degree (Twigg, 2009). According to Morrow & Ackerman (2012), many schools find that the lack of persistence or failure of a student to successfully transition from their freshman year to their sophomore year is a significant issue that impacts graduation rates.

Researchers have found that there are numerous reasons compounding the problem of why students are not completing their first year of higher education. In this study, this researcher concentrated on one area suggested by previous research to negatively influence today's learners, which is the delivery of instruction. Researchers have examined the role that instruction plays in the learning success of today's college student. A significant amount of research shows that not all students learn from face-to-face instruction (Twigg, 2009). While the lecture method is prevalent in our education system, it offers a one-size-fits-all approach to delivery of information, and assumes that students have the same learning style, motivation, interest in the topic, and the ability to learn the material (Twigg, 2009). Lecture as a method of instruction fails to meet the needs of students who may be weak and need more individual attention and face-to-face interaction. Face-to-face instruction fails to address the diversity of learners in a classroom setting (Twigg, 2009).

Other researchers suggest that face-to-face method of delivering instruction seems less and less effective as the needs of today's students rapidly change (Dabbour, 1997; Ragains, 1995).

Such is the case at Midwestern Pennsylvania University; specifically at one regional campus, where close to 200 at-risk digital natives attend college, and who are in transition from high school to the university setting. While faculty and staff who are committed to their success offer this population a great experience as they transition into Midwestern Pennsylvania University, there remains a need for technology to be more widely used in the learning experience and less use of face-to-face instruction. Most of the students who attend the regional campus of this institution are at-risk digital natives; however, the primary mode of course delivery is face-to-face instruction. Some professors incorporate the learning management system of the university and others may incorporate other forms of technology to instruct students, yet with a campus dominated by at-risk digital natives, the majority of the instructors use the traditional lecture style delivery mode of instruction. According to Terry Appolonia, Dean of the campus, students are "taught and remediated" using traditional methods (T. Appolonia, personal communication, January 3, 2012).

Midwestern University of Pennsylvania's regional campus offers a developmental, motivational seminar course that aims to assist at-risk digital natives with the transition from high school to college. Though 90% of the undergraduates are at-risk digital natives, this seminar course, known as the S.T.E.P. Lab, only exists using traditional methods, as opposed to an approach that would integrate technology into the curriculum and use text messaging to communicate.

Purpose of the Study

This researcher will examine whether the use of technology in the delivery of instruction and communication with students in the classroom, has a positive impact on the learning experience and contributes to the educational success of at-risk digital natives, which serves as the purpose for this study. The S.T.E.P. (Striving for Excellence, Transitioning Seamlessly, Embracing the College Experience, Positioning Yourself for Success) Lab is taught in the traditional lecture format and is designed to achieve the following goals: positively impact the academic performance of at-risk students, increase their motivation to matriculate, and provide tools to assist them in transitioning to the institution's main campus after completing their first year at the regional campus. The S.T.E.P. Lab also offers support to at-risk students by challenging them to create goal statements, encouraging them in utilize several resources that contribute to their success, and introducing them to strategies that will enhance their learning experience. Additionally, the Lab offers a learning style assessment that helps students to identify their learning style, which will contribute to a more positive transition from the high school classroom to the college classroom.

Additionally, this study introduced a new term to academia. While there is a significant amount of information about at-risk students and digital natives as separate and distinct populations, this study introduced a new concept that has not been researched, but will become significant to future investigation pertaining to 21st century learning and education. This researcher coined a new term, "at-risk digital natives," as a population of students who are characterized by having various learning and social deficiencies that negatively affect their navigation through college, especially their first year, though they are born after 1980 and have had constant exposure to technology.

Theoretical Perspective

Over the years, college has been viewed as a time of transition for students who engage in the college experience. Research suggests that this period is essential in one's development, which is marked by a number of challenges (Arnett, 2000; Lanthier & Windam, 2004). This study utilized a current theoretical approach that compliments this research on at-risk digital natives and their academic success, as they transition to the post-secondary institution, while participating in the S.T.E.P. Lab. This theoretical approach, termed "thriving," is a groundbreaking concept that expands beyond the focus of academic success, and emphasizes the relationships, perspectives, and psychological welfare that offers students the maximum benefits from the experience they gain from attending college (Schreiner, 2010b). The very word 'thriving' implies that success involves more than surviving a four-year academic obstacle course; students who thrive on the college level are vitally engaged in the college endeavor in three areas: intellectually, socially, and emotionally (Schreiner, Louis, & Nelson, 2012, p. vii). Tagg (2003) refers to this as 'deep learning,' when students are investing efforts within the classroom and their personal lives. Thriving students are directed by the goals they have set and have a sense of self-awareness, including their strengths as well as the academic challenges they may face.

Thriving is designed to focus on meeting the needs of students during a critical point in their lives, specifically during the transition period. Most transitions involve change, where students shift from the familiar to the unknown as they move from high school into the college environment (Schreiner, 2012).

This research examined a motivational lab designed to engage students during their learning experience. Moreover, the students enrolled benefited from their participation, as the Lab is designed to engage students in the many types of transitions they will face, including those that

are environmental and those that arise from communication with teachers. As an example, students are not only in transition from the rigors of their high school learning environment to the expectations inherent in post-secondary education. Consequently, the Lab also assists students as they transition from not using text messaging to communicate with high school teachers, to possibly using text messaging as a primary or secondary means of communication with their instructors in the post-secondary environment.

The purposes of the Lab align with the concept of thriving; "thriving" is measured on two scales, "Engages Learning" and "Academic Determination," by the "Thriving Quotient" instrument. Schreiner & Louis (2011) suggest that students who are thriving in their academic endeavors are also psychologically engaged in the learning process. While they are engaged in the learning process and are processing information in a reflective manner, these students are engaged in new learning opportunities and earnestly participate in discussion about what it is they are learning. The instructional design of the lab includes the completion of reflective assignments and engaging discussion, challenging students to create goals and invest in their learning experience, leading to a successful first year experience in the university setting. They are encouraged to immerse themselves in these inevitable life transitions.

There are several platforms that institutions may utilize when incorporating an online component to their class structure. However, for the purpose of this study the researcher employed Moodle, as this was the Learning Management System (LMS) offered by the university. By using Moodle as the primary instructional tool for the online portion of the S.T.E.P. Lab, the researcher was able to identify a new and innovative way to instruct at-risk digital natives in order to influence their learning positively. According to Dr. Laurie Schreiner (2010b) there is a great need for higher education to discover and implement innovative ways to instruct students.

Significance of the Study

It is imperative that today's educators understand the importance of knowing modern-day learners. Tinto (1975) noted attrition as a longitudinal process where students enter college with a set of characteristics and predispositions that precondition their academic and social commitment to graduation. A student's academic track is influenced by the quality of their interactions with the academic components of the institution, including faculty and other students. In addition, the social track is refined by the quality of student's social interactions, including friends and school activities. However, with today's college students being so technologically advanced, the question is whether that technology has the ability to positively impact their learning experience in the classroom and consequently decrease attrition on college campuses (Tinto, 1975).

Limitations

The limitations of this study are described below:

1. Although the S.T.E.P. Lab is designed to assist at-risk digital natives, it is a newer program with little history to serve as a point of comparison.

2. There is a lack of research about how technology impacts the motivation, persistence, and academic performance of at-risk digital native college students.

3. The sample population will be first year students who will most likely be unfamiliar with Moodle, the LMS (learning management system) used to conduct this study. It is possible that this may create a learning curve that may impact motivation during the study.

4. Given the time frame of the PACE program, the researcher may encounter challenges with commitment and buy-in from the students.

5. Sample size for the experimental and a control group is 10 students, with a total of 20 students in total, participating in the study. The small sample size is a result of two factors: the small population of students who are eligible to enroll in the summer S.T.E.P. Lab and also the limited number of spaces available for students to live on campus during the Lab.

Delimitations

The delimitations concerning this study are described below:

1. S.T.E.P. Lab is a program specifically designed for students at the regional campus of Midwestern Pennsylvania University. This research cannot be compared to similar programs focused on at-risk digital native college students.

2. Moodle is the LMS used to deliver the online format of the S.T.E.P. Lab. Moodle is one of the two LMS used at Midwestern Pennsylvania University. However, it may not be the LMS used at other institutions. The study did not consider the effectiveness of a particular platform for online learning. The researcher is aware that the platform may have had an impact on the findings.

Methodology

This research study is intended to develop and examine a program designed to assist at-risk digital natives in their academic endeavors at the regional campus of Midwestern Pennsylvania University. The program is meant to positively impact the academic performance of the at-risk students and to provide tools that will assist them in transitioning to the main campus. By incorporating Moodle into the course design, the researcher created an online component specifically included to meet the needs of the digital native, at-risk students.

Midwestern University of Pennsylvania admits approximately 220 students at their regional campus, who have been identified as at-risk or underprepared students, based on their GPA and SAT scores by enrollment management. The students attend the regional campus for one year and

after earning a 2.0 grade point average (GPA) or better, transition to the main campus to continue their college experience. However, the dean of the regional campus has identified two specific goals that he would like students to achieve. The first goal is for students to earn a 2.5 GPA or better upon completion of their first year on the regional campus, as opposed to the prior criteria of a 2.0 GPA. The second goal is for students to demonstrate an increase in motivation, as evidenced through assessment instruments and focus groups. The overarching goal for students who attend the regional campus at Midwestern Pennsylvania University is to develop the tools necessary to navigate through college successfully their first year, and transition to the main campus their second year. (T. Appolonia, personal communication, January 3, 2012).

To support the academic goals and mission of the regional campus, a supplemental motivational support program was created and implemented in the summer of 2011. S.T.E.P., which stands for (Striving for Excellence, Transitioning Seamlessly, Embracing your Experience and Positioning Yourself for Success), aims to improve motivation as well as provide tools to the at-risk students who were accepted to the institution through the Pennsylvania Advance College Experience (PACE) program. The PACE program provides the regional campus students a five week introduction to the college environment. During the summer students live on campus and complete three to four courses that will assist them getting acclimated to Midwestern Pennsylvania University.

In the summer of 2011, the S.T.E.P. Lab was introduced to students in a one-hour workshop format. After receiving positive feedback from students, it was concluded that the S.T.E.P. Lab would continue to be offered in the fall semester of 2011. Research has shown that academic support services are critical for the success of students who may be underprepared for college level work (Tinto, 1999). Rheinheimer and Mann noted that ". . . academic support

services can help underprepared or at-risk students not only catch up, in some cases, surpass their better prepared counterparts" or in this case, the students who are admitted to attend the institution's main campus and who lack the characteristics that would deem them at-risk students (2000, p. 10).

After students completed their fall semester, an assessment was conducted to determine if students needed further support in order to successfully navigate through their first year. Any student who earned a 2.0 or below was recommended by the dean to participate in the Academic Recovery Program, in which students were mandated to complete a number of requirements in order to be eligible to transition to the main campus. One of the requirements was to attend the S.T.E.P. Lab on a bi-weekly basis in the spring semester of 2012 for five weeks. The S.T.E.P. Lab would serve as a platform to motivate the students who attended, enhance their academic performance, and prepare them for the transition to the main campus. The dean identified approximately 60 students who were placed in the Academic Recovery Program, however, due to the voluntary nature of the S.T.E.P. Lab, only 10 of the 60 students attended.

Engaging discussion was facilitated, weekly, by the Assistant Director of Residential Living and a graduate student from the Student Affairs and Higher Education (SAHE) program. The program incorporated sessions that emphasized awareness of college success strategies, personal development, and academic achievement. The S.T.E.P. Lab also facilitated the development of skills in at-risk students to aid in persistence as they successfully transitioned to the main campus. The following sessions were presented: Motivation and Purpose for Attending College, Study Skills and Good Decision Making, Time Management, Self-Awareness, Effective Verbal and Nonverbal Communication Skills, and Skills to Transition Seamlessly. A number of activities were implemented to supplement the focus of the program topics. Students completed

various activities and inventories that would promote reflection and motivation. They completed the "True Colors" behavior survey as well as weekly surveys to measure their knowledge of the program, understanding of and feelings concerning the S.T.E.P. Lab and its impact on their learning and motivation. They participated in a "Post It" activity, where students used life-size post-it notes to create a working schedule for time management; they also created a résumé and learned the basics of public speaking skills. At the conclusion of the program, students participated in a focus group, approved by the University's Institutional Review Board (IRB), which facilitated student reflection as well as feedback for the instructors to assist in strengthening the program.

S.T.E.P. Lab students who participated in the focus group provided meaningful responses and suggestions to the instructors. One of the suggestions expressed was to offer another class format for the S.T.E.P. Lab, other than the traditional lecture style. This idea suggests that at-risk digital natives would prefer a style that meets their needs and could possible include the use of technology. According to Perez (2008), a Stanford University Professor reconfigured a Wi-Fi-enabled classroom by seamlessly integrating collaborative social media tools like forums, blogs, wikis, chat, social bookmarking, micro-blogging, and video conferencing. The social media classroom enabled the live lectures to be conducted, while connecting them with collaborative learning activities like micro-blogging, video viewing, and collaborative writing of wikis. The class provided an innovative, participatory platform where course materials were enhanced using social media tools to influence collaborative engagement and alter traditional instruction (Perez, 2008). The use of technology can help teachers relate to today's students who are very media-aware, prompt new approaches to curriculum, and encourage the development of teaching skills (Schwarz, 2000).

Population and Sample

Participants in this study were first year college students, who were categorized as at-risk or underprepared students by the admissions office at the institution. They came from various living environments including urban, suburban, and rural areas in Pennsylvania, with only a small percentage from out of state. A convenience sample was used for this study. Students were asked to participate in the study during their orientation day, which was the first or second day of their arrival to the institution.

Definition of Terms

At-Risk Digital Natives:

An at-risk digital native is defined as a subset of the digital native generation who is at-risk of failing or withdrawing college due to numerous social and learning challenges, such as, subpar secondary schooling, low socioeconomic status, first generation, and substandard standardized test scores, yet were born after 1980, and are considered experts in the use and manipulation of technology and social media.

At-Risk Students:

For the sake of this research study, at-risk students were identified based on their high school GPA and SAT scores (S. Jones, personal communication, 2012).

Moodle:

Modular Object-Oriented Dynamic Learning Environment (Moodle) is an open-source Learning Management System that provides collaborative learning tools, activity-based learning, and interaction with materials that encourage critical reflection.

Digital Natives:

Digital Natives are the generation of youth, born since 1980, who have an innate confidence with using new technologies, such as the internet, cellular phones, video games and other tools of the digital age, according to Prensky (as cited in Selwyn, 2009).

Digital Immigrants:

"Digital Immigrants" are an older generation of technology users who began using digital technologies in their later years. They are challenged by technology and show less familiarity with the language and use of digital technology (Waycott, Bennett, Kennedy, Dalgarno & Gray, 2010).

Net Generation:

"Net Generation" is a term coined by Donald Tapscott. It refers to a generation born between 1977 and 1996. Tapscott references them as growing up "bathed in bits" (as cited in Selwyn, 2009).

Thriving:

Thriving is an innovative concept that expands beyond the focus of academic success, but also focuses on the relationships, perspectives, and psychological welfare that offers students the maximum benefits from the experience they gain from attending college (Schreiner, 2010b).

Persistence:

Persistence is the advancement of a student to successfully go from their freshmen year to their sophomore year (Morrow & Ackerman, 2012).

CHAPTER 2

REVIEW OF LITERATURE

"The purpose of education is to produce learning, not deliver instruction."

~ Karen Worley

Introduction

This review of the literature will examine a new subset of digital natives, who have been identified as "at-risk-digital natives," a term branded by the researcher. An at-risk digital native is defined as a subset of the digital native generation who is at-risk of failing or withdrawing from college due to numerous social and learning challenges, yet were born after 1980, and are considered experts in the use and manipulation of technology and social media.

It is imperative to note the goal of the literature review. The first goal was to introduce to academia a new group of students, at-risk digital natives, who have a unique set of learning needs, based on both their exposure to technology, as well as their status as at-risk students. The secondary goal was to connect to important outcomes in higher education and contribute to research in the areas of information communication technology (ICT) and student affairs.

While there is little to no research on the topic of at-risk digital natives, this review of the literature assesses the works concerning technology and its effect on learning by researchers, educators, and commentators in the field of education and information technology. The researcher examined the identity of digital natives and their impact on education, as well as at-risk students and the effect college has on their learning experiences. Furthermore, the literature review examined at-risk digital natives and the impact of technology on their learning needs and as they transition into college.

This review will examine technology's impact on learning of students in transition, deemed at-risk digital natives, in three core areas: motivation, persistence, and academic performance. Moreover, this mixed methods study sought to answer the following questions:

RQ 1: Does the use of technology impact the communication that at-risk digital natives need or receive with faculty members?

RQ 2: Does the use of technology create measurable differences in academic performance, as compared to face-to-face instruction?

RQ 3: Does the use of technology meet the learning needs of at-risk digital natives, as compared to face-to-face instruction?

RQ 4: Does the use of technology create measurable differences in motivation, as compared to face-to-face instruction?

At-Risk Students

There are a variety of definitions to describe at-risk students; however, one set of characteristics delineated by Chen and Kaufman (1997) is

- low socio-economic status;
- from a single parent family;
- an older sibling dropped out of school;
- the student changed schools two or more times ;
- had an average grade of "C" or lower from sixth to eighth grade ;
- have repeated a grade.

Others define at-risk students as those who are underprepared or under supported in three main areas: socially, financially, or academically (Vivian, 2005). While "at-risk" is the term that is used in this study to describe the population, other terms such "high risk" (Rishi & Vetter, 2012) have also been used to describe this group. Although definitions of at-risk vary, a college or university's enrollment office may define this group for admissions purposes, based on their own criteria. Pizzolato (2004) believes that institutions consider students at-risk if their personal characteristics or academic backgrounds have the proclivity to create failure for the students, leading to withdrawal from the institution. Jacobson & Williams (2000) define at-risk students as those who are in danger of academic underachievement or failure. He has identified three main issues that should be carefully considered by the educator when assessing the needs of at-risk students: (a) their psychological type, (b) their cognitive level, and (c) their affective or emotional attitudes toward learning (p. 108). Laskey and Hetzel (2011) define at-risk students as those who are underprepared for college and may lack the motivation to complete college.

Research shows that there are certain indicators of being an at-risk student, such as being a first generation college student. A first generation college student is as student whose parents have not enrolled in a post-secondary institution (Schreiner, 2012). Pascarella, Pierson, Wolniak, and Terenzini (2004) have found that "first-generation students, as a group, have a more difficult transition from secondary school to college than their peers" (p. 250). Ishitani (2006) found that it is more likely that first-generation students will exit college as compared to their non-first generation peers. They also tend to lack academic preparation and additionally, are employed to offset the cost of their educational expenses (Jehangir, 2010).

According to McCabe, "41 percent of entering community college students, and 29 percent of all entering college students are underprepared in at least one of the basic skills: reading,

writing, mathematics" (Fike, and Fike, 2007, p. 2). One of the key factors that contribute to the success of underprepared students is the offering of remedial programs. Researchers have found that remedial services in colleges and universities contributed to the success of underprepared students with a variety of backgrounds, resulting in those students furthering their education past the secondary level (Boylan, Bonham, White, 1999).

However, in an interview with Dr. Laurie Schreiner (personal communication, November 25, 2013) she emphatically contended that deficit remediation model is the worst possible thing we can offer at-risk students. She asserts that this approach is the reason why educators are seeing dismal results from remedial or development education programs. The key is that through this approach, educators are spending so much time diagnosing students' deficits and once institutions discover their learning deficiencies, educators ask students to spend most of their time focusing on those things. As a result, this ignores everything that psychologists know about what motivates human beings and results in faculty questioning why they are unable to motivate their students. Conversely, Schreiner believes taking a strengths-based approach is more effective for at-risk students. While Schreiner is not discounting that it is important for educators to be able to identify at-risk students' deficits, it is also important to assess what talents and abilities students bring upon arrival to an institution and the kinds of approaches at-risk students have used to be successful in the past. Schreiner believes that educators should encourage at-risk students by communicating the message that 'they deserve to be in college' and assure these students that the institution believes in their ability to succeed. Additionally, at-risk students need constant validation and while they need to be challenged, it is also important to support them. Furthermore, it is important to work with at-risk students and assist them in creating their own success plan.

Digital Natives

A new group of students has emerged and been identified in the field of information technology by the popular press as well in academia. The "Net Generation," coined by Tapscott; "Digital Natives," coined by Mark Prensky; and "Millennial Learners," coined by Oblinger and Oblinger, are the three most widely used terms used for this new group of technology-savvy students. However, it is important to note that the term "Digital Natives" was consistently used throughout this research study, recognizing that different terms are used by other commentators in the field (Oblinger & Oblinger, 2005; Prensky, 2001a; Tapscott, 1998). Digital natives "were all born after 1980 when social digital technologies, such as Usenet and bulletin board systems came online. This new group of learners has access to network digital technologies and consequently, all have the skills to use those technologies" (Palfrey & Gasser, 2008, p. 1).

Digital Natives are adept at using technology to fulfill their needs, whether for entertainment or to collect information. One characteristic of digital natives is that they rely on technology and are confident in their ability to acquire information instantly. "They use many technological tools for everyday living and communication" (Black, 2010, p 95; Garner, 2007, p. 9). There are no limits to the technology that digital natives use to maneuver from day to day. Digital Natives have always been able to access cellular devices and other forms of handheld and fancy technology. They are familiar with various popular electronic devices and have found the Internet to be their source for news. (Worley, 2011).

Digital Natives' Impact on Society

Among the commentators who have provided a significant amount of information about this emerging group are Don Tapscott and Marc Prensky, who coined the terms "Net Generation" and "Digital Natives," respectively (Prensky 2000; Tapscott 1998). In Tapscott's most recent

book, he surmises that his children and their friends had a recognizable talent in the area of technology. Consequently, he believes that their talent is as a result of their constant exposure to digital technology. Within the book *Born Digital*, Palfrey & Gasser (2008) highlight various generations throughout the years and the unique set of events that mold their life outlook and identify their place in the history books. The argument Tapscott (2009) made claims that a 'generation' exists across the world in several kinds of economic and social conditions, not just in advanced economies. The cause of this generational change and the characteristics of the digital natives is the rise of the computer, the Internet, and other digital technologies. In his words, "he calls the people who have grown up during this time the Net Generation, the first generation to be bathed in bits" (Tapscott, 2009a, p. 17). Researchers report that by the age of 21, digital natives are so inundated with technology that they spent an inordinate amount of time watch television, playing video games, maneuvering their cellular devices and reading and sending emails. (Bonamici, Hutto, Smith, and Ward, 2005).

According to Gleason (2008), the digital natives are an expanding population that is larger than previous generations and makes up approximately 80 million people. Gleason predicted that this population would make up 75% of the population in 2012. Many of the former generations left their unique imprint on American history; however, Gleason (2008) adds, "digital natives were poised to impact American culture in profound ways" (p. 2). The innate attraction to technology, along with this generation's awareness and interest in current events, will contribute to the shock wave our world will experience as a result of this group. Garner (2007) described digital natives as "can-do youth who have generated new habits and attitudes that older generations have never associated with young people, such as a focus on social issues, teamwork, achievement, and good conduct." Further, Garner (2007) believes that digital natives will have a great impact on the

future of the world, as they have a propensity to affect various industries.

We are moving away from the homogeneous generations of old, where they have one-line-of-thinking and view life through one lens. Nilson (2010) argues that digital natives are one of the "most diverse generation - economically, politically, ethnically, racially, and culturally – that North American institutions of higher learning have ever welcomed" (p. 13). The diversity that Nilson eludes to will have a great impact on the classrooms and college campus as we know it, influencing how campuses meet their students' needs. Such diversity will affect not only the classroom, but also entire college campuses as they make an effort to meet the need of students.

Digital Natives have grown up in a world where they have been able to watch the news as it develops. Their perspective of war is different then their older counterparts, as they have been able to view wars on the television. Similarly, the activity of the U.S. Congress and the Senate has been accessible by television or Internet and they are found to be knowledgeable at an early age, due to exposure to preschool television and various television games. Even children's toys are technologically advanced for their age. Further, video games offer more simulated learning for students today, as a result of the virtual worlds that are available (McAlister, 2009).

Technology has had a definite impact on the way digital natives manage their daily lives. Moreover, Facebook and Myspace have introduced a new way of establishing, developing and maintaining friendships. Students are utilizing cellular phones for verbal and visual communication. The use of cell phones and web cams to deliver instant pictures and videos has revolutionized the way of we communicate by making communication more visual (Worley, 2011).

Not only do researchers believe that digital natives think differently, but also that their ability to think and process information has been influenced by the technology-laden environment

in which they grew up. Junginger (2008) contended that digital natives are "the most informed generation in history" (p. 20). They are no longer limited to waiting until they are able to access a hardcover encyclopedias and magazines. Quite the reverse, they have large amounts of information at their fingertips and are able to absorb and process information expeditiously (McAlister, 2009). By engaging in video game activity, it has resulted in this generation becoming quick thinkers and reactors. Their hectic lives "have accustomed them to structuring time, working from schedules, and following rules" (Elam, Stratton, & Gibson, 2007, p. 22).

Digital Natives Students

Digital natives will inevitably have an impact on higher education as more and more students enroll into colleges and universities across the country. Faculty members must prepare themselves to meet the educational needs of this population of students. (Worley, 2011). Digital native students expected to aim high and achieve high. There pressure that is placed on them is high. (Worley, 2011). Not only are today's students advanced in terms of technological intelligence, but the ways they live and learn are much different from previous generations. Digital native students come from a particularly diverse group of cultural, economic, and geographic backgrounds (Black, 2010). Furthermore, as the U.S. population morphs into a more diverse group, it will impact the portrait of students, their needs and what they learn (Black, 2010). Technology has changed the makeup of today's students and how they learn and develop, which is currently a debate in higher education. Some believe that the amount of day-to-day technology use translates into transferring those same skills to the classroom learning experience. However, empirical research suggests that the digital native label is not synonymous with a better use of technology to support learning (Gros, Garcia & Escofet, 2012). Digital native children have been fashioned for a successful life as they grow into adulthood. Parents have emphasized hard work and academic success as the two

foundational factors for achievement. "A key characteristic of this generation is that they are very education-oriented" (Barnes, Marateo, & Ferris, 2007, p.1). According to Marc Prensky (2001a), the repeated exposure to technology has resulted in enhanced thinking skills in several areas, many of which are visually oriented: image reading and interpretation, mental mapping, mental paper folding, and so forth. The argument has also been made that digital natives are visual learners by instinct and who come to us with a significant degree of visual literacy. Oblinger and Oblinger (2005a) maintain that digital natives have an innate ability to read images, and that "they are intuitive visual communicators" who are "able to weave together images, text, and sound in a natural way." They also suggest that, "Digital Natives are more visually literate than earlier generations" (p. 25). Prensky (2001a) notes a natural connection that Digital Natives have with technology and further expresses his concern of educators who are lacking in the area of technological literacy. He labeled lecturers in higher education 'Digital Immigrants,' who are defined as strangers in the area of digital technology and recognized a big gap between natives and immigrants as the "the biggest single problem facing education today" (p. 2). The abilities that result in making digital natives technology proficient are said to be incongruent with today's teaching styles. Prensky and others (Oblinger, 2003; Frand, 2000) believe that an adjustment is greatly needed to meet the needs of today's generation of learners. Others make similar claims about the visual literacy skills of digital natives. Tapscott (2009) argues, "digital natives who have grown up digital have learned how to read images, like pictures, graphs, and icons" (p. 106). The "Digital Natives" argument presumes that repeated interaction with visual material—specifically visually oriented technologies—somehow results in visual literacy. For example, Oblinger and Oblinger (2005) note that although digital native characteristics are usually described as generational, "age may be less important than exposure to technology" (p. 29). Similarly, Tapscott

(2009) claims, “digital immersion has given the Digital Native the visual skills that make them superior scanners. They’ve learned to develop the filters they need to sort out what’s important from what’s not” (p. 113).

Despite what we are hearing about today’s students – that they have short attention spans or struggle to focus, many of the same students are able to sit for hours focused on a movie or video game. Therefore, it is not our students’ ability to focus that has changed, but rather their needs and what they prefer to tolerate. Today’s young adults are offered a plethora of fast-paced technology that is a demand on their attention, including music, movies, commercials, TV, Internet, and more. Students today have learned to focus on and take an interest in those things that treat them as individuals rather than as part of a group; this is indirect opposition with the classroom mentality, which promotes groups (Prensky, 2010).

Some researchers are convinced that digital natives have specific learning needs based on their exposure to digital technology; neural plasticity has been identified as an indicator as to whether or not the brain is impacted by technology. There is an interest in the idea that exposure to technology has altered the brains todays students; creating a significant difference between today’s learning and those who immersed in printed text. (Ebner, 1996; Maguire, Woollett, & Spiers, 2006). “Since neural plasticity can lead to either adaptive or maladaptive changes (Nelson, 1999), these characteristics could manifest themselves in ways that are productive for learning,” as suggested by Presnsky (2001a, 2001b), Rosen (2010), and Tapscott (2009).

Some researchers have suggested that

“students’ familiarity with digital technologies has affected their preferences and skills in key areas related to education, noting that digital natives, or “Net Generation” students, demand instant access to information, have a low tolerance for lectures and “passive” forms of learning,

and expect technology to be an integral part of their education" (Barnes, Marateo, & Ferris, 2007;Oblinger & Oblinger, 2005; Philip, 2007).

Theoretical Framework

Educators have been given the task of challenging and supporting today's college students, resulting in students not just surviving college, but being fully engaged in every aspect of their college experience. For this study, the concept of thriving offered an approach that contributes to the needs of students and involves contributing to students thriving in college, not just surviving the four-year experience. Dr. Laurie Schreiner, Professor and Chair of the Doctoral Program in Higher Education at Azusa Pacific University and creator of the concept of "thriving," believes that students who are thriving in college implies that they are wholeheartedly involved in the learning experience, specifically the social, intellectual, and emotional aspects. Moreover, students are psychologically involved, which contributes to not only them graduating, but also to their success overall (Schreiner, Louis, & Nelson, 2012)

The concept of thriving aims to examine the difference between students who are flourishing in college, who are those who take every opportunity that is offered while in college and are invested in their learning experience, as opposed to students who merely survive the college journey, who are those who are meeting their universities requirements, but with relatively little investment (Schreiner, 2010a).

Students who are thriving experience what Tagg (2003) refers to as "deep learning." This is when students are invested in the classroom experience and likewise, their lives are a reflection of that outside of the classroom. Students who are thriving are goal-oriented, have healthy and meaningful connections to others, and want to make a difference in the lives of others. Thriving students are able to use life transitions as opportunities for growth (Schreiner, et. al., 2012). This

is important, as researchers have found that there is a transition gap for at-risk students; in particular, for those who have struggled with connecting their educational learning experience with their career goals (McWhorter, 2007)

Thriving was developed as an answer to one of the current issues in higher education, namely graduation rates, which eventually measure student success. The definition of a college graduate is one who has "survived the college experience." However, as stated earlier, thriving goes beyond just surviving and implies an investment from the student. It conveys that the student is "fully engaged intellectually, socially, and emotionally, and is experiencing a sense of psychological well-being that contributes not only to his or her persistence to graduation, but also to success in life" (Schreiner, Pothoven, Nelson, & McIntosh, 2009, p. 4).

There are three major areas of thriving that the thriving quotient examines closely, they are academic, intrapersonal, and interpersonal thriving. For the purposes of this study, the researcher will focus on academic thriving, which is characterized by two scales on the thriving quotient – engaged learning and academic determination. A thriving student is engaged in the learning process – from academically to psychologically, they are processing their materials and connecting their learning experience with their interests in life.

In an interview with Dr. Schreiner (L. Schreiner, personal communication, November 25, 2013), she stated "at the heart of engaged learning is the meaningful processing or deep learning – it is making connections to things that matter to students. Students are going to keep thinking about what is happening in class when it has interested them; when it is connected to something they already care about or connected to an important goal in their life or something that already interests them." When asked how technology plays a role in the engaged learning process, she stated that, "technology plays a crucial role in deep learning because for many of our students, it is

the way they connect. They connect through social media, so technology is familiar to them, it is the way they communicate, it is the way they forge connections and so you can think of it as a tool for deep learning when used appropriately." She believes that it fits the engaged learning concept because it is a way of connecting to what interests students. Finding out what kind of social media they use and games they play online tells you about the student and what already interests them. Incorporating technology can connect to their future goals and will result in deeper learning by giving assignments where students explore the career that they are interested in pursuing. The integration of technology gives students a plethora of rich avenues to pursue what interests them, in ways that an instructor is unable to do face-to-face in the classroom. Dr. Schreiner believes that it is impossible to know everything about her students or their interests; however, she believes that through technology, she is able to connect to those students.

Focused attention is the second part of engaged learning. This is characterized by being fully in the moment, being psychologically present and paying attention – not being bored, not being distracted; consequently, the role that technology plays there can be either positive or negative. Dr. Schreiner states that in this case, technology could be a distraction from learning if students are on Facebook rather than participating in class; or if they are checking their text messages instead of participating in a group discussion or paying attention to a lecture. Therefore, technology can be a distraction that could interfere with engaged learning, but it could also be a tool used to focus a student's attention. Technology has the potential to grab students' attention in ways that a lecturer cannot. Additionally, the Internet offers a large variety of tools that appeal to many different learners. Also, being able to use those technologies in ways that capture students' attention with the speed at which things happen in technology is significant. Students are accustomed to that rapid speed, and the pace in the classroom cannot match that. They may have

an attention span that is much shorter than that of students a decade ago, or twenty or thirty years ago. Yet what instructors are doing in the classroom assumes that students are able to focus their attention for one or two hours, when in actuality their attention span is closer to ten minutes. Dr. Schreiner believes that a good face-to-face instructor will be aware of this issue and adjust accordingly. Dr. Schreiner was very clear about her view on face-to-face versus online instruction. She by no means believes that online instruction is superior to face-to-face delivery; however, she prefers a hybrid or blended learning where you have the best of human interaction and the best of technology.

"Active participation," is the third part of engaged learning, where students are able to ask questions, talk things over, and behaviorally be a part of what is happening in class. Again, technology can either enhance learning or undermine it. Dr. Schreiner believes that if technology is used passively it detracts from their active participation, and therefore, detracts from engaged learning. However, if an instructor uses chats or a virtual classroom to encourage participation, then the instructor enhances engaged learning. Therefore, all of this depends on how technology is used. Technology is a tool, just as is the face-to-face classroom. A class could be a great experience; conversely, it could be horrible if you have an instructor that does not know how to navigate appropriately in front of the classroom. In actuality, it is not about technology standing in opposition to the face-to-face environment; it is what is happening with technology and what is happening in the classroom.

When asked if Dr. Schreiner believed that educators are "getting it," meaning making the transition to incorporate technology into the educational experience, she initially stated that her simple answer would be, "no." However, Dr. Schreiner supplemented this initial response by stating that the nuanced answer would be that *some* people are getting it. Dr. Schreiner referred to

Jose Bowen (2012), author of the book *Teaching Naked*, whose main point is that educators should maximize technology outside of the classroom and maximize the human connection inside of the classroom. So he gets it. There are many professors who get it. There are many institutions that get it, and there are just as many, if not more, that do not at all. It is this researcher's opinion that there are some who feel that this is just a passing fad and Dr. Schreiner was clear that she did not believe that was the case.

Dr. Schreiner (L. Schreiner, personal communication, November 25, 2013) stated that she hears frustration on the part of many faculty who know that there are things they should be doing, but they do not know what they should be doing, or how to find out that information. Schreiner stated that it seems very overwhelming to them. For example, if faculty attend a workshop, they may learn twenty different technological tools that all sound good, but they are all difficult to do. Faculty members are concerned with time, as it does not seem that there is enough time to learn everything. She believes that the key issue for faculty is to find one or two technological tools that have a good pedagogical reason for their use. In other words, technology is not selected because of popularity or innovation, but because it is a necessity for the delivery of instruction. Therefore, if faculty select a tool, become proficient in the use of that tool, and then focus on relationships with students and the quality of feedback given to them, this will make a difference in the adoption of technology for faculty. Dr. Schreiner expanded on the idea that relationships are another factor that impacts at-risk students and their navigation in colleges and universities. In a research study, where she and other colleagues interviewed 97 at-risk students, the participants were asked what enabled them to be successful, as well as what and who helped them stay in college. Interestingly, the most at-risk students reported that a significant person, who worked on campus, believed in their ability to succeed. Dr. Schreiner highlighted one student who mentioned that her faculty

advisor "believed in her before she believed in herself" and the advisor's belief and high expectations made a difference.

Vivian (2005) supports this approach as he states that mentoring is recognized as being a contributor to positive college experience for many students; more specifically, it benefits college students considered at-risk of failing or withdrawing from college.

During the interview, Dr. Schreiner (L. Schreiner, personal communication, November 25, 2013) explained how technology and thriving could be blended together for this new group of students who are approaching institutions of higher education with a desire to succeed, yet are unaware of the ways to move from merely surviving to thriving. Schreiner expressed that in the bigger picture, technology can be used for students to learn particular techniques for thriving. Dr. Schreiner would like to move in the direction of using technology to create interventions that would be mobile apps that students can use themselves. For example, one of the ways to help students thrive is help them reframe certain life events. A characteristic of students who are thriving is that they tend put bad events into perspective. They are able to view it as a temporary setback and they are able to move forward. Conversely, people who are not thriving, tend to blame themselves when bad event occur in their lives. They tend to move towards a downward spiral. It is Dr. Schreiner's belief that we can teach people how to reframe negative situations, so that they have a more positive perspective that enables them to thrive. In her book *Thriving In Transitions* (2012), she references that "thriving college students have a positive perspective on life, what Seligman (1990) calls an "optimistic explanatory style," which enables them to handle challenges more easily (Schreiner, 2012). Dr. Schreiner sees technology as a way to facilitate the interventions or teachings through the use of online tools, mobile apps, or YouTube videos, to name a few. Dr. Schreiner suggests that college campuses can also play a role in at-risk students'

success by creating a sense of community. Furthermore, using technology to connect students to each other, to faculty, and to the community as a whole is important – making it easier to pay a bill, acquire a parking permit and make it easier to complete various tasks. Lastly, Dr. Schreiner suggested that a university president or senior leader should communicate with students. Dr. Schreiner highlighted the president of Azusa Pacific University, as he uses YouTube videos as a means of communicating with students. He has also had town meetings on campus that are streamed lived, providing students with the opportunity to tune in and be connected, which results in students feeling that they are part of the community meeting.

Overall, Dr. Schreiner believes that there are clear ways to use technology to get feedback to students faster and create connections that are more efficient. As a future goal, Dr. Schreiner would like to incorporate technology into the thriving brand; making it easier for students to get immediate feedback on their own levels of thriving. She sees technology as an ongoing challenge, but sees the value in incorporating technology into thriving.

At-Risk Digital Natives

It will be imperative for educators to find ways to meet the needs of at-risk digital natives. While there is little to no research on this new group, this researcher will draw from the characteristics of both at-risk students and digital natives to explore this new group and their educational needs. Based on previous information, it is clear that there are various indicators that help to identify at-risk students. According to Chen and Kaufman (1997) they are come from single parent households and low socioeconomic backgrounds. Other researchers have defined this group as low achievers, lacking motivation and having a propensity for failing out of college (Jacobson & Williams, 2000; Laskey & Hetzel, 2011). While at-risk digital natives are also identified by these characteristics, they also have an innate ability in the use of technology. As

stated earlier, one can also conclude that at-risk digital natives have similar characteristics of digital natives. Digital natives are adept at using technology to fulfill their needs, whether for entertainment or to collect information. One characteristic of digital natives is that they rely on technology and are confident in their ability to acquire information instantly. "They use many technological tools for everyday living and communication" (Garner, 2007, p. 9). There are some studies, however, that suggest that while students come to colleges and universities with some digital abilities, the use of technology for academic purposes may be different and the transference of these skills are not instinctive (Bullen, Morgan, & Qayyum, 2011; Kennedy, Judd, Churchward, Gray, and Krause, 2008; Kirkwood & Price, 2005; Romero, Guitert, Bullen, & Morgan, 2011). Moreover, believing that students have an ability to process numerous streams of information may result in negative consequences. For example, studying while simultaneously using Facebook may have a negative effect. Kirschner and Karpinski (2010) found there was a significantly negative association between Facebook use and academic performance.

Studies suggest "communication and social activities are support by the use of technology in daily life, while there are significant differences in the use of technology for learning" (Gros, Garcia & Escofet, 2012, p. 193). Interestingly enough, student affairs are talking more and more about "living learning communities," in reference to building communities in the residence halls. However, Kennedy et al. (2008) have incorporated technology into the living learning arena and developed the following idea: living technologies are used in everyday life; additionally, they are used for social and leisure purposes. However, learning technologies are used for the purposes of studying and/or learning activities.

Educators must examine at-risk digital natives and follow the recommendation that Dr. Laurie Schreiner (L. Schreiner, personal communication, November 25, 2013) provided, which is

to assess the strengths of these students and utilize those strengths to enhance their success in the classroom. This may include examining their ability to navigate various forms of technology to determine their level of expertise with living or learning technologies. Once this is determined, educators can ultimately assist these at-risk digital natives in their journey as they face the many transitions involved when a student enters post-secondary education.

CHAPTER 3

METHODOLOGY

"Instead of focusing on what students lack, higher education should build on what they do well."

~ Dr. Laurie Schreiner

Introduction

This study was designed to examine the use of technology and its impact on the learning experience of at-risk digital natives in transition from high school to college. This study examined two groups of students who completed a five-week seminar, learning through two different formats. One seminar was presented in the traditional face-to-face classroom setting and the other was taught online. The researcher hypothesized that the use of technology would have a positive impact on the learning experience of the participants. Specifically, it would have a positive impact on persistence, motivation, and performance. While the researcher is aware that motivation is difficult to measure, the researcher conducted a focus group that directly addressed motivation and the use of technology and its impact on the learning experience. A secondary area of interest was the idea of students thriving in the transition. The researcher used an assessment instrument that measured students' ability to thrive in transition, whether that is transition from high school to the first year of college, transitioning into their second year, or their senior year, etc. Times of transition can be positive experiences that involve movement toward one's full potential, but they can also be negative experiences that shatter a student's confidence or lead to disengagement from the environment (Goodman, Schlossberg, and Anderson, 2006). The researcher conducted an interview with Dr. Laurie Schreiner, who, along with other colleagues, developed the concept of "thriving" as a theoretical perspective, and the Thriving Quotient, which offered a more in depth understanding of students in transition.

The design of the research was a mixed method study that sought to answer the following questions:

RQ 1: Does the use of technology impact the communication that at-risk digital natives need or receive with faculty members?

RQ 2: Does the use of technology create measurable differences in academic performance, as compared to face-to-face instruction?

RQ 3: Does the use of technology meet the learning needs of at-risk digital natives, as compared to face-to-face instruction?

RQ 4: Does the use of technology create measurable differences in motivation, as compared to face-to-face instruction?

It also articulated the research questions and hypotheses, population and sampling, reliability and validity, data collection and analysis. This exploratory study was conducted to examine whether technology had a positive impact on the learning experiences of at-risk digital natives students in transition, as compared to the learning experiences in the traditional classroom of the same population. Exploratory studies offer researchers the ability to gather preliminary information about a topic or problem that is not well researched. The primary purpose of an exploratory study is to show the researcher "what is out there" (Novak & Buddenbaum , 2001, p. 42). Since no research exists about how technology impacts learning among at-risk digital natives specifically, the goal was to further advance academic research on the topic of technology and its impact on learning, as well as intersecting academic research in the disciplines of student affairs and information communication technology.

This study utilized a mixed-methods approach. The first method involved the use of the Thriving Quotient (TQ) instrument, created under the direction of Dr. Laurie Schreiner of Azusa Pacific University. The TQ examines both psychological well-being and student success perspectives and combines them to create a theoretical concept she coined "thriving." She used positive psychology as a framework, with an emphasis on empirical research. Dr. Schreiner closely examined what leads to positive individual and community function, leading her to explore the differences between students who thrive versus students who merely survive (Schreiner, 2010a). The use of the Thriving Quotient provides researchers with relevant information that will help today's investigators and educators to assess students and their needs, not only academically, but also psychologically. It also focuses on students in transition; which was significant in this study, because the population in this study consisted of students in transition from high school to the university environment. The second method involved conducting two focus groups with each S.T.E.P. Lab group who participated.

Participants

First year students served as the unit of analysis and were classified by the university as at-risk students at a regional campus at a Midwestern University in Pennsylvania. Approximately 200 students are admitted to the regional campus through a special program titled PACE (Pennsylvania Advance College Experience). Out of the 200 students who are admitted, twenty students were randomly selected, excluding students under the age of 18. Demographically, students typically range from rural, urban, and suburban areas, where motivation, college preparation, and experience with technology vary.

Participants for both methods were a random sample of 20 students from the regional campus where the study was completed. In order to select the subjects who participated in the

research study, the dean of the regional campus was asked to randomly select twenty students. Since he is neutral to the research study, this was a logical choice. Each student who is enrolled into the university is assigned a student identification number or student ID for short. The dean of the campus was asked by the researcher to randomly select twenty students for the study. The dean randomly selected the subjects, and once twenty students were selected each participant was contacted via email and asked to meet with the researcher in the computer lab of the regional campus. Subjects were given an informed consent form (appendix C) and then evenly and randomly divided into two groups. One group served as the control group and participated in the traditional classroom format of the S.T.E.P. Lab. The experimental group participated in the online format of the S.T.E.P. Lab. The same instructor taught both groups. Since the S.T.E.P. Lab is a non-credit bearing motivational and developmental lab, it is fitting for students who are in transition to a new college environment.

It was imperative that the researcher connects with the participants in the first week of classes. Since the students are enrolled in the summer program for five weeks, the first week is crucial. During the first meeting, the researcher met with twenty students selected by the dean of the campus and shared background information about the study. However, the study was compromised when students began to express which lab they preferred to participate in during the study. This first set of twenty students was dismissed from the study and the dean of the campus randomly selected another set of twenty students, based on student identification numbers. The second group of students was selected and subsequently participated in the study. It was important to have these particular students from the PACE program participate in the study, as they fit the criteria of the population of interest as defined by the researcher. They are categorized as at-risk digital natives by the researcher based on their admission status to the university and their date of

birth, which categorizes them as digital natives. The researcher compared the GPA and motivation of the students in both labs and collected basic demographic information to use for statistical analysis.

First Method: Assessment Instrument

A colleague, who attended the Students in Transition Conference in the fall of 2012, introduced the assessment instrument, the Thriving Quotient, used in the study to the researcher. They suggested that it would complement this research for three main reasons. First, they believed it would complement the S.T.E.P. Lab's basic mission. Second, it focused on students who are in transition, whether from high school to college, or from first year to second year, which was one of the key components of the study. Overall, the concept of thriving relates to creating a whole student who is able to flourish in the world in which they live. The researcher contacted Dr. Laurie Schreiner to obtain permission to use the Thriving Quotient for this study. Permission was granted on April 12, 2013, advancing the completion of this study, this correspondence can be found in appendices E, G, and B.

"The Thriving Quotient (TQ) is an instrument that was developed to measure the academic, social, and psychological aspects of a student's college experience that are most predictive of "academic success, institutional fit, satisfaction with college, and ultimately graduation. The 26 items on the TQ are clustered into 5 scales:

• Engaged Learning – a measure of the degree to which students are meaningfully processing what happens in class, energized by what they are learning, and continuing to think about it outside of class.

• Academic Determination – a measure of students' goal-directedness, investment of effort, and regulation of their own learning and use of time.

• Positive Perspective – a measure of students' optimism, explanatory style, and subjective well-being.

• Social Connectedness – a measure of students' involvement in healthy relationships and social support networks, whether on or off campus.

• Diverse Citizenship – a measure of students' desire to make a difference in the community around them, as well as their openness to differences in others." Dr. Schreiner developed the TQ over a five-year period, with a team of doctoral students, who assisted with refining the TQ to its existing state (Thriving Project, 2012).

"The current TQ instrument (α = .88) contains 18 survey items that represent malleable psychosocial constructs predictive of student success, in addition to items that assess students' demographic information, satisfaction, campus experiences, and outcomes. Responses to most items are recorded using a 6-point Likert scale (Schreiner, McIntosh, Kalinkewicz, & Cuevas, 2013)."

"These items were tested on undergraduates at five 4-year institutions, using student focus groups for feedback on item wording and meaning. Once the items were reworded for clarity to undergraduate students, they were tested on 20,636 students across 92 institutions. An exploratory factor analysis resulted in the five scales. Reliability analysis and hierarchical multiple regression analysis reduced the items to the most internally consistent and best predictors of four student success outcomes: GPA, learning gains, intent to graduate, and institutional fit. The hierarchical multiple regression analysis indicated that the Thriving Quotient explained an additional 8-24% of the variation in the student success outcomes, after controlling for institutional features, students' demographic characteristics and high school GPA" (The Thriving Quotient, 2012).

A survey methodology was used, as they are an effective and adaptable way to gather information that will describe opinions, behaviors, or characteristics of a population of interest

(Slavin, 2007; Cresswell, 1994). The researcher chose the TQ assessment instrument particularly because at the heart of thriving is the idea that student will become "engaged intellectually, socially and emotionally, and experience a sense of psychological well-being that will contribute their persistence to graduation, but also to succeed in life" (Schreiner, Pothoven, Nelson, & McIntosh, 2009, p. 4). This framework corresponds with the mission of the S.T.E.P. Lab, which is to assist in the development and motivation of at-risk students in transition and provides the tools to be academically successful.

Second Method: Focus Groups

In addition to utilizing the Thriving Quotient to gain quantitative information and a better sense of the demographic information, two focus groups were conducted after the completion of the S.T.E.P. Labs. The subjects of both the online and traditional classroom S.T.E.P. Labs were asked four questions by the researcher, which one of the researcher's dissertation committee members reviewed; the questions can be found in appendix H. The results from the focus group provided richer data to the study. In a research study, a focus group would be utilized when the researcher is looking to gain insight from the participants of the study and also to gain a full exploration of other types of research that have been conducted (Novak & Buddenbaum, 2001). In this case, the focus groups were invaluable to the study and added significant depth to the results.

In order to draw information from the participants that provided a deeper perspective of their feelings concerning the S.T.E.P Lab classroom format versus the online format, the researcher was strategic about the types of questions used in the focus group.

Validity and Reliability

Reliability of a research study is crucial to the legitimacy of data results. "If a study is reliable, the measurements or observations used to collect data are stable, and the findings will be

reproducible" (Novak & Buddenbaum, 2001, p. 29). The TQ is reliable and the internal consistency is estimated as Crobach's alpha = .89. Each of the scales on the TQ meets the national standard of reliability: Engaged Learning (α = .85), Diverse Citizenship (α = .80), Academic Determination (a = .83), Positive Perspective (a = .83), and Social Connectedness (α = .81) (The Thriving Quotient, 2012).

Validity and reliability refer to the degree of appropriateness, accuracy, meaningfulness, usefulness, and correctness of the inferences made based on the results from an instrument (Fraenkel & Wallen, 2003). The validation of an instrument involves collecting and analyzing evidence to support the inferences that are made.

Two focus groups were conducted as part of the study. The control group participated in the traditional classroom S.T.E.P. Lab and the treatment group participated in the S.T.E.P. Lab online using Moodle, one of the learning management systems used at the institution. During the focus groups, the researcher asked four initial questions, leading to an open discussion. The focus group questions were expert reviewed by a member of the researcher's dissertation committee to ensure the questions' validity.

Survey Variables

This study examined whether technology, specifically the university LMS Moodle (the independent variable) had a positive impact on student motivation, meeting student learning needs, and performance (dependent variables) of at-risk digital natives during their participation in the S.T.E.P. Lab. As identified in the previous chapters, course loads and learning style preferences may influence the relationship between the independent variable and the dependent variable (Novak & Buddenbaum, 2001).

Procedures

Through simple random sampling, a sample was chosen from a population of college students at a medium sized institution in Midwestern Pennsylvania. This is an ideal method, as it ensures that the unit of the sample has an equal chance of being incorporated into the sample, which guarantees that the sample was representative of the population (Novak & Buddenbaum, 2001).

Participants were randomly selected by the dean of the regional campus, using only student identification numbers. Initially, the goal was that the instructor of the S.T.E.P. Lab would distribute the assessment instrument prior to the start of the Lab. However, due to the difficulty in maintaining the desired number of students and their interest in the study, the assessment instrument was distributed after the completion of the S.T.E.P. Lab. Once students' names were provided to the researcher, the researcher contacted the students by email and scheduled a time to meet with students for a meet-greet and question-answer session. The researcher used the meeting to briefly explain the research study, and how their participation would help a student who needed this study to complete their dissertation, consequently, this increased students' enthusiasm for participation in the study. Once students agreed to participate in the study, they were provided a formal introduction. Students were informed of what they would gain by participating in the study both verbally by the researcher and in writing (see Appendix A).

Upon completion of the S.T.E.P. Lab, the researcher sent an email link through the university e-mail system and through text message, asking the students to participate in the survey portion of the study through Survey Monkey (see questions in Appendix D), as well as informing the students of the location to complete the focus group portion of the study. In the survey, students were able to read a brief paragraph, where the language was parallel to the language in the

informed consent form. In the focus groups, students provided qualitative feedback guided by four questions, these guiding questions are located in appendix H. Specifically, the researcher conducted two separate focus groups, one with the S.T.E.P. Lab face-to-face group, the other with the S.T.E.P. Lab online group. Since the language in the informed consent form expressed that their identity would be confidential, the researcher assigned each focus group participant a pseudonym to protect their identity. Once each focus group concluded, as an incentive for participating, the students placed their names in a basket and the person whose name was randomly chosen was awarded a $50 gift card to the university store, to be redeemed during the day they purchase their books in the fall semester.

Potential Intervening Variables

Additionally, the outcome of this study may have been affected by variables that the researcher could not avoid. For example, the participants were randomly selected to participate in this research study. However, the researcher was not aware of the background of the students or their learning styles prior to the study. The researcher was also not aware of the students' ability or comfort level with Moodle, which was the Learning Management System used for the online component of the S.T.E.P. Lab. Furthermore, the course load may influence the performance of the students. For example, some students may have had lighter course loads than others, which may impact their performance in the S.T.E.P. Lab. Another variable is the use of technology to communicate, which was not a common practice for the students. Students were not accustomed to using email on a regular basis to communicate, so the researcher used text messaging as one of the primary forms of communication. Lastly, the researcher chose to dismiss the first twenty participants from the research, as the group was compromised after learning details of the study.

As a result, the researcher worked with the Dean to select twenty new students, which reduced the amount of time to facilitate the class, conduct the study, and collect data.

Materials

An introductory letter and information sheet, both indicating that participation is voluntary, was provided for the participants; see the letter of agreement to participate in the S.T.E.P. Lab in appendix A. Additional notification communicating to the subjects that participation in the survey was voluntary was presented on the first page of the survey; therefore, completion of the survey instrument implied further consent in participating in the study. For the focus groups, a letter of informed consent was signed by the participants, with a copy for both the researcher and the subject, see appendix C. From July 15 to August 15, 2013, the researcher collected data from the 20 participants. The researcher also used a textbook for the S.T.E.P. Lab that complemented the key topics that were covered in the Lab.

Data Collection

Data collection for the first method was conducted over a 24 hour time period. Both groups were informed of the purpose of the study, confidentiality, and anonymity during the initial meeting. Students were asked about their age to assure they were not less than 18 years of age. Since there were two S.T.E.P. Labs, the students were informed of the TQ differently. The control group was informed of the TQ in the classroom. The experiment group was informed of the TQ through email, since email and text message were the primary forms of communication. Both groups were directed to a link where the assessment could be accessed and completed (see Appendix D). Since the participants were asked to complete the TQ at the end of the S.T.E.P. program, during a time when participants were leaving the campus for two weeks, it was imperative that the students complete the TQ. Students were sent reminders by email and text

message, reminding them to complete the TQ. The survey was administered on-line using Survey Monkey.

The second method collected data through the use of focus groups conducted after the completion of both the online and traditional classroom sessions. The researcher gathered each group at times that were convenient for both the participants and the researcher. Once the participants arrived to the focus group, they were provided information about the focus group and asked to read the informed consent sheet. Each participant signed the form and was provided with a copy. The researcher retained the original copy for research purposes. After the administrative tasks were completed, the focus group participants were asked four questions that helped to gauge discussion. A student was asked to assist in the focus group by videotaping the session with a cellular phone. The student was compensated with a $25 gift card to a clothing store in the fall semester. The student was only used to video one of the focus group sessions, and this was after the researcher made the assessment that it may be more efficient to have someone videotape the sessions than to try and facilitate and videotape the focus group discussion, as the researcher videotaped the other focus group session. Upon the completion of both focus groups, students put their nametags in a hat and one name was chosen for a prize, specifically a $50 gift card to the university's school store. This occurred upon the completion of both focus group sessions.

Data was collected using both qualitative and quantitative methodologies. The quantitative portion of the study, the Thriving Quotient, was administered at the completion of the S.T.E.P. Lab. As a result, it helped to determine the comfort level with the transition to college, comfort in the use of technology, and their motivation to succeed on the postsecondary level. The owners of the instrument at Azusa Pacific University (APU) collected the data once the surveys were completed. After gathering all of the data, the administrators at APU forwarded the results to the

researcher for further examination. The focus group answers were examined by the researcher, who found that particular themes emerged from the qualitative data that would enhance the findings from the quantitative data. As patterns emerged from the data, the researcher examined those patterns and their relevance to the four research questions.

Collaboration was a key component in the study, as the researcher and the dean of the regional campus aligned to examine the data collected and its impact on performance. While the Thriving Quotient was an anonymous survey, the research was able to conclude if there was a correlation between the demographic information collected and the responses. For example, the researcher was able to examine whether males preferred the online version of the S.T.E.P. Lab more than females.

Ethics

This study was low-risk to participants and no ethical principles were in jeopardy while gathering data. The content of the surveys and the focus group questions resulted in no more than low-level discomfort and focused on the participants experience in the S.T.E.P. Lab, comfort level with the use of technology and comfort level in college, along with questions that provide demographical information. The focus group determined the emotional impact of the S.T.E.P. Lab on the participants and their attitude towards the college experience. Participants were informed that participation in the study would remain anonymous.

CHAPTER 4

ANALYSIS OF DATA

Introduction

This study was designed to examine the use of technology and its impact on the learning experience of at-risk digital natives in transition from high school to college. The study examined two groups of students who both completed a five-week seminar, which differed in instruction delivery. One group completed the seminar in the traditional face-to-face lab and the other group completed the seminar online. More specifically, the study sought to answer the following questions:

RQ 1: Does the use of technology create measurable differences in academic performance, as compared to face-to-face instruction?

RQ 2: Does the use of technology meet the learning needs of at-risk digital natives, as compared to face-to-face instruction?

RQ 3: Does the use of technology create measurable differences in motivation, as compared to face-to-face instruction?

The selection of the sample was conducted with assistance from the dean of the campus. This was important as the dean of the campus understands the pulse of the regional campus environment, and is instrumental in the schedule of the PACE program, yet neutral to this study. The dean randomly selected twenty students, based solely on their university identification number, which is assigned during their admission. Once selected, participants were given folders during check-in that were specifically marked, which indicated to the students that they were to meet with the researcher at a particular time. This is very important for two reasons; first, it is

imperative to gain the trust of the students upon their arrival on campus. Therefore, it was important that the initial meeting process with the researcher was integrated into their check-in process, so that to the students, it was a normal part of the function of check-in. Second, timing is very important, since there are only five weeks in the PACE program. The students tend to respond better when campus expectations are provided during the check-in time period.

The researcher met with the students and explained the process, however, because the researcher shared how the groups were divided, the research was compromised. The students began to express their individual learning styles and share their group preference with the researcher. Since students were attempting to select the lab which best met their needs, the researcher opted to end the experiment with those twenty students and restart the process with a new group. Once the second group was chosen, using the same process of selecting twenty random university identification numbers, the researcher was able to begin the experiment.

Each group participated in an information session, where the researcher explained the S.T.E.P Lab and it's relevance to their experience during the PACE program. A convenient time and location was selected for traditional classroom S.T.E.P Lab participants. For the online group, the S.T.E.P. Lab covered identical topics to the traditional classroom lab, but utilized MOODLE, through which the researcher uploaded videos that covered the same content. Both groups met with the researcher; where five interactive sessions on various subjects such as purpose, study skills, motivation, learning styles and other topics were conducted. Also through MOODLE, the researcher gave students assignments similar to the assignments given to the S.T.E.P Lab face-to-face group. Students were able to ask follow up questions through email. Once the students completed the five-week course, they then participated in a focus group. The researcher conducted two separate focus groups, one with the S.T.E.P. Lab face-to-face group, the

other with the S.T.E.P. Lab online group. Since the language in the informed consent form expressed that their identity would be confidential, the researcher assigned each focus group participant a pseudonym to protect their identity. Once each focus group concluded, as an incentive for participating, the students placed their names in a basket and the person whose name was randomly chosen was awarded a $50 gift card to the university store, to be redeemed during the day they purchase books in the fall semester. Additionally, the researcher distributed an online survey at the end of the course through Survey Monkey. Students completed the survey, which addressed many aspects of their experience in the S.T.E.P. Lab, but most importantly the use of technology on various levels, during the lab.

Research Question #1

Does the use of technology create measurable differences in academic performance, as compared to face-to-face instruction?

Quantitative Data Results

The statistical analysis did not indicate there was a measureable difference on the academic performance of students in the face-to-face classroom as compared to the online classroom. However, the face-to-face, traditional classroom subjects earned a mean GPA of 2.71; while the online class earned a mean GPA of 2.89. Though there is a slight difference, no statistical analysis was conducted because of the small sample size would not have yielded any meaningful results. Additionally, though there was a difference in scores between groups, the researcher acknowledges that there were other factors that may have contributed to the mean GPA of the online class being higher.

Qualitative Data Results

The qualitative data did not reveal that technology created a measureable difference in academic performance, in online instruction, as compared to face-to-face instruction.

Research Question #2

Does the use of technology meet the learning needs of at-risk digital natives, as compared to face-to-face instruction?

Quantitative Data Results

No statistical analysis was conducted by the researcher to answer the question of whether or not technology meets learning needs of at-risk digital natives; because of the small size of the sample, the analysis would not have yielded any meaningful results.

Qualitative Data Results

Jane stated the following:

> I think the classroom works better because – like having you right there in front - you like someone showing you. It was a lot easier having to go on computer and try and read through something or just listen. When you're in person you can ask questions and be involved in it.

When the participants were asked if anyone felt that taking S.T.E.P. Lab online was a better fit for their learning style, various participants gave the following responses:

Mia stated:

> I agree with Jane on that subject - being in the classroom helps with the learning style but if I had the choice I would still do online because it gives me more freedom to do it whenever I want throughout the day but that's just me being lazy. I don't like classrooms. That's why I choose the online but I can agree on the classroom learning style, cause I

> think it probably would be better to be in the classroom but me just being me, I'd choose online.

Marsha stated:

> I think that if you're a visual learner you should be in the classroom you should be face-to-face with the teacher so that you can get a better understanding of the concept. Cause if you're online you have to be able to put the pieces together and figure out yourself. Even though you're watching a video, it's visual, but still with that you have to think about ok how would the teacher explain it differently in the classroom.

Kayla stated:

> I do like the online but like Jane said about asking questions… That's the only problem with online. Um I guess you could, like, email them but you might not get a response right away.

The response that Kayla provided is parallel with new pedagogy that places emphasis on students investing in their own learning experience (Makoe, 2012). Educators must be cognizant of the needs and competencies of at-risk digital natives, as it is imperative to understand if students are capable of navigating through an online space where learning will take place. The researcher ascertains that if at-risk digital natives are required to use an online learning program, such as MOODLE, where the technology is unfamiliar or where they are new to the nuances of navigating an online learning space, it may result in being overwhelmed and ultimately resulting in failure.

Research Question #3

Does the use of technology create measurable differences in motivation, as compared to face-to-face instruction?

Quantitative Data Results

No statistical analysis was conducted by the researcher to answer the question of whether or not technology creates differences in motivation of at-risk digital natives; because of the small size of the sample, the analysis would not have yielded any meaningful results.

Qualitative Data Results

The emergence of the theme of *motivation* corresponds to the theme of *accountability* and helps to affirm that at-risk digital natives appreciate the instructor holding them accountable to a particular standard. These students recognize that they may not be disciplined enough to work online, where there is a significant amount of autonomy and independence. The online participants also recognized the importance of being engaged in the classroom setting and again, having *personal interaction* with the instructor, which results in a better understanding of the material. They also recognized the importance of peer-to-peer interaction and how it impacted their motivation in the classroom.

Tammy expressed that as a result of being in the classroom:

> ...we're here to push each other – basically- so we created a relationship…I guess you can say to help each other do this… (*emphasizing her point again, she repeats emphatically*) we're here to push each other basically so we created a relationship I guess.

The theme of *motivation* emerged from Tammy's response, followed by other participants.

Marsha, a participant in the online S.T.E.P. Lab, expressed a preference for course delivery to be face-to-face, from which the theme of *motivation* also emerges.

> I prefer the classroom because sitting online I got bored and distracted and kept procrastinating and wasting time by doing other things when I coulda just sat there and did

that. I feel as though….I know I will get it done and it will be done that day….if I do it online it won't get done till three or four days later or when it suppose to be done that day.

Currently unbeknownst to educators, at-risk digital natives embrace both personal interaction and accountability in the classroom. They value the instruction in the classroom, community building, and fostering relationships. As discussed in previous chapters, these students have entered the university through a program where they will reside in the same living facility, dine in a common cafeteria space, and attend various social and developmental events that promote student growth and success. The classroom setting offers an opportunity for students who have transitioned together, to assist one another as they share the same goals and experiences and are, at times, familiar with one another's personal challenges. As a result of this dynamic, *community* is another theme that surfaced. DeNeui (2003) reports "students with a strong sense of community (i.e. a feeling of belonging, contributing, connecting, and accomplishing goals with others) are more likely to engage in the learning process and experience academic success.

Interestingly enough, the traditional classroom S.T.E.P. participants indicated themes that refuted the idea that digital native students preferred online technology as their form of course delivery. More importantly they answer the research question of whether the use of technology meets the learning needs of at-risk digital natives, as compared to face-to-face instruction. As a result of the findings from the traditional classroom focus group, the researcher concluded that at-risk digital natives feel strongly that the face-to-face instruction meets their learning needs, but beyond that, it not only contributes to the academic needs, but the social needs of the student. While they have had access to the information communication technology from birth, at-risk digital natives acknowledge the importance of the traditional classroom experience and the benefits that it offers the learning experience.

Additionally, the concept of thriving coincides with the themes that have emerged in this research. Thriving suggests that students are engaged in their learning experience and that they are invested in the success of their academic journey. The participants in the face-to-face instruction valued building relationships with one another and assisting one another, recognizing that they have travelled similar paths and need to encourage each other which contributes to success. Furthermore, thriving focuses on the strength of the learners, as Dr. Schreiner pointed out in chapter 2. The interaction and participation in the classroom work groups lends itself to recognizing the strengths of the students. This results in the instruction having the opportunity to encourage students and providing a space for them to hone in on those strengths and use them to contribute to their own academic success and help their peers. Thriving encourages us to view student development to include healthy relationships, contributing, and taking a proactive approach to facing the challenges of life (Schreiner, 2010b).

Additional Themes That Emerged

Online S.T.E.P. Lab subjects, who were not privy to face-to-face instruction, provided the following responses. Their instruction was offered through the university's online learning management system, MOODLE, where each week during the Lab, students viewed a video of the content and were subsequently given exercises to complete, supporting the lesson in the videos. The themes that surfaced in the S.T.E.P. Lab online group varied, though some themes were parallel to that of the S.T.E.P. traditional classroom group. Additionally, other themes emerged that were new to the study.

Two themes that immediately emerged was that of *convenience* and *independence*. For some students, the ability to complete assignments at their own pace and at their own time was of great importance.

Kayla stated that she preferred the S.T.E.P. Lab online because she could, "… do it freely, whenever you have time to get it done."

Another student highlighted the importance of *convenience* by stating, "Sometimes you get bored sitting in the classroom so I mean like Kayla was saying it's better when you can do it like freely like when can do it whenever we want."

Nevertheless, while the students in the online group expressed their preference for online delivery of the S.T.E.P. Lab and the level of convenience that it offered, the participants' overall preference was the traditional classroom format where there is face-to-face interaction with an instructor. Additionally, new themes emerged that were crucial to the understanding of the learning preferences of at-risk digital natives.

Lastly, the researcher asked how the participants felt the S.T.E.P. LAB helped to motivate them during their participation in the PACE program. If so, in what ways were they motivated? If not, what could the program have done differently to motivate them?

Kayla stated:

> I was motivated because when I came to college… I was interested in like finding ways to better my study skills um so I found it really interesting.

Marsha stated:

> I like the way uh I was motivated to come to college and learn new things and open up my mind to new experiences and doing different things so S.T.E.P. program I felt as though I was able to experience new things learn new things new ways to manage time

Mia stated:

> When we did the time management portion of it, and we had to watch the video, I found like the things that we learned in the video very helpful like why we should be very time

> managementable, whatever the word is, you know what I mean. Um but I found a lot of that helpful cause usually I'm a disorganized person. I don't use planners I just go with the flow and I found that that makes my life more hectic like when it comes to work so I found that a lot of the tips in there very helpful.

Upon further examination of the data collected from both focus groups, it is evident that at-risk digital natives prefer face-to-face instruction over online instruction. The importance of this relationship is described by Jaffee (as cited in Driscoll, Jicha, Hunt, Tichavsky, and Thompson, 2012):

> Through interaction among students learning occurs in the social realm where students can benefit from one another's insights and essentially teach each other, learning both as the instructor and as the instructed. Additionally, interaction between students and the instructor is essential for providing feedback and encouragement as clarifying instructions, due dates, and expectations, which is most essential for student who have experienced most of their educational in the traditional classroom setting (Jaffee, 1997 as cited in Driscoll, et al 2012, p. 316)

CHAPTER 5

SUMMARY, RESULTS, LIMITATIONS, RECOMMENDATIONS, CONCLUSIONS

I am taking a class that requires me to tweet, blog and Facebook. I have learned more from that class than I have from many. With the right structures and a cool instructor technology works.

- author unknown

Summary

It is no secret that technology has impacted the learning experience of every student and educator on various learning levels in recent years. More specifically, information and communications technology has become as important in the classroom as books (Smith & Caruso, 2010). From kindergarten to post-secondary education, students and educators are being called to incorporate technology into the learning environment, as today's students are surrounded by information and communications technology and employ it for everyday use in their personal lives. The purpose of this study was to examine whether using technology in the delivery of instruction and in communication with students in the classroom, had a positive impact on the learning experience and contributed to the educational success of at-risk digital natives. At-risk digital natives, a new term coined by the researcher, is defined as a subset of the digital native generation who is at-risk of failing or withdrawing college due to numerous social and learning challenges, such as, subpar secondary schooling, low socioeconomic status, first generation, and substandard standardized test scores, yet were born after 1980, and are considered experts in the use and manipulation of technology and social media. Popular press has reported that today's college students have an inclination to use technology socially, as well as in their educational experiences.

Dr. Laurie Schreiner lends her contribution to this study by introducing her groundbreaking research on the concept of thriving, which primarily draws attention to a more engaged, involved, and invested learning experience on the part of the student. She champions the idea of thriving and describes how the marriage between thriving and technology could have a positive impact on the success of today's college student. Technology has undoubtedly played a vital role in the learning experience on our college campuses and has redefined how instruction is delivered in the classroom. Commentators believe that the exposure to technology has changed the brains of digital natives (Prensky, (2001a). However, there is a need for more research on the experience of college-aged students and their preferences for the incorporation of information communication technology into the classroom (Demirbilek, 2014). The preference of instruction is one area of study that many commentators fail to address, as they merely report their suppositions and theory on the topic of digital natives. Nicholas (2008), found that the majority of students that he studied preferred the lecture or face-to-face format of instruction, along with collaborative group work. This study examined the preferences of at-risk digital natives specifically, with this research enumerating the ways in which the results of the study contribute to the currently existing body of literature.

This researcher conducted an experiment where at-risk digital natives participated in a five-week motivational lab, which was offered in two distinct instructional delivery formats. Upon the completion of the experiment, the researcher found that at-risk digital natives preferred face-to-face interaction as their primary mode of instruction compared to the use of an online format. Additionally, the researcher learned that students, while digital natives, communicated with faculty members during office hours more than through Facebook or text messages. Overall, the research revealed also that at-risk digital natives appreciated what the face-to-face instructional experience

offered; specifically that the face-to-face environment cultivates the mechanisms that help at-risk digital natives experience success. Some of those mechanisms for success identified in the course of this study are accountability, community building, and support.

Though this study was executed using a mixed methods approach, by means of quantitative and qualitative methodology, the most meaningful data came from the focus groups and their experiences with the incorporation of technology into the S.T.E.P Lab. Several important themes emerged from the focus groups that became both the primary emphasis of analysis in the study. These themes will help to guide further research in the future for educators and information communication technology practitioners.

Results

To further explore the use of technology's impact on at-risk digital natives, three questions were used to guide the direction of the research:

Research Question 1

Does the use of technology create measurable differences in academic performance, as compared to face-to-face instruction?

After comparing the total GPA averages of the two groups, the students who participated in the S.T.E.P Lab online earned a GPA .18 points higher than the students who participated in the S.T.E.P Lab traditional classroom. The researcher recognizes that multiple factors potentially influenced this result. The researcher was unaware of the students learning style preference prior to them participating in the Lab. Secondly, the researcher was unaware of the students' high school GPA, SAT scores, or which high schools they attended. The university uses this information to determine a student's ability to adapt to college and transition from high school to college. Since the researcher was unaware of this information, it was difficult to establish whether

a student had the skills or ability to transition; and without knowing this, the researcher was unable to determine if the online format had a direct impact in the students earning a higher GPA. While students in the online S.T.E.P Lab scored higher in terms of GPA, the qualitative data reflects that, overall, they preferred the traditional classroom instruction. Consequently, it was unclear from the results if the online delivery format actually influenced the academic performance of at-risk digital natives as compared to traditional classroom. From the data, the researcher was unable to determine to degree to which the method of delivery of the S.T.E.P. Lab influenced the academic performance of the participants, resulting in a potential area for further study.

Research Question 2

Does the use of technology meet the learning needs of at-risk digital natives, as compared to face-to-face instruction?

Qualitative analysis of the focus group showed that in both the traditional classroom instruction group and the online instruction group, there is a consistent need for personal interaction with the instructor. This was an overall theme that was prevalent throughout the data collected. While some digital natives may prefer to have technology incorporated into the delivery of their instruction, at-risk digital natives overwhelmingly preferred to interact with the instructor and have the "live" classroom experience. They valued the immediate response and feedback that is available to students while in the classroom. They were able to gain a better understanding of the instructors' interpretation of information, and it allowed them the ability to collect information immediately.

Based on the qualitative analysis, the researcher proposes that through the traditional classroom instruction, meaningful relationships are formed. At-risk digital natives were able to ask clarifying questions, share their personal experiences in the classroom setting, and encourage

one another, which has a positive impact on learning the material, the other classmates, and the instruction. Moreover, the students who participated in the online class preferred the classroom experience, which supports the idea that at-risk digital natives, though some enjoyed the autonomy, primarily preferred to have instruction in the classroom.

From the data collected, the researcher ascertained that an online format as the primary mode of delivering instruction does not meet the learning needs of at-risk digital natives. While technology has become prevalent in today's society, educators must find a way to balance the use of technology with maintaining personal interaction with students in the classroom. For example, a professor could instruct a psychology class, but also incorporate live tweeting during their instruction. Not only are students involved and taking "live notes," but they are utilizing technology in a constructive way in an academic setting. They are still able to ask clarifying questions and acquire immediate answers.

Research Question 3

Does the use of technology create measurable differences in motivation, as compared to face-to-face instruction?

Motivation is defined as a force or influence that causes someone to do something. Motivation is a key factor in the learning experience of any student. Though no quantitative analysis was conducted to help answer the third research question, the qualitative data revealed that students believed that face-to-face instruction and interaction with the instructor motivated the students to maintain focus and accountability. The data indicated that when compared to face-to-face instruction, the use of technology in the form of online instruction did not create measureable differences in motivation.

After the researcher carefully examined focus group data, many themes emerged that are important to both academia and the field of student affairs. Contrary to popular press, students expressed the need for personal interaction, face-to-face communication, and immediate response to their questions or concerns. The qualitative analysis also revealed that at-risk digital natives appreciate accountability in the classroom. They highlighted the interactive assignments and group work that play a key role in the topics discussed in the classroom. The interactive activities also brought topics to life, like time management and study skills, where students created a live schedule for a hypothetical student. This desire for particular aspects, inherent in the face-to-face environment, is in direct contrast to the popular press, who state that digital natives are drawn to learning with technology as their primary delivery method. While it was difficult to measure the relationship between technology and motivation, the researcher recognized that at-risk digital natives who participated in this study accepted the importance of personal interaction and its relationship to their motivation to continue in the S.T.E.P Lab.

Limitations

There are some important limitations to this study to consider. First, the unique population of students that participated in this research was located at the regional campus of a state university. Most institutions, while they may have regional campuses, may not have a regional campus that specifically admits at-risk digital natives to attend for a year, prior to transitioning to the university's main campus. This should be taken into consideration when applying the results to other research.

Next, the sample size for both the experimental and a control group was 10 subjects, with a total of 20 subjects in total, participating in the study. The small sample size is a result of two factors: the small population of students who are eligible to enroll in the summer S.T.E.P. Lab and

also the limited number of spaces available for students to live on campus during the PACE program. Consequently, due to the small sample size, quantitative analysis would not have yielded meaningful results, and were therefore not conducted, which limited the results of this study. Future researchers should note that this does not reflect the actual number of at-risk digital native students admitted to the institution. However, since the researcher completed the experiment during a summer session, and the researcher was able to work with only a concentrated number of at-risk digital natives, the researcher chose to use a convenience sample located at the regional campus.

Another limitation is the timing in which the final sample was selected to participate. Initially, the researcher met with the participants their first week of attending the PACE program, however, the researcher discovered that they were privy to too much information about the research being conducted, which compromised the study. The researcher elected to randomly select twenty new participants, which likely slowed the momentum of the study. The researcher also had to confirm that the participants were eighteen years of age. Since the sample was transitioning from high school to college, some students were seventeen years of age. The researcher was able to remove any students who were under the age of eighteen, but it absorbed time that the researcher did not anticipate.

By opting to select the second summer session to complete the study, the researcher ran into time limitations that may have affected subject participation. It takes time to build trust with first year students, and because of the length of the session during which the study was conducted, the time the researcher had to build relationships and subsequently, trust, with the subjects was extremely limited. The researcher had to be strategic about the topics that were covered given a session length of only four weeks. The researcher would suggest conducting this type of

experiment during a fall or spring semester, which offers fifteen weeks to interact with students, conduct the experiment, and building trust with the students.

Lastly, the researcher used the Thriving Quotient as a survey tool, and was able to add four questions to the survey, specific to the experiment. However, in the future, the researcher would suggest that the questions be more specific to the effects of technology on learning and also suggests a survey instrument that focuses specifically on the use of technology and its impact on learning.

Recommendations

In the1950s, Benjamin Bloom published Blooms Taxonomy, which addresses the learning process on various levels and is displayed in categories (Bloom & Krathwohl, 1984). Bloom's Taxonomy has been used all over the country in educational settings when developing curriculum appropriate for the learner. However, as technology increasingly saturates our lives, it has altered both the way we live and the way we learn. Consequently, even long-standing systems like Bloom's Taxonomy have been revised to reflect the addition of the ubiquitous technology (Churches, 2012). Educators must be careful that the use of technology is not implemented based on the assumption that today's students *need* technology in the classroom; which is an ill-advised idea prominent in the popular press. It is imperative that educators gain a better understanding of the instructional delivery that will enhance the learning experience of at-risk digital natives. Students may prefer technology to face-to-face instruction, however preference does not equal learning. This study reveals that, overall, at-risk digital natives prefer face-to-face instruction, however further research should focus on whether which mode of instruction delivery actually impacts learning.

This study has also opened the door for additional research to explore various subsets of at-risk digital natives. Gender, socioeconomic status, and ethnic background are factors that may have influenced the learning experiences of an at-risk digital native. There are a variety of ways the at-risk digital native population could be studied to determine if there are differences among them based on demographic or other factors. Additional research may explore whether at-risk digital natives from rural areas perform differently than at-risk digital natives from urban or suburban areas. For example, some high schools may use technology regularly, where others may not be able to afford hardware or software, exposing students to the technology they may use at a college or university. All of these questions provide an opportunity for further research, providing implications for institutions that will aid in offering more intentional and effective instruction for these learners.

Focusing on discovering the competencies of students in the classroom and their learning needs is crucial. For example, educators may want to distribute a needs assessment instrument or strengths-development instrument that will provide insight about their students, which gives the instructor a better sense of how to proceed with instruction delivery. Educators may also want to provide curriculum that is not a one-size-fits-all model and offers instruction that balances technology with face-to-face instruction, where the two styles work in tandem. Digital Immigrant educators should be encouraged to take courses and attend workshops, which will sharpen their skills in the area of technology use in the classroom.

While there is a body of research that focuses on the comparison of the traditional classroom and the online learning environment, academia is still lacking a body of work that directly focuses on at-risk-digital natives and their needs in the classroom. Marc Prensky has introduced digital natives as a population, along with their needs in the classroom, but the new

subset of digital natives introduced in this study, at-risk digital natives, have needs that have yet to be addressed. This exploratory research has identified seven themes that could potentially guide future investigation about educating at-risk digital natives. They are: motivation, personal interaction, immediate response/attention, accountability, community, convenience, and independence. How do these seven elements attribute to the success of at-risk digital natives? How can we balance the use of technology in the classroom with the need for personal interaction? Educators have a task before them, as it is imperative for educators, student affairs professionals and commentators, to expand their research and observations to include the new subset of learners termed at-risk digital natives.

This researcher would also propose further research that focus on the retention of at-risk digital natives in colleges and universities. There is a need on the part of educators to recognize the importance of a) identifying this new population b) identifying how to best meet its educational and social needs), c) learning how institutions of higher education can retain this population, and d) understanding how college and universities remain relevant in the technology age, without jeopardizing the learning experience of students who may not be able to completely navigate through the technology maze presented to them. By conducting more research on this population, we may answer the question of how to retain these students, and decrease the attrition rate at colleges and universities who have a large number of at-risk digital natives.

The way at-risk digital natives communicate with faculty is another area of research that, when explored, may offer educators insight on how to effectively connect with students. This research discovered that while students connected with faculty over email, text, or Facebook, there was still a large percentage of students who indicated that they had face-to-face interaction with their faculty member. These findings are potentially meaningful, as it has been noted in the

popular press that today's college students, specifically digital natives, have a propensity to prefer digital technology to communicate and for it to be a part of their learning environment (Prensky, 2001a). Again, this data coincides with focus group data that shows at-risk digital natives tend to prefer face-to-face interaction resulting in the ability to *communicate* face-to-face.

Lastly, this researcher would recommend additional research on how to better prepare instructors on how to deliver engaging, poignant, and relevant information, while incorporating technology that speaks the language of at-risk digital natives. Work in this area of study may ultimately result in the increased practice of instructors conducting needs assessments in the early stages of courses that include at-risk digital natives. In today's world, it is important to gain insight on how much technology a student has used and how they have used it. Are students only technology-savvy because of owning a cell phone? Conversely, are they technology-savvy because they have had the opportunity to use various software packages that have challenged them to collaborate with others and solve problems?

Conclusion

In conclusion, the most significant contribution of this study was to introduce at-risk digital natives to academia and begin a discussion about their needs in the higher education environment. Acknowledging that this population of students expressed an overwhelming desire for personal interaction in the face-to-face classroom, educators must rethink the practice of technology integration into every classroom that has been popularized by both mainstream media and academic researchers. Understanding the needs of this population and helping them to thrive in the university environment will ultimately benefit larger society by decreasing attrition rates. As brought to light in this exploratory piece of research, at-risk digital natives deserve further

attention as an area of study and it is the hope of this researcher that this study may serve as a cornerstone upon which to build.

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August 13, 2013

Thanks you so much for agreeing to participate in the S.T.E.P. Lab. Remember that S.T.E.P.. stands for **Striving** for Excellence, **Transitioning** Seamlessly, **Embracing** the College Experience and **Positioning** Yourself for Success. My hope is that you will strive to do ALL of these as you navigate through the college experience, as you begin on the Punxsutawney campus.

STRIVING TRANSITIONING EMBRACING POSITIONING

Because of your participation in this study **AND** completion of the S.T.E.P.. Lab. You will receive the following:

- Eligibility in a drawing for a $50 or $25 gift card to the IUP Coop Store (availability upon your return)
- A reference letter from Ms. Malaika M. Turner, Assistant Director of Residential Living for employment or an academic
- Mentoring from Ms. Malaika M. Turner
- Extra credit points from either Dr. Beisel or Ms. Portia Diaz

Note that S.T.E.P.. will start again in the fall semester. It is open to a select group of students; however, if you are in need of the assistance or would enjoy participating, the S.T.E.P.. Lab is available for you.

Thank you again and it was a please working with you!

Best Regards,

Malaika M. Turner

S.T.E.P Coordinator

Appendix B - Permission for Thriving Quotient Use

I understand that this Agreement is requested by the Azusa Pacific University for academic research and/or institutional research to ensure compliance with the terms of the approved Institutional Review Board Application. My signature indicates that I understand the terms of this Agreement and that I agree to comply with its terms. I understand that a violation of this Agreement may also be subject to penalties under state confidentiality statutes that apply to these data.

Signed:__ 
_____ Date:_____August 12, 2013

Print or Type Name:_____Malaika M. Turner_____

Title:__Doctoral Candidate, _____

Organization:_____ Indiana University of Pennsylvania _____

Address:_____212 Debbie Drive_____

City:_____Indiana_____ State:___PA_____ ZIP Code:__15701_

Phone:___724.840.2705_____ Fax: _____

E-mail:_____mmturn@iup.edu_____

The information above is maintained by APU only for the purpose of enforcement of this Agreement.

Signed this ____ day of __ __, _____.

Laurie A. Schreiner, Ph.D.

Owner and Copyright Holder of the Thriving Quotient™

Appendix C - Informed Consent Form

Informed Consent Form

You are invited to participate in this research study. The following information is provided in order to help you to make an informed decision whether or not to participate. If you have any questions please do not hesitate to ask. You are eligible to participate because you have been chosen to participate in the S.T.E.P. LAB Program at Indiana University of Pennsylvania Punxsutawney campus (IUP).

The purpose of this study is to determine the degree to which your participation in the S.T.E.P. Lab and student satisfaction of this program was contributed to your academic, performance, and motivation. Participation in this study will require approximately 90 minutes of your time and is not considered a part of S.T.E.P. LAB. Participation or non-participation will not affect the evaluation of your performance in the lab. First you will receive instructions and expectations prior to the start of the focus group, then you will be asked questions that pertain to your satisfaction with the program. You will be videotaped and upon completion of the focus group, your responses will be analyzed and interpreted for future use to improve the S.T.E.P. LAB on the Punxsutawney campus and further academic research.

There are no known risks or discomforts associated with this research.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators or IUP. Your decision will not result in any loss of benefits to which you are otherwise entitled. If you choose to participate, you may withdraw at any time by notifying the Project Director or informing the person administering the test. Upon your request to withdraw, all information pertaining to you will be destroyed. If you choose to participate, all information will be held in strict confidence and will have no bearing on your academic standing or services you receive from the University. Your response will be considered only in combination with those from other participants. The information obtained in the study may be published in scientific journals or presented at scientific meetings but your identity will be kept strictly confidential.

If you are willing to participate in this study, please sign the statement below and deposit in the designated box by the door. Take the extra unsigned copy with you. If you choose not to participate,

deposit the unsigned copies in the designated box by the door. Note that anyone under 18 is not permitted to participate in this research study.

Principle Director:
Ms. Malaika M. Turner

Rank/Position: Doctoral Student, COMIT

Depart. Affiliation: Communications Media

Campus Address: G37 Ruddock Hall,

Indiana, PA 15705

Phone: 724/357-2696

Advisor
Dr. Mary Beth Leidman

Communications Media

G16A Stouffer Hall

Indiana, PA 15705

724.357.2492

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).

Informed Consent Form (continued)

VOLUNTARY CONSENT FORM:

I have read and understand the information on the form and I consent to volunteer to be a subject in this study. I understand that my responses are completely confidential and that I have the right to withdraw at any time. I have received an unsigned copy of this informed Consent Form to keep in my possession.

Name (PLEASE PRINT) _____

Signature _____

Date_____

Phone number or location where you can be reached_____

Best days and times to reach you_____

I certify that I have explained to the above individual the nature and purpose, the potential benefits, and possible risks associated with participating in this research study, have answered any questions that have been raised, and have witnessed the above signature.

_____ _____

Date **Investigator's Signature**

Appendix D - Thriving Quotient Instrument

TQ 2013 - IUP - MMT

Now please think about your life RIGHT NOW -- this week -- as a college student on this campus as you answer these next questions.

Please rate your agreement with each of the items.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I feel like I belong here.	○	○	○	○	○	○
Other people seem to make friends more easily than I do.	○	○	○	○	○	○
Being a student here fills an important need in my life.	○	○	○	○	○	○
I spend time making a difference in other people's lives.	○	○	○	○	○	○
I feel proud of the college or university I have chosen to attend.	○	○	○	○	○	○
My family approves of me attending this institution.	○	○	○	○	○	○
I don't have as many close friends as I wish I had.	○	○	○	○	○	○
My family encourages me to complete my degree.	○	○	○	○	○	○
There is a strong sense of community on this campus.	○	○	○	○	○	○
My close friends encourage me to continue attending this school.	○	○	○	○	○	○

TQ 2013 - IUP - MMT

Please rate your agreement with each of the items.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I know I can make a difference in my community.	○	○	○	○	○	○
My spiritual or religious beliefs provide me with a sense of strength when life is difficult.	○	○	○	○	○	○
When I'm faced with a problem in my life, I can usually think of several ways to solve it.	○	○	○	○	○	○
My perspective on life is that I tend to see the glass as "half full."	○	○	○	○	○	○
It's hard to make friends on this campus.	○	○	○	○	○	○
I gain spiritual strength by trusting in a higher power beyond myself.	○	○	○	○	○	○
My spiritual or religious beliefs are the foundation of my approach to life.	○	○	○	○	○	○
It's important for me to make a contribution to my community.	○	○	○	○	○	○
I always look on the bright side of things.	○	○	○	○	○	○

TQ 2013 - IUP - MMT

Each of the questions below asks about your participation in various activities. As with the previous sections, think about what you have actually done THIS SEMESTER so far as you answer the questions.

How often have you participated this semester in the following:

	Never					Frequently
Student organizations on campus	○	○	○	○	○	○
Campus events or activities	○	○	○	○	○	○
Leadership of student organizations	○	○	○	○	○	○
Interaction with faculty outside of class	○	○	○	○	○	○
Music or theater performance groups on campus	○	○	○	○	○	○
Fraternity/Sorority	○	○	○	○	○	○
Community Service	○	○	○	○	○	○
Religious services or activities	○	○	○	○	○	○
Campus ethnic organizations (such as Black Student Association)	○	○	○	○	○	○

TQ 2013 - IUP - MMT

How often this year have you:

	Never					Frequently
Met with your academic advisor	○	○	○	○	○	○
Discussed career or grad school plans with faculty	○	○	○	○	○	○
Discussed academic issues with faculty	○	○	○	○	○	○
Met with faculty during office hours	○	○	○	○	○	○
E-mailed, texted, or Facebooked faculty	○	○	○	○	○	○

TQ 2013 - IUP - MMT

Please rate your satisfaction with each of the following:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Satisfied	Very Satisfied
The amount you are learning in your classes this semester.	○	○	○	○	○	○
The amount you learned in the online STEP class this semester.	○	○	○	○	○	○
The grades you are earning so far this semester.	○	○	○	○	○	○
Your overall experiences on this campus this semester.	○	○	○	○	○	○
Your overrall experience in the STEP class this semester.	○	○	○	○	○	○
The amount of contact you have had with faculty this semester.	○	○	○	○	○	○
The academic advising you have received this semester.	○	○	○	○	○	○
The kinds of interaction you have had with other students on this campus this semester.	○	○	○	○	○	○
The kinds of interaction you have had with other students on Moodle this semester.	○	○	○	○	○	○
The quality of the interaction you have had with faculty on this campus so far this semester.	○	○	○	○	○	○
Your current living situation.	○	○	○	○	○	○
Your physical health right now.	○	○	○	○	○	○
The interactions you have had this semester with students of different ethnic backgrounds.	○	○	○	○	○	○
The amount of money you personally have to pay to attend college here.	○	○	○	○	○	○
Faculty sensitivity to the needs of diverse students.	○	○	○	○	○	○
Faculty sensitivity to the needs of diverse learning styles.	○	○	○	○	○	○

TQ 2013 - IUP - MMT

Your interactions with the people with whom you share your living space.

TQ 2013 - IUP - MMT

Finally, please tell us a little about yourself. Your answers will be grouped with those of other students to help us understand our students better. No individual information will ever be reported for any reason.

Are you the first in your immediate family to attend college?

- ◯ yes
- ◯ no

Gender

- ◯ female
- ◯ male
- ◯ other

Which category below includes your age?

- ◯ 17 or younger
- ◯ 18-20
- ◯ 21-23
- ◯ 24-26
- ◯ 27-30
- ◯ 31-34
- ◯ 35-38
- ◯ 39-42
- ◯ 43-46
- ◯ 47-50
- ◯ over 50

Class level

- ◯ Freshman
- ◯ Sophomore
- ◯ Junior
- ◯ Senior

Other (please specify)

TQ 2013 - IUP - MMT

Enrollment Status

- ◯ Full-time student
- ◯ Part-time student

How many courses are you taking this semester?

- ◯ one
- ◯ two
- ◯ three
- ◯ four
- ◯ five or more

Which category below best describes your high school grades?

- ◯ mostly A's
- ◯ A's and B's
- ◯ mostly B's
- ◯ B's and C's
- ◯ mostly C's
- ◯ grades below a C average

What is the highest degree you intend to pursue in your lifetime?

- ◯ none
- ◯ bachelor's degree
- ◯ teaching credential
- ◯ master's degree
- ◯ doctorate
- ◯ law or medical school
- ◯ other graduate degree

What is your best guess about your household income level?

- ◯ less than $30,000 a year
- ◯ $30,000 to $59,999
- ◯ $60,000 to $89,999
- ◯ $90,000 to $119,999
- ◯ $120,000 or over

TQ 2013 - IUP - MMT

Do you live on campus?

- ◯ yes
- ◯ no

Do you work on campus?

- ◯ yes
- ◯ no

How many hours per week do you spend working for pay off campus?

- ◯ none
- ◯ less than 5 hours per week
- ◯ 5-10 hours per week
- ◯ 11-15 hours per week
- ◯ 16-20 hours per week
- ◯ more than 20 hours per week

Did you transfer into this institution?

- ◯ yes
- ◯ no

What is your ethnicity?

- ◯ African American/Black
- ◯ American Indian/Native American/Alaskan Native
- ◯ Asian/Asian American/Pacific Islander
- ◯ Caucasian/White/European American
- ◯ Latino/a
- ◯ Multiethnic
- ◯ International Student

Other (please specify)

TQ 2013 - IUP - MMT

How sure are you of your major?

- ◯ Very Unsure
- ◯ Unsure
- ◯ Somewhat Unsure
- ◯ Somewhat Sure
- ◯ Sure
- ◯ Very Sure

Have you done research with a faculty member this semester?

- ◯ yes
- ◯ no

TQ 2013 - IUP - MMT

Considering the financial aid you've received and the money you and your family have, how much difficulty have you had so far in paying for your school expenses?

- ◯ no difficulty
- ◯ a little difficulty
- ◯ some difficulty
- ◯ a fair amount of difficulty
- ◯ great difficulty

When you chose to enroll in this institution, was it your first choice?

- ◯ yes
- ◯ no

TQ 2013 - IUP - MMT

How would you describe your grades on assignments in your classes so far this semester?

- ◯ Mostly A's
- ◯ Mostly A's and B's
- ◯ Mostly B's
- ◯ Mostly B's and C's
- ◯ Mostly C's
- ◯ Below a C average

How often this semester have you gotten less than 4 hours of sleep in a night?

- ◯ never
- ◯ rarely
- ◯ occasionally
- ◯ fairly often
- ◯ frequently
- ◯ almost always

Are you a member of one of this institution's official athletics teams? (not intramurals or club teams)

- ◯ yes
- ◯ no

TQ 2013 - IUP - MMT

We are interested in what helps students thrive in college. Thriving is defined as getting the most out of your college experience, so that you are intellectually, socially, and psychologically engaged and enjoying the college experience. Given that definition, to what extent do you think you are THRIVING as a college student this semester?

- ◯ not even surviving
- ◯ barely surviving
- ◯ surviving
- ◯ somewhat thriving
- ◯ thriving most of the time
- ◯ consistently thriving

What has happened this semester that has led to your perception of whether you are thriving or not?

Appendix E - Initial Correspondence with Dr. Schreiner

Hi Dr. Schreiner,

I wanted to follow up with you about using the Thriving Quotient for my dissertation. I am a doctoral student at Indiana University of PA in the Communications Media and Instructional Technology program. I believe that my dissertations will be published and I've decided to change my theoretical framework so that it reflects Thriving.

I know that there is a $1000 fee, but we talk about the possibility of waiving the fee if the the dissertation would be published. I believe that my research will further highlight your work on Thriving and advance research on at-risk students in higher education. As I'm moving forward with completing my IRB, I wondered if you would consider my use of your instrument for this dissertation at no cost.

I hope to hear from you soon.

Thanks again.

Malaika M. Turner
Doctoral Candidate
Indiana University of Pennsylvania

Appendix F - Correspondence from Dr. Schreiner

Hi Malaika,

I'm copying Dr. Eric McIntosh on this email, as he coordinates the use of the instrument for research purposes. If you would provide him with a brief description of your research question and design and how you plan to use the instrument--for how many students, when, etc., he can work with you. Normally the fee is $500 for an institution; if we have full rights to use of your data we can waive that fee because you are conducting research. You would then send us a copy of your results when you are done with your study.

Thanks,

Laurie

Laurie A. Schreiner, PhD
Professor and Chair
Doctoral Programs in Higher Education
Azusa Pacific University

Appendix G - Focus Group Themes

Face-to-Face Focus Group		
	FACE-TO-FACE INTERACTION/COMMUICATION	**RELATIONSHIP BUILDING**
CINDY	"…one-on-one experiences are always better and if you have an online class people are gonna procrastinate."	we're here to push each other – basically- so we created a relationship…I guess you can say to help each other do this
TAMMY		"...we're here to push each other – basically- so we created a relationship…I guess you can say to help each other do this…
SARAH	"I prefer the classroom because I feel as though if anyone has any questions or concerns or if we're discussing a topic that we feel as though we'll be able to ask questions we won't have to wait for a reply we will be able to get the quick answer and have a better understanding and be able to elaborate more being face-to-face…"	
TINA	"I would say traditional classroom cause I feel online you don't get that one-on-one; you can't really ask questions; you don't carry on a conversation as much as you want too; if you have a question you may be able to email them but not at the time you need; you just; it's just better in this area; I like the classroom." "I don't think that if you did it online that you would get the full effect. It's not more personal. It's not like you really can interact. I just feel like in the classroom it's just better and then we're teenagers and we're all over the place; we're young adults and we're tryna get there but I think	

	that being in personal is way better. You get the one-on-one focus more."	**Online Focus Group**	
		AUTONOMY	**MOTIVATION**
KAYLA		"… do it freely, whenever you have time to get it done."	
MIA		"yeah I agree with Kayla I prefer the online because sometimes you get bored sitting in the classroom so I mean like Kayla was saying it's better when you can do it like freely like when can do it whenever we want"	
MARSHA			"I prefer the classroom because sitting online I got bored and distracted and kept procrastinating and wasting time by doing other things when I coulda just sat there and did that. I feel as though me in the classroom, I know I will get it done and it will be done that day. Cause if I do it online it won't get done till 3 or four days later or when it suppose to be done that day"
MYRA			"I prefer the classroom. Cause online I forgot I had to do it for like three days in a row and I know in the classroom if I went there everyday I would remember to do the assignment"
KAYLA		"… do it freely, whenever you have time to get it done."	

	FACE-TO-FACE INTERACTION/COMMUNICATION	AUTONOMY
JANE	"I think the classroom works better because – like having you right there in front you like someone showing you it was a lot easier having to go on computer and try and read through something or just listen when you're in person you can ask questions and be involved in it"	
MIA		"I agree with Jane on that subject being in the classroom helps with the learning style but if I had the choice I would still do online because it gives me more freedom to do it whenever I want throughout the day but that's just me being lazy. I don't like classrooms. That's why I choose the online but I can agree on the classroom learning style cause I think it probably would be better to be in the classroom but me just being me, I choose online"
MARSHA	"I think that if you're a visual learning you should be in the classroom you should be face-to-face with the teacher so that you can get a better understanding of the concept. Cause if you're online you have to be able to put the pieces together and figure out yourself. Even though you're watching a video, it's visual, but still with that you have to think about ok how would the teacher explain it differently in the classroom"	
KAYLA	"I do like the online but like Jane said about asking questions. That's the only problem with online. Um I guess you could like email them but you might not get a response right away"	

	MOTIVATED TO LEARN NEW THINGS	LEARNING STYLE
KAYLA	"I was motivated because when I came to college I was really like I was interested in like finding ways to better my study skills um so I found it really interesting"	
MARSHA	"I like the way uh I was motivated to come to college and learn new things and open up my mind to new experiences and doing different things so STEP program I felt as though I was able to experience new things learn new things new ways to manage time"	
MIA		"When we did the time management portion of it, and we had to watch the video, I found like the things that we learned in the video very helpful like why we should be very time managementable, whatever the word is , you know what I mean. Um but I found a lot of that helpful cause usually I'm a disorganized person. I don't use planners I just go with the flow and I found that that makes my life more hectic like when it comes to work so If found that a lot of that tips in there very helpful."

Appendix H - Focus Group Questions

1. Did you feel the STEP Program helped to motivate you during your participation in the PACE program this summer? If so, in what ways were you motivated? If not, what could the program have done differently to motivate you?

2. Do you feel the STEP Program prepared you for your first year at IUP Punxsutawney? How?

3. Identify and explain three key concepts from the STEP program that you feel will help you in your first year at IUP Punxsutawney.

4. What is your preference for the delivery of future STEP sessions: traditional classroom sessions, or on line sessions? Why?