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# Motivating Allied Health Students to Successfully Complete Core Courses

Lisa Renee Trusclair  
*Walden University*

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Lisa Trusclair

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Walden University

2017

Abstract

Motivating Allied Health Students to Successfully Complete Core Courses

by

Lisa Trusclair

MA, Louisiana State University, 1990

BS, Louisiana State University, 1983

Project Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

July 2017

## Abstract

This project study addressed the problem of a decline in retention of students at a local allied health college. The need for allied health professionals is projected to exceed the availability by 2020, so it is important to identify strategies to help allied health students succeed. The purpose of this case study was to explore perceptions of students and faculty about motivating factors and learning strategies that foster successful progression in allied health programs. Ryan and Deci's self-determination theory, focused on the relationship between motivation and success, served as the framework for the study. Research questions addressed intrinsic and extrinsic factors that students and faculty identified as significant in motivating successful completion of core courses. Data collection included information from the college effective plan from the research site and face-to-face audio-recorded interviews with 10 allied health students and 5 faculty. Students were 18 years or older and enrolled in at least 1 core course in an allied health program; faculty taught at least 1 core course with at least 1 year of experience with allied health students. Interview data were analyzed through open coding to identify themes related to motivating student success in core courses. Significant motivating factors included improved quality of life (intrinsic) and a supportive learning environment (extrinsic). Motivating strategies for student success were active involvement in the learning process and hands-on learning. Findings from the study guided development of a 3-day learning community designed to support student success in core allied health courses. Positive social change may be impacted by motivating allied health students to succeed in order to meet the health care needs of clients.

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## Dedication

This project study is dedicated in memory of my mother, Marion Washington, who was called to her heavenly home on July 1, 2015. My mother was my motivator and chief supporter. She kept my son during the many years I spent in school and at work as I functioned as a single mother. I will always cherish the devotion and strength she demonstrated even in her last days here on earth. I am privileged to have been her eighth child out of nine living children. I will keep her love and faith alive in me as I complete the goals set before me. I too will reach around and let someone know that “all things are possible, if you believe.” I would also like to dedicate this accomplishment to my aunt, Mrs. Frances H. Harmason. You invested in my life at an early age and always made sure I had the best of everything a little girl should have. We miss your gift of music and your regal style of presentation in family matters and business. Your legacy lives on through the lives of others.

## Acknowledgments

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## Section 1: The Problem

### **Introduction**

The demand for health care professionals continues to increase at a rapid rate and will likely require more than 10 million additional professional positions by 2016 (Barfield, Folio, Lam, & Zhang, 2011). Allied health professionals are a unique group of health care professionals who provide significant services to patients, physicians, and nurses and are expected to experience a large growth in employment (Barfield et al., 2011). The need for more competent workers at the national and local level is greatly impacted by the *baby boomer* population (Barfield et al., 2011). The baby boomer population includes persons born between 1946 and 1964; these individuals will soon constitute 20% of the United States population (Barfield et al., 2011). According to the Institute of Medicine (IOM, 2005), the demand for allied health workers will exceed the availability of competent professionals by the year 2020. Therefore, local allied health schools are faced with the goal of promoting successful classroom experiences so students can succeed in programs of allied health. In this way, allied health students can make important contributions to the workforce by providing specialized services to individuals in both rural and urban communities.

The committee on Allied Health and Accreditation (as cited in American Medical Association, 2013) noted that approximately 28,000 full-time students and 87,000 part-time students enrolled in allied health programs across the United States in 2004-2005. However, the number of students who remained enrolled after the first year declined greatly. According to the committee report, 91.7 % entered their second year of study,

and only 78.1% were expected to complete their programs (American Medical Association, 2013). The committee report also noted variations in attrition rates based upon the type of institution. Academic health centers and medical schools had attrition rates of 7.1%, vocational and technical schools 24.3%, for-profit institutions 25.1%, and institutions owned by the federal government 21.1% (American Medical Association, 2013).

### **Definition of the Problem**

A local for-profit allied health career college in the southern region of the United States has experienced a decline in the retention of students who are unsuccessful with passing core courses to matriculate in specified programs of training. These programs are comprised of medical assistants, surgery technicians, pharmacy technicians, health care reimbursement specialists, and medical billing and coding analysts. The department of allied health requires students to complete core courses, which include anatomy and physiology, medical terminology, and medical law and ethics. Students enrolled in pharmacy technology and surgery technology who are unsuccessful with the first attempt of passing a core course have one additional opportunity to enroll in the course. Students in these two programs who do not pass core courses after the second attempt must withdraw from allied health programs, but they are allowed to enroll in other programs offered by the college. Students in medical assisting, health care reimbursement, and medical billing and coding are allowed to repeat a core course three times.

According to the director of allied health (personal communication, February 1, 2015), students lack the motivation to continue in allied health programs after failing to

pass core courses twice. Funding issues also prevent students from attempting to enroll in core courses a third time; these students eventually leave the college. Career counselors assist students after they have experienced failure in core classes and provide information regarding tutorials and skill building programs that could benefit students who remain in allied health programs. These counselors also provide information regarding alternative career paths of interest to students outside of the field of allied health (director of allied health, personal communication, February 1, 2015).

A gap in practice has been identified due to allied health students being actively involved with career counseling only after they have failed to meet the criteria of passing core courses. Prior to that, career counselors help students to enter into their program of choice without exploration of skill level, past experience, and a review of past academic performance. A huge effort is placed on enrollment specialists to meet the quota of enrollment for each academic program. Students are placed in programs with an expectation of being successful. However, evidence has shown that students lack motivation to continue in allied health programs after failing to meet the criteria of core courses. According to the allied health program director (personal communication, February 1, 2015), the allied health program and career counselors place more emphasis on the overall likelihood of student success prior to experiencing failure, students will receive proper guidance related to career paths and timely academic assistance and therefore be motivated to complete allied health programs.

This gap in practice could lead to increased academic frustration, diminished motivation to succeed in programs of allied health, an increase in the number of students

who withdraw from the college, and delayed opportunities to provide assistance to students at risk for failure. Motivating students who are considering withdrawing from school to achieve their educational goals and providing learning environments that enable them to become valued members of a health care workforce that provides services to people all over the world can promote social change.

According to the U.S. Bureau of Labor (2014), health care careers are among the fastest growing occupations and there is a need to increase the number of allied health professionals. There is also a need to find methods that reduce the attrition rates in allied health programs (Flores & Simonsson, 2012). There are 5 million allied professionals in the United States, which represents 60% of all health care workers (Association of Schools of Allied Health Schools, 2013). This number, however, is not proportional to the need for persons equipped to meet the current and future health care needs in America (Association of Schools of Allied Health, 2013). The increasing demand for health care workers to care for aging populations has placed a spotlight on the attrition rates of allied health programs (Flores & Simonsson, 2012).

### **Rationale**

#### **Evidence of the Problem at the Local Level**

The administration and staff at the local for-profit allied health college are concerned about the students who are not successful with mastering core courses and subsequently withdraw from the institution. According to the director of allied health (personal communication, February, 1 2015), pharmacy technology students and surgery technology students who fail to attain a grade of at least a C or better in a core course



after the second attempt receive career counseling and are not allowed to continue in the allied health field. Students in other allied health programs are allowed to enroll in a core course up to three times. The allied health director stated that no student has enrolled more than twice. According to the research site's college effective plan (CEP) from 2013, many allied health students choose to leave the school because funding becomes an issue if they need to enroll a third time. These concerns impact funding, employment of staff, and proficiency required by the standards of the Accrediting Council for Independent Colleges and Schools.

Core curriculum courses provide a foundation for a generalist health care professional as well as the discipline and technology-specific skills needed for related professionals. According to the IOM (2003), an allied health core curriculum supports the development of team-coordinated health care, enhances diversity and career mobility, and makes programs more cost effective. Core curriculum courses in allied health programs consist of basic life support, medical terminology, medical law, ethics, computer literacy, and science courses that include anatomy and physiology. The ideal core curriculum focuses on giving students both technical skills and a broad knowledge base.

According to the IOM (2003), a core curriculum promotes teaching interdisciplinary patient care, community health, and diversity, as well as fiscal, legal, and ethical responsibilities. Other benefits of a core curriculum include life-long learning, outcomes monitoring, research development, problem solving, critical thinking, and a strong science foundation (IOM, 2003). Students who are able to successfully complete core curriculum courses are able to easily move into more advanced programs or

transition to additional programs in allied health without repetition of courses (IOM, 2003).

The college began utilizing the CEP in 2013 to help identify students who were at risk for being unsuccessful as a result of poor academic performance, absenteeism, or personal life concerns that interfered with attendance. The CEP also outlined short-term and long-term goals to address the root cause of losing students and to assess the effectiveness of each allied health program. According to the 2013 CEP, a total of 15% of students withdrew from programs in allied health as a result of failing core courses. Ten percent of students who failed core courses withdrew from allied health programs after experiencing failure following the second attempt, while 5% withdrew after failing to pass following initial enrollment. The 2014 CEP indicated that 18% of students withdrew from allied health programs after failing to pass core courses following two attempts. Other students withdrew as a result of financial issues, child care issues, or work-related issues. According to the CEP of 2013 and 2014, no students enrolled in core courses more than two times.

The retention committee was established as a result of this effort and includes the campus president, program directors, academic dean, and director of allied health. According to the director of allied health (personal communication, February, 1 2015), some of the goals of the CEP are to decrease the number of students who withdraw from allied health programs, to provide resources for students who drop out due to child care or transportation issues, and to provide instructional trainings to improve teaching and learning strategies so students could succeed in core courses.

Retention information based on academic programs from the CEP for the first year utilizing the plan in 2013 and comparative data for retention rates in 2014 and 2015 showed changes of concern to the administration and staff. Table 1 includes the percentage of students who remained in programs at the end of 2013, 2014, and 2015.

Table 1

*CEP 2013, 2014, and 2015*

Retention Data	2013	2014	2015
Medical Assistant (Associate)	75%	71%	78.46%
Medical Assistant (Diploma)	71%	54%	62.72%
Medical Coding	74%	76%	76.92%
Pharmacy Technician	68%	63%	67.77%
Surgery Technology	68%	67%	76.19%

*Note.* CEP: College effective plan. This table indicates the percentage of students who remained enrolled in allied health programs at the end of the academic years 2013 through 2015 at the research site.

Researchers in a survey conducted by the American College Testing Center (ACT) collected data from 1,104 two- and four-year institutions across the United States that enrolled allied health students (American Medical Association, 2013). One of the components of the survey required respondents to rate factors that had the strongest effects on student attrition at community colleges using a 5-point scale. The factor with the greatest mean effect (4.3) was the level of student preparation for college-level work. Student study skills and adequacy of personal financial resources both had a mean effect of 4.1. The level of commitment to earning a degree had a mean effect of 4.0. Student

motivation to succeed and family responsibilities had a mean of 3.9. Other factors included level of job demands on students and student socioeconomic status which both had mean scores of 3.8.

According to the director of allied health at the research site (personal communication, February, 1 2015), the characteristics from this ACT study that impact the community college were ranked in order of significance based upon information from the CEP. These characteristics include

1. a lack of motivation following failure to succeed in core courses,
2. student study skills,
3. level of job demands of students, and
4. family responsibilities.

The administration is concerned about providing solutions to problems that affect retention in allied health programs.

### **Evidence of the Problem from the Professional Literature**

According to Maurer, Allen, Gatch, Shankar, and Sturges (2012), few researchers have focused on what motivates the allied health student population. While researchers have studied the impact of students' sense of community on factors such as course satisfaction and retention, there has been little research on the concept of motivation among allied health students (Haar & Scanlan, 2012). Learning in allied health courses requires students not only to critically examine novel details within particular subjects, but also to relate those details to their level of understanding (Good, Ramos, & D'Amore, 2013).

Both faculty and students consider core courses such as human anatomy and physiology to be difficult (Maurer et al., 2012). Maurer et al. (2012) examined the success rates of allied health students enrolled in an anatomy and physiology class and found as many as 50% of the students failed to earn a grade of at least a C or better. Students were encouraged to retake the course, change their majors, or drop out of school. Instruction involving medical terminology is closely related to core requirements of anatomy and physiology, and according to Williams (2014), the fundamental understanding of both subjects is critical for students in health science courses. Therefore, taking a closer look at the development of effective teaching and learning strategies that promote success is paramount (Williams, 2014). Increasing student autonomy within and outside of the classroom usually increases student motivation toward the subject matter (Good et al., 2013). According to Good et al. (2013), students' perceptions of curricula, teaching methods, and assessment tasks create the educational environment and the context of learning.

The overall purpose of this study was to describe the perceptions of allied health students in terms of intrinsic and extrinsic motivating factors. In addition, the study was designed to identify learning strategies that would motivate students to learn and increase their success rates of passing core courses.

### **Definitions**

*Allied health professionals*: Individuals who have received an allied health professions degree or certificate from an institution of higher education. (Demo, Fry, Devine, & Butler, 2015).

*Amotivation*: The state of lacking the intention to act or engage in a specified activity (Ryan & Deci, 2000).

*Core courses*: A set of courses that are considered basic for future class work and graduation (Maurer, Allen, Gatch, Shankar, & Sturges, 2012).

*Extrinsic motivation*: Behavior that is rewarded by external rewards such as financial gains, grades, and verbal praise. This type of motivation is generally from outside sources (Froiland, Smith, & Hirschert 2012).

*Intrinsic motivation*: Motivation that comes from within an individual and is related to specific levels of effort and task preference for challenging situations (Froiland, Smith, & Hirschert (2012).

*Retention*: The students' entry, consecutive enrollment, and successful completion of a program of study (Flores & Simonsson, 2012).

### **Significance**

The U.S. Bureau of Labor Statistics anticipated that the health care and social services sector of the workforce of the United States will expand by 2.6% annually between 2012 and 2022, adding 5 million new jobs. According to Demo et al. (2015), allied health professionals represented 60% of the health care workforce as of 2015. However, there is a projected need for millions of new workers due to the anticipated growth of the aging population. The United States population total for persons 65 and older was 41.4 million in 2011, and this number is expected to double by 92 million by 2060 (Demo et al. 2015). The demand for many allied health care professionals is expected to increase as hospitals and health systems move to innovative care delivery

models that require individuals to engage in care coordination, quality improvement, greater use of electronic medical records, and health information exchange (Healthcare Association of New York State, 2013).

The shortage of allied health workers will present a major health challenge to both rural and urban areas of the United States. Therefore, training additional allied health professionals is a primary focus of this local school as well as postsecondary schools across the United States (Barfield et al., 2011).

### **Research Questions**

Students at a local for-profit allied health college lacked motivation to continue their programs when they did not successfully meet the requirements of core courses. The CEP revealed that many of the students had transferred from other colleges after unsuccessful matriculation in allied health studies. Successful outcomes reflected the efforts of students, instructors, and the administration. The impetus for success included identifying and perpetuating motivating factors that led to successful completion of core courses. I used the project study to determine the instructional strategies that supported successful learning outcomes.

The research questions guided me in exploring the concepts of motivation and success in Ryan and Deci's (2000) self-determination theory (SDT). According to Ryan and Deci, the benefits of motivation to learn included broader measures of success such as improved psychological well-being and future success. The questions were designed to promote an understanding of how intrinsic and extrinsic motivation supported success in

passing core courses and completion of allied health programs. Motivated students were prepared to contribute to the betterment of society (Ryan & Deci, 2000)

The following questions guided this case study for the investigation of allied health students' and faculty's perceptions of factors that impacted motivation and the development of learning strategies that promoted successful completion of core courses.

1. What intrinsic factors did allied health students and faculty identify as significant in motivating successful completion of core courses?
2. What extrinsic factors did allied health students and faculty identify as significant in motivating successful completion of core courses?
3. What learning strategies did allied health students and faculty perceive as helpful in promoting active learning and motivating successful completion of core courses?
4. What instructional strategies were perceived by allied health students and faculty as effective in fostering successful completion of core courses?

The research questions allowed students and faculty to provide information that assisted in discovering goals that contributed to social change. The research questions were designed to allow students and faculty to contribute ideas regarding instructional strategies that promoted successful learning environments.

### **Review of Literature**

I explored studies related to the conceptual framework, as well as the concepts of intrinsic and extrinsic motivation in the literature and the effect constructs have on student achievement. The administration and staff at the local college were very



concerned about the number of allied health students who failed to successfully pass core courses. Students were not motivated to remain at the college after failing to achieve the necessary requirements to complete allied health programs. This concern had an impact on the morale of students and faculty. The purpose of this project study was to explore the perceptions of allied health students and faculty about motivating factors and learning strategies that fostered successful completion of allied health programs.

I searched the literature to identify studies that provided a background for understanding the problem and then focused on studies specifically related to a gap in practice of motivating allied health students to successfully complete their program of studies. In this literature review, I have first addressed the conceptual framework for the study. The remaining literature review was focused on projections for allied health professions in the workplace, national concerns regarding college completion rates, minimizing attrition, supporting retention efforts, motivating allied health students, building rapport in the classroom, building a sense of community among allied health students, and supporting learning needs. The following databases were selected to locate scholarly peer-reviewed publications on the research topic: ERIC, CINAHL, PubMed and Education, Medline, and ProQuest. The following key words were used: *allied health professionals, allied health, motivation, retention, attrition, success community, rapport, instructional strategies, and active learning.*

### **Conceptual Framework**

I used the SDT as a framework for the study. According to Ryan and Deci (2000), the SDT examines psychological needs directly related to an individual's need for self-

motivation. Personal integration for the human spirit can be either supported by success or diminished or crushed by unsuccessful experiences (Ryan & Deci, 2000). SDT explores factors that enhance intrinsic motivation, self-regulation, and well-being. According to Ryan and Deci, SDT concerns human motivation, personality, and optimal functioning and satisfying three basic psychological needs: the need for competence, relatedness, and autonomy. Competence refers to the desire individuals have to control their environment and specific outcomes. According to Ryan and Deci, individuals have an innate desire to experience success in their endeavors. Relatedness refers to the need to interact with and be connected to others in a caring matter, while autonomy does not mean being independent but instead refers to having a sense of free will when doing something or acting out individual interests and things that are valued. According to Ryan and Deci, autonomous motivation deals with both intrinsic and extrinsic motivation and involves people integrating the value of an activity within a self. The need for autonomy and competence is linked to people's motivations, and social environments can facilitate and enable growth or disrupt growth essential to the human experience (Ryan & Deci, 2000).

Ryan and Deci's (2000) research suggested that students who actively participate in the learning process and feel a sense of belonging (community) are highly motivated to achieve success as it relates to both intrinsic and extrinsic motivation. Kiener, Green, and Ahuna (2014) posited that affective learning pertains to student intrinsic and extrinsic motivation, methods students used to interact with content, and how they integrate information. When students have a more active role in learning opportunities, they have

the ability to progress from passive recipients of knowledge to active consumers of knowledge (Kiener et al., 2014).

The literature review includes information related to the increased demand for allied health professionals, national concerns regarding college completion rates, minimizing attrition, and supporting retention efforts of allied health students. It also includes information on learning strategies that supported achievement, such as motivating allied health students, building rapport in the classroom, building a sense of community among allied health students, and supporting learning needs.

### **Allied Health Professionals**

According to the U.S. Bureau of Labor (2014), allied health care careers were ranked among the fastest growing occupations, and there is a tremendous need to increase the number of allied health professionals. The need for allied health professionals is paramount due to the high demand based upon the aging population and health care reform associated with the standards of the Patient Protection and Affordable Care Act (Demo et al., 2015). According to Demo et al. (2015), the increased demand for all allied health professions will outweigh the supply and there will continue to be a deficit in the workforce.

As of 2006, there were over 1,000 educational programs in the United States for allied health professionals nationally that enrolled over 30,000 students annually (U.S. Bureau of Labor Statistics, 2006). Allied health professionals generally attended a minimum of a 2- to 4-year educational program at a community college or university. Allied health students completed programs leading to a diploma or certificate of

completion. The IOM (as cited in Demo et al., 2015) determined that older adults would soon comprise 20% of the United States population and be in need of health care that addresses many chronic conditions. Therefore, shortages of allied health care workers present a major challenge to both rural and urban communities (Demo et al., 2015). According to Demo et al. (2015), the initiative to address this shortage must be met by training additional health care professionals in programs of higher education. This literature clearly indicated that the need for allied health workers was a concern on the state and national levels. Policy makers were taking a close look at factors that must be addressed to support meeting the supply and demand for allied health professionals. It is important for educators to understand factors related to successful completion of programs of study.

### **National Concerns Regarding College Completion**

The degree completion rate in U.S. postsecondary institutions is of great concern due to the large percentage of students who enter colleges and universities and do not graduate (Johnson-Ahorlu, Alvarez, & Hurtado, 2013). According to Johnson-Ahorlu et al., the high rate of withdrawal from higher education can be a contributing factor of concern regarding the ability of the United States to compete in a global setting and remain competitive in graduating competent individuals who become a part of the workforce. Increasing the national college completion rate was a major concern for President Obama, who had pledged to take the United States by 2020 from ranking 12<sup>th</sup> place to first place among countries with the most college graduates (Johnson-Ahorlu et al., 2013).

Students persisting to completion of their educational goals is a fundamental gauge of student and institutional success (Horn, 2006). Policy makers at both state and federal levels have specific requirements for reporting retention and graduation statistics. They have considered using this information as a way to measure institutional effectiveness and determine levels of state and federal support. According to a report by the National Center for Education Statistics (as cited in Horn, 2006), there are some institutions serving large diverse and economically disadvantaged populations that have outperformed institutions enrolling higher income populations. This suggests that student success may be more a function of institutional commitment than high ACT performance levels of its students (Horn, 2006). High retention rates signify a college's realization of its mission; low graduation rates and high attrition rates expose institutional problems in meeting the needs and expectations of its students and represent a symbolic failure to accomplish institutional purpose (Horn, 2006).

One of the important factors impacting college completion involves reducing the rates of attrition. Student attrition appears to be a concern for various stakeholders within every educational context. Taking a look at how to minimize attrition is paramount to the goals of college completion. For this study, a focus on minimizing attrition of allied health students is particularly important.

### **Minimizing Attrition of Allied Health Students**

Flores and Simonsson (2012) investigated academic achievement in college as a function of high school achievement, performance, aptitude, and proactive measures by students. Park, Berry, and Edwards (2011) noted the significance of proactive measures

focusing on traditional classroom learners and online learners. Park et al. also reviewed strategies to ease the reintegration of students who had withdrawn but decided to return to their studies. Both Flores and Simonsson and Park et al. agreed that attrition requires proactive interventions that support matching learning styles to course design, encouraging social interaction, mentoring, providing progress reports, utilization of student success centers, and regular student contact with instructors to decrease feelings of isolation while attempting to achieve success in allied health programs.

Potacco, Chen, Desnoches, Chisolm, and Young (2013) investigated extrinsic motivation by conducting a study of 311 students enrolled in nine sections of basic anatomy and physiology using a coupon incentive program to motivate students to seek academic intervention early in the semester before they were in academic jeopardy. Students were required to sign a study group sign-in sheet and a lecture tutoring coupon. Student names were placed into a database to provide professors and staff with information regarding student attendance (Potacco et al., 2013). The redemption value of each coupon point was 1 extra point for purposes of the study. Extra points could be added to an exam, which would inflate the total value up to 106%. Each study session consisted of 1.25 hours of student participation and students redeemed their coupon points at the end of each cycle (Potacco et al., 2013). Student outcomes were determined by exam scores, exam averages, or final grades. Exam scores and averages did not include extra points exchanged for coupon points. Extra points were included in the final grade earned by the student at the end of the semester (Potacco et al., 2013). Findings of the study indicated that student attendance increased by 139% since the incorporation of

the coupon incentive program. A carefully designed rewards program in academic support could be very successful in motivating students to increase efforts toward success, persistence, and positive academic outcomes in difficult courses (Potacco et al., 2013). A concern of this study would be overinflation of student outcomes with the addition of extra points. The coupon program could be used as a motivating tool as long as it did not present unrealistic values of student achievement.

According to Hirschy, Bremer, and Castellano (2011), when students drop out of programs, their seats remain empty. Consequently, there are fewer certified professionals prepared to enter the workforce. State and federal governments have focused on improving student retention and completion of programs in all forms of higher education in an effort to increase the skills of the workforce and to better meet the challenges of the economy (Hirschy et al., 2011). The ACT provided a report for the American Medical Association (2013) that listed three practices with the greatest contribution to retention. These practices were mandated placement in courses based on test scores, tutoring, and required/remedial or developmental coursework. It would be helpful to have students evaluated closely upon admission so that those who were deemed to be at risk based upon test scores and academic history could receive timely interventions to support successful matriculation in allied health programs.

Tinto (1975) developed one of the first models for studying student attrition and persistence in higher education. Attrition was defined as a significant process of interactions between the individual and the academic and social facets of a college that involve modifying goals and commitments that could lead to varying forms of dropout

rates (Tinto, 1975). According to Bennett (2003) and Schneider and Yin (2011), attrition involves concerns for any type of educational program due to the costs that may arise with respect to time, resources, and tuition expenses for students. Tinto (1993) focused on attrition of nontraditional adult students at community colleges and discussed the need to address attrition based upon the development of institutional policies and not just reflect on academic affairs. According to Tinto (1993), the job of improving retention should be a primary focus of the institution, followed by a desire to provide a quality education. The institution as a whole should be involved in helping students to succeed. There is a great need for the administration and faculty to develop policies and procedures that incorporate actions that support the longevity of student enrollment in colleges. Bean and Metzner (1985) used Tinto's (1975) model to address retention as it related to their conceptual paths model. Variables that may impact attrition, such as academic performance, intent to leave, high school grade point average, college goals, and environmental factors were investigated among nontraditional students who were 25 years old or older. This study focused on how factors related to attrition involved school experiences and the environment each student came from. According to Bean and Metzner, this model posited that favorable academic and environmental factors lead to persistence of academic pursuits.

Donini-Lenhoff and Brotherton (2010) noted that allied health professionals are having difficulty making their workforces reflect the unique diversity of the U.S. population as a result of lower enrollments and higher attrition rates among minority students. Data based on enrollment and attrition by race and ethnicity showed a continued



decline in representation of minority students in allied health educational programs (Donini-Lenhoff & Brotherton, 2010). Greater rates of attrition were noted at for-profit schools when compared to other types of institutions. Donini-Lenhoff and Brotherton cited a study in which the American Medical Association collected data from an online survey of accredited health professions education programs related to enrollment, attrition, and graduation. For 26 professions, 3,042 of 3,643 programs (83.5%) responded to the 2006-2007 survey. Of these 3,042 respondents, 2,049 (56.2%) provided student data by race and ethnicity. During this period, the percentage of African American students enrolled increased to 16.1 % (10,110), 5,492 students were Hispanic (8.7%), and 2,754 enrollees were Asian and Pacific Islander (4.4%). The authors compared attrition rates for 1989-1990 and 2006-2007. Compared to 1989-1990, the attrition rates in 2006-2007 declined for all institutions except for-profit institutions. In 1989-1990 attrition at for-profit institutions was 23.2% for White students, 36.0 % Black students, 20.3% Hispanic students, and 21.7% for Asian or Pacific Islander students. In 2006-2007 the rates were 25.3% White students, 32.7% Black students, 23.1% Hispanic students, and 15.2% for Asian or Pacific Islander students (Donini-Lenhoff & Brotherton, 2010). The researchers concluded that attrition declined due to the vast number of minority students experiencing financial hardships while attending for-profit institutions. According to Donini- Lenhoff and Brotherton, the burden of financing an education in the health professions has created a hardship for many underrepresented minority students. In an effort to assist with the attrition issues, the authors suggested actions such as mentoring,

counseling, and academic and financial assistance during both pre- and postadmission activities at private, nonprofit, and for-profit institutions.

Successfully retaining students in allied health programs is a concern of for-profit, nonprofit, and private institutions across the United States. This initiative involves the efforts of the institution and includes the administration and faculty. Retention efforts are important in order to support students who remain enrolled and complete allied health programs.

### **Supporting Retention Efforts**

According to Tinto (2006) over four decades of work on retention can support an understanding of looking at not just why students leave, but what institutions can do to help them remain in school and succeed. Effective policies are needed to assist having all students enrolled in programs to complete them. Tinto (1993) described the first principle of effective retention programs as an “institutional commitment to students” (p. 1) that surfaces from the mission of the institution. A useful model of institutional action would involve layers of specific programs and practices that provide support for faculty and staff directing those programs. Tinto (2006) stated that two key areas of exploration beneficial to retention include the effects of classroom practices on student learning and the impact of institutional investment on faculty and staff development programs related to those outcomes. Tinto (2006) also discussed the importance of implementing practices that have been planned and aligning reward systems to the goals of enhanced student retention.

Moore and Fetzner (2009) stated that two commonalities among institutions that achieved high completion rates included having a leadership culture that fostered a commitment to student success and institutional policies and practices that incorporate student support services and technological support. Efforts towards increasing retention efforts focused on faculty satisfaction. When faculty were active participants in curriculum design and students were engaged in learning experiences that expanded beyond traditional lectures, students perceived learning as a valuable experience. For decades, retention experts have claimed that an institution's ability to document student success and recruit new students were closely related (Pascarella & Terenzini, 2005; Tinto 1993). The success of an institution and the success of its students are inseparable (Levitz & Noel, 1998). According to Levitz and Noel (1998), retention activities should focus on providing a campus environment where students successfully complete the goals of programs of study, earn their credentials, and graduate from an institution.

Levitz and Noel (1998) identified 10 elements of successful retention programs: (a) collecting, compiling, and analyzing retention data and research, (b) implementation of early identification/alert and intervention strategies, (c) commitment to front-loading and progressive responsibility philosophies and strategies, (d) concentrate energies on the importance of the teaching and learning process, (e) emphasize a deliberate strategy of student engagement and involvement, (f) address students' affective as well as cognitive needs, (g) create programs and services based on meeting students' individual needs and differences, (h) develop a student-centered institution, (i) monitor on a systematic basis-

student expectations, and levels of satisfaction, and (j) establish and organizational mechanism of life and learning issues and an institutional change process.

Retaining students in allied health programs involves understanding the perceptions of motivating factors that will keep them enrolled in their field of study. Motivation involves understanding the relationship of both intrinsic and extrinsic factors as they relate to student success.

### **Motivating Allied Health Students**

Ryan and Deci (2000) designed the SDT, which examines human motivation, personality, and optimal functioning. Self-determination postulates that the human spirit can be supported by success or diminished or crushed by unsuccessful experiences. According to Ryan and Deci, the two types of motivation are autonomous and controlled. Autonomous motivation deals with both intrinsic and extrinsic motivation and integrates value from within “self” while controlled motivation is based on external factors and is impacted by contingencies such as rewards or punishment (Ryan & Deci, 2000). People seek to satisfy the need for competence, relatedness, and autonomy (Ryan & Deci, 2000). Competence refers to the desire to control and master the environment and outcomes, relatedness refers to the need to interact with or experience caring from other people, and autonomy implies the sense of freewill when doing something of interest and value (Ryan & Deci, 2000). According to Ryan and Deci, social environments can facilitate and enable growth or disrupt the process of growth and productivity.

Student motivation is a vital determinant of academic performance and achievement (Griffin, Mackewn, Moser, & Van Buren, 2013). According to Griffin et al.,

motivation should be focused on as a continuum involving intrinsic motivation, extrinsic motivation, and *amotivation*, defined as the absence of intention and motivation.

However, Griffin et al. posited that the most influential study skill that promotes positive academic performance is intrinsic motivation. Maurer et al. postulated that instructors can influence student motivation on extrinsic levels such as attendance policies, in-class assignments, and other activities but have very little or no control over students' intrinsic motivation. Froiland, Smith, and Hirschert (2012) supported the significance of intrinsic - motivation, extrinsic motivation, amotivation, and the concept of autonomous motivation. According to Froiland et al., students functioning from a perspective of autonomous motivation seek to learn more about a subject of interest both in and outside of school because they find enjoyment and deep sense of fulfillment in learning. Autonomous motivation is enduring and directly related to academic success and psychological well-being (Froiland et al., 2012). Brooks and Young (2011) supported the notion that student motivation is an important precursor to learning and a meaningful aspect of a successful classroom experience which supports the aspect of successful environments suggested by Ryan and Deci (2000).

Intrinsic motivation promotes an innate belief in one's ability to be successful. Extrinsic motivation supports the exterior framework of consistently being able to pursue goals despite setbacks and hardships. Both types of motivation are significant to success. The relationship of success and motivation denotes a two-way dynamic of student and teacher contributing to finding successful career paths. Research supports the fact that motivation is a driving force that is capable of propelling students to success.

Engle and Tinto (2008) reported that over 4.5 million first-generation students were enrolled in postsecondary schools in the United States. These researchers noted that first-generation students were more likely to be older, married, have children, be employed, attend on a part-time basis, and not be involved with college activities. Intrinsic and extrinsic motivation among first-generation students was studied by Petty (2014). Petty defined first-generation students as students who were first in their families to attend college or someone whose parents had not completed college. Petty reported that in a longitudinal study conducted by the National Center for Education Statistics (NCES) from 1992 through 2000, 43% of first generation students enrolled in postsecondary institutions left college and did not earn a degree. Petty stated that institutions play an important role in motivating students by understanding both intrinsic and extrinsic factors that motivate students to remain in college and complete their programs of study. The creation of bridge programs that link higher education to secondary education was suggested to provide an educational pathway to help first-generation college students overcome inadequate preparation for college (Petty, 2014). The primary challenge concluded from the study done by Petty was motivating first-generation students to devote sufficient time to achieve academic success and completion.

Motivating students to succeed in allied health programs is dependent upon the relationship with the institution, administration, and faculty. Relationships are strengthened by communication and creating an atmosphere of trust. Developing rapport is a critical aspect of building trust.

### **Building Rapport in Allied Health Classrooms**

Webb and Barrett (2014) explored positive learning outcomes associated with rapport building in the classroom and determined that it was an essential component of a positive classroom experience. Gibson (2011) agreed with Webb and Barrett on the significance of rapport building as it related to an on-going process good instructors always pursue as they engage students in the learning process. In support of building rapport, Starcher (2011) reflected on positive outcomes of personal experiences of building rapport, such as classroom discussions which flowed with ease, student engagement both inside and outside of the classroom, awareness of various learning styles, and the opportunity to provide experiences which motivated students toward successful classroom experiences.

Students tend to function well when they are in an environment that places them at ease and supports individual learning styles, such as those who retain information from a visual perspective, auditory, or kinesthetic-tactile methods of instruction. A core curriculum could be substantiated by teaching strategies that encompass all learning styles in order to enable students to experience better learning outcomes. Trusting relationships can be nurtured through successful learning communities. In learning communities, students and faculty work together to accomplish common goals that promote success.

### **Allied Health Learning Communities**

Johnson (2014) discussed the significance of creating and maintaining learning communities to decrease student attrition in health care courses. According to Johnson,

learning communities would minimize the lecture teaching format while encouraging critical thinking, enhancing, student comprehension, and successful transitions among academic courses required for allied health students. Haar and Scanlen (2012) discussed how the formation of learning communities was positively associated with motivation, academic self-efficacy, and persistence. They noted that creating learning communities has a great impact on achievement, interactivity, and retention. O’Keefe (2013) supported the concept of community as it related to creating a sense of belonging and as a critical factor in determining student retention. Pearson (2012) noted that students who felt they were cared for were more likely to perform to the best of their ability and remain committed to their educational goals. Bruner (1996) discussed how learning communities addressed the need for students to deal with complicated issues, problem solve, communicate, work with people from diverse backgrounds, and share what they learn with other students. The goal of a learning community was to foster a culture of learning where students as a whole are learning how to learn and individuals share individual efforts towards a deeper understanding of the subject matter (Bruner, 1996).

Learning communities reinforce a sense of “purpose and commitment” to the academic and personal goals established upon enrollment. The impact of a learning community is critical in terms of retention and involves efforts of the institution and the administration as a whole. Promoting success involves exploration of instructional methods that support a student’s commitment to succeed. According to Girves and Wemmerus (1988), the stronger a student’s commitment to the idea of earning a degree, the better his or her academic performance.



### **Supporting Learning for Allied Health Students.**

According to Drago-Severson (2011), supporting learning for allied health students has a direct and positive influence on increasing student achievement. Theories, research, and models that embrace active engagement, modeling, reflection, metacognition, application, and feedback support learning needs (Drago-Severson, 2011). Cho and Karp (2013) determined that students enrolled in a success course in their first semester were more likely to do well in community colleges. The course is useful for students who are new to the college experience and provides them with useful information about the institution, program of study, assistance in academic and career planning, and techniques to improve study habits.

The findings of Murnane and Willet (2011) supported the importance of student engagement in learning and that strict content delivery, or what was previously considered “sit and get”, has different effects on students than when they are actively engaged in the learning process. Their findings suggested that learning through the mode of lectures could be enhanced with interactive learning that involved student participation.

Petty and Thomas (2014) addressed the significance of understanding how personal barriers such as employment, child care, health crisis, financial troubles, legal dilemmas, or transportation issues could have an impact on the support required for learners to experience successful learning experiences. Goddu (2012) noted that when instructors assume the role of facilitator, adult learners are empowered, self-directed, and internally motivated in the learning experience. Liu, Lin, Jian, and Liou (2012) supported

the notion of using creative activities in the classroom to influence outcomes and improve individual performance. As students utilize creativity in learning basic skills, they demonstrate confidence in their abilities to complete tasks (Liu et al., 2012).

Groenendijk, Janssen, Rijlaarsdam and van den Bergh (2011) explored the concept of using creativity to enhance learning environments and agreed with Drago-Severson (2011) on the use of modeling in the classroom to support student learning. Ten Cate (2012) supported the notion of the effectiveness of utilizing feedback to promote successful student learning but postulated that feedback (when used inappropriately) might not support the principles of the SDT. These findings indicated that instructors utilizing feedback must point out the strengths of student performance as well as the weaknesses. This notion supports building intrinsic motivation by appropriate communication and appealing to the ability of a student while assisting to strengthen weaknesses in a caring manner. Kiener et al. (2014) explored the role of a comfortable environment in creating an atmosphere where students felt secure in the classroom and actively engaged in the learning process. According to Kiener et al., when students perceived communication from instructors to be supportive in nature, positive outcomes were noted regarding student achievement.

Starcher (2011) reflected on the outcomes of engaging students inside and outside of the classroom, understanding learning styles, and the relationship of motivation to success in the classroom. Plush and Kehrwald (2014) viewed successful learning as the result of building understanding through exploration, observation, and experience. Reed, Schifferdecker and Turco (2012) explored an individualized strategy such as the use of

personal learning plans which also embodied the aspect of creativity as discussed by Liu et al., (2012).

Personal learning plans are based on the objectives of SMART goals and according to Reed (2012), experimental work has shown that performance is higher when a specific goal is determined and clarified rather than when the goal is more general. Evaluation of one's progress provides the learner with feedback regarding attaining learning goals (Reed, 2012) Goals, commitment, and performance have been found to be based on the commitment to meet the goal, and timeliness has been found to be an important attribute of goal attainment (Reed, 2012).

Hirschy et al. (2011) posed suggestions to assist with supporting learning that included providing students with high-quality resources such as computers and white boards, interactive classroom instruction, professional development opportunities that encourage instructors to establish positive relationships, and taking steps to ensure that course scheduling meets the needs of students. This consideration of student schedules would assist with enrollment of students in complex courses which require a great deal of focus and other courses which may not require as much study and preparation. Therefore, students would be able to take core courses with elective courses in their program and not be enrolled in more than two core courses at one time.

Troen and Boles (2010) investigated the concept of teacher teaming. This idea increased collegiality, facilitated the sharing of resources and ideas, and served as an avenue toward supporting professional development that can lead to increased student achievement. According to Troen and Boles, the goals of teacher teaming are to improve

teaching and learning. Teacher teaming is based upon the principles of task focus, leadership, establishing structure, creating a collaborative atmosphere, and personal accountability among professionals (Troen & Boles, 2010). Task focus reflects the team's well-defined goals that focus on improving student learning. Leadership encourages all team members to value the instructional expertise of each other. The team works as a unit in determining the goals of all students and shares the resources necessary to achieve these goals. Collaborative climate allows teacher teaming to promote an environment that generates trust, communication, and synergy. Personal accountability places an expectation of performance improvement for both the team and the individual.

The literature review by Troen and Boles (2010) emphasized that institution and academic staff are viable cohorts of learning communities that can influence success among allied health students. Moreover, instruction must not only incorporate lectures but also provide active learning experiences that allow students to participate as they engage core curriculum. The idea of offering a student success course (Cho & Karp, 2013) would be beneficial to the local institution as it supports proactive measures to enhance success that begins with initial enrollment. The institution has mechanisms in place that support students after they experience failure in core course. A success course may prove helpful in supporting academic outcomes and aspects of retention.

Student involvement in identifying learning strategies can support motivation to succeed in core courses and the achievement of life-long goals which embrace allied health professions. The literature review supported understanding how the importance of

motivating students to remain in school and complete allied health programs is paramount to local communities as well as the global workforce.

The literature reviews by Troen and Boles (2010) and Cho and Karp (2013) supported the significant need to train competent allied health professionals. Efforts to understand how both intrinsic and extrinsic factors impact motivation are critical to student achievement. Although studies substantiated the problem of attrition of college students, there were few studies that focused specifically on motivating allied health students and no studies were identified that focused on the problem of allied health students' lack of success in core courses. This project study will build on findings of the literature to gain an understanding of allied health students' and faculty's perceptions of factors that impact motivation and the development of learning strategies that promote successful completion of core courses.

### **Implications**

A large body of literature supports the need to successfully train allied health students and equip them to become vital members of the health care workforce. (Demo et al., 2015; U.S. Bureau of Labor, 2011). Therefore, creating learning environments that promote success are paramount to the outcome of this goal. This study may provide direction for exploring the role of career counselors in identifying at-risk students upon admission using standardized test scores and reviewing academic history, establish best practices for interventions such as tutoring or remediation when academic needs are identified upon admission, and explore initiatives that can be put in place by the administration to support motivation based on student perceptions. The study might also

enhance ideas regarding learning strategies that could support active learning in core classrooms and provide alternative instructional methods that expand “lecture only” instruction. The study may also explore the role of the institution and academic staff in establishing learning communities that promote success among allied health students by creating a sense of purpose and belonging.

This project study was designed to understand the perceptions of faculty and students regarding intrinsic and extrinsic motivating factors that would motivate them to successfully pass core courses. Findings may have implications for several possible project directions. One anticipated project was assisting instructors to develop a student profile template that allows students enrolling in allied health programs to describe whether they learn best as visual, auditory, or kinesthetic learners, describe what motivating factors are significant to learning, and describe an instructional technique that aids in successful learning. This project would allow students to become actively involved with the direction of teaching/ learning by providing a brief profile to guide instructors as they navigate core courses. The development of the student profile template would be guided by Ryan and Deci’s SDT and concepts of pre-clinical learning style modalities (Good et al., 2013). The student profile template may enhance information gathered upon initial enrollment by identifying specific learning needs of allied health students.

Another potential project was introducing technology tools that complement traditional lectures and involves students actively participating in classroom learning (Murname & Willet, 2011). Students could learn to utilize technology to support learning

by assisting instructors to create teaching modules, blogging, utilizing ipads, and whiteboard activities. Students can utilize on- line study tools that reinforce information taught in class.

A third potential project would be to assist in developing an allied health community of learners (Haar & Scanlen, 2012). This activity would involve creating a group of faculty and students working on a common goal of promoting successful matriculation of core courses. Faculty could volunteer to serve as mentors for allied health students and provide sessions that include tutoring in core courses.

Based on findings of the study, I designed a project to support the concerns of both faculty and students regarding the need for a “collaborative community” among allied health programs. Each program operates based on its educational mandates with noted differences reflected by the number of times a student can repeat a core course and the specific requirements students must meet to graduate. Students in pharmacy technology and surgery technology can repeat a core course only one time. Students in medical assisting and medical billing and coding can repeat a core course three times. Curriculum guidelines require the students to matriculate through similar courses and cover materials that have specific similarities in terms of content. Therefore, one of the concerns among faculty and students was the provision of cohesiveness among coursework as the students matriculated from anatomy and physiology to medical terminology and vice versa. Johnson (2014) discussed the significance of creating learning communities that would minimize strict environments that utilize only lecture based learning. A focus of the project would be to promote a sense of cohesion among

allied health programs through the development of learning communities, provide ideas that would stimulate critical thinking, and promote active involvement in the learning process by using models and demonstrations. Also, the project would provide students with many simulations of real- life experiences related to their program of study. Another important aspect of this project is to support faculty and student relationships through joint town hall assemblies and activity forums. The project will also provide specific examples of ideas to enhance both intrinsic and extrinsic motivation and support learning strategies that promote successful transition from one course to another by emphasizing the common threads of each curriculum.

### **Summary**

The need to provide successfully trained allied professionals is significant at the local and national level. Motivating students towards success involves the efforts students make as a result of intrinsic and autonomous motivation (Froiland et al., 2012). However, the instructors, along with the institution, have specific roles to fulfill related to extrinsic motivating factors. Combined efforts to create supportive learning and the exploration of strategies that enhance successful learning outcomes will aid in producing successful allied health students. Retention efforts encompass concerns of allied health students at for-profit, non-profit, and private institutions throughout the United States (Tinto, 2006). These concerns take into consideration environmental and educational factors that include financial hardships that impact successful completion of college programs. Initiatives to increase successful allied health students will positively impact social



change by increasing the number of health care professionals able to serve diverse populations all over the world.

Section 2 consists of the methodological approach and design of this project, data collection techniques, data analysis procedures, and findings. The methodology includes the reasons for design selection, information regarding the sample, accessibility, and establishment of relationships. Data collection details the instruments used and process of data selection. A discussion of data analysis includes procedural details and credibility aspects. Section 2 also describes the participants, role of the researcher, and the significance of discrepant data.

## Section 2: The Methodology

### **Introduction**

The administration and staff at the local college that served as the research site for this project study were greatly concerned about students failing to pass core courses in allied health programs. The purpose of this project study was to explore the perceptions of allied health students and faculty about motivating factors and learning strategies that fostered successful completion in allied health programs.

According to Lodico, Spaulding, and Voegtle (2010), a qualitative case study research design provides an opportunity to gain insight into and an in-depth understanding of an individual, group, or situation. This design supported the exploration of the perceptions of allied health students and faculty regarding motivation to complete core courses and the discovery of learning strategies participants perceived to be helpful in completing allied programs. This design supported exploring a problem and developing a full understanding of a central phenomenon related to the problem (Creswell, 2012). According to Creswell, this design also supports collecting data based on specific words from a small number of individuals so that the participants' views are obtained. Questions beginning with the terms *how* and *why* are used to support a study in which a researcher cannot manipulate participant responses and those responses reflect the perceptions, thoughts, and attitudes of the participants (Yin, 2014).

Qualitative research refers to methods and ways of gathering and exploring data that are interpretive or explanatory in nature (Noble & Smith, 2014). According to Noble and Smith, data collection is conducted in a natural setting with the intent to describe,

explore, and understand phenomena from the perspective of the individual or group. One of the most popular areas of interest involving data collection in qualitative research design is that of the interview protocol. According to Seidman (2013) and Kvale and Brinkmann (2015), the strength of the interview approach allows the researcher to ensure that the same information is collected from each interviewee. McNamara (2009) suggested that wording for interview questions be open-ended, neutral, asked one at a time, and be clear in meaning. The success of an interview relies on the interviewer's ability to ask good questions and establish a meaningful relationship with individuals being interviewed (Merriam & Tisdell, 2016). Significant features of qualitative research include the use of multiple data sources that may include documentation, archival records, physical artifacts, direct observations, and participant observation (Miles, Huberman, & Saldana, 2013). According to Miles et al. (2013), each data source represents a piece of the puzzle that contributes to the researcher's understanding of the larger picture of the phenomenon being studied.

Selecting a quantitative approach would have been less effective to explore and understand participants' perceptions of motivating factors that would support completion of allied health programs. Other qualitative research designs I considered included a longitudinal study, which would provide extensive information but would exceed the timeframe for the study (Creswell, 2012). Phenomenological research was not selected, as it requires looking closely at how individuals interpret their own experiences and primarily relies on interviews as a way to understand what experiences mean to participants (Lodico et al., 2010). With a case study approach, my focus will be to gain a

broader perspective by investigating other data in addition to information obtained from interviews. The goal is to capture a full picture of the perceptions of how students could be motivated to successfully complete allied health programs.

Grounded theory would not have been appropriate for this study as it requires gathering data through qualitative techniques to develop a theory based on the data (Lodico et al., 2010). Ethnography was not a suitable choice for this study because my focus was not on discovering knowledge within communities or cultures. The nature of ethnography research would not be helpful in understanding what motivates allied health students to successfully matriculate through programs of allied health. It would also not provide information relative to instructional strategies that may support successful learning outcomes.

### **Setting for Study**

The setting for this study was a local for-profit allied health career college in the southern region of the United States. The local college is a part of a larger conglomerate of 27 campuses across the United States with the mission of providing career training in allied health fields. The institution offers programs in surgical technology, medical assisting, pharmacy technology, medical billing and coding, and health care reimbursement. Students can earn certifications in 1-year programs and diplomas in 2-year programs. Enrollment requirements include being at least 17 years of age and completion of a high school diploma or GED.

According to the 2014 CEP, students presently enrolled at the college ranged in age from 17 to 64 with 89% female students and 11% male students. The institution

enrolls approximately 600 to 1,000 allied health students on an annual basis and includes diverse populations of Black (88%), White (9%), and Asian American (3%) students. Most students enrolled use federal funding in the form of Pell grants and Stafford loans. A small percentage of individuals enrolled have been granted stipends that assist students in the military. The campus is under the governance of a campus president. The campus administrator serves in the capacity of registrar and assists the president by managing student records and the day-to day operations of the local college. The director of allied health oversees all of the allied health programs. Each allied health program has a program director. Both full-time and adjunct faculty teach core courses and provide clinical preparation for each program. The faculty includes registered nurses, certified pharmacy technicians, certified surgery technicians, licensed practical nurses, attorneys, and other staff with at least a minimum of an associate's degree (and certification) in their area of specialization. Most faculty have acquired a bachelor's degree or higher.

### **Participants**

Participants for the study included both students and faculty. An objective of qualitative research is to present the complexity of a site through the information provided by individuals (Bloomberg & Volpe, 2015; Creswell, 2012). In qualitative research, Creswell recommended studying a few individuals or cases because the ability of a researcher to provide an in-depth picture decreases when additional individuals or sites are added to the study. Purposeful sampling allows the researcher to select the individuals who are to become the sample (Creswell, 2012). This type of sampling is often used in qualitative data collection to focus on particular characteristics that are of

interest and will best enable the researcher to answer the research questions. Purposeful sampling helps to provide diverse information with consideration of variables such as age, ethnicity, full-time or part-time status, and other factors significant to the study.

Purposeful sampling provided an opportunity to study information-rich cases that explore the natural context of the participants (Lodico et al., 2010; Saldana, 2014). Sampling for this study included a heterogeneous group of faculty and students matriculating in allied health core courses. It was anticipated that purposeful sampling would provide a diverse sample of students and faculty from each program offered in the field of allied health. Student participants who met the criteria for the study were identified by the program director. Faculty participants included allied health instructors currently teaching core courses at the institution.

In qualitative studies, it is important to consider the concept of saturation. Theoretical saturation is achieved in research when no additional insights, themes, or issues can emerge from the data collected (Corbin & Strauss, 2015). Saturation is not about numbers per se, but reflects the depth of the data collected (Bloomberg & Volpe 2015). According to Bloomberg and Volpe and Saldana (2014), rich and thick data descriptions obtained through relevant data collections assist with the process of data saturation. A research study design that provides the best opportunities to answer the research questions supports data saturation (Denzin & Lincoln, 2011). Data saturation is an important factor when studies embody naturalistic inquiry where research takes place in natural settings rather than in laboratories (Miles et al., 2013).

**Student Participants**

Individuals who met the criteria for the study were 18 years or older and enrolled in an allied health program such as medical billing and coding, pharmacy technology, surgery technology, or medical assisting. Students eligible to participate were also enrolled in at least one core course such as medical terminology, anatomy and physiology, or medical law and ethics. The study included 10 students identified by purposeful sampling from each discipline of medical billing and coding, pharmacy technology, medical assisting (associate), medical assistant (diploma), and surgery technology.

**Faculty Participants**

Inclusion criteria for faculty participants for this project study were faculty who were employed full-time or part-time, provided instruction for at least one core course, and had at least 1 year of experience working with allied health students. The study included five allied health faculty as participants.

**Procedures for Gaining Access to Participants**

Gaining access to participants began with an initial face-to-face meeting with the campus president to explain the purpose of the project study and to request permission to recruit students and faculty to participate in the study. After obtaining permission from the campus president, I requested assistance from the allied health director to extend participation packets to students and faculty who met criteria for the study. Faculty were extended invitations to participate in the study by way of their college e-mail addresses.

Students were asked to provide their e-mail contacts if they consented to participating in the study.

The final selection of faculty and student participants was made based upon the established criteria for participation in the project. I provided follow-up communication by telephone calls, e-mails, or face-to face contact with potential participants after obtaining permission from the director of allied health. I used specific criteria for student participants that considered how many times they failed a core course. I involved students who had failed a core course only once and those who had failed more than one time. I also selected students who experienced failure in different core courses so that the study showed information for each core course required by allied health programs. For faculty volunteers, I used the number of years teaching in the field of allied health to facilitate getting the number of participants needed. Faculty were ranked by number of years teaching in allied health programs. I utilized a mixture of faculty with several years of experience and those with at least one year of experience to diversify the study.

### **Methods of Establishing Researcher-Participant Relationship**

A researcher-participant working relationship was established following the selection of participants for the study. I clearly described the nature of the study to each participant prior to obtaining written consent and answered all questions pertinent to the study. A suitable environment was provided so participants felt comfortable to express themselves. It was also important that I described the nature of interviews to each participant, allowed and addressed expressions of fear, concern, or anxiety, and provided the support necessary to ensure a respectful and honest representation of all information



obtained in the study. I displayed a genuine interest in what participants said during the interview process by demonstrating active listening, not interrupting while a participant was speaking, and responding appropriately with an attitude of genuine interest in their concerns and opinions. Participants were assured that no mention of their true identities would predispose them to any repercussions from me as the researcher, the college administration, or anyone involved directly or indirectly with the study.

### **Ethical Protection of Participants**

Ethical protection of participants was maintained throughout the project study. This was accomplished by following all guidelines of the Institutional Review Board (IRB) regarding assuring privacy, confidentiality, protection from harm, and full disclosure on my behalf as the researcher. Participants provided informed consent prior to engaging in the study. Informed consent meant that participants were informed about procedures and risks involved in the study, that their participation was voluntary, and that they had the right to withdraw from the study without penalty (Lodico et al., 2010). I adhered to all ethical guidelines of the Walden University's research code of practice. To ensure the ethical protection and confidentiality of participants in this study, prior to publication or sharing interview data with others outside the study, personal data were de-identified using numbers and alphabetic letters.

All interviews were conducted in a private conference room designated by the director of allied health. Participants were assured that they could withdraw from the study at any time without consequences and their decision to participate would have no influence on me as the researcher, the local campus, or Walden University. All data

collected during the interview process were kept as a protected file on a locked computer in a secure location.

## **Data Collection**

### **Justification of Data**

According to Lodico et al. (2010), qualitative methods involve using multiple techniques such as interviews, observations, and the examination of documents and artifacts. Typically more than one data collection technique is used and compared using triangulation (Lodico et al., 2010). For this study, three approaches to data collection were used: document analysis, student interviews, and faculty interviews. According to Yin (2013) using multiple data sources in qualitative research enhances credibility. Qualitative approaches support collecting and integrating all of the data to reach a holistic understanding of the phenomenon being studied (Seidman, 2013; Yin, 2013).

### **Data Sources**

**Documents.** Documentation was also obtained from the 2015 CEP from findings provided by the director of allied health and summarized specific areas that impacted both internal and external motivation and issues that impacted overall retention. Information from the interviews indicated their responses to research questions, how many times they were enrolled in a core course, and whether or not they were involved with tutoring services. Retention information from the CEP noted information related to the study and was used to support the research questions.

**Interviews.** Data were obtained from semi-structured interviews with faculty and students. Information from ten allied health students and five faculty from various

programs provided information regarding motivating factors impacting core courses. The interviews were scheduled in 60 minute increments to cover the anticipated time frame of 45 to 60 minutes and took place in a conference room that was a private area outside of the allied health department. This was a secure area where only persons participating in the study could enter and exit and participants were made to feel comfortable and assured of privacy. An invite of the scheduled time and date of interviews was e-mailed to student and faculty participants to provide information concerning their participation in the interviews. Participants could request alternative scheduling via return e-mail if they were unable to participate at the suggested time and date. The time frames of interviews were based upon the availability of students and faculty as indicated by the master schedule. Both faculty and students were interviewed according to interview protocols. Participants were reminded via e-mail from me one day before the data collection of the exact date, place, and time they would be interviewed.

Prior to the start of individual interviews, I reintroduced myself, reminded the participants of the purpose and nature of the study, and that all responses provided would be confidential. I ensured that all questions were answered prior to the interviews and consent from all participants was validated before the process begins. All faculty were assigned a number following the letter F (F-1 through F-5). Students were assigned alphabets using the letters A through J which designated students one through 10. Personal characteristics or data did not reveal the identity of the participants. Participants were reminded that the interview would be audiotaped and brief notes will be taken (Creswell, 2012) During the interview I allowed flexibility as questions were asked,

while following the flow of conversation of the interviewee (Creswell, 2012). Active listening was incorporated during the interviews. According to Creswell, a key to conducting a good interview is being a good listener. The participants were thanked for participating and reminded that they would receive a summary of the information so it can be reviewed for accuracy. All information was stored in a secure locked storage area and room.

### **Data Collection Process**

All data were collected following approval from the research site and Walden's IRB. The IRB approval number 04-12-16-0408341. Data were first retrieved from documents. After analysis of that data, interviews were carried out with students and faculty.

In implementing qualitative studies, researchers need to place their feelings and beliefs aside so that information obtained from the study can be viewed from an unbiased viewpoint. Creswell and Miller (2000) discussed the significance of a technique called bracketing that allows a researcher to suspend personal bias, assumptions, and previous experiences while conducting a study. Bracketing allows a researcher to look at issues objectively and reflect upon the social, cultural, and historical factors that would be relevant in understanding the perceptions of the participants in the study. According to Tufford and Newman (2012), bracketing takes place between the researcher and the research project and is viewed as a mechanism to protect and enhance the research process as a whole. In qualitative research, data is collected and analyzed to learn from

the participants in the study and to develop protocols for recording data as the study evolves (Creswell, 2012).

Interviews were conducted to gather the perspectives of students and faculty regarding factors that supported motivation in core courses and learning strategies they felt best meet their needs. Demographic data were collected from participants at the beginning of the interview related to specific characteristics in order to describe the participants. Data for students specified age, gender, ethnicity, part-time or full-time status, program of study, and core course being repeated. Data for faculty included part-time or full-time status, years of experience in allied health, core subject (s) taught, gender, and ethnicity.

In qualitative research, a self-developed interview protocol instrument allows the researcher to create semi-structured interview questions specific to the problem focus, research setting, and participants of interest (Lodico et al., 2010). Semi-structured interview questions encouraged in-depth responses from participants during the interview process and created opportunities for the use of probes, which were follow-up questions used by the researcher to seek clarification about a response (Lodico et al., 2010).

### **Data Tracking Process**

To keep track of the data collected during interviews, a number was assigned in sequential order to each participant's interview protocol form. I identified each faculty member using numbers preceded by the letter F. and students were identified by alphabet notation. The field notes were recorded in a research log immediately upon completion of the interviews. Maintaining a research tracking system provided me an opportunity to

revisit the data collected and identify recurring themes (Lodico et al., 2010) Field notes contained information regarding the times and dates of meetings, specific disciplines of each student identified, core curriculum course being repeated, schedule of other courses of enrollment, and information regarding whether participants were currently involved in interventions such as tutoring.

### **Data Analysis**

I used tables in this project study to reflect descriptive statistics to reflect demographic data for both students and faculty. Faculty information included gender, ethnicity, core course taught, number of years of experience, and full-time or part-time status. Student demographics provided information regarding ethnicity, gender, program of study, core course repeated, and the number of times students were enrolled in core courses. Information from CEP documents is summarized in Table 4. It includes a summary of information gathered from surveys, departmental meetings, and town hall assemblies that the institution conducted with faculty and students matriculating in allied health programs.

### **Data Analysis Process**

Varying colors of blue, yellow, pink, and green were used to highlight specific words related to developing themes that emerged from the interviews. Thematic coding was used to organize the information into segments that enhanced the development of the general meaning of highlighted information (Creswell, 2012). Tables were used to present information regarding demographic data obtained from faculty and student interviews and trends identified from the 2015 CEP. Interviews were transcribed by me

verbatim as soon as each interview was finalized to ensure an authentic representation of what was said. Data collected during interviews were analyzed using a thematic coding process to identify major themes emerging from participants' responses. Coding is the process of identifying distinctive parts of the data that describe related phenomena and determining appropriate labels that correspond to those parts (Lodico et al., 2010). A standard approach to qualitative content analysis is the classification of textual data within categories that represent similar meanings (Corbin & Strauss, 2015; Moretti et al., 2011). According to Moretti et al., the process of coding and identification of themes and patterns is used to arrive at subjective interpretation of the content of data.

Qualitative content analysis is a specific type of data analysis used in analyzing qualitative data and will be used as an on-going process for this study. This process was used to analyze, interpret, and understand student and faculty participants' experiences as they described their perceptions of factors that motivated them to achieve success and learning strategies that contributed to successful learning outcomes in core courses. The use of this process provided an opportunity to study participants' communication text in transcripts and identify, focus on, and describe thematic words or concept responses used by participants (Kvale & Brinkman, 2015; Miles et al., 2013; Moretti et al.; 2011). For this project study, content analysis was implemented in a systemic process to draw reliable and valid references from words and phrases in the qualitative data that served as context for addressing the research questions.

### **Accuracy and Credibility of Data Analysis**

To ensure accuracy and credibility of the interpretation of the data findings and lack of bias, member checking and triangulation methods were used. Creswell (2012) defined member checking as a process in which the researcher asks one or more participants in the study to assist in determining the accuracy of the account. The member checking process was important in this qualitative study because I used words and phrases shared by participants as evidence to support the analysis of data. Member checking is a way to verify accuracy of data and help the researcher improve the authenticity of the interpretation and reporting of data collected from participants (Lodico et al., 2010). I sent the transcribed interviews and initial data analysis to participants and asked them to validate these documents for accuracy and to edit or clarify any inaccurate information.

Triangulation is a method used in qualitative research to help ensure the accuracy of data gathered from multiple sources. It provides credibility by providing a fuller understanding of the problem being studied (Charmaz, 2014; Denzin & Lincoln, 2011; Mills & Birks, 2014) In this project study, triangulation was used to confirm data comparing information from retention data from the CEP, and student and faculty interviews.

### **Researcher Role**

I have 5 years of experience with teaching on the collegiate level and working with students in allied health programs. My current and past roles concerning the research setting include serving as an adjunct instructor and assisting with extern placement. My



current and past roles have allowed me to work closely with many faculty members in the teaching and learning environment and to develop a trusting and working relationship with faculty. My current and past roles facilitated the recruitment of students and faculty from each program to participate in the study. I was also able to create a comfortable environment in which students and faculty felt safe and comfortable about sharing information regarding their perceptions of what motivates them to continue to strive to accomplish their goals. Students and faculty were also asked to identify learning strategies that could be used in the classroom to support passing core courses.

According to Lodico et al. (2010), the researcher must determine the level of involvement with the participants. None of my past or present roles at the setting or involvement with students predisposed the study to bias. No individuals participating in the study had a prior relationship with me as a researcher. I have no supervisory authority over any participant in the study.

As an adjunct faculty member, I have had an opportunity to gain insight into the concerns of the administration and faculty concerning the retention of allied health students. I made every effort not to allow any past or current role to unconsciously bias my own personal thoughts and feelings regarding the nature of the study. I maintained an open mind and clearly understood the impact student and faculty responses may have on best practice, and the profound impact possible through advocating social change at the local, state, and national levels in the field of allied health care.

## **Discrepant Cases**

Discrepant cases should be included in the study as they often provide exceptions to the findings of the study (Meriam, 2009). These cases can also provide a researcher with alternative perspectives which can help to assess and provide better interpretations of research findings. According to Meriam, discrepant cases can be classified as challenges or emerging findings. In an effort to address discrepant cases, I reexamined the data in detail numerous times to ensure all information was considered and coded appropriately as noted by the information provided by the participants. Dillon (2012) suggested that discrepant data not be totally discarded as it could be used to conduct further inquiry into the research problem.

## **Findings**

### **Demographics**

**Students.** The findings regarding participant demographics for 10 students represented characteristics of African American female students between the ages of 21 and 36 years of age. Students were enrolled full-time in programs of surgery technology (1), medical billing and coding (1), medical assistant associate program (1), medical assistant diploma program (6), and pharmacy technology (1). One student was repeating both medical terminology and anatomy and physiology, 2 students were repeating medical terminology, and 6 students were repeating anatomy and physiology. No students were repeating the core course of medical law and ethics. The majority of students repeating core courses were enrolled in the medical assistant (diploma program)

and were required to repeat the anatomy and physiology core course. None of the students had enrolled in tutoring programs at the time of the interviews.

Table 2

*Student Demographics*

Students	Ethnicity	Gender	Age	P/T or F/T	Program of Study	Core Course Completed	# of Attempts
A	AA	F	25	FT	Surgery Tech	Anatomy & Physiology	2
B	AA	F	21	FT	MA/Diploma	Anatomy & Physiology	2
C	AA	F	31	FT	MA/Diploma	Medical Terminology	2
D	AA	F	35	FT	MA/Diploma	Anatomy & Physiology	2
E	AA	F	22	FT	MA/Diploma	Anatomy & Physiology	2
F	AA	F	21	FT	MA/Diploma	Anatomy & Physiology	2
G	AA	F	21	FT	MA/Associate	Medical Terminology	2
H	AA	F	32	FT	Pharmacy Tech	Medical Terminology	2
I	AA	F	32	FT	MA/Diploma	Anatomy & Physiology	2
J	AA	F	36	FT	Medical Billing And Coding	Medical Terminology Anatomy & Physiology	2

*Note.* AA-African American; MA-Medical Assistant

**Faculty.** The findings regarding five faculty participants represented characteristics of African American and Caucasian ethnicities, which included two females and three male faculty members. The average years of experience included a minimum of four years and a maximum of 30 years. Two instructors were full-time and 3 were part-time. The courses that faculty participants taught included medical law and ethics, medical terminology, and anatomy and physiology.

Table 3

*Faculty Demographics*

Faculty	Gender	Ethnicity	Core Course	Years of Experience	Full time or Part time
F-1	M	AA	Medical Law & Ethics	5	Full-time
F-2	F	AA	Anatomy & Physiology	4	Part-time
F-3	F	AA	Medical Terminology	30	Full-time
F-4	M	C	Anatomy & Physiology	12	Part-time
F-5	M	AA	Medical Terminology	7	Part-time

*Note.* AA-African American; C-Caucasian

**CEP Findings**

CEP is a vital part of the college's goal of meeting educational needs and is comprised of information from survey information collected from faculty and students, departmental meetings, and town hall meetings held with students and faculty. Extrinsic motivating factors provided by faculty and students included instructor feedback and support during core course sessions, an atmosphere where students felt emotional support as well as instructional support, and a learning environment that met the needs of all students. Intrinsic motivating factors included improving the quality of life for their

families and the opportunity to experience personal success. The CEP also identified additional factors that were significant as they impacted overall retention for the allied health programs. The major factor identified was inconsistency in attendance due to no transportation, minimal family support, lack of child care, and demands of work schedules. The retention team is working to formulate a plan of action to address student retention and success in the classroom.

Table 4

*Data from CEP 2015*

Extrinsic Factors	Intrinsic Factors	Reasons for not completing programs (students' summary)
Extrinsic motivating factors provided by students/faculty	Intrinsic motivating factor provided by students/ Faculty	Summary of information regarding reasons students did not complete programs
Instructor feedback and support	Improve quality of life for their family	Inconsistency in attendance
Atmosphere where students feel that instructors care for them as well as their learning goals	Experience personal success	No transportation Minimal family support
Supportive learning environment which includes instructor and administrators	Take care of families	No child care assistance Challenges of balancing work/school demands

*Note.* Summary of data from the 2015 CEP reflecting extrinsic and intrinsic factors regarding motivation towards success and the factors contributing to program incompleteness.

### **Interview Data**

Responses for students are indicated using alphabet identifiers A through J.

Faculty responses are indicated by the identifiers F1 through F5. Five themes were

identified as presented in Table 5. Themes are described in relation to the research questions.

Table 5

*Major Themes*

Research Questions	Themes
<p><b>Research Question 1</b> What intrinsic factors do allied health students and faculty identify as significant in motivating successful completion of core courses?</p>	Improvement of the Quality of Life
<p><b>Research Question 2</b> What extrinsic factors do allied health students and faculty identify as significant in motivation successful completion of core courses?</p>	A Successful Learning Environment
<p><b>Research Question 3</b> What learning strategies do allied health students and faculty perceive as helpful in promoting active learning and motivating successful completion of core courses?</p>	Active Involvement in the Learning Process
<p><b>Research Question 4</b> What instructional strategies are perceived by allied health students and faculty as effective in fostering successful completion of core course?</p>	Techniques of Presentation Hands-on Learning

*Note.* Major themes identified from interviews with allied health faculty and students.

**Research Question 1.** What intrinsic factors do allied health students and faculty identify as significant in motivating successful completion of core courses?

**Theme: *Improvement of the quality of life.*** Responses from both students and faculty revealed that a significant intrinsic factor that motivated allied health students to

successfully complete core courses was a desire to improve quality of life for students and their family. Students B, E, and J were motivated to achieve success in an effort to improve their livelihood for their children and family. Each of these students had at least one child and felt that finishing school would improve the quality of life.

Student B: The reason I'm here is because I have children to provide for.

Student E: I want to make life better for my kids.

Student J: Doing better for my kids.

The remaining students G and I focused more on motivation as it related to obtaining personal goals.

Student G: I want a better life-- a career, and not just more jobs like in fast foods.

Student I: I want a better life--and I like taking care of people.

Student A was focused on the aspect of failure and shared some feelings regarding her desire to be successful after experiencing failure during previous enrollment.

Student A: "I don't like failing at anything, when I was enrolled before I had to drop out."

Students C was motivated by the appeal of commercials and advertisements of schools that offered medical training.

Student C: "The commercials about medical programs motivated me-and I have some health problems so I can learn about that too." "I can see myself working in health care."



Student D was motivated by an interest in the specialty area of health care. Student F was interested in the field of health care in general.

Student D: "I like pediatrics."

Student F: "I like health care."

Student H was motivated by a family member that finished a pharmacy technology program.

Student H: "My mom finished her program so that motivated me."

Faculty participants also described how they perceived that quality of life was an important motivating factor for allied health students. F1 stated:

"I think a lot of the students want something different because they are parents trying to provide for their children." The majority of them had at least 1 child.

Other faculty had similar responses:

Faculty 2: Students want something different because they want to make life better for themselves and their children.

Faculty 3: I believe students want something different so they can improve their future...most of the students see health care as a way to get into a field that is ever growing and always hiring.

Faculty 4: I believe students want to achieve personal goals and also their way of life.

Faculty 5: I believe students want to make life better for their families.

In summary, it was clear that both students and faculty saw improved quality of life as an important motivating factor for allied health students. Students are driven by a

desire to end patterns of working at jobs like fast foods. Instead, they want to better their way of life by entering occupations where they can make their lives better for themselves and their family.

**Research Question 2.** What extrinsic factors do allied health students and faculty identify as significant in motivating successful completion of core courses?

**Theme: A successful learning environment.** Responses from students and faculty reflected the need for a learning environment that supported motivating successful students. This environment reflected students and faculty assuming responsibility for success in the learning process. Students and faculty discussed the significance of compassion, patience, and a genuine interest in the students. Students A, D, and I shared their focus of taking responsibility for learning. Student I noted that instructors could be “patient” and assumed responsibility for experiencing success.

Student A: Teachers, are doing their part- I have to do mine.”

Student D: “I just need to get it together.” “I need to learn how to study.”

Student I: “They could be patient -but I have to do my part too.”

Students B, E and G discussed the need for instructors to demonstrate compassion and patience during the learning process.

Student B: “Something teachers can do is show compassion-really make us feel they care about us.” I realize that I have to do my part, we just need them to show they care.”

Student E: “Be patient with us.”

Student G: “They could be positive-have a good attitude.”

Students C, F, and H focused on concerns that were significant to motivation during instruction.

Student C: “Teachers can help by making me feel comfortable about me coming to them if I have a question.” “Just showing compassion and understanding, even how they react if you have a question.”

Student F: “It helps when the information is broken down.”

Student H: “They could be patient and break things down.”

Faculty expressed specific responsibilities they shared regarding learning strategies and motivating students to successfully complete core course.

F1: In my opinion, when students see us as being motivators, that helps.” “As instructors we have to come in excited about what we do-in order for us to motivate them we have to be motivated ourselves.”

F2: “ I think when students see us being prepared and on time it is a motivator.” “Students pay attention to everything so when they see instructors ready to teach it sends a good message.”

F3: “I think when students can sense support from each instructor that’s a motivator.” “Students need to feel that we as instructors are there for them- not just to teach but to listen.”

F4: How students view instructors can affect their motivation.” “Students should see us here to teach them, but also as people.” They need to know we understand about family issues, bills, etc., they have to relate to us as people who teach.”

F5: “I think cohesiveness is important among all programs.” We have different programs but we teach students from all of them and I they should see us be able to work together on how we teach and manage the classroom.”

In summary, students and faculty took responsibility for promoting a successful learning environment. It was clearly noted that students and faculty supported the need for a compassionate learning environment where students were regarded as people and not just students.

**Research Question 3.** What learning strategies do allied health students and faculty perceive as helpful in promoting active learning and motivating successful completion of core courses?

**Theme: Active involvement in the learning process.** Both students and faculty agreed that the learning strategies perceived to be successful were based upon being actively involved in the learning process. Students A, B, C, E, and G provided specific techniques they used to enhance “active involvement” in the learning process.

Student A: “I like to retype my notes after the lecture.’ “I highlight the information but I go back and type everything all over again.”

Student B: “ I like to re-write my notes after a lecture. I highlight the information and go back and read everything all over again.”

Student C: “I ask questions- when things are not clear to me.”

Student E: “ I let my kids review with me.”

Student G: “I use flash cards- that helps me when I’m studying.”

Students H and I had ideas related to active involvement that they considered significant but had not initiated them at the time of the interview.

Student H: “ I need to go to tutoring and ask for help when I need it.”

Student I: “I have to manage my time better, study, and work on my grades.”

Students D, and F required assistance in determining a strategy that would aid them in being successful.

Student D: “Honestly, I don’t know how to study.”

Student F: “I just need a plan to study.”

Faculty shared ideas of how students could be actively involved in the learning process.

F1 and F3 believed that students should adequately prepare for the learning by reading prior to coming to class.

F1: “I think it is real important that students come to class prepared.” They have to read and be prepared for what is going on in class.” “I do activities to show how what we read connects to real-life when we talk about the law.”

F3: “I feel that it is important that students read.” “You can tell when they read and when they just come to class.” “Reading is what they can contribute to getting the lesson going.”

F2 felt that students should be able to focus in the classroom despite the personal issues they may be experiencing.

F2: “I think it is real important that students be present in the moment.” “They have a lot of issues-family, personal, like all of us but they have to leave that outside the class.” They have to focus on what is going on inside the class.”

F4 reflected on the significance of communication between students and faculty.

F4: “I feel that it is very important that students communicate. “Communication is important here and also in the real world for success.” “Students have to let instructors know when they need help.”

F5 stated that students should be able to manage keeping up with the learning process and use the syllabus to keep the pace of instruction.

F5: “I feel that it is very important that they keep up and even be ahead of me.” “That’s why we teach them to use their syllabus.” “It tells them where we are week by week.”

In summary, students and faculty shared ideas regarding active involvement in the learning process. Active involvement included engagement in the learning process by communicating, being prepared, seeking assistance when needed, and being able to balance the expectations of school with the challenges of life.

**Research Question 4.** What instructional strategies are perceived by allied health students and faculty as effective in fostering successful completion of core courses?

**Theme: Techniques of presentation.** Students and faculty discussed the impact of success related to methods used during presentation of core course materials and they shared an interest in activities that supported hands-on learning.

Student A: “I need to see how the smaller bits of information relate to the whole thing when the teacher is doing a lecture.”

Student B: "I need to see how the information relates to the whole thing when the teacher is doing a lecture." "When we are learning something new, I need bits of information explained so I can see how everything goes."

Student C: "When we are learning something new it helps me to hear things over and over."

Student E: "I need the teacher to repeat stuff more than once." "I need to hear it over and over."

Student F: "I learn from demonstrations- so when I can see it I can learn better."

Student G: "If you show me a way to learn something- like Ms. S. showed me to learn that arteries (a) take blood away, "Yes, she sat with me and help me learn it like that."

Student H: "I'm a visual learner-so it helps me when I see things." "Study guides might help, the teacher taking her time."

I: "Just taking time, showing interest in us learning."

J: "Taking their time." "Not so much work at one time."

Student D felt that one-on one instruction would be helpful in providing instructional support.

Student D: " I think I would do good with one -on one."

**Theme: Hands-on learning.** Students and faculty were in agreement that hands-on learning activities were essential in promoting success. Both students A and B replied that they learned better when doing hands-on activities.

Student C: “Hands-on helps me learn better.” “I also do hair so I am use to using my hands.”

Student D: “I remember better when I do hands on- we need more of it.”

Student E: “I do good with hands-on, if you show me something after the first time I could get it even if I have to practice.”

Student F: “I do good with demonstrations. “We need fun with hands-on.”

Student G: “I wish all classes would do hands-on.”

Student H: “I think it’s good-so we could be more involved in learning.”

Student I: “I think it’s good- we learn a lot.”

Student J: “I think it’s good when we do things in class.” “Coding practice as if it were real patients in class.”

Faculty discussed the significance of their roles in providing successful instructional strategies that promoted successful learning experiences.

F1: “We have to come in here knowing about what we’re trying to teach.”

“Students can tell if you know something or not.”

F2: “I think relatability is important- students have to be able to relate what they are learning to “real-life.”

F3: “ I actually use the blackboard more than power points.” I have students write and read so I can determine if they are getting the material.”

F4: “I try not to make the classroom too strict where students fell they cannot speak.” I even tell a few jokes-just to keep a nice tome for the classroom.”



F5: "I try to be mindful of my tone and the way I present." "My students get to know me and to some I may be a little loud." So I have to be mindful of how I present myself."

Faculty and students both clearly agreed that hands-on experiences supported success in classroom learning.

F1: One of the things I do when teaching about the impact of communicable diseases is use different products like clear water, bleach, and coke." "The students see the impact on exposure based on what I assign them to with these products." "They look at me strange, but they get the point."

F2: I use mime mapping activities and models that students can use for hands-on activities."

F3: " I try to incorporate using models the students can take apart and put back together."

F4: " I like to do activities that allow students to present."

F5: "I like to do as much hands on as possible-and with the labs that's not hard." "They see how things come together from lecture to lab." This helps them see the big picture." "We learn the facts about drawing blood (lecture) then we actually practice on the mannequins and then on each other."

In summary, both students and faculty shared information regarding the impact of instructional strategies instructors used in promoting success in core classes. Students and faculty felt it was important to present information with consideration of all learning

styles. Hands-on learning activities supported motivation and was of interest to students and faculty.

### **Summary of Common Themes**

Common themes were generated from student and faculty interviews in relation to the research questions. The major themes identified concerning intrinsic factors significant in motivating successful completion of core courses included a desire to improve the quality of life. Extrinsic motivating factors expressed by both students and faculty included a learning environment in which students felt comfortable seeking support needed in the learning process and compassion and patience was shown in the process. Students and faculty expressed thoughts regarding the impact of the method of presentation and included consideration of various types of learners. The instructional strategies that students and faculty felt were significant in promoting success in core courses involved active participation in class and hands-on learning activities.

### **Establishing Credibility**

Credibility was established by establishing a trusting relationship with the participants, validation of signed consent forms, and conducting interviews according to the protocol agreed upon by the college. All information remained confidential. Triangulation of multiple data also established credibility according to Lodico et al. (2010). Triangulation of data occurred by comparing faculty interviews, student interviews, and information from the 2015 CEP. Accuracy of data was maintained throughout the study by the use of member checking. Member checking allows the

researcher to verify the findings with the participants in the study to check for accuracy of the data and accurate interpretation of ideas expressed (Creswell, 2012).

### **Outcome Summary**

I was able to answer the research questions by exploring specific information regarding the perceptions of faculty and students with regard to intrinsic and extrinsic motivating factors that impacted success in core classes. The common threads identified from the faculty and student interview questions included: improvement of the quality of life, the significance of support provided from instructors, students being active and not passive participants in the learning process, and the provision of a classroom environment that considered physical aspects such as classroom size and interpersonal aspects of attitude and willingness to provide help and support to students. A consideration of hands-on instruction was also paramount to the success of the students. Faculty expressed their desire to contribute to motivating student success by being motivators themselves, providing direct feedback to learners, and providing a non-restrictive classroom environment that allowed students to participate in active learning. A concern of one member of the faculty was the need for a cohesive environment that allowed “all members of the faculty” to share common goals and similar pathways to perpetuate successful learning experiences for all allied health students.

According to Ryan and Deci (2000), the SDT is directly related to an individual’s need for self-motivation and also takes into consideration both intrinsic and extrinsic factors. The SDT explores the influence of interpersonal relationships and the ability of individuals to experience “optimal functioning” as factors required for success. Optimal

functioning embodies interpersonal relationships, the physical atmosphere and climate of the classroom, and concerns all persons considered to be key factors in the learning process. The total influence of the learning experience can foster success or disrupt growth necessary to achieve success (Ryan & Deci, 2000).

Haar and Scanlen (2012) suggested the formation of learning communities and the role this type of organization played in motivation, academic self-sufficiency, and persistence in achieving goals. Although there are distinct allied health programs, the same instructors provide instruction for all of the various programs. All staff are viable cohorts of a learning community that can influence the success of allied health students. Pearson (2012) postulated that students that felt they were cared for were more likely to perform to the best of their ability and remain committed to their educational goals. Okeefe (2013) believed that creating a sense of belong was a critical factor in determining student retention.

The resounding concerns expressed from faculty and student interviews included learning environments that promoted success through instruction that reflected positive attitudes of instructors, sensitivity to the learning styles of students, and incorporating activities that promoted hands-on experiences. Kierner et al. (2014) explored the role of creating a comfortable learning environment where students felt secure in the classroom and actively engaged in the learning process. According to Kierner et al. when students felt that instructors exhibited positive communication which exuded a genuine sense of caring, positive behaviors were observed. Hirshey et al. (2011) discussed the significance of providing high quality resources such as computers, white boards, and hands-on

instruction that would facilitate the goals of engaging the students in active learning. Starcher (2011) reflected on positive outcomes of personal experiences of building rapport among students and instructors, student engagement inside and outside of the classroom, and the significance of being aware of various learning styles. Instructors must also utilize this knowledge of learning styles to construct meaningful learning experiences. The students reflected on the contributions they could make to facilitate successful learning experiences and recognized the efforts faculty make to assist in meeting educational goals.

### **Conclusion**

I used the case study research design to address the research questions of the project study. The SDT by Ryan and Deci (2000) provided the theoretical foundation for the project study. This theory is primarily concerned with promoting confidence in the abilities of students and supporting successful classroom outcomes that are governed by intrinsic and extrinsic motivating factors. Faculty and students provided rich descriptions of data that were obtained within the structure of pre-established interview protocol. The 2015 CEP provided data regarding the current status of retention of the allied health programs involved in the study and identified the factors that impacted student success. The findings have the potential to create positive social change among allied health students by providing successful outcomes in core classrooms. Students completing allied health programs are in demand throughout the United States. According to the IOM (2005), the demand for allied health workers will exceed the availability of competent professionals by the year 2020. The qualitative case study research process provided an

understanding of a situation and its meaning for those involved to improve practices. Analysis of data from this study provided emerging themes that will assist in providing knowledge of how motivation can be impacted with regard to promoting successful completion of core courses for students enrolled in allied health programs. Application of the SDT to the research study provided information related to intrinsic and extrinsic factors that supported motivation. Knowledge gained through this framework may help the administration gain insight into student and faculty perceptions of the relationship of motivation and successful completion of core courses. Student and faculty perceptions of learning strategies can promote exploration of ideas which can create successful learning outcomes and build a community of learners. Applying this knowledge to the learning environment may better clarify and project the roles of faculty and the administration regarding successful and timely identification of experiences that could support motivating successful students from initial enrollment, throughout program matriculation, graduation, and job placement.

Section 3 consists of the project that was formulated using the results of the project study. This section incorporated a clear description of the project, including a review of the literature related to the project, the implementation and evaluation process, and implications for social change.

## Section 3: The Project

### **Introduction**

The project consists of a 3-day workshop that will allow allied health faculty, students, and administrators to experience a learning community. The first day will include faculty from all allied health programs. Students matriculating in allied health programs will participate on the second day. Culminating activities on the final day will involve both faculty, students, and members of the administration. The purpose of the project is to educate, support, and facilitate the establishment of a learning community among the allied health programs. Each allied health program has functioned as an independent unit over the last few years. Faculty have met and shared ideas among each other. However, there have been limited opportunities to develop a camaraderie among faculty and students that supports enhancing learning through collaborative efforts. Faculty and student perceptions explored in the research study provided overwhelming support for implementing a learning community. A learning community can provide the stimulus that will enhance the ideas of a unified body of learners and create an atmosphere that promotes successful engagement in the learning process.

### **Project Goals**

The goals of the 3-day workshop are to establish a foundation for a learning community with allied health faculty, students, and administration, support collaborative efforts of faculty utilizing their skills and expertise, explore methods to determine learning styles, and enhance learning through active, hands-on learning experiences. Ideas for workshop topics were generated from themes explored in the research among

faculty and student participants. Themes generated from the study reflected pursuing allied health occupations to improve the quality of life, faculty and student interest in creating and maintaining a successful learning environment, and supporting active participation in learning through the use of hands-on learning activities. Faculty and students also expressed an interest in developing an effective community among programs within the institution that would enhance learning and success. In designing activities for the workshop, I took into consideration ideas from the themes determined from input from the administration, faculty, and student interviews. The activities supported exploration of how to create supportive learning climates, the significance of identifying learning styles unique to students that would guide teaching, supporting collaborative efforts among faculty, and incorporating hands-on learning experiences. The participants in the workshop will include allied health faculty, students, and administration at the local college. The learning goals, outcomes, activities, and materials and evaluation plan are included in Appendix A.

### **Rationale for Focus on a Learning Community**

The administration and faculty of the local institution have a desire to function as an integrated allied health unit rather than isolated departments of the health care institution. The need for cohesion among faculty and students was a recurring theme expressed in interviews. Faculty of individual allied health programs meet each term. However, there are few opportunities to collaborate with other allied health team members who provide instruction for other programs. Faculty and students expressed concerns about the lack of communication among allied health programs.



Students from all of the allied health programs are required to study medical terminology and anatomy and physiology. These are the two core courses failed by students who participated in the study. The students reported being unable to see a connection between the courses and expressed concerns about the learning environment. These concerns reflected the interest in hands-on exploration of the subject matter, learning approaches that embraced various learning styles, and feeling a sense of belonging in the classroom. Faculty also shared concerns of bridging the gap of knowledge between the courses. They also expressed a desire to create an environment that supported hands-on learning, supported student comfort, and provided the assistance needed for student success. The problem areas revealed in this study will be addressed in the project by providing the administration, faculty, and staff with a foundation supportive of a learning community. All disciplines will be able to come together to discover all of the unique bonds that enable them to support student success. These bonds include common goals of creating supportive classroom environments and providing effective learning strategies. The project will allow all participants to discover the vital roles of administrators, students, and faculty in promoting successful outcomes as they interact throughout the project. Activities in the project include helping faculty and students discover the impact of learning styles, identify factors necessary to create a successful learning environment, and support best practices for active learning.

Learning communities would provide an avenue to create an environment that supports uniformity, strategic learning approaches, and collaborative efforts to promote successful completion of allied health programs. Current studies have shown that learning

communities on college campuses are good investments and are regarded as best practices within higher education (Gansemer-Toph & Tietjen, 2015). According to Gansemer-Toph and Tietjen (2015), learning communities are pivotal in increasing interactions among peers, student and faculty, and the merits of overall engagement are improving academic progress, retention, and graduation. Learning communities are composed of groups of educators who can work together through the medium of shared vision, beliefs, and values (DuFour, 2004). Learning communities are a strong educational practice that can increase the knowledge and skills of both student and teachers (Birks, Francis, & Mills, 2014).

### **Review of Literature**

In order to understand how a learning community could be implemented effectively to motivate allied health students at the local institution to successfully complete core courses, I explored concepts that reflected the history of learning communities, considerations for students, supporting learning factors and goals, preparation for a learning community, and classroom climate and student engagement. The following databases were selected to locate scholarly peer-reviewed publications that supported the goals of the project: ERIC, CINAHL, Education, and ProQuest. The following key words were used: *learning communities, learning styles, motivation, active learning, learning environment, allied health, and student engagement*. I discuss the literature supportive of effective learning communities according to the history of learning communities, considerations for students, supportive learning factors,

preparation for establishing a learning community, and creating an impactful climate for student engagement.

### **History of Learning Communities**

The formation of learning communities became a focus of higher education in the late 1980s and 1990s and began with block scheduling that allowed students to take courses like anatomy and physiology and medical terminology together (Browne & Minnick, 2005; Tinto, 2000). According to Zhao and Kuh (2004), a learning community embraces student engagement in purposeful educational activities inside and outside of the classroom. The constructs of teaching, learning, and retention have evolved to explore learning opportunities beyond the traditional lecture (Johnson, 2014). Learning communities provide opportunities to facilitate knowledge in creative ways beyond traditional lectures. According to Fink and Inkela (2015), learning communities promote common links to coursework that allow students to explore deeper meaning of concepts.

### **Considerations for Students**

Astin (1999), Kuh and Zhou (2004), and Tinto (1998) determined that student learning and retention with respect to a learning community are related to the students' individual backgrounds, personal goals, commitment to getting an education, and their experiences at the institution. The concept of a learning community was founded with a student-centered base of inquiry from the works of Dewey, Vygotsky, and Bruner (Johnson, 2014). The foundation for learning communities established by those authors' work supported students being actively involved in the learning process. Learning communities support student ownership of the learning process and educational

experiences, support building self-esteem, and assist students in viewing their potential for success (Atkinson & Engin, 2015; Hill & Woodward, 2013; Mello, 2015).

There has been strong evidence to support the manner in which learning communities strengthen relationships between students and teachers (Butera, Darnon, & Pulfrey, 2013; Shultz, 2013; Zhao & Kuh, 2004). Current research also supported the positive effect learning communities have on teacher instruction and academic performance (Calabrese, Linder, & Post, 2012). Lenning, Hill, Saunders, Saunders, and Solan (2013) investigated student attrition and the impact of being involved in a learning community at an urban research university. They included students who had been accepted into the college of education for the fall semester of 2007. Findings from this study suggested that involvement in a learning community improved overall success of the students and increased attrition (Lenning et al., 2013).

According to Cook and Klipfel (2015), better student outcomes and retention are considerations greatly impacted by an understanding of how students learn. Cook and Klipfel studied how effective pedagogy that included tailoring instruction to how students learn impacted success and retention in the classroom. The authors investigated how the design of learning, goals for learning, and consideration of learning styles should be correlated to promote successful outcomes and the transfer of learning. Englander, Terregrossa, and Zhaobo (2015) examined the practicality of using student learning styles to ensure that incoming freshmen students selected the appropriate majors as they began their college studies. They conducted their study using information from 3,533 incoming freshman. Englander et al. hypothesized that students in different academic majors chose

their major because their approach to absorbing the content was similar to the nature of the content itself. The results of their study indicated that students who chose particular academic majors tended to have common learning style profiles. Other factors Englander et.al. considered were the longevity of enrollment in a program, retention, and overall grade point average. Future implications of this study suggested ideas that would be helpful in counseling students to select an academic major and career path for which they are suited based upon information generated from learning style assessments and other academic history.

### **Supporting Learning Factors and Goals**

Sogunro (2015) and Lenning et.al. (2013) investigated eight top motivating factors that supported learning environments and success in higher education programs. These eight factors are directly correlated to successful learning communities. The factors included the quality of instruction, quality of the curriculum, interactive classrooms, effective management practices, assessment and feedback, self-directedness, conducive learning environments, and academic advising practices. Hansen and Huerta (2013) investigated several significant factors identified as important in relation to supporting a successful learning community. These factors included agreed upon learning community goals, summative or formative assessment of those goals, assessment of critical outcomes, measures of student learning, and campus decisions that make use of the obtained information to meet the diverse needs of all learners. Fuchs and Mundschenk (2016) investigated how learning communities increased effective teaching and assisted in moving barriers to student learning. Redington and Workman (2016) described how a

midsized university developed a learning community program that utilized collaboration and partnerships among faculty throughout the entire university. The university became more student centered as a result of faculty sharing partnerships and experienced success because of the support of faculty and the administration.

Students and faculty at the research site realize the significance of the lecture in allied health studies. However, there was an interest in exploring other creative strategies such as hands-on learning and activities directly related to real-life experiences. There are definite commonalities between the coursework required for anatomy and physiology and medical terminology. Providing direct links between the two courses could help students comprehend the required materials. Tinto (2000) suggested that constructs of *shared knowledge* and *shared knowing* provide students an opportunity to become connected to the goals of learning. Students can form supportive peer groups and friendships that extend beyond the classroom (Tinto, 2000). This phenomenon directly addresses the desire among the students to experience a sense of belonging and embrace a feeling of connectivity. According to Tinto, as a result of engaging in learning communities, students saw themselves progressing academically and socially. They also had higher retention rates than students in a traditional curriculum (Adler, 2012; Life, 2015; Tinto 2000).

Calabrese, Linder, and Post (2012) discussed their role as members of the education department and how they were able to use funds from a congressional grant to initiate and guide professional learning communities in three community schools. The goals they determined essential were to develop relationships with local schools as

learning communities, enhance collaboration, support learning that led to inquiry and reflection, and to assist with preservice activities for teachers to model best practice. Their first year of involvement with the study focused on exploring the factors that contributed to successful formation of learning communities and how the university could facilitate the formation of learning communities and develop positive relationships from them (Calabrese et al., 2012). This study included helpful information that supported the parallels of learning communities from varying settings and also utilized a case study design. The authors used the information they obtained from the study to discuss how faculty could facilitate the formation of learning communities and develop positive relationships. Their field notes and experiences determined that a key element of success was the commitment of the departments and faculty to engage with other professionals in a spirit of common interest (Calabrese et al., 2012). Steeg (2016) utilized interviews, videos, and narrative vignettes, to extend learning community practices beyond the institution where the study took place. The videos shared discussions of teachers reflecting on how to best meet student needs. The videos also provided opportunities for teachers to reflect on learning strategies and provided ideas to shape teaching practices.

### **Preparation for a Learning Community**

Birkenfeld, Box, and Hoaglund (2014) described basic goals of establishing a learning community. The focus of their work was collaboration among faculty and having adequate assessment tools to evaluate student progress. Newell, Repko, and Szostak (2012) discussed the importance of setting up clear organization principles at the

beginning of the establishment of the learning community that includes open dialogue. An important focus of the learning community is an emphasis on inclusion rather than exclusion in order to incorporate the voices of all members (Michel, 2014; Newell, Repko, & Szostak, 2012). Five key elements that need to be present for a successful learning community are supportive and shared leadership, a spirit of creativity, shared vision, conditions that support the vision, and shared personal practice by (Atkinson & Engin, 2015; Bassi & Polifroni, 2005).

Learning communities present the fuel for wider organizational growth and development. Communities of learners can become communities of leaders that produce other communities of learners in a reciprocal fashion (Bassi & Polifroni, 2005). This provides the stimulus leading to improved retention and improved educational outcomes (Bassi & Polifroni, 2005; Mello, 2015). These goals provide a direct correlation between the goals of a learning community and the mission of the institution.

### **Classroom Climate and Student Engagement**

Creating an effective environment is an important part of facilitating student engagement (Greene & Mitcham, 2012). According to DuFour (2004), teachers are viewed as the architects of the community and understand the importance of encouraging collaboration and respect among students and faculty. Greene and Mitcham supported the notion of teachers not being viewed as the sole person responsible for learning and supported their role as facilitators of knowledge. Teachers were viewed as content experts within the community and allowed students to share their unique experiences so they became advocates of their own learning (Greene & Mitcham, 2012) The classroom



community supports an atmosphere of collegiality and respect (Greene & Mitcham, 2012; Jackson, Michel, Ramsay & Tews, 2015). Students and faculty in the study were inclined to seek a respectful climate that promoted a sense of belonging and allowed students to feel comfortable about seeking help when needed.

The construct of fun and its relationship to student engagement in the classroom was investigated by Jackson et al (2015). According to Jackson et al., the notion that “fun” in the classroom promotes knowledge and skill development is supported in literature. However, there has not been a lot of empirical research on the specific aspect of fun. Their study included a sample of 722 undergraduate freshmen participating in a program for new students. Students who took part in the study were drawn from 36 different courses that had enrollments under 25. Using a fun in the classroom scale development, data were obtained from surveys administered by a member of the research team. The surveys included questions that measured student perceptions of fun in the classroom, socialization with peers, and instructor praise. The course instructor was not present in the classroom during the time the surveys were conducted. Their study also evaluated student engagement using 12 items from Rich and colleagues 2010 engagement scale. This study provided a clearer picture of the aspect of fun in the classroom. The results of the Jackson et al. study were consistent with the hypothesis of Browne (2013). Participants in the Jackson et. al study and the study done by Browne determined that fun in the classroom had a positive impact on student engagement. Based on their studies, the authors concluded that students were motivated by instructor-centered fun and being able to socialize with their peers. The construct of fun was exemplified by the hands-on

learning activities that students and faculty in the study wished to incorporate in their learning experiences. All of the students in the study felt that hands-on learning would promote a fuller understanding of the information taught and help them build knowledge and skill areas.

Foley and Reveles (2014) and Cavicchi (2014) advocated using the principles of a learning community in science classrooms. Foley and Reveles discussed the use of web based activities, hands-on learning, and scientific experiences using a pedagogical approach that supported the use of technology in the classroom. According to Foley and Reveles, connected learning environments provide teachers with avenues to utilize cloud-based technologies to enhance learning in the 21<sup>st</sup> century science classroom.

Cavicchi (2014) investigated how learning communities in science classrooms allow students to draw on one another's strengths, collaborate, and develop skills critical to their success. Cavicchi approached the aspect of engagement by causing students to become explorers in her university seminar classes. The underlying goals were to enhance their ability to observe, question, communicate, and to create knowledge and not just accept what they are told (Cavicchi, 2014). Students and faculty in the study understood the value and significance of the lecture. However, they were very interested in exploring additional creative ways to approach the study of anatomy and physiology. The idea of adopting more hands-on learning activities was repetitive throughout the faculty and student interviews as well as the desire for consideration of individual learning styles.

DiCarlo, Lujan, and Rodenbaugh (2012) investigated how the use of active learning in an anatomy and physiology class enhanced student performance and improved retention. Students participated in a hands- on class session in which they manipulated physical models of skeletal muscle in addition to the lecture content. According to DiCarlo et al., the use of the model provided opportunities to build critical skills, collaborate, and acquire knowledge in an exciting and meaningful way.

### **Relationship of SDT to Learning Community Project**

Ryan and Deci (2000) used an approach to motivation that regarded the perceptions of student experiences based on internal as well as external factors. Individuals are motivated by different factors and can excel or fail based on perceptions of the learning environment (Ryan & Deci, 2000). The factors explored in my project study included perceptions of faculty and students regarding the learning environment and learning strategies used in allied health classrooms. Concerns expressed by students regarding the learning environment included the physical aspect of space, size of class, and the atmosphere of the classroom. Students preferred smaller numbers in classroom settings and discussed how valuable it was to be treated with respect and made to feel as if they were significant members of a learning community. Faculty concerns included providing a suitable environment to enhance success in the classroom, supporting students with learning needs, and being able to incorporate the aspect of a collaborative effort among allied health programs.

The students voiced concerns that motivation would be greatly enhanced by the inclusion of learning strategies that included hands-on experiences and took into

consideration the varying learning styles that were unique to each of them. SDT took into consideration the tenets of both intrinsic and extrinsic motivation. Intrinsic motivation promotes an internal belief in one's ability to achieve success and external motivation refers to performance based on a set of outcomes (Ryan & Deci, 2000). The students in the study were intrinsically motivated by their desire to support their families and achieve personal success. External motivation was supported by a desire to pass core courses and graduate from programs of allied health.

The activities for the project were selected in response to the concerns of faculty and student desires to maximize the learning experience and environment. All of the activities in the project were designed to support the influences of SDT as it relates to internal and external motivation. Activities supported specific concerns of faculty and students with regard to consideration of learning styles and instructional strategies, creating a respectful and nurturing learning environment, and the inclusion of active versus passive participation in learning activities. The activities were supported by the postulates of SDT and accentuated principles and goals of a successful learning community.

### **Project Description**

Findings of my project study suggested that one of the most effective ways to equip and empower the local college to function as a collaborative unit was through the establishment of an allied health learning community. Department leaders discussed the potential impact of promoting successful outcomes as they transitioned from separate isolated entities and evolve into a more unified learning community. This learning

community would personify cohesiveness among the administration, faculty and students enrolled in allied health programs. The professional development project was designed to provide evidence-based rationalization for the establishment of an allied health learning community, allow faculty to become aware of and utilize all of the shared knowledge and expertise brought to the learning arena, and maximize collaborative efforts that support learning strategies that promote successful outcomes for allied health students. The evidence of the impact of the professional development must be shared by the administration, faculty, and students of the local college and be achieved by the establishment of a functional allied health learning community.

The purpose of the project is to educate, equip, and empower the local college to establish a functional allied health learning community. The learning community will promote opportunities for collaborative thinking and problem solving aimed at increasing the number of students that successfully pass core courses. Faculty will be able to provide successful learning environments that engage students and is supportive of intrinsic and extrinsic motivational factors that promote successful student outcomes.

The professional development training will include a comprehensive experience of establishing a learning community. It will consist of three days and include eight hour daily workshops with faculty attending the first day, students attending on the second day, and the third day will include faculty, students, and administration. The training will follow the framework determined by the themes from this research. The central themes included: improving the quality of life for allied health students, successful learning environments, active involvement in the learning process, and hands-on learning. The

training will begin with an opportunity for allied health faculty to discover the professional expertise and skills they each add to the foundation of the learning community. This endeavor supports building a bridge between the departments of allied health and supporting networking and cooperative sharing. The first day of the workshop (faculty only) will build upon the principles and practices of learning communities, exploration of learning styles, collaboration of ideas on using newly adopted textbook that combines medical terminology and anatomy and physiology, and incorporating hands-on learning activities in the classroom. The second day of the workshop (students only) will provide an opportunity for allied health students to establish relationships and explore common goals relating to enrollment in allied health programs. They will also learn about the principles and practices of a learning community, discover how to determine learning styles, and be introduced to ideas that promote success in core classrooms. The final day of the workshop will include faculty, staff, and administration. It will include a learning community round-up where goals will be set to continue practices incorporated from the first two days. Practices of a climate that supports success will be highlighted as it reflects the influence of the community (administration, faculty, and students). Students and faculty will be able to set up tutor times, establish mentoring partners, and networks for study buddies. Culminating activities will also support a schedule of meetings and activities that will support a viable self-sustaining community that continues after the training has been concluded.

The success of the professional training is dependent upon participation of all administration, faculty, and students involved in allied health programs. The use of the

college facilities and funds to carry out the professional development training must be supported by the entire college. The resources required for the professional training include: a trained facilitator that is experienced and well versed in the pedagogy of learning communities, a spacious meeting room with access to computer labs, tables, chairs, projector, whiteboard, hand-outs, and resources for the participants. It is important to have the support of the local college to advertise and attend the professional development training. The Student Center for Success is a likely site for the professional development training as it is not used for classroom study and has computers set up for individual use and a whiteboard.

Potential barriers include scheduling the workshop so that faculty, students, and the administration can attend. Scheduling around work and school time for faculty and students presents a barrier. Another potential barrier could be getting the support from all of the allied health departments in committing to the goals of the learning community. Providing an understanding to all allied health departments regarding the impact of student success as it relates to learning communities is paramount to the facilitation of the professional development training.

### **Solutions to Barriers**

The local school administration has expressed an interest in the ideas reflected in the project, as it relates to transitioning from departmentalized allied health programs into an allied health learning community. Therefore, the support of the campus President, and other administrative staff will prove helpful in scheduling a framework of time to execute the three- day workshop. This level of cooperation also provides the impetus necessary to

educate and involve all allied health departments in the implementation of a viable allied learning community committed to motivating students to succeed in core courses. The administration was also interested in incorporating information regarding the new combined anatomy/physiology and medical terminology textbook in the workshop activities. The adoption of the new textbook is a part of the long range goals of the local school to help students obtain successful outcomes in core courses. According to the administration, the textbook is designed to help students find common links in the curricula and experience greater success with the transfer of knowledge between the core courses of medical terminology and anatomy and physiology. This concern was noted in the study as students and faculty discussed their perceptions of not seeing correlations between the two core courses.

### **Implementation and Timetable**

The professional development training is proposed to take place in the winter semester of 2017 at the local college where the research study took place. The training will involve three days of workshops and involve faculty, students, and the administration. The workshops will be held from 9:00 am to 5:00 pm each day and will include a full day of lectures and activities centered around themes and information obtained from interviews conducted during the research study. Two 15 minute breaks will be provided between individual daily sessions. There will be a 30 minute in-house lunch provided by the college each day of the workshop. This lunch time will also be supportive of the networking goals of the professional development training. Every session in the professional development training will include interactive learning



activities and end with a question and answer period. Reflections from each day's activities will also be captured under the heading "Points to Ponder." This activity will provide opportunities for participants to share their thoughts regarding the workshop and provide daily insightful feedback to the facilitator. An evaluation of each day of the workshop will be done at the end. This evaluation tool will assist in determining the effectiveness of the information presented and allow participants to provide relevant feedback regarding their experiences.

### **Roles and Responsibilities**

I will be the facilitator who designs the training to meet the standards of the professional development training. I will submit the proposal for approval by Walden University and then obtain permission to conduct the professional development training from the local college. The President at the local college will provide approval for use of the Center for Student Success and the vouchers for lunch to be served each day of the workshops. It is within my role to work with the administration on the days most suitable for the professional development training and scheduling of all participants. As facilitator, it is my responsibility to provide the announcements for faculty and students once all of the approvals are provided by the administration. A three week notice of the dates of the workshop will be provided to all participants by e-mail to allow sufficient time to prepare for the professional development training.

I will conduct the professional training in a manner that infuses motivation, perpetuates knowledge, and establishes the foundation for a successful allied health learning community. I will share the principles and practices of a learning community,

resources and tools to determine learning styles, and identify strategies that enhance learning and support successful outcomes. I will incorporate the element of technology in the presentations and model active participation and involvement in each learning activity. I will work with the local college to sustain the learning community and correspond with each allied health department as a resource professional once the professional workshops are concluded.

### **Project Evaluation Plan**

One of the primary goals included in evaluating the success of the professional development training is the establishment of an allied health learning community. Each department will function under the auspices of a learning community with scheduled meetings and activities. The aim of the meetings and activities include collaborative efforts that increase successful learning outcomes for allied health students. Learning communities require a commitment to continuous improvement, collective responsibility, and a vision aligned with the overall mission of the local college (Birkenfeld et al., 2014). Successful learning communities meet frequently to engage in collaborative learning and planning to strengthen their practice and increase successful outcomes among students (Birks et al., 2014). Specific monitoring of the success of students in core courses will occur during monthly intervals of each semester.

In an effort to accomplish the goal of increasing student success in core classrooms, formative evaluation will be utilized. According to Lodico et al. (2010), the purpose of formative evaluation is to improve or make the object of what is studied the best it can be as it is being studied. The rationale for selecting formative evaluation is the

timely manner that data can be collected and analyzed prior to the end of the year. Timely intervention can be identified and addressed as student progress is monitored monthly and may include adjustments in teaching strategies, mentoring, or specified times of one-on-one instruction. As problems are addressed immediately, the likelihood for student success is enhanced. In an effort to enhance formative evaluation, participants will be given time during the professional development training to reflect on and evaluate their learning own personal learning goals and to provide suggestions relevant to improving the scope and practice of the learning community.

The overall evaluation goal is to increase the number of students who successfully pass core courses. The majority of the students in the study failed to pass medical terminology and anatomy and physiology. These courses had previously been offered separately. The local college has adopted a new textbook by Susan B. Turley that combines the curricula for these two courses and the course is now referred to as a “combined core course.” The goal of the learning community is to provide opportunities for faculty to utilize collaborative approaches to instruction using the new textbook, ensure consideration for the learning styles of all students, and incorporate hands-on learning to motivate and support the learning experience.

The final written evaluation and assessment of the professional development training will provide an opportunity for faculty, students, and the administration to share how the information provided has impacted the local college as a whole entity, supported the mission to increase successful students, and made contributions towards a unified

learning environment. The results shared by the participants will be evaluated by the facilitator and shared with the stakeholders through personal meetings or e-mails.

The key stakeholders in the study include faculty, students, the administration, families, and policy makers of the institution. Each group has a vested interest in the success and legacy of the learning environment. Moreover, all stakeholders make contributions toward the achievement of success directly or indirectly. Students that experience success graduate and become a part of revered allied health care occupations. Students are able to achieve a status that supports personal goals to improve the quality of life for their families. The local college can continue to support the employment of faculty and gain notoriety based on student accomplishments and graduation statistics. The local college can attract additional candidates interested in the field of allied health and maintain its status among allied health programs in the state.

### **Project Implications**

The findings from this study support the knowledge that students are impacted by intrinsic and extrinsic motivating factors with regards to successful learning outcomes. It is essential to provide the type of environment that exudes cohesion, respect, and a genuine interest in determining how students learn, and utilizing optimal methods of instructional strategies that support learning (Greene & Mitcham, 2012). The local school administration is determined to improve communication and networking opportunities among faculty. The establishment of a learning community provides an avenue to bring faculty, students, and administration under one umbrella to facilitate the goals of cohesiveness and to provide instruction that leads to successful outcomes for students.

The research supports the significance of the impact of the learning environment and specific strategies used in the classroom in meeting the goals of successful outcomes. Combining lectures with hands-on learning can be used to cultivate motivation, stimulate retention, critical thinking, and problem solving. The campus president holds quarterly retention committee meetings with the dean and program directors to identify students that may be at risk of being unsuccessful as a result of poor academic performance, absenteeism, or personal life concerns that may interfere with consistent attendance. The retention committee develops long and short range goals prior to the end of each academic session in a “proactive” versus “reactive response” to support student success. In addition to the quarterly meetings conducted by the campus president, the dean also conducts weekly scrub meetings to monitor student retention and success of students in each programs. These initiatives are paramount in supporting a learning community and can be instrumental in enhancing successful outcomes.

An allied health learning community can support the goals of student attrition (Pearson, 2012). According to Pearson, students who feel supported and cared for tend to perform to the best of their abilities and complete their educational goals. Motivation that arises from positive relationships and supportive learning environments contributes to successful learning outcomes (Calabrese, Linder, & Post, 2012).

### **Social Change**

The success of the learning community could contribute to motivating students to pass core courses and graduate from programs of allied health. Most of the students expressed an interest in being able to provide for their families and improve the quality of

life. Many of the students stated that they no longer wanted to work in the fast food or retail industries. The students had an interest in providing direct care to individuals needing care and working in specialty areas that require training in allied health fields. Health care careers are ranked among the fastest growing occupations and there is a significant need to increase the number of allied health professionals (U.S. Bureau of Labor, 2014). According to the Association of Schools of Allied Health (2013), the increasing demand for health care workers has inspired mandates to take a closer look at attrition rates and improve the quality of allied health programs all over the United States. There is a profound need to increase the number of allied health professionals trained to meet the needs of diverse populations throughout the world.

The collaborative efforts of faculty and administration in the allied health learning community fosters a sense of unity and inclusiveness that embodies working together to achieve common goals. This is a mantra of most successful organizations and provides a platform for successful outcomes. Successful schools become venues that produce successful students that impact their local communities and state by providing valued health care services.

### **Impact of Success in a Larger Context**

The local college is only one center of academics under a larger community of colleges in over nine states and 20 cities across the United States. There are two campuses in the state of Louisiana. According to Birks et.al. (2014), learning communities can lead to a change in organizational cultures. The culture of the local entities has included functioning as separate departments within the institution that lacked

a cohesiveness necessary for optimal success. Communication and collaboration were limited and did not encompass the needs of the faculty and students matriculating in allied health programs. The administration expressed concerns regarding retention in each allied health program and the ratio of students enrolled in comparison with the number of successful allied health student graduates. According to the administration, students left allied health programs due to concerns about family issues, child care issues, needing to maintain jobs to support families, and the struggles many faced attempting to pass core courses.

Successful completion of core courses is required before students can enroll in clinical courses that lead to externships and graduation. Learning communities have been recognized as powerful agents in developing the skills and knowledge of faculty and student success in and outside of the classroom (Lieberman & Miller, 2008). Learning communities focus on the concepts of collective responsibility and collective participation. Collective responsibility is inclusive of the involvement of the entire education community and includes faculty, support staff, administrators, family, students, and other stakeholders. The goal of collective responsibility is to support effective teaching in every classroom.

Each person involved in the education community shares a role in investing in the success of educating all students. Collective participation involves a movement of an entire learning culture. Professionals collaborate at frequent intervals to determine effective ways to increase successful student outcomes. Learning community team members support the exchange of feedback regarding educational practice and are

proactive with regard to making changes that benefit all participants in the community. A college system with high expectations, shared goals, and a commitment to excellence, can provide the impetus that empowers a legacy of successful institutions, allied health programs, and allied health students.

The professional development project can be instrumental in establishing allied health learning communities that support the mission of the institution to provide optimal learning environments. It can be adjusted to meet the needs of various allied health campuses across the world. The professional development can be used to promote the cohesive nature of learning communities, collaborative efforts of faculty, and maximize effective channels of communication that involves everyone in the education system. Faculty, students, and administration have an opportunity to maximize their contributions to the learning community, provide feedback that impacts education practice, and be conduits for change that leads to successful outcomes. Consideration of learning styles in curriculum development and design could promote an increase in the number of students that successfully complete core courses and graduate from allied health programs across the country. The model of the allied health learning community places a great emphasis on motivating all participants to experience success through optimal learning environments and experiences inside and outside of the classroom.



#### Section 4: Reflections and Conclusions

The final section of the project study includes strengths, limitations, and recommendations of the study findings and the project derived from the study. Additionally, I will reflect upon my personal scholarship, project development, evaluation, and leadership. I will also describe the study's implications and applications as well as directions for future research.

##### **Project Strengths and Limitations**

Strengths of the project include the involvement of the administration, faculty, and students in establishing a learning community. Capturing all of the emerging themes from the study within a 3-day professional development colloquium is a strength of the project. Each group will attend the 3-day workshop separately in order to be introduced to the dynamics of a learning community while engaging in activities that address specific concerns identified in the project study. These concerns included incorporating a time of collaboration to address how to motivate students to successfully pass core courses and developing a pathway of success for all allied health students. Activities included in the professional development plan involve becoming aware of learning styles and using this knowledge in curriculum development. The project also supports respectful interactions among administrators, faculty, and students.

A major focus of the project is establishing best practices for hands-on learning experiences. All participants are brought together during the third day of the project to work as an integrated unit to enhance the practices and ideals of a learning community. According to Jackson et al. (2014), shared experiences among participants involved in a

learning community support the vision, leadership, collaborative efforts, and shared personal practice. Participants will be provided a framework of a learning community and be able to model their community as a cohesive group of administrators, faculty, and allied health students. Activities in the project support the interest of all participants in providing learning environments that foster success in core classrooms. All of the activities are interactive in nature.

The establishment of the learning community provides an opportunity to develop a schedule for continued collaboration and meetings to perpetuate the learning community. As a result of the professional development, students, faculty, and administrators can establish pathways of success through mentorships, tutoring through the Learning Success Program, and buddy partnering. The daily workshops conclude by obtaining feedback from participants and answering questions relevant to the establishment of the learning community or any other pertinent concerns of the administration, faculty, or students.

The administration, faculty, and students of the local college are committed to promoting the type of camaraderie that embraces collaboration and all have a vigorous aim to support successful educational outcomes. The administration of the college has adopted a textbook that combines anatomy and physiology with medical terminology to help bridge the knowledge required for these core courses. Another projection of strength for the project is my continued support as a resource specialist to the local college as the learning community continues to flourish.

### **Project Limitations**

Some of the limitations of the project could be reflected in the challenges of establishing a consistent plan for meetings among various allied health faculty and students. There will also be a need to find suitable times that the administration would be available to share in the activities of the learning community. The practices of a learning community were new to some of the participants. Therefore, adequate time may be required to support the transition of practice from individualized department meetings to functioning as a viable learning community. The success of the learning community will be impacted by having all of the allied health faculty, students, and administration involved. According to Hord (1997), the community has a shared vision, works and learns collaboratively, visits and observes classrooms where allied health students are enrolled, and participates in shared decision making.

### **Recommendations for Alternative Approaches**

The major problem addressed in the study was how to motivate allied health students to successfully pass core courses. Information from faculty and student interviews revealed a disconnect between various allied health programs in key areas of communication and collaboration. Faculty and students expressed a desire to have respectful learning environments and creative learning strategies that enhanced successful outcomes. An alternative approach could have focused on professional development for faculty that introduced specific measures to motivate students towards successful outcomes. Another focus for the project could have been working with faculty on curriculum development. The administrators of the local college recently adopted a

textbook that combines the two core courses of anatomy and physiology and medical terminology. According to the administration, the goal of using this textbook is to help bridge the gap of knowledge students experience in these core courses. It is the hope of the administration that using the new textbook will support learning and promote successful student outcomes. A specific focus of this project could have been to work with faculty on learning strategies that included hands-on learning experiences as the new textbook is introduced to the allied health faculty and students.

### **Scholarship, Project Development and Evaluation, and Leadership and Change**

I used the project to create an opportunity to experience an incredible journey that began with individual allied health programs working as separate entities. These individual programs of allied health faculty, students, and administration were able to transform into a viable learning community. I had the privilege of listening to the concerns of faculty and staff as well as witness the sincere interest the administration had concerning motivating allied health students to successfully pass core courses. The interview process provided an opportunity to get to know the participants and establish a rapport that allowed me to create a trusting and caring environment. The interview process served as a conduit for faculty and students to freely express themselves with no concerns of repercussions. This process allowed me to develop my skills as an active listener so that I could concentrate on what participants truly desired to see happen at their local college. The process of data gathering and transcribing required patience and making sure that I captured the meaning of every thought expressed. The words from the page were not just words; they reflected the heart and mind of every participant. As I

developed the themes of the project, there were similar interests among faculty and students. The themes were also reflective of the thoughts and concerns of the administrators. Some of the themes included creating great learning environments so that all students experienced success, finding ways to maximize learning through hands-on experiences, and finding ways to increase communication and collaboration among faculty, students, and the administration.

There were several directions this project could have led me. However, faculty, students, and the administration expressed a desire to function as one supportive body and not just isolated programs functioning independently. This led to the evolution of a learning community that could create a sense of unity among all allied health programs. Consequently, the learning community would provide the foundation necessary to build supportive learning environments and create experiences that would lead to successful student outcomes.

As a result of the project study, I learned that great things are truly accomplished when there are not just common goals but common ground. The faculty, students, and administration at the local college all had the same goals of experiencing successful student outcomes. The creation of a learning community provided the common ground for collaboration, working towards continued goals, and establishing a plan of success for every student enrolled in the allied health programs. I was able to develop my interpersonal skills of communication and being a good listener who could support the participants in the study. As a scholar and project developer, I was able to develop my skills of researching by initiating a project from conception to the end. I became better

acquainted with various types of database searches and using primary and secondary sources. As a practitioner, I developed an appreciation for how important it is for an organization to experience a sense of wholeness. It was also very compelling to realize that no matter how clear one's vision is in writing, it is imperative that those goals be voiced and "experienced" by all parties involved. I also determined that the true essence of motivation is often not experienced at the cognitive domain, but the affective domain.

Future research could be related to monitoring the success of the learning community with regards to successful outcomes for allied health students. It would also be enlightening to conduct studies to investigate how the model that began at the local college was used to perpetuate learning communities at other institutions under the brand of the organization.

### **Reflection on Importance of the Work**

The significance of the establishment of a learning community addressed what was of paramount concern to faculty, students, and the administration of the allied health college. The allied health community at this local college can now become a model for other colleges under the brand of the organization. The learning community promotes both personal and professional growth for students and faculty and provides the impetus for continued promotion of successful student outcomes. Learning communities share collective responsibility for the success of all students. Everyone benefits when communities of educators come together to share their strengths and expertise. A successful learning community is able to benefit from continuous monitoring and

implementation of ideas that support the success of students, faculty, administration, and the institution as it strives to educate and graduate successful students.

### **Implications, Applications, and Directions for Future Research**

Social change was enhanced by the creation of a learning community that motivates and supports the success of students who may have dropped out of allied health programs or pursued an alternative course. The learning community itself is reflective of the success an organization can experience as faculty, staff, and administration unite to work towards common goals. Successful learning environments reflect respect, responsibility, and a commitment to the fulfillment of the goals and objectives established by the organization as well as the members of the organization. These areas are also critical in the transfer of experiences from classroom to real world experiences. Motivated students can provide a mirror for others to see that success is often frequented by challenges and pitfalls. However, the successful student is not the one who never experienced failure but the one who did not let failure be their final experience.

### **Conclusion**

I truly appreciated the opportunity to expand my reservoir of knowledge and experiences as a scholar, project developer, and practitioner. Assisting with the development of the learning community has ignited an even greater interest and passion for working with students and educators as we develop pathways for successful outcomes. It is my hope that the work from this study will transcend our local area and have an impact on educational settings around the world. We truly need motivated and

well-trained allied health professionals who will be prepared to take care of the masses of people requiring their services in the 21<sup>st</sup> century and beyond.



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Appendix A: The Project  
A Professional Development Training

**Promoting Successful Outcomes in an Allied Health Learning Community**

A 3- Day Workshop for Allied Health Faculty, Students, and Administration

9:00 am – 5:00 pm

Developed by Lisa Trusclair, RN BSN

**Target Audience:** Allied health faculty, students, and administration

**Overall Learning Goal:** Establish an allied health learning community that supports student success in core courses and allied health programs.

**Learning Objectives for Professional Development:** Participants will be able to function in an allied health learning community that enhances successful outcomes for students by:

1. Collaborative efforts of allied health faculty, students, and administration
2. Application of the principles and practices of a learning community
3. Effectively evaluating learning styles
4. Implementation of effective hands-on learning strategies

**Quote:** In learning you will teach, and in teaching you will learn. (Phil Collins)

## Promoting Successful Outcomes in an Allied Health Learning Community

### 3- Day Professional Development Workshop

**Workshop Day 1** (Allied Health Faculty) 9:00 am – 5:00 pm

**Training Focus:** Establishing a Learning Community

**Goal:** To introduce faculty to the tenets of a learning community

**Objectives:** Participants will be able to:

1. State 3 principles of a learning community
2. Build working relationships with allied health faculty from various departments

**Materials:**

Song: “*Getting to Know You*”

Principles and Practices of Learning Communities (hand-outs)

White board

Networking circles (tables and chairs)

Name tags

Markers

**Tasks: Facilitator will:**

1. Have faculty make name badges that identify names/department 9:00 am- 9:15 am
2. Ask faculty to introduce themselves and their levels of expertise (activity)

**Activity:** “*Passion and Purpose*” 9:15 am - 9:30 am

3. Allow faculty time to form networking groups among departments  
at the local college 9:30 am- 10:45 am
4. Introduce the principles and practices of learning communities using hand-outs  
discussing specific elements of learning communities: 10:45 am-11:45 am

- a. History
- b. Significance
- c. Impact on Successful Students

**(Break)**

11:45 am -12 noon

- d. Discussion of how learning communities would enhance the local institution

12 noon- 12: 30 pm

**(Lunch)**

12: 30- 1:00 pm

Training Focus: Evaluating Learning Styles

Goal: To discuss the significance of learning styles and success

Objectives: Participants will be able to:

Identify at least 2 assessment tools used to determine learning styles

Identify at least 3 on-line tools that can be used to determine learning styles

State at least 2 ways knowledge of learning styles can assist with instruction

design/outcomes

**Materials:**

Computers

Hand-outs (assessment tools for learning styles)

Whiteboard

Markers

Power points slides (learning styles identified by students in study) projector



Tasks: **Facilitator will:**

1. Assist faculty with examining Learning Style Assessments (hand-out)
  - a. Myers-Briggs Indicator
  - b. Kolb Learning Style Inventory
  - c. Canfield Learning Styles
  - d. Gregore Style Delineator 1:00 pm – 2:00 pm
  
2. Support faculty exploration on-line learning style assessment tools in computer lab
  - e. Ageless Learner Assessment
  - f. Learning Style Inventory (faculty will complete their own assessment)
  - g. Abiator's on-line Learning Style
  - h. Brainboxx 2:00 pm – 2:30 pm
  
3. Allow faculty to discuss the results of their own learning style assessment and their perceptions of the impact on instruction and design (activity)
 

**Activity:** *“Live it and Learn It”* 2:30 pm – 3:00 pm
  
4. Review comments from student interviews regarding learning styles and designs (from power point slides) 3:00 pm - 3:30 pm

**(Break)**

3:30 pm- 3:45 pm

**Training Focus:** Hands- On Learning Activities**Goal:** To explore hands- on learning activities that can be utilized in core classrooms**Objectives:** Participants will be able to:

1. Identify at least 3 ideas that support hands- on learning in any core classroom  
(from newly adopted textbook)
2. Share 1 specific activity that can be used in medical terminology and anatomy  
and physiology core classes (out of the box thinking- beyond the textbook)

**Materials:**

Turley textbooks (combined medical terminology &amp; anatomy/physiology)

Power point slides (student/faculty ideas for hands on activities from study)

**Tasks: Facilitator will:**

1. Explore new textbook adopted by institution that combines medical terminology  
and anatomy and physiology (Susan B. Turley) with faculty                      3:45 pm –  
4:00 pm
2. Discuss ideas presented by the author that support hands-on learning  
4:00 pm – 4:15
3. **Activity:** “*Let’s Get Physical*”- “out of the box thinking” activity regarding hands-  
on learning that allows faculty to create a mini- teaching unit on creative topics  
which include:

- a. Measuring and Mixing (Pharmacy faculty)
  - b. Head -to Toe (Medical assistant faculty)
  - c. Follow the Yellow Brick Road (Surgery tech faculty)
  - d. The Payment Plan (Medical billing and coding faculty)
4. Presentation of mini-teaching activities and discussion of ideas (activity)

4:15 pm – 4:45 pm

**Points to Ponder**

4:45 pm – 5:00 pm

**(Questions/Answers)**

Evaluation (Day 1)



3. Share the common threads of why the students enrolled in their allied health programs (power point presentation) **Activity:** “*Common Threads*” 9:45 am – 10:00 am

4. Introduce the principles of learning communities 10:00 am – 11:00 am

a. History

b. Significance

c. Impact on Successful Students

d. Discuss student roles in making the learning community a success

e. Allow students to partner with each other to build goal maps

f. Share the goal maps (similarities/differences) 11:00 am- 11:45 pm

**(Break)** 11:45- am – 12: noon

g. Allow the students to have break- out sessions to discuss how they will use their goal maps to support success in school and building the learning community

12 noon- 12:30 pm

**(Lunch)** 12:30 pm – 1:00 pm

Training Focus: Evaluating Learning Styles

Goal: To discuss the significance of learning styles and success

Objectives: Participants will be able to:

Discuss their perception of how learning styles impact success

Identify their unique learning style

Describe at least 2 different learning styles

**Materials:**

- Desk top computers
- Learning style cards
- Markers
- Hand-outs on learning styles

**Tasks: Facilitator will:**

1. Allow students to list their perception of their learning style on a card and flip it over **(Activity)** 1:00 pm – 1:10 pm
2. Allow students to complete the on-line assessment (Education planner.org) What's Your Learning Style) **(Activity)** 1:10 pm- 1:30 pm
3. Have students flip over their card listing their perception of learning styles and discuss it in comparison to what was identified from the on-line assessment  
**Activity:** *"How We Learn"*
4. Review with students the variations of learning styles (Hand-out) 1:45 pm- 2:00 pm

**Training Focus:** Experiencing Success in Core Classrooms

**Goal:** To discuss strategies to support success in core classrooms

**Objectives:** Participants will be able to:

1. Identify at least 3 learning strategies that support success in a core classroom
2. Form support groups among allied health students

Materials:

Power point presentation

Projector

Desk top computer

**Tasks: Facilitator will:**

1. Share learning strategies that support success (Power point) 2:00 pm- 2:30

pm

2. Allow students to discuss how they can incorporate these strategies

in and out of the class **Activity:** “*Learning Community Boosters*”

2:30 pm -3:00

*pm*

3. Assist students with forming study partners/teams and support networks

(Activity continued)

3:00 pm – 3:45 pm

**(Break)**

3:45 pm – 4:00

pm

**Training Focus:** The Combination Core Course

**Goal:** To discuss how the combination course will bridge the gap between anatomy/physiology and medical terminology

**Objectives:** Participants will be able to:

1. List 2 goals of combining the two core courses
2. Develop a plan of study to achieve successful outcomes

3. Discuss how they will use their study partners/teams and networking systems

Materials:

Susan B. Turley (textbook) digital form

Desk top computer

Projector

White board

Markers

**Tasks: Facilitator will:**

1. List the goals of combining the course (provided by the administration) on the white board  
4:00 pm – 4:30 pm
2. Allow students to preview first chapter and describe how they will use support networks and devise a plan of study to achieve success as they navigate course

**Activity:** *“The Heart of The Matter”* 4:30 pm – 4:45 pm

Points to Ponder 4:45 pm – 5:00 pm

(Question/Answer Period)

Evaluation (Day 2)



Workshop Day 3 (Allied health faculty, students, and administration) 9:00 am – 5:00 pm

**Training Focus:** Incorporating all members of the learning community

**Goal:** To facilitate the involvement of faculty, students, and administration in the learning community

**Objectives:** Participants will be able to:

1. Identify key persons from allied health programs different from the one they provide instruction to (faculty) or are enrolled in (students)
2. Identify key members of the administration
3. Establish relationships among faculty, students, and administration

**Materials:**

Song “*We are Family*”

White board

Markers

Tables

Chairs

**Tasks: Facilitator will:**

1. Allow faculty, students, and administration time to introduce themselves and visit circles of allied health programs set up in conference room

**Activity:** “Learning Community Round-Up” 9:00 am -9:30 am

2. Ask each person attending to buddy-up with someone outside of their department 9:30 am – 9:40 am

3. Ask key members of the administration (campus president, dean, and program directors to introduce themselves and describe the role they will play in the learning community
- 9:40 am –  
10:00 am

**Training Focus:** An Effective Learning Environment

**Goal:** To discuss the impact of a successful learning environment

**Objectives:** Participants will be able to:

Discuss at least 3 elements that support an effective learning atmosphere

Discuss the impact of the use of “praise” in the classroom

Describe at least 1 example of a respectful interaction in the classroom

State at least 2 benefits of using hands-on learning in the classroom

**Materials:**

Overhead projector                      white board

Power point                                markers

Tables

Chairs

Hand-outs

**Tasks: Facilitator will:**

1. Share elements of a supportive environment using power point  
10:00 am – 10:15  
am
2. Discuss highlights of hand-out on the impact of using praise and allow students, faculty, and administration to share at least 1 idea regarding how/when praise could be used  
10:15 am – 10:30  
am
3. **Activity:** “*Creating a Successful Environment*”- Use role play to compare and contrast an example of a respectful interaction and a disrespectful interaction (volunteers to come from participants)  
10:30 am -11:00 am
- (Break)** 11:00 am – 11:10 am
4. Allow participants to provide an assessment of Do’s and Do Nots of a respectful interaction using the blackboard (2 volunteer participants) 11:10 am – 11:30 am
5. Display perspectives of students and faculty with regard to respectful interactions using power point  
11:30- 11:45  
am
6. Review the impact of necessary ingredients that contribute to a successful learning environment  
11:45- 12  
noon
7. **Activity:** “Workshop Highlights” 12 noon – 12:30

Allow 1 member from faculty, students, and administration

to share at least 2 significant things learned from this segment that could enhance the learning community

**(Lunch)**

12:30 pm – 1:00 pm

**Training Focus:** Creating Pathways for Success

**Goal:** To assist students and faculty in forming successful pathways of success through mentoring, tutor times, and building relationships inside and outside of the classroom

**Objectives:** Participants will be able to:

Use the goal maps made on Day 2 of the workshop to create a pathway of success

Identify at least 1 specific source of assistance to aid learning goals

Discuss at least 1 way the Student Success Center can assist with meeting

learning needs

Identify on-line resources to obtain help with instruction

**Materials:**

Goal maps

Student Success Center (brochures)

White board

Markers

**Tasks: Facilitator will:**

1. Have students use goal maps to identify where they are in their program of study and the type of help they will require to support success 1:00 pm 1:30 pm
    - a. Mentoring
    - b. Study Buddy
    - c. Tutor/Time
  2. Review with students how to utilize on-line resources to obtain assistance with classroom learning 1:30- 1:45
  3. Review avenues of assistance using the Student Success Center (using brochures) 1:45- 2:00 pm
  4. Support the formation of mentoring partnerships among faculty/ students/ administration 2:00 pm – 2:45 pm
- (Break)** 2:45 pm – 3:00 pm

Training Focus: Perpetuation of the Learning Community

**Goal:** To facilitate continued functioning of the newly established learning community

Objectives: Participants will be able to:

1. Identify at least 3 goals of the learning community
2. Identify at least 2 persons responsible for leadership related to the allied health learning community



5. Points to Ponder

(Questions/ Answers)

Evaluations

4:45 pm – 5:00 pm

## Appendix B: Faculty Interview Protocol

**Project:** Motivating Allied Health Students to Successfully Complete Core Courses

Time of Interview

Date:

Place:

Interviewer:

Interviewee:

Welcome and thank you for your participation in this interview process today. My name is Lisa Trusclair and I am a doctoral student at Walden University conducting my project study on “Motivating Allied Health Students to Successfully Complete Core Courses” The purpose of this interview is to gather information about the perceptions of allied health students regarding what motivates them to succeed and to explore learning strategies that promote success. Your input is very important and will be used to understand the perceptions of allied health students regarding what motivates them to achieve success and exploring learning strategies that may enhance success with core courses. You have been selected as faculty to participate in this interview because you are an allied health faculty member at this local college on a part-time or full- time basis, have a minimum of one year experience in the allied health field, and you are teaching a minimum of one core course in which allied health students are enrolled.



## Faculty Interview Questions

### (Measures to Motivate Allied Health Students)

- What intrinsic factors do you perceive as significant in motivating allied health students to succeed in core courses? **(RQ1)**
- What external factors do you perceive as significant in motivating allied health students to succeed in core classes? **(RQ2)**
- How do you as an instructor support motivating allied health students enrolled in core classes? **(RQ1) (RQ2)**
- What learning strategies do you perceive as helpful in assisting students to succeed in core courses? **(RQ3)**
- What instructional strategies do you perceive as helpful in assisting students to succeed in core courses? **(RQ4)**
- What is your perception of active learning as it relates to motivating students to achieve success in core classrooms? **(RQ3)**
- Can you provide an example of an active learning experience that may motivate allied health students to achieve success in a core course you teach? **(RQ3)**

Thank you for your cooperation and participation in this interview. Please be reminded that your responses will remain confidential.

## Faculty Demographic Data

ID \_\_\_\_\_

- **What ethnicity do you most identify with?**

African American \_\_\_\_\_ Caucasian \_\_\_\_\_ Decline to respond \_\_\_\_\_

Asian \_\_\_\_\_ Other \_\_\_\_\_

- **What is your gender?**

Female \_\_\_\_\_ Male \_\_\_\_\_

- **Which core course (s) do you teach?**

Medical Terminology \_\_\_\_\_ Medical Law and Ethics \_\_\_\_\_

Anatomy and Physiology \_\_\_\_\_

- **How many years of experience do you have teaching in the allied health field?**

1 \_\_\_\_\_ 5-7 \_\_\_\_\_ 11 or greater \_\_\_\_\_

2-4 \_\_\_\_\_ 8-10 \_\_\_\_\_

- **What is your employment status at the college?**

Full-time \_\_\_\_\_ Part-time \_\_\_\_\_

## Appendix C: Student Interview Protocol

Project: Motivation Allied Health Student to Successfully Complete Core Courses

Time of Interview:

Date:

Place:

Interviewer:

Interviewee:

Welcome and thank you for your participation in this interview process today. My name is Lisa Trusclair and I am a doctoral student at Walden University conducting my project study on “Motivating Allied Health Students to Successfully Complete Core Courses.” The purpose of this interview is to gather information about the perceptions of allied health students regarding what motivating factors contribute to the successful completion of core courses and exploring instructional strategies that promote successful completion of core classes. Your input is very important and will be used to better understand what motivates allied health students to successfully pass core courses and what instructional strategies enhance success in core classes. You have been selected as a student to participate in this interview process as a result of being a student at this local college, enrolled in an allied health program, and enrolled in at least one core course which you are repeating.

## Student Interview Questions

### (Measures to Motivate Allied Health Students)

- What motivating factors inside of you do you feel contribute to your success in passing core courses? (intrinsic) **(RQ1)**
- How could instructors motivate you to become successful in passing core courses? (extrinsic) **(RQ2)**
- Can you provide an example of a learning strategy that may support success for you in a core course? **(RQ3)**
- Can you provide an example of an instructional strategy (technique) that may support success for you in a core course? **(RQ4)**
- What can instructors do to support learning environments that may lead to success with passing core courses? **(RQ4)**
- As a student, what can you contribute to the learning environment that may support success with passing core courses? **(RQ3)**
- What is your perception of “active learning” as a motivating factor in promoting success with passing core courses? **(RQ3)**

Thank you for your cooperation and participation in this interview. Please be reminded that your responses will remain confidential.

### Student Demographic Data

- **What ethnicity do you identify yourself with?**

African American \_\_\_\_\_

Hispanic \_\_\_\_\_

Asian \_\_\_\_\_

Declined to respond \_\_\_\_\_

Caucasian \_\_\_\_\_

- **What is your gender?**

Female \_\_\_\_\_

Male \_\_\_\_\_

- **What is your age?**

18-25 \_\_\_\_\_

26-33 \_\_\_\_\_

34-41 \_\_\_\_\_

42-49 \_\_\_\_\_

50-57 \_\_\_\_\_

58-65 \_\_\_\_\_

greater than 65 \_\_\_\_\_

- **What is your enrollment status?**

Full-time \_\_\_\_\_

Part-time \_\_\_\_\_

- **What is your program of study?**

Medical assistant (Diploma) \_\_\_\_\_

Medical Billing and Coding \_\_\_\_\_

Medical assistant (Associate) \_\_\_\_\_

Surgery Technology \_\_\_\_\_

Pharmacy Technology \_\_\_\_\_

- **Which core course are you repeating? ( Number of times repeating)**

Medical Terminology \_\_\_\_\_

Medical Law and ethics \_\_\_\_\_

Anatomy and Physiology \_\_\_\_\_

Other \_\_\_\_\_ (specify) \_\_\_\_\_

## Appendix D: Data Collection Tool for CEP 2015

<b>Program Data</b>	<b>% of students successfully completing core courses</b>	<b>Extrinsic motivating factors provided by students/faculty</b>	<b>Internal motivating factors provided by students/faculty</b>	<b>Summary of reasons students had difficulty completing programs</b>
Medical Assistant (Associate)				
Medical Assistant (Diploma)				
Medical Billing and Coding				
Pharmacy Technician				
Surgery Technician				